ESTTA Tracking number:

ESTTA916670

Filing date:

08/20/2018

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

	BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD
Proceeding	91225003
Party	Plaintiff Robert Bosch GmbH
Correspondence Address	THAD CHALOEMTIARANA PATTISHALL MCAULIFFE ET AL 200 S WACKER DR STE 2900 CHICAGO, IL 60606 UNITED STATES tc@pattishall.com, jae@pattishall.com, lkr@pattishall.com, dock- et@pattishall.com, cas@pattishall.com 312-554-8000
Submission	Plaintiff's Notice of Reliance
Filer's Name	Jessica A. Ekhoff
Filer's email	jae@pattishall.com
Signature	/Jessica A. Ekhoff/
Date	08/20/2018
Attachments	1 - Bosch Notice of Reliance.pdf(190272 bytes) Exhibit 1 Bosch 1912-13.pdf(225457 bytes) Exhibit 2 Bosch 1914-16.pdf(344585 bytes) Exhibit 3 Bosch 1917-18.pdf(227463 bytes) Exhibit 4 BOSCH 1952-54.pdf(331403 bytes) Exhibit 5 BOSCH 1955-57.pdf(298591 bytes) Exhibit 6 BOSCH 1958-60.pdf(303491 bytes) Exhibit 7 BOSCH 1961-63.pdf(331038 bytes) Exhibit 7 BOSCH 1964-66.pdf(348838 bytes) Exhibit 8 BOSCH 1964-66.pdf(348838 bytes) Exhibit 9 Reid Excerpts and Exhibits.pdf(5733348 bytes) Exhibit 10 Winston Reid Exhibit 21.pdf(907527 bytes) Exhibit 11 First Set of Requests for Admission.pdf(23343 bytes) Exhibit 12 Bosch 1715-16.pdf(310052 bytes) Exhibit 13 Bosch 1717.pdf(176284 bytes) Exhibit 14 Bosch 17719.pdf(162914 bytes) Exhibit 15 Bosch 1719.pdf(162914 bytes) Exhibit 16 Bosch 1720.pdf(40614 bytes) Exhibit 17 Bosch 1721-28.pdf(1920187 bytes) Exhibit 18 Bosch 1731-32.pdf(164597 bytes) Exhibit 20 Bosch 1733-35.pdf(499192 bytes) Exhibit 21 Bosch 1733-35.pdf(1949192 bytes) Exhibit 22 Bosch 1737.pdf(142437 bytes) Exhibit 23 Bosch 1738-39.pdf(173791 bytes) Exhibit 24 Bosch 1741-42.pdf(236485 bytes) Exhibit 25 Bosch 1741-42.pdf(236485 bytes) Exhibit 26 Bosch 1741-42.pdf(236485 bytes) Exhibit 27 Bosch 1741-42.pdf(236485 bytes) Exhibit 28 Bosch 1752-54.pdf(19865 bytes) Exhibit 29 Bosch 1755-56.pdf(409033 bytes) Exhibit 30 Bosch 1755-56.pdf(409033 bytes) Exhibit 30 Bosch 1755-56.pdf(15856 bytes)

Exhibit 33 Bosch 1759-60.pdf(254000 bytes)
Exhibit 34 Bosch 1761-62.pdf(264166 bytes)
Exhibit 35 Bosch 1763.pdf(223599 bytes)
Exhibit 36 Bosch 1764-66.pdf(273438 bytes)
Exhibit 37 Bosch 1767-68.pdf(227487 bytes)
Exhibit 38 Bosch 1769.pdf(182326 bytes)
Exhibit 39 Bosch 1919-21.pdf(290301 bytes)
Exhibit 40 Bosch 1922-31.pdf(754354 bytes)
Exhibit 41 Bosch 1932-39.pdf(589171 bytes)
Exhibit 42 Bosch 1940-44.pdf(539017 bytes)
Exhibit 43 Bosch 1945-51.pdf(449845 bytes)

UNITED STATES PATENT AND TRADEMARK OFFICE TRADEMARK TRIAL AND APPEAL BOARD

In the matter of Application Serial No. 86/403,265	V	TECHNO	OLOGIES
Published in the Official Gazette of July 28, 2015 in	Interna	ational Clas	s 9

Robert Bosch GmbH	[,)	
Oppos	ser,)	
v.)	Opposition No. 91225003
WGI Telecom Inc.)	
Appli	cant.)	

ROBERT BOSCH GMBH'S NOTICE OF RELIANCE

Pursuant to 37 C.F.R. §§ 2.120 and 2.122, Opposer Robert Bosch GmbH ("Bosch") intends to rely on the documents identified herein in support of its claims in this opposition proceeding against Applicant WGI Telecom, Inc.'s ("WGI") application to register



TECHNOLOGIES (Serial No. 86/403,265) ("WGI Design Mark") ("Application").

BOSCH'S REGISTRATIONS FOR THE MAGNETO DESIGN MARK

1. Pursuant to 37 C.F.R. § 2.122(d) and TBMP § 704.03, Bosch intends to rely on Bosch Tr. Exs. 1-3, which are print-outs from the USPTO's Trademark Electronic Search System ("TESS") showing the current status and title of Bosch's registrations covering its Magneto Design Mark. Bosch Tr. Exs. 1-3 are relevant generally to establish Bosch's rights in its Magneto Design Mark.

THIRD-PARTY TRADEMARK REGISTRATIONS

2. Pursuant to 37 C.F.R. § 2.122(e) and TBMP § 704.03, Bosch intends to rely on Bosch Tr. Exs. 4-8, which are print-outs from the USPTO's Trademark Electronic Search

System ("TESS") featuring third-party trademark registrations. Bosch Tr. Exs. 4-8 are relevant generally to show that goods of the types sold by Bosch under its Magneto Design Mark and goods of the types sold by WGI under its WGI Design Mark are often covered by the same registration and are sold by the same entities. This evidence is relevant to Bosch's argument that its goods bearing the Magneto Design Mark and WGI's goods bearing the WGI Design Mark can emanate from the same source.

Exhibit No.	Reg. No.	Mark	Owner	Goods Similar to Those Sold Under the Parties' Marks
Bosch Tr. Ex.	4,379,832	MATRICOM	Quantum Global Consulting LLC	tablet computer; automotive computer hardware; mobile phones; cellular phones; mobile computers
Bosch Tr. Ex. 5	4,672,945	NEPOSMART	Nepoware Corp.	tablet computer; home and office automation systems comprising wireless and wired controllers, controlled devices, and software for applications for lighting, HVAC, security, safety, and other home and office monitoring and control applications; mobile phones; cellular phones; mobile computers
Bosch Tr. Ex. 6	4,931,068	UVIA	Zhu Shenghua	computer hardware for use in automotive diagnostics; mobile phones
Bosch Tr. Ex. 7	5,037,626	CLEARFORCE	Synaptics Inc.	electronic controllers, input devices, and touch screen modules for computers, computing systems, mobile phones, electronic tablets, automotive products, consumer electronic

				systems, and software therefor
Bosch Tr. Ex. 8	5,038,725	G BOX	USA Wholesale Suppliers, LLC	automotive computer hardware; cellular phones; mobile computers; mobile phones; tablet computer

DISCOVERY DEPOSITION TRANSCRIPT OF WGI

3. Pursuant to 37 C.F.R. § 2.120(k)(1) and TBMP § 704.09, Bosch intends to rely on Bosch Tr. Ex. 9, which is comprised of excerpts from the transcript of the discovery deposition of WGI's 30(b)(6) witness, Winston Reid, and selected exhibits as indicated below:

7:6-22
9:1-13 and Ex. 1
12:1-25
15:11-13
15:16-18
18:6-8
18:12-14
19:10-20:6
20:19-24
21:8-10
25:12-15
27:3-22
28:4-8
29:16-30:19
33:19-24
67:6-17
68:4-6
68:10-20
70:19-22 and Ex. 11
71:2-5 and Ex. 12
71:8-10 and Ex. 13
71:13-22 and Ex. 14
71:25-72:3 and Ex. 15
72:6-9 and Ex. 16
72:17-73:2
74:6-9 and Ex. 18
74:12-15 and Ex. 19

74:18-21 and Ex. 20
83:18-84:14 and Ex. 21
85:23-86:1
91:17-20
92:7-14
94:23-95:23
97:19-24

INTERROGATORY ANSWERS

4. Pursuant to 37 C.F.R. § 2.120(k)(3)(i) and TBMP § 704.10, Bosch intends to rely on Bosch Tr. Ex. 10, which is WGI's answers to Bosch's Interrogatory Nos. 1-7 and 13. This exhibit is relevant generally to show that WGI did not have a bona fide intent to use the WGI Design Mark in connection with all goods identified in the Application at the time that it filed the Application, or at the time of this proceeding.

REQUESTS FOR ADMISSION

5. Pursuant to 37 C.F.R. § 2.120(k)(3)(i) and TBMP § 704.10, Bosch intends to rely on Bosch Tr. Ex. 11, which is Bosch's First Set of Requests for Admission. This exhibit is relevant generally to show that WGI did not have a bona fide intent to use the WGI Design Mark in connection with all goods identified in the Application at the time that it filed the Application, or at the time of this proceeding and that there is a likelihood of confusion between the parties' respective marks.

INTERNET MATERIALS

6. Pursuant to 37 C.F.R. § 2.122(e) and TBMP § 704.08(b), Bosch intends to rely on Bosch Tr. Exs. 12-38, which are website print-outs from online dictionaries and websites explaining what the Opposed Goods are and how they are used, as well as website print-outs establishing that these online dictionaries are reliable authorities and/or the equivalent of print dictionaries under TBMP § 1208.03. These exhibits are relevant generally to show that Bosch

sells goods under its Magneto Design Mark that are the same as, or highly similar to, the Opposed Goods that WGI sells under its WGI Design Mark, and, therefore, that a likelihood of confusion exists between the parties' respective marks.

Exhibit No.	Dictionary or Website	Word Defined	URL	Date Accessed
Bosch Tr. Ex. 12	Lifewire	cell phone	https://www.lifewire.com/what-is-a-cell-phone-577492	7/16/2018
Bosch Tr. Ex. 13	Techopedia	cellular phone	https://www.techopedia.com/definition/641 3/cellular-phone	7/16/2018
Bosch Tr. Ex. 14	Dictionary.	cell phone	https://www.dictionary.com/browse/cell-phone?s=t	7/24/2018
Bosch Tr. Ex.	Collins Dictionary	phone	https://www.collinsdictionary.com/us/dictionary/english/phone_1	7/24/2018
Bosch Tr. Ex. 19	The Connection	digital phone	https://internet.frontier.com/resources/resources/home-phone-information/analog-vs-digital-phone/	7/16/2018
Bosch Tr. Ex. 20	Nexogy	digital phone	http://www.nexogy.com/blog/digital-vs-voip-phone-systems	7/16/2018
Bosch Tr. Ex. 21	The Free Dictionary	digital phone	https://encyclopedia2.thefreedictionary.com /digital+phone	7/24/2018
Bosch Tr. Ex. 15	Infoplease	computer terminal	https://www.infoplease.com/encyclopedia/s cience-and-technology/computers-and- electrical-engineering/computers-and- computing/computer-terminal	7/16/2018
Bosch Tr. Ex. 17	The Free Dictionary	computer terminal	https://encyclopedia.thefreedictionary.com/computer+terminal	7/24/2018
Bosch Tr. Ex. 18	Collins Dictionary	computer	https://www.collinsdictionary.com/us/dictionary/english/computer	7/24/2018
Bosch Tr. Ex. 16	Techopedia	terminal	https://www.techopedia.com/definition/305 4/terminal	7/16/2018
Bosch Tr. Ex. 38	Merriam- Webster	terminal	https://www.merriam- webster.com/dictionary/terminal	7/24/2018

Bosch Tr. Ex. 25	Lifewire	modem	https://www.lifewire.com/what-is-a-modem-817861	7/16/2018
Bosch Tr. Ex. 26	How-To Geek	modem	https://www.howtogeek.com/234233/whats-the-difference-between-a-modem-and-a-router/	7/16/2018
Bosch Tr. Ex. 27	Dictionary.	modem	https://www.dictionary.com/browse/modem ?s=t	7/24/2018
Bosch Tr. Ex. 28	Merriam- Webster	modem	https://www.merriam- webster.com/dictionary/modem	7/24/2018
Bosch Tr. Ex. 29	Lifewire	netbook	https://www.lifewire.com/what-is-a-netbook-832315	7/16/2018
Bosch Tr. Ex.	Lenovo.co m	netbook	https://www.lenovo.com/us/en/faqs/laptop-faqs/what-is-a-netbook/	7/16/2018
Bosch Tr. Ex.	Dictionary.	netbook	https://www.dictionary.com/browse/netbook?s=t	7/24/2018
Bosch Tr. Ex. 32	Cambridge English Dictionary	netbook	https://dictionary.cambridge.org/us/dictionary/english/netbook	7/24/2018
Bosch Tr. Ex. 34	PC Magazine	tablet computer	https://www.pcmag.com/encyclopedia/term/ 52520/tablet-computer	7/16/2018
Bosch Tr. Ex. 35	Search Mobile Computing	tablet	https://searchmobilecomputing.techtarget.com/definition/tablet-PC?vgnextfmt=print	7/16/2018
Bosch Tr. Ex. 36	Cambridge English Dictionary	tablet	https://dictionary.cambridge.org/us/dictionary/english/tablet?q=tablet%2Bcomputer	7/24/2018
Bosch Tr. Ex.	Techopedia	n/a	https://www.techopedia.com/dictionary	7/24/2018
Bosch Tr. Ex. 22	How-To Geek	n/a	https://www.howtogeek.com/about/	7/24/2018
Bosch Tr. Ex. 23	Infoplease	n/a	https://www.infoplease.com/about-infopleasecom	7/24/2018
Bosch Tr. Ex. 24	Lifewire	n/a	https://www.lifewire.com/about- us#AboutUs	7/24/2018

7. Pursuant to 37 C.F.R. § 2.122(e) and TBMP § 704.08(b), Bosch intends to rely on Bosch Tr. Exs. 39-43, which are website print-outs from the websites of companies that sell both the types of goods Bosch sells under its Magneto Design Mark, and the Opposed Goods that WGI sells under its WGI Design Mark. These exhibits are relevant generally to show that the parties' products are sold to the same types of customers through the same channels of trade, and therefore, that a likelihood of confusion exists between the parties' respective marks.

Exhibit No.	Seller	Goods Similar to Those Sold Under the Parties' Marks	URL(s)	Date Accessed
Bosch Tr. Ex. 39	Walmart	automotive diagnostic products; cell phones	https://www.walmart.com/c/kp/cardiagnostic-tools https://www.walmart.com/cp/cell-phones/1105910	7/31/2018
Bosch Tr. Ex. 40	Best Buy	intrusion system components; cell phones	https://www.bestbuy.com/site/hom e-alarms-sensors/home-security- systems/pcmcat1515445788580.c?i d=pcmcat1515445788580 https://www.bestbuy.com/site/mob ile-cell- phones/iphone/pcmcat3052000500 00.c?id=pcmcat305200050000	7/31/2018
Bosch Tr. Ex. 41	123 Security Products	alarm keypads; modems	https://www.123securityproducts.c om/b5512-c- 920.html?gclid=Cj0KCQjwv- DaBRCcARIsAI9sba9BQ0dcHGy 7rLL7gVjoc_NTdBj34uViESKQe 9P9ikD3r25iYfHx0- AaAqLKEALw_wcB https://www.123securityproducts.c om/d7212gv4k1w.html?gclid=Cj0 KCQjwv-	7/31/2018

			DaBRCcARIsAI9sba_IPooSfuknw gqueH1pxE9RVjku1dmedKToTy6 ubTU0YmaGSaPF6iUaAvRBEAL w_wcB https://www.123securityproducts.c om/nsearch/?q=modem&cat	
Bosch Tr. Ex. 42	Unique POS	alarm keypads; cell phones	https://www.uniquepos.com/Bosch -Kit-B5512-B10-Cx4010-B920- p/b5512-c- 920.htm?gclid=Cj0KCQjwv- DaBRCcARIsAI9sba8IwpCXP769 FCBlk0yvjNWCzMMDF0MyLIu0 3MVDWMKgHnBytyjwHSIaAiL HEALw_wcB&click=71 https://www.uniquepos.com/Mobil e-Computer-s/332.htm	7/31/2018
Bosch Tr. Ex. 43	JMAC	access control readers; alarm keypads; telephone interfaces; modems	https://www.jmac.com/Bosch_Sec urity_ARD_SER10_WI_p/BOSCH -ARD-SER10- WI.htm?gclid=Cj0KCQjwv- DaBRCcARIsAI9sba-dbV2U dkXxctpmlKmZQD0RNwi_ks795J oKCQhu2GrMLWZPIIShkaAu9G EALw_wcB https://www.jmac.com/SearchResu lts.asp?search=modem	7/31/2018

[signature line on next page]

Respectfully submitted,

PATTISHALL, McAULIFFE, NEWBURY, HILLIARD & GERALDSON LLP

Dated: August 20, 2018 By: /Jessica A. Ekhoff/

Thad Chaloemtiarana Jessica A. Ekhoff 200 South Wacker Drive Suite 2900 Chicago, Illinois 60606 (312) 554-8000

Attorneys for Opposer, Robert Bosch GmbH

CERTIFICATE OF SERVICE

I, Jessica A. Ekhoff, certify that a true and correct copy of the foregoing was served upon Winston Reid by email to wreid@wgitelecom.com on August 20, 2018.

/Jessica A. Ekhoff/



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Trademarks > Trademark Electronic Search System (TESS)

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Record 1 out of 1

TSDR

ASSIGN Status TTAB Status

(Use the "Back" button of the Internet Browser to return

to TESS)



Goods and Services

IC 007. US 013 019 021 023 031 034 035. G & S: Electric apparatus for the care of gardens, namely, hedge scissors, lawn mowers, grass shears, and grass trimmers; shredders; pumps, namely, electric pumps, hydraulic pumps, and oil pumps for land vehicles; and high pressure cleaners, namely, multipurpose high pressure washers

IC 009. US 021 023 026 036 038. G & S: Computers for controlling irrigation systems; electric and electronic measuring tools, namely, those using laser technology, especially for measuring distances, heights, angles, and gradients; and detectors for detecting metal and electric wires

IC 011. US 013 021 023 031 034. G & S: Water sprinklers, namely, irrigation sprinklers (automatic)

Mark Drawing

Code

(2) DESIGN ONLY

Design Search

26.01.01 - Circles as carriers or as single line borders

Code

26.01.06 - Circles, semi; Semi-circles

26.11.02 - Plain single line rectangles; Rectangles (single line)

Serial Number

79108981

Filing Date

December 14, 2011

Current Basis

66A

Original Filing

66A

Basis

Published for Opposition

January 22, 2013

Registration Number

4315252

International Registration

1106343

Number

Registration Date April 9, 2013

Owner (REGISTRANT) Robert Bosch GmbH Private Limited Company FED REP GERMANY Robert-Bosch-

Platz 1 70839 Gerlingen-Schillerhoehe FED REP GERMANY

Description of

Mark

Color is not claimed as a feature of the mark.

Type of Mark TRADEMARK
Register PRINCIPAL

Live/Dead Indicator

LIVE

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Goods and Services

IC 007. US 013 019 021 023 031 034 035. G & S: Motor starters, electric generators, valves being parts of machines, lambda probes, sparking plug connectors, speed governors for machines; hydraulic pumps, hydraulic motors for machines, hydraulic valves actuators, hydraulic cylinders for machines, hydraulic reservoirs for machines, hydraulic filters for machines; pneumatic valves actuators, power steering systems comprised of a steering cylinder, drive pinion, rack, torsion bar, steering spindle, control port, rotary distributor, control bushing, return line, oil reservoir, pressure-and-flow-limiting valve, pressure line and vane-type pump; compressed-air machines components, namely, compressed-air brakes; compressed-air machine devices, namely, air compressors, compressed-air reservoirs, thermostatic control valves for machines, braking valves; exhaust-gas turbochargers for machines; servo-drives for motors and drive spindles for motors; material provision and management systems comprised of conveyer belts, conveying chains, vibratory feeders for handling bulk quantities of materials, tilting devices, programmable electrical grippers for conveying machines and programmable electrical single-arm industrial robots; packaging machines; electric power tools and their plug-ins, namely, tile saws, burrs, countersinks, hammer drills, and hammer drives; starting devices, namely, starters for internal combustion engines

IC 009. US 021 023 026 036 038. G & S: Processing, transmitting, receiving and indicating signals, data, images and sounds, namely, audio recorders and digital media receivers; electric and electromagnetic data carriers; video cameras, monitors, loudspeakers, antennas for devices, namely, GPS navigation devices; LSN peripherals, namely, smoke detectors, intrusion detectors, alarm sounders and strobes, security interface modules, remote fire indicators, power supplies and security system arming devices; control modules, expansion modules, switches, and programmers for location and navigation for installation in land vehicles, aircraft, and marine craft; high frequency generators, power supply devices, namely, power supplies, electric filters, semiconductor components, namely, semiconductor chips; optoelectronic components, namely, optical cables and filters for optical devices; printed, etched and casted circuits, integrated circuits, relays, fuses, leads for electric, electronic and optical signals, cable connections, electric switches, electronic regulators for headlamp beam adjustment, electric motors, sensors, detectors, switching devices, namely, automatic switching apparatus for telecommunication; switch boxes, solar cells and solar generators; analyzers for motor vehicles for exhaust gas analysis, soot particle analysis, brake function; diagnostic instruments and equipment, namely, motor measurement modules for motor testers, emissions analysis, and for simulations; engine testers and workshop test equipment benches for engine system testing, diagnostic analysis, emissions analysis, battery service, brake testing, diesel system testing, wheel alignment, air condition

service, tire changing, wheel balancing; automotive lifts for injection pumps, starters and generators; batteries, charging devices, namely, battery chargers, battery testers, amplifiers, transformers and cable drums

IC 011. US 013 021 023 031 034. G & S: Automotive headlamps and lights, namely, lights for vehicles; ventilation systems; electric egg-boilers; gas heaters

IC 012. US 019 021 023 031 035 044. G & S: Electric motors for land vehicles; restraining systems for installation in motor vehicles, namely, belt tensioners, airbags and sensors; gearbox controllers for land vehicles; vehicle dynamics control systems comprised of brakes for land vehicles and aircraft

IC 020. US 002 013 022 025 032 050. G & S: Furniture, in particular kitchen and bathroom furniture, wash stands, and mirrored wardrobes

IC 036. US 100 101 102. G & S: Insurance brokerage services

IC 037. US 100 103 106. G & S: Installation, maintenance and repair of parts and accessories of motor vehicles, car radio systems, radio-telephones, power hand tools, workshop appliances and devices, power generators, household and kitchen appliances, radio and television systems, sanitary devices, heating and air-conditioning systems and furniture; technical support services, namely, providing technical advice in the field of motor vehicle engine overhauls and repair in motor sports organizations

IC 038. US 100 101 104. G & S: Broadcasting of cable television, television, and radio programs; transmission of sound, data and images via satellites

IC 039. US 100 105. G & S: Organization of sightseeing tours

IC 041. US 100 101 107. G & S: Training and conducting classes, seminars, conferences, and workshops of third parties in electrical technology and electronics

IC 042. US 100 101. G & S: Design and development, surveillance of buildings and installations; research on building and construction planning; creation and installation of computer programs for data processing

Mark Drawing

Code

(2) DESIGN ONLY

Design

Search Code

26.01.01 - Circles as carriers or as single line borders

Serial Number 79115880 **Filing Date** July 3, 2012

Current Basis 66A

Original Filing 66A

Basis

Published for Opposition

July 23, 2013

Registration

Number

4412647

International

Registration

0675706

Number

Registration

Date

October 8, 2013

Owner (REGISTRANT) Robert Bosch GmbH private limited company FED REP GERMANY 70469 Stuttgart FED

REP GERMANY

Attorney of Record

Thad Chaloemtiarana

Prior

Registrations

0633563;0634326;2051819

Description of Color is not claimed as a feature of the mark. The mark consists of a cross section of a magneto ignition

Mark device, arranged in a solenoid, enclosed by a circle. Type of Mark TRADEMARK. SERVICE MARK

Register PRINCIPAL

Live/Dead Indicator

LIVE

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Word Mark BOSCH SERVICE

Goods and Services

IC 037, US 100 103 106, G & S: Installation, maintenance and repair of components and accessories for motor vehicles, car radio assemblies, car telephones, car antennas, navigation devices, walkie-talkies, hand-held machine tools, workshop equipment and devices, power generators, house and kitchen appliances, radio and television installation and apparatus, sanitary installations, repair of motor vehicles during motor-sport events

Mark Drawing

Code

(3) DESIGN PLUS WORDS, LETTERS, AND/OR NUMBERS

Design Search 26.01.02 - Circles, plain single line; Plain single line circles 26.01.12 - Circles with bars, bands and lines

Code

26.11.03 - Incomplete rectangles; Rectangles (incomplete)

26.11.21 - Rectangles that are completely or partially shaded

Serial Number

75907736

Filing Date

February 3, 2000

Current Basis

44E

Original Filing Basis

44E

Published for

Opposition

December 12, 2000

Registration

Number

2433397

Registration

Date

March 6, 2001

Owner

(REGISTRANT) Robert Bosch GmbH CORPORATION FED REP GERMANY POSTFACH 30 02 20 70442

STUTTGART FED REP GERMANY

Attorney of Record

Thilo C. Agthe

Prior Registrations

1345068;1572397;AND OTHERS

Disclaimer

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "SERVICE" APART FROM THE MARK AS

SHOWN

Type of Mark

SERVICE MARK

Register

PRINCIPAL

Affidavit Text

SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20110304.

Renewal

1ST RENEWAL 20110304

Live/Dead

LIVE

Indicator

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Matricom

Word Mark

MATRICOM

Goods and Services

IC 009. US 021 023 026 036 038. G & S: Computer hardware; Computer hardware and computer peripherals; Computer operating systems; Computer operating software; Internet radios; Internet-ready televisions; IP (Internet protocol) cameras; Digital media streaming devices; Television receivers; TV internet receiver; Televisions; Tablet computer; Mobile phones; VOIP phones; VOIP servers; Cellular phones; GPS navigation device; Automotive computer hardware; Mobile computers. FIRST USE: 20100327. FIRST USE IN COMMERCE: 20100327

Standard Characters Claimed

Mark Drawing Code

(4) STANDARD CHARACTER MARK

Serial Number 85809387

Filing Date

December 21, 2012

Current Basis

Original Filing Basis

Published for Opposition

May 21, 2013

Registration Number

4379832

Registration Date

August 6, 2013

Owner

(REGISTRANT) USA Wholesale Suppliers, LLC LIMITED LIABILITY COMPANY FLORIDA Unit F 952 Lake

Destiny Rd Altamonte Springs FLORIDA 327146962

(LAST LISTED OWNER) QUANTUM GLOBAL CONSULTING LLC LIMITED LIABILITY COMPANY

FLORIDA 15705 NW 13 AVENUE MIAMI GARDENS FLORIDA 33169

Assignment Recorded ASSIGNMENT RECORDED

Type of Mark TRADEMARK
Register PRINCIPAL

Live/Dead LIVE

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Assignments on the Web > Trademark Query

Trademark Assignment Abstract of Title

Total Assignments: 1

Serial #: 85809387 Filing Dt: 12/21/2012 Reg #: 4379832 Reg. Dt: 08/06/2013

Registrant: USA Wholesale Suppliers, LLC

Mark: MATRICOM

Assignment: 1

Reel/Frame: 6239/0938 Recorded: 01/02/2018 Pages: 4

Conveyance: ASSIGNS THE ENTIRE INTEREST

Assignor: USA WHOLESALE SUPPLIERS LLC

Exec Dt: 12/01/2017

Entity Type: LIMITED LIABILITY COMPANY

Citizenship: FLORIDA

Entity Type: LIMITED LIABILITY COMPANY

Citizenship: FLORIDA

Assignee: QUANTUM GLOBAL CONSULTING LLC

15705 NW 13 AVENUE

MIAMI GARDENS, FLORIDA 33169

Correspondent: BRYAN J RUSH ESQ., TRIPP SCOTT PA

110 SE SIXTH STREET, 15 FLOOR FORT LAUDERDALE, FL 33301

Search Results as of: 07/31/2018 08:04 PM

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Web interface last modified: August 25, 2017 v2.6

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Record 1 out of 1

TSDR

ASSIGN Status TTAB Status

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to TESS)

NEPOSMART

Word Mark

NEPOSMART

Goods and Services

IC 009. US 021 023 026 036 038. G & S: Computer hardware; computer hardware and computer peripherals; computer operating systems; computer operating software; Internet radios; Internet-ready televisions; IP (Internet protocol) cameras; digital media streaming devices; television receivers; internet television receivers; televisions; tablet computer; mobile phones; VOIP phones; VOIP servers; cellular phones; GPS navigation device; automotive computer hardware; mobile computers; secure digital (SD) memory cards; home and office automation systems comprising wireless and wired controllers, controlled devices, and software for applications for lighting, HVAC, security, safety and other home and office monitoring and control applications. FIRST USE: 20140807, FIRST USE IN COMMERCE: 20140807

Standard Characters Claimed

Mark Drawing

(4) STANDARD CHARACTER MARK

Code

Serial Number 86166335

Filing Date January 15, 2014

Current Basis 1A Original Filing 1B **Basis**

Published for

June 3, 2014

Opposition Registration

4672945

Number Registration

Date

January 13, 2015

Owner

(REGISTRANT) Nepoware Corporation CORPORATION WASHINGTON 2647 79th Avenue NE Medina

WASHINGTON 98039

Attorney of Record

Matthew E. Moersfelder

Type of Mark TRADEMARK Register PRINCIPAL

Live/Dead Indicator

LIVE



Assignments on the Web > Trademark Query

No assignment has been recorded at the USPTO

For Serial Number: 86166335

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Word Mark

UVIA

Translations

The wording "UVIA" has no meaning in a foreign language.

Goods and Services

IC 009. US 021 023 026 036 038. G & S: Digital media streaming devices; Smart TV media streaming playing device; Battery chargers; Computer networking hardware; computer networking switches, routers and hubs; Mobile phones; computer hardware for use in automotive diagnostics; IP (Internet protocol) camerasIP; Smart watches comprised primarily of a wristwatch and also featuring software and display screens for viewing; Car DVR; Internet radios; Bags adapted for laptops; Light emitting diodes (LEDs); Portable media players; Earphones; Covers for telephone receivers not made of paper; Global Positioning System apparatus, namely, GPS navigation device; USB cables; Loudspeakers; Slide projectors. FIRST USE: 20050808. FIRST USE IN COMMERCE: 20050808

Mark Drawing

Code

(5) WORDS, LETTERS, AND/OR NUMBERS IN STYLIZED FORM

Serial

86655815

Number

Filing Date

June 9, 2015

Current Basis 1A

Original Filing Basis

1A

Published for

Opposition

January 19, 2016

Registration

Number

4931068

Registration

Date

April 5, 2016

Owner

(REGISTRANT) Zhu Shenghua INDIVIDUAL CHINA FuHe Town, ZengDu District, Hubei Prov. SuiZhou CHINA

441328

Attorney of Record

Kao H. Lu

1 of 2

Description of Mark

Color is not claimed as a feature of the mark. The mark consists of the stylized wording "UVIA".

Type of Mark TRADEMARK Register PRINCIPAL

Live/Dead Indicator

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For Serial Number: 86655815

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TSDR

ASSIGN Status TTAB Status

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ClearForce

Word Mark

CLEARFORCE

Goods and Services

IC 009. US 021 023 026 036 038. G & S: Electronic circuitry, integrated circuits and circuit boards; electronic controllers, input devices, and touch screen modules for computers, computing systems, mobile phones, electronic tablets, automotive products, consumer electronic systems, and software therefor; and sensors for use in detecting user input and for use in controlling computers, computing systems, mobile phones, electronic tablets, automotive products, consumer electronic systems, and software therefor.

FIRST USE: 20160106. FIRST USE IN COMMERCE: 20160106

Standard Characters Claimed

Mark Drawing Code

(4) STANDARD CHARACTER MARK

86667219 Serial Number Filing Date June 18, 2015

Current Basis 1A **Original Filing**

Basis

Published for Opposition

November 3, 2015

Registration Number

5037626

International

Registration

1275474

Number

Registration

September 6, 2016

Date Owner

(REGISTRANT) Synaptics Incorporated CORPORATION DELAWARE 1251 McKay Drive San Jose

CALIFORNIA 95131

Attorney of Record Robert P. Lord

Prior 3440547;4720506 Registrations

Type of Mark TRADEMARK Register PRINCIPAL

Live/Dead Indicator

LIVE





United States Patent and Trademark Office

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Assignments on the Web > Trademark Query

Trademark Assignment Abstract of Title

Total Assignments: 1

Serial #: 86667219 Filing Dt: 06/18/2015 Reg #: 5037626 Reg. Dt: 09/06/2016

Registrant: Synaptics Incorporated

Mark: CLEARFORCE

Assignment: 1

Reel/Frame: 6163/0689 Recorded: 09/27/2017 Pages: 11

Conveyance: SECURITY INTEREST

Assignor: SYNAPTICS INCORPORATED Exec Dt: 09/27/2017

Entity Type: CORPORATION
Citizenship: DELAWARE

Assignee: WELLS FARGO BANK, NATIONAL ASSOCIATION Entity Type: NATIONAL BANKING

ASSOCIATION

MAC D1109-019 Citizenship: UNITED STATES

CHARLOTTE, NORTH CAROLINA 28262

Correspondent: ORRICK, HERRINGTON & SUTCLIFFE LLP

2050 MAIN STREET, SUITE 1100
IP PROSECUTION DEPARTMENT
IRVINE, CA 92614-8255

1525 WEST W.T. HARRIS BLVD.

Search Results as of: 07/31/2018 08:08 PM

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BOSCH TRIAL EXHIBIT 8



United States Patent and Trademark Office

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TTAB Status

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g box

Word Mark

G BOX

Goods and Services IC 009. US 021 023 026 036 038. G & S: Cellular phones; Computer hardware; Computer hardware and computer peripherals; Computer operating systems; Digital media streaming devices; GPS navigation device; Internet radios; Internet-ready televisions; IP (Internet protocol) cameras; Mobile computers; Mobile phones; Tablet computer; Television receivers; Televisions; Computer operating software; VOIP phones; VOIP servers; Automotive computer hardware. FIRST USE: 20120801. FIRST USE IN COMMERCE:

20120801

Standard Characters Claimed

Mark Drawing Code

(4) STANDARD CHARACTER MARK

Serial Number 86348240 Filing Date July 25, 2014

Current Basis 1A
Original Filing

Basis

1A

Published for Opposition

June 28, 2016

Registration Number

5038725

Registration

September 13, 2016

Date Owner

(REGISTRANT) USA WHOLESALE SUPPLIERS, LLC. LIMITED LIABILITY COMPANY FLORIDA 145 N

Magnolia Ave Orlando FLORIDA 32801

Type of Mark Register TRADEMARK PRINCIPAL





Assignments on the Web > Trademark Query

No assignment has been recorded at the USPTO

For Serial Number: 86348240

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BOSCH TRIAL EXHIBIT 9

	Page 1
1	UNITED STATES PATENT AND TRADEMARK OFFICE
	TRADEMARK TRIAL AND APPEAL BOARD
2	
3	In the matter of Application Serial No. 86/403,265
4	Robert Bosch GmbH,
5	Opposer,
6	vs.
7	WGI Telecom Inc.,
8	Applicant.
	/
9	
10	One East Broward Boulevard
	Suite 1101
11	Fort Lauderdale, Florida 33301
	Friday, 10:22 a.m 1:36 p.m.
12	May 4, 2018
13	
14	30(b)(6) VIDEOCONFERENCE DEPOSITION OF
15	WGI TELECOM INC.
16	BY: WINSTON REID
17	
18	Taken on behalf of the Opposer before
19	Gina Rodriguez, RPR, CRR, Notary Public in and for
20	the State of Florida at Large, pursuant to Notice
21	of Taking Deposition filed in the above cause.
22	
23	
24	
25	

- Q. Now, is there any reason that you may not be able to give a complete and truthful testimony at the deposition today such as taking any medication that may impair your memory?

 A. No.

 O. Okay. Now, throughout this deposition, I
 - Q. Okay. Now, throughout this deposition, I am going to be referring to the WGI Design Mark.

 When I use that term, I am referring to the trademark that's covered by WGI Telecom's Application Number 86/403,265.

Do you understand what I mean by the WGI Design Mark?

A. Yes.

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O. Great.

I will also be referring to Bosch's Magneto Design Mark. When I use that term, I'm referring to the trademark covered by Bosch's Registration Numbers 2,051,819, and 4,315,252 and 4,412,647.

Do you understand what I mean by Bosch's Magneto Design Mark?

- A. Yes.
- Q. All right.

MS. EKHOFF: Gina, can you please hand the witness Exhibit 1.

Page 8

1 (Thereupon, marked as Exhibit 1.)

2 BY MS. EKHOFF:

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- Q. Mr. Reid, the court reporter has handed you Exhibit 1. If you will see, in the bottom right-hand corner of each page, there is a designation that begins with the word "Bosch" that has a series of zeros and a number at the end. Those numbers are called "Bates numbers," and they're used to make it easier to identify the document. So I will be referring to those Bates numbers.
 - A. Okay.
- Q. Okay. So this exhibit that you're looking at, Exhibit 1, is Bates numbered Bosch 20 through 24.
- It is entitled the First Revised Rule 30(b)(6) deposition of WGI Telecom Inc.
- A. Okay.
 - Q. Do you recognize this document?
- 18 A. Yes.
- Q. Do you recall being served with this document?
- 21 A. Yes.
- Q. All right. Please take a look at the list of deposition topics. They start on page 3. This is Bates No. Bosch 22. Do you see that list?
 - A. Yes.

	Page 9
1	Q. Are you able to testify on behalf of WGI on
2	all of the topics identified in Exhibit 1?
3	A. Yes.
4	Q. Yes?
<mark>5</mark>	A. Yes.
6	Q. Is there anyone else at WGI that has
7	greater knowledge than you do about any of the topics
8	identified in Exhibit 1?
9	A. No.
<mark>10</mark>	Q. Okay. And you understand that you are
11	testifying today as a corporate representative of
<mark>12</mark>	WGI?
<mark>13</mark>	A. Yes.
14	Q. Are you represented by an attorney today?
15	A. I'm sorry?
16	Q. Are you being represented by an attorney
17	today?
18	A. No. I can't afford one.
19	Q. After you received the deposition notice,
20	what did you do to prepare for this deposition?
21	A. Nothing.
22	Q. You didn't do anything to prepare for this
23	deposition?

questions, so I read it, but, I mean, what am I going

No. We don't have the answers to the

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	Page 12
1	Q. Who are the officers of WGI?
2	A. At the moment, just myself.
3	Q. And who owns WGI?
4	A. I do.
<mark>5</mark>	Q. How many employees does WGI have?
<mark>6</mark>	A. Right now, we have seven.
7	Q. And how long has WGI been in operation?
8	A. Since 2002.
9	Q. And what is your current position at WGI?
<mark>10</mark>	A. I am the owner.
11	Q. How long have you been in that position?
<mark>12</mark>	Since the founding?
<mark>13</mark>	A. Yes.
14	Q. What are your responsibilities as the owner
<mark>15</mark>	of WGI?
<mark>16</mark>	A. Mainly product development.
<mark>17</mark>	Q. I'm sorry, can you repeat that?
<mark>18</mark>	A. Mainly product development.
<mark>19</mark>	Q. Okay. Do you do anything other than
<mark>20</mark>	product development?
<mark>21</mark>	A. I mean, small businesses, you wear many
<mark>22</mark>	hats, so But my focus is mainly on product
<mark>23</mark>	development, but that's I touch everything:
<mark>24</mark>	Marketing, sales, HR. But the focus is just the
<mark>25</mark>	product development. That's my focus.

- other products, offering any other services at that time?
 - A. Yes, we do offer entire lines, mobile phones, MiFi devices, CPEs, USB dongles, ADSL, VDSL, GPON products.
 - Q. And all of those products were offered in the United States as of September 23rd?
 - A. No. The United States and outside the United States. Majority of our business is outside of the United States.
 - Q. What percentage of your business is done outside of the United States?
 - A. Probably 90.

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- Q. Did you say 90, nine zero?
- A. Yeah, probably around, yeah, correct.
- Q. So about 10 percent of WGI's business is
- done within the United States?
 - A. Yeah, approximately, yes.
 - Q. Are there any specific countries in which WGI does most of its business outside of the United States?
 - A. We do all over. We do Africa -- I mean,
 Rwanda, we do Ghana, we do Jamaica, we do -- I mean,
 do you want me to list all of them? That's a lot. I
 mean, our customers -- our customers are mobile

- a mobile operator in the United States?
 - A. That was a long time ago. I can't off the top of my head, but that's a long time. We sold in Canada. We're selling right now in Canada, but in the United States per se, it's been a while.
 - Q. Have you sold to a mobile operator in the United States in the past five years?

A. Probably not.

- Q. Have you sold to a mobile operator in the United States in the past ten years?
 - A. Probably, yes. Yes.
- Q. Have you sold to a mobile operator in the United States since September 23rd of 2014?

A. No.

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- Q. Does WGI manufacture the products that it sells?
- A. We do both. We distribute and manufacture. So we're distributors and manufacturers. So we distribute open market products, like some products in the grey market we distribute, Samsung, Alcatel, Nokia, so on and so forth, and we manufacture our own brand, which is the house brand, HAUS, H-A-U-S, that's the brand.
- Q. Does WGI personally manufacture all products that it sold through the HAUS brand?

- A. Yes. Well, we do not have -- like, we manufacture them ourselves; we have factories that we work with that manufacture for us, yes.
- Q. WGI doesn't own the manufacturing facility that manufactures the products?
 - A. No, we don't.

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- Q. Which products does WGI currently sell in the United States that bear the WGI Design Mark?
 - A. I'm sorry?
- Q. Which products does WGI currently sell in the United States that bear the WGI Design Mark?
 - A. At the moment, none.
- Q. When was the last time that WGI sold a product in the United States with the WGI Design Mark?
- A. I can't recall right now at the moment.

 The plan is to expand. The plan is for us to get in the United States to offer products because the United States is a very big market, and that's the plan to -- once we're developing the brand outside and once we really have got some good market share, the plan is to now come into the U.S. market or a similar lucrative market. But we haven't sold in a while in the United States.
 - Q. So just to clarify, are you saying that as

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Page 20

- of today, WGI has not yet sold any products in the United States that bear the WGI Design Mark?
 - A. Yes.

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- Q. Yes, that statement is true?
- A. Yes. We would if we probably didn't have this issue with your company, but at the moment, no.
- Q. Have you contacted with any of the manufacturers that you're interested in working with to manufacture the product with the WGI Design Mark?
 - A. If I did what? Repeat that, please.
- Q. Have you contacted with any manufacturers to start making products that bear the WGI Design Mark?
- A. We're making them already, so what are you -- I don't understand your question. We're making them already.
 - O. Outside of the United States?
 - A. Yes, yes.
- Q. And how many manufacturers do you have for products that bear the WGI design line?
 - A. Right now we have about seven or eight.
- Q. Are any of those manufacturers located in the United States?
- A. No.
- Q. Who are WGI's current competitors?

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- A. We have many competitors. We have competitors from the big brands, the Samsungs, the Huaweis, the Alcatels, we have the local, small shops who compete with us.
- Q. Who would you say are your first biggest competitors or your five main competitors?
 - A. Samsung, Huawei, Alcatel, ZTE, Motorola.
- Q. Do you consider any company that manufacturers a cell phone to be a competitor of WGI?

A. Yeah.

- Q. Would you consider any company that manufactures a computer terminal to be a competitor of WGI?
- A. A computer terminal, I mean, it's -- again, it's -- it's how technical you get. If you say a computer terminal meaning a PC, no.
- Q. What is your understanding of the term computer terminal?
- A. Well, I consider a PC, but then, you know, you could say terminals, it can be -- if you want to break it down, it can be broken down to mean something else. If you consider -- if you're asking me if we consider manufacturers of personal computers competitors, no, like a PC, no. As we know it.
 - Q. And why would a company that sells -- why

actually have an LTE card or a 3G card so the PCs can connect directly to the Internet.

So, like I said before, I'm always looking for new technology and see where it's going. And so in preparation for IOT, we're making -- we're looking at different products that we can incorporate. And a PC may be in the line. Right now it's not, but the PC is something that -- you know, as I said, everything is connected. We're looking into everything that can -- our customers may need.

Q. Do you consider any company that manufactures a computer modem to be a competitor of WGI?

A. A modem, yes.

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- Q. And would you consider any company that manufactures a netbook to be a competitor of WGI?
 - A. A 3G netbook? A 4G netbook, yes.
- Q. Are there some types of netbooks that you think would not compete with WGI products?
- A. Yeah, if there is no 3G or 4G card inside of it, yes. But the ones with 3G, 4G -- like, for example, I know Hewlett Packard is making them now with a 4G card. So I would definitely want to get into that space also because then the customer

- compatibility and that sort of thing. So the regular user, no.
 - Q. Do you think that WGI's competitors in the future are likely to be different companies than the companies that are competitors today?
 - A. Yes. Because, again, the --

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- Q. Who do you think could become WGI's competitors in the future who aren't your competitors today?
- A. I don't know, honestly. I don't know. I can't answer that question. I mean, anyone can be.

 I mean, if they're offering the products that we carry or intend to carry, they're competitors.
- Q. Can individual consumers purchase WGI's products?
- A. At the moment they cannot purchase directly, but they can purchase from our customers.

 But, again, the -- like I mentioned before, the focus now is B2B, but we're going to -- the potential is there also in the B2C world. There's a lot of opportunities there, a lot of products that we can offer in the B2C space.
- Q. And where do your customers and individual consumers purchase WGI products from?
 - A. Any of our operating customers, any one.

- Remember, our customers are operators, they provide
 the devices. They're-- the end customer goes to them
 to get the products, so anyone.
 - Q. I believe you said earlier that you couldn't name as you sit here any customers in the United States that were operators?

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- 7 (A.) No, no. I would have to check the books 8 (for that.)
 - Q. So businesses can purchase WGI's products directly from WGI?
 - A. At the moment, yeah, the -- yes. A business can be, yes. A corporate -- if the volume is there, yes.
 - Q. What kind of volume would a business need to have in order to purchase something from WGI?
 - A. For example, we do the data devices, we have, you know, MOQ a hundred pieces, we have the phones, MOQ, maybe 5,000 pieces, so it all varies.

 But we do volume. So we're not going to sell one, one item. It needs to be volume. It's volume-driven at the moment.
 - Q. Do you know who your top five customers are, five sales volumes over the past five years?
 - A. We have Digicel Group in the Caribbean, we have Solomon Telecom, Solomon Islands, we have

- Vodafone in Fiji, Vodafone French Polynesia. We have
 Digicel Curacao, we have -- the top five. T Plus in
 Cape Verde.
 - Q. And are those customers over the past five years, are those the same top customers that you had ten years ago?
 - A. No, the customers change. It changes.

 It's not like -- customers change. Next year it will be different customers. It's how the business is.

 That's why we're always looking for new stuff, new technology. Because the customers change, the need changes, the market changes. Different markets, disposable income is great in some markets, some products work in one market, we never had a different market.
 - Q. What was WGI's sales revenue last year?
 - A. 3 to 5 million.
 - Q. So 5 million in 2017?
- A. Yes.

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- Q. And about 5 to 10 percent of that would be the United States?
 - A. I don't think the United States had sales last year, no. We have Canada, but not the United States.
 - Q. Approximately what do you think your sales

- 1
- revenue was in the United States in 2017?
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in 2015?

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Q. You didn't have any sales in the United

A. I don't think we had any sales in the

A. I don't think we did, no.

- Q. Did WGI have any sales in the United States
- A. Remember I said we haven't done any sales
- in the United States in a while, so . . . And as far
- as -- we haven't done any B2B sales. We've done some
- 12 things in Amazon and stuff, but nothing considerable.
 - It's not -- it's very little. Most of the stuff done
 - in the United States has been like on Amazon and
 - stuff.

Amazon?

- Q. Does WGI sell products on Amazon directly
- or does one of WGI's customers sell products on
 - A. We sell directly on Amazon.
- You said that WGI's sales revenues in 2017 Ο.
- were about \$5 million. What about over the past five
- years, what were the sales revenues then?
 - That's average. It goes anywhere from five Α.
- to eight million.
 - Q. So five to eight million dollars in sales

breakdown of that revenue between the various product types that you sell?

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- A. I would say it's a 50/50 between our brand and the open-market stuff. So, you know, when I say "open market," I mean like the Apple, Samsung, Motorola, and then our brand which comprises the phones, the MiFis, the data device, CPEs, that sort of thing. It's the HAUS brand, H-A-U-S, HAUS, that's the brand.
- Q. What is the breakdown in revenues between third-party products that you sell and then your own products.
- A. It's like 50/50. We're trying to -- we want to get to a hundred percent just our product. That's the goal, a hundred percent our product; not anybody else's, Motorola or Samsung or Apple. We want to go a hundred percent our product. That's the strategy, to get to that point.
- Q. Throughout this deposition, when you are referring to the HAUS brand, do you mean WGI Design Mark, the trademark we're here for in this deposition?
- A. Correct. Yes, that's the thing we're here for, yeah.
 - Q. Has WGI sold any of the products with the

Q. So you were saying that a computer monitor can be used in connection with a computer terminal; is that right?

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- A. I'm saying an LCD can be connected to the CPU.
 - Q. All right. Mr. Reid, what is a modem?
- A. A modem is a device that modulates and demodulates.
 - Q. And what does modulate and demodulate mean?
- A. Basically gets one signal and converts to another signal. For example, it takes the signal from the tower and converts it to a signal that the device -- that the phone can use or, I mean, the device can use, the computer can use. So, basically, it just converts one signal to another signal. It can do analog to digital, digital to analog, that sort of thing.
- Q. Turning back to Exhibit 6, are any of your WGI products in Exhibit 6 modems?
 - A. Yes, they're all modems.
- Q. All of the products in Exhibit 6 are modems?
 - A. Yes. They all modulate and demodulate.
- Q. Can computer monitors be used in connection with modems?

- A. Well, it could be used, but not by itself, but it could be with the LCD and the CPU, yeah. You need the LCD to view the interface, yes.
- Q. So if you had the right components, a computer monitor could be used with a modem?
 - A. Correct.

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- Q. Okay. And what is a netbook?
- A. I would consider netbook a PC, personal computer.
- Q. How is a netbook different from the tablet computer?
- A. Actually, it's not much different from a tablet computer, the netbook. I mean --
- Q. Is there any difference at all between the tablet computer and the netbook?
- A. I mean, one is a keyboard; a tablet also has a keyboard, it is not a physical keyboard. They do the same thing. As far as functionality, it is the same. Actually, people are moving away from netbooks.
- Q. The only difference between a netbook and a tablet computer is that a tablet computer has a keyboard and a netbook doesn't?
- A. I mean, there's more differences. For example, the netbook may have different ports. You

Page 70 screen size. That's it. We've made tablets. I 1 don't think we included tablet in here, but . . . 2. There are none in here. Like, for example, these 3 devices just need to make it a bigger screen. 4 Inside it's the same, just a bigger screen. 5 Q. And when did WGI start selling tablet 6 7 computers? We sold -- I do not have the exact date Α. 8 9 here, but like I have the POs that we got, Malawi, 10 one of the big customers we sold tablets to. And we 11 do tablets, open-market tablets, and we do our own 12 brand tablets. 13 And how many years have you been selling tablets? 14 15 Α. Since we started we have been doing that, 16 since we started in 2002. 17 (Thereupon, marked as Exhibit 11.) 18 BY MS. EKHOFF: O. Okay. Let's turn back to Exhibit 11 now. 19 20 A. Okay. 21 Q. This is a tablet computer, correct? 22 A. It is a tablet, yeah. 23 Ο. Yes? 24 Α. Yes. (Thereupon, marked as Exhibit 12.) 2.5

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Page 71
     BY MS. EKHOFF:
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          O. And, Mr. Reid, the product that's pictured
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     in the center of Exhibit 12, that's also a tablet
     computer, isn't it?
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          A. It looks like it, yeah.
               (Thereupon, marked as Exhibit 13.)
 6
     BY MS. EKHOFF:
          Q. Mr. Reid, would you agree that this product
8
9
     in Exhibit 13 is also a tablet?
10
          A. Yes.
               (Thereupon, marked as Exhibit 14.)
11
12
     BY MS. EKHOFF:
          Q. Mr. Reid, in the picture in Exhibit 14, is
13
14
     the product that the man is holding, does that also
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     appear to be a tablet?
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          A. Uh-huh, yeah.
17
          Q. And can tablet computers be used for video
     conferencing?
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19
          A. Yes.
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          Q. Could a tablet computer be used to conduct,
21
     for example, a video call on Skype?
          A. Yeah, a tablet, a phone, a PC, yes.
22
               (Thereupon, marked as Exhibit 15.)
23
     BY MS. EKHOFF:
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          Q. Mr. Reid, would you agree that this is a
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- A. Yeah the phone is a touchscreen. It's just the screen is bigger in a tablet than a phone.
- Q. And even aside from phones, any product that has a touchscreen could be similar to a tablet computer?
- A. I guess. I'm not sure of the question there, but . . .
- Q. Is it fair to say that any phone that can view video conferencing is similar to a tablet computer?
 - A. I mean --
 - Q. Has a similar functionality?
- A. Can you repeat that? Any phone that's what, I'm sorry?
 - Q. Gina, can you repeat the question, please?

 (Requested portion read back.)
- A. I don't know, I don't know. That's just a vague question. I don't know that I can answer that question.
- 20 BY MS. EKHOFF:

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- Q. I think earlier you were saying that phones and tablet computers have the same functionality, the only real difference was screen size; is that correct?
 - A. Yes, that's true.

	Page 74
1	Q. Okay. We can move on.
2	MS. EKHOFF: Gina, can you hand Mr. Reid
3	Exhibit 18, which is BOSCH 92.
4	(Thereupon, marked as <mark>Exhibit 18</mark> .)
5	BY MS. EKHOFF:
6	Q. And the product in Exhibit 18 is a keypad
7	for a security system with a touchscreen on it; is
8	that right?
9	A. Yes.
10	(Thereupon, marked as Exhibit 19 .)
11	BY MS. EKHOFF:
12	Q. Mr. Reid, would you agree that Exhibit 19
<mark>13</mark>	is also a keypad for a security system that has a
<mark>14</mark>	touchscreen on it?
<mark>15</mark>	A. Yes.
16	(Thereupon, marked as Exhibit 20 .)
17	BY MS. EKHOFF:
18	Q. Would you agree that this one also has a
<mark>19</mark>	keypad for a security system with a touchscreen on
<mark>2 0</mark>	<pre>it?</pre>
<mark>21</mark>	A. Yes, correct.
22	Q. Let's go back to Exhibit 7 now. We looked
23	at it a little bit earlier today.
24	A. Okay.
25	Q. Let me know when you have it in front of

Page 84

- Q. Please turn to Interrogatory Number 8.
- A. Okay.

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- Q. Which is on page BOSCH 98.
- A. Okay.
 - Q. WGI is asked to explain in detail when and how it first became aware of Bosch's Magneto Design Mark, and you answered that you had seen the mark on certain kitchen appliances, is that right?
 - A. Yes, I have seen it on kitchen appliances.

 Bosch, yeah. But, like I said, the mark is nothing similar to my mark, so to me it was no big deal. I have seen the Bosch -- I mean, everyone knows Bosch.

 I mean, that's not something I, like, you know, that I see every day, but I have seen it before.
 - Q. And are there any certain kitchen appliances that you recall seeing Bosch's Magneto Design Mark on?
 - A. No, I can't recall it, no.
 - Q. Before this proceeding, did you know that Bosch sells electronics?
 - A. I guess they do. That's something -- I have seen the kitchen stuff, but not electronic stuff that I'm aware of. But, again, it goes back -- it still goes back to the fundamental point that my mark is nothing close to your client's mark. And like I

Page 85

- 1 told the lady, your guys, my -- the mark and the name
- 2 H-A-U-S goes together, so there can be no, you know,
- 3 | confusion or anything. You will not see the mark
- 4 without the -- the mark and H-A-U-S, they go
- 5 | together. There won't be one without the other. So
- 6 there's no confusion there. So, I mean, I don't know
- 7 | why I'm . . .
- Q. I move to strike that as nonresponsive.
- 9 Mr. Reid, before this proceeding, did you
- 10 know that Bosch sells products for use in
- 11 | conferencing systems?
- 12 A. No. I don't care about Bosch. I mean, why
- 13 am I going to research Bosch? No.
- 14 Q. Mr. Reid, Bosch is one of the parties in
- 15 | this proceeding, so --
- 16 | A. Yeah, but --
- Q. -- you need to answer a few questions about
- 18 it. We're nearing the end.
- Before this proceeding, Mr. Reid, did you
- 20 know that Bosch sells products for home security
- 21 systems?
- 22 A. No.
- Q. And before this proceeding, did you know
- that Bosch sells products for the automotive
- 25 industry?

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A. Yes.

- Which automotive products did you know that Q. Bosch sells?
- I don't -- I can't recall which one; I have Α. seen it before somewhere.
- You said before that I think everybody knows Bosch. Which of Bosch's products do you think that consumers are most familiar with?
- Α. I don't know. I have heard the name Bosch. I know it is a German company, so I don't know. I said, I have seen kitchen appliances with it, but I don't know -- I don't know which one consumers are more -- I have no idea. Bosch would have to answer that.
- Ο. Mr. Reid, WGI filed the application that's at issue in this proceeding on September 23rd of 2014. As of that date, what specific steps has WGI taken towards preparing to sell any of the good with the WGI Design Mark on them in the United States?
 - Α. Can you please repeat that? (Requested portion read back.)
- Α. The same thing we've done, is to send our promotions out, our marketing promotions with the products to our customers. And we've made calls, phone calls. We've called customers --

But it's a lot of stuff you guys were requesting from a small business. I think that's the strategy sometimes with these big companies, that they win by attrition. You know, with a small business, small business owners don't have time for all this, to research all of this stuff. You want to grow your business. But these companies have high-price attorneys, and they can bombard you with requests, so people give up, you know. So I think it's winning by attrition. So the small businesses are at a disadvantage of people like your customer.

You're doing your job. You're doing your job, which is the legal stuff. My job is to sell devices. I can't do that because I'm bombarded with stuff like this. I am wasting my whole morning doing this stuff now. All right?

Q. Mr. Reid, let me clarify your answer to that question. You didn't produce any emails in this proceeding about the WGI Design Mark, did you?

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- Q. Before September 23rd of 2014, did WGI approach anyone to try and license the WGI Design Mark?
- A. We have a company we use. We have a trademark company, it's called the Trademark Group.

We requested our mark through them, and they were the ones that did the search and then proceeded. They did a search to see who has something similar, and then they proceeded. We paid for that service. We paid extra for that service to do a search, a complete search.

- Q. Let me rephrase that question. By license I mean have any third parties approached WGI wanting to use the WGI Design Mark and to license it from you?
 - A. No, no.
- Q. Has WGI ever entered into any agreements with third parties to license the WGI Design Mark?
 - A. No.

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MS. EKHOFF: Let's go off the record.

(Recess was held from 1:19 p.m. until 1:27 p.m.)

BY MS. EKHOFF:

- Q. Mr. Reid, I want to go back briefly to two topics that we had discussed before, and then we should be able to wrap things up.
 - A. Okay.
- Q. The first question, we talked before about the breakdown between your different types of products, and I want to make sure I understand. What would you say is the breakdown in sales revenue

- That may change in the coming years because now we're getting to the IOT space where, you know, the

 Internet of things. And we see that as coming up now where so many things, you know, are connected, where we go into the homes, the different devices in the homes, all of them use data, you know, so we're going to be including those in the portfolio. So that may change. As of today, it's the 60/40 breakdown.
 - Q. Okay. And for products with the WGI Design Mark, what percentage of sales do tablet computers account for?
 - A. We do tablets, I'd say maybe 5 percent.
 - Q. And what about netbooks?

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- A. Netbooks, we've done a very small amount of netbooks. I mean, that will change again with the 4G now. The manufacturers are trying to make the tablets with the 4G cards in them, so, you know, that may change.
- Q. Okay. And for purposes of these numbers, both netbooks and tablet computers are part of a cell phone, that's 60 percent of your sales?
 - A. Yes, yes, correct.
- Q. Okay. You mentioned possibly expanding into the Internet of things. What types of Internet of things enabled devices do you think WGI will

Page 95

expand into with the WGI Design Mark?

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A. The connected home, the smart plugs, smart switches, smart bulbs, the smart cars, the cars, connection to the cars, to do -- you know, for example, one of the devices we have right now in testing is a device that plugs into a car, it can give you everything, diagnostic information of how often they brake the car -- I mean pressing the brakes, sorry. Geofencing like for fleet management. So a fleet -- a guy has a company that, you know, may have tons, a lot of vehicles, and make sure that the vehicles are in the area they're supposed to be.

That's what we call geofencing.

Again, it is the -- actually, it used to be called IOT, which is the Internet of things, but now they're saying it is going to be IOE, which is Internet of everything. So, I mean, it's going to be -- the possibilities are going to be endless going forward. Everything will be connected.

Everything will be connected. And now that they're talking about 5G, that means there's more bandwidths you can have to push things. So, I mean, the possibilities are endless for us.

Q. Okay. You mentioned that WGI may expand its WGI Design Mark into smart homes. Could that

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1	or 4G or 5G network, we will want to be in that
2	space. That's our our customers need those
3	things, our customers being the mobile operators.
4	Anything that they can use to gain additional revenue
5	stream, then we want to offer it to them. Because
6	the industry's moved away from the past where the
7	revenue the voice was a revenue generator. Now
8	the revenue generator is the data. So whatever
9	device or products that will consume data, these are
10	the things that my customers want. That's how they
11	make money, off of data; not the voice, the data. So
12	anything data related.

Q. Okay. Second-to-last question, and this should be an easy one.

What is your master's degree in?

A. Marketing.

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- Q. Marketing?
- A. Yes, correct.
- Q. And final question, are there any answers that you gave during this deposition that upon further reflection you would like to correct or change?
- A. No. No. None that I can think of for the moment.
 - MS. EKHOFF: Okay. All right. Well, thank

UNITED STATES PATENT AND TRADEMARK OFFICE TRADEMARK TRIAL AND APPEAL BOARD

Robert Bosch GmbH,)
Opposer,	
V.) Opposition No. 91,225,003
WGI Telecom Inc.)
Applicant.)

In the matter of Application Serial No. 86/403,265

FIRST REVISED RULE 30(B)(6) NOTICE OF DEPOSITION OF WGI TELECOM INC.

PLEASE TAKE NOTICE that pursuant to Rule 30 of the Federal Rules of Civil Procedure, Opposer Robert Bosch GmbH ("Bosch"), will take the deposition(s), upon oral examination, of the appropriate representative(s) of Applicant WGI Telecom Inc. ("WGI"), beginning on May 4, 2018, at 10:00 a.m., at the offices of Veritext, located at One E. Broward Blvd., Suite 1101, Fort Lauderdale, FL 33301.

The deposition will be conducted before an officer authorized to administer oaths and will be recorded by video, audio and/or stenographic means. The deposition will continue from time-to-time and from place-to-place until completed or adjourned, and may be used for all purposes contemplated under the Federal Rules of Civil Procedure.

Pursuant to Rule 30(b)(6) of the Federal Rules of Civil Procedure, WGI is required to designate one or more representatives to testify in regard to the subject areas set forth herein, subject to the below definitions and instructions.



DEFINITIONS AND INSTRUCTIONS

The following definitions and instructions apply to these requests for production:

- A. As used herein, the term "Bosch" means Robert Bosch GmbH, its predecessors in interest, related organizations, and the officers, directors, employees, agents and representatives thereof.
- B. As used herein, the term "WGI" means WGI Telecom Inc., its predecessors in interest, its subsidiary and related organizations, and the officers, directors, employees, agents and representatives thereof.
- C. As used herein, the term "Mark" refers to the mark that is the subject of United

 States Application No. 86/403,265, namely,
- D. As used herein, the "Application" shall refer to WGI's United States Application
 No. 86/403,265.
- E. As used herein, the term "Magneto Design Mark" refers to the mark that is the subject of Robert Bosch GmbH's United States Registration Nos. 2,051,819; 4,315,252 and

4,412,647, namely,

- F. As used herein, the words "and" and "or" shall be construed disjunctively or conjunctively as necessary in order to bring within the scope of the request all responses which might otherwise be construed to be outside its scope.
- G. As used herein, the singular shall always include the plural and the present tense shall always include the past tense, and vice versa.

DEPOSITION TOPICS

- 1. WGI's creation, design, selection, clearance, use, and first use of the Mark.
- WGI's intent to use and first use of the Mark in connection with each of the goods identified in the Application.
 - 3. The preparation and filing of the Application.
- WGI's past, present, and planned advertising, marketing, and promotion of goods and services sold in connection with the Mark, including expenses for advertising, marketing and promotion.
- WGI's sale of goods and services in connection with the Mark, including sales
 revenues and pricing of each such good and service.
- WGI's plans to use the Mark in connection with any goods or services not identified in the Application.
 - 7. Consumers of goods and services bearing the Mark.
- The channels of trade and specific outlets through which WGI sells goods and services in connection with the Mark.
 - 9. WGI's competitors for all goods and services sold in connection with the Mark.
 - 10. WGI's awareness, including first awareness, of Bosch's Magneto Design Mark.
- Third-party use, former use, or claims of use of any element of the Mark or the
 Magneto Design Mark.
- 12. Instances or possible instances of confusion, mistake, deception or association of any kind which have or may have occurred between WGI or WGI's use of its Mark and Bosch or Bosch's use of the Magneto Design Mark.

13. Formal or informal investigations, including but not limited to, research, searches, surveys, tests or studies of any kind which WGI has conducted or has knowledge of pertaining to the Mark or the Magneto Design Mark, or products bearing the Mark or Magneto Design Mark.

Dated: March 26, 2018

Respectfully,
PATTISHALL, McAULIFFE, NEWBURY,
HILLIARD & GERALDSON LLP

By: /s/ Jessica A. Ekhoff
Thad Chaloemtiarana
Jessica A. Ekhoff
200 South Wacker Drive
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Chicago, Illinois 60606
(312) 554-8000

Attorneys for Robert Bosch GmbH

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served upon the following by first-class mail, postage prepaid, on March 26, 2018, with a courtesy copy by email:

Winston Reid WGI Telecom, Inc. 1786 North Commerce Parkway Weston, FL 33326

wreid@wgitelecom.com

/s/ Jessica A. Ekhoff











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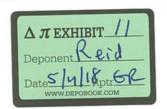




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Specifications



Name

Autel MaxiSYS MS908CV Heavy Duty Diagnostic Tablet

Part #

AULMS908CV

Brand

Autel

Weight

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Warranty

Manufacturer's Warranty

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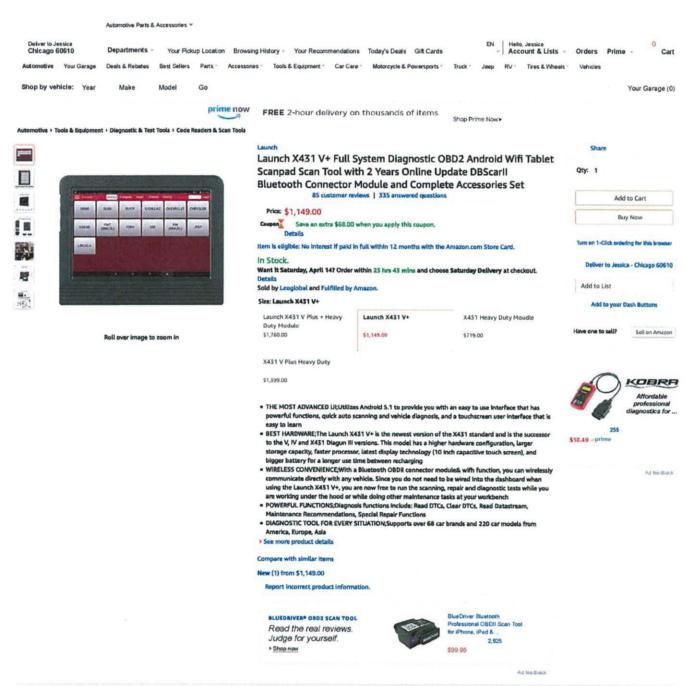
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Product information

Size:Launch X431 V+

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Grand	Lauron
Item Weight	13.23 pounds
Product Dimensions	13.8 × 5.9 × 9.8 inches
Item model number	A063
Manufacturer Part Number	A063
Folding	No
Vehicle Service Type	Ford, Chrysler, GM, Mercedes Benz, BMW, Fiat, Peugeot, Saab, GMSA, EOBD2 Cars, Jaguar, Renaut, Smart, Sprinter, VAZ, WV, Dacia, Land Rower, Romeo, Porsche, Volvo, AUDI, Citroen, Lancia, Acura, Daweoo, Lexus, Holden, Maruti, Tata, Infinit, Proton, Isuzu, Mazda, Suzuki, Daihatsu, Mitsubishi, Toyota, Hyundai, Kia, Nissan, Subaru, Honda

Additional	Information
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ASIN	B00NID586M
Customer Reviews	85 customer reviews
	4.3 out of 5 stars
Best Sellers Rank	#19,825 in Automotive (See top 100)
	#143 in Automotive > Tools & Equipment >
	Diagnostic & Test Tools > Code Readers & Scan
	Tools
Shipping Weight	17.7 pounds (View shipping rates and policies)
Domestic Shipping	Currently, item can be shipped only within the U.S
	and to APO/FPO addresses. For APO/FPO
	shipments, please check with the manufacturer
	regarding warranty and support issues.
International Shipping	This item is not eligible for international shipping.
	Learn More
Date First Available	April 18, 2014
arranty & Support	

Technical Specification

User Manual [pdf]

Product Warranty: For warranty Information about this product, please click here

Feedback

If you are a seller for this product, would you like to suggest updates through seller support? Would you like to rell us about a lower price?

Product Description







Coding + Special Functions + All System Diagnoses



Wireless Bluetooth Diagno

Instead of diagnosing car via a diagnostic cable, this auto scanner provides you with much convenience do
to its Bluetooth feature. You are able to diagnose car freely, either at your workbench or under the hood.

Smooth Operation & Quick Diagnoses

Equipped with a large 10.1" display, different data in wavelike form can be displayed at the same time.

Therefore, you can find the malfunctioned parts directly and solve problems quickly. The Android5.1 system also facilitates a super good experience of diagnosis.

Battery's Duratio

Accompanied with 7000mAh battery, you are able to continuously use the tool about 4 - 6 hours, depending on what operation you do, before recharging it. That's really time-saving.

issues beaugh tunes dustproof, drop resistant, greaseproof and waterproof (the screen), you will not be bothered by the ase, dust and water when diagnosing and fliding the vehicle.



ECU Coding and Auto VIN Tech

This diagnostic tablet supports ECU coding function on a large amount of makes, including Benz, Ford and more. It also supports quick diagnosis via one-button VIN scanning.

To diagnose car comprehensively, it can read DTCs and data streams for ALL systems. For instance, Fuel system, Emission system, Transmission, Engine, Body, Powertrain and more. You do not have to buy other tools for diagnosing systems, saving you much time and money from a long term. Full 11 Special Functions

Oil Reset Service & Steering Angle CalibrationElectronic Parking Brake Reset Battery Register /Battery Maintenance

AB5 Bleeding & Electronic Throttle Position Reset / Learn
Diesel Particulate Filter (DPF) Regeneration & Tire Pressure Monitor System Reset Tooth Learning/Anti-theft Matching



Anti-theft Matching

ction can protect your car from being stoler by clearing the lost car key information and programming the new key into the ECU database. wn as keys program



Active Test

Active test is to test output elements. You can figure out whether a specific subsystem or component in your car functions well or not by using this tool to checking in Ignition status.



You can get remote control tech support from LAUNCH tech team by sending one-click record videos and accurate diagnostic results to them. Also the one-click update online feature is quite nient.

Customers who viewed this item also viewed

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Launch X431 V+ Android OBD2 Auto Car System Diagnostic Scanner Global on with ... 23



LAUNCH X431 V+ OBDII Full System Car Diagnostic Scanner Android Wiff Bluetooth Conn...

BlueDriver Bluetooth Professional OBDII Scan Tool for iPhone, iPad & Android

2825 \$99.95



Launch Creader CRP125 Engine/ABS /SRS/Transm Automotive Code Reade 62

Reader with Wiff...

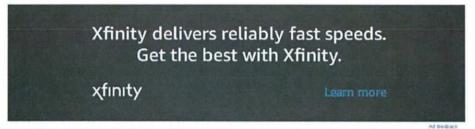
Launch X431 PROS Mini Automotive Diagnostic Tool OBD2 Scanner Code

17

AUTOWN OBD2 Scanne Car Diagnostic
Tool, Enhanced Mode 6 26



Launch X431 V+ Full System OBD2 ECU Codi Diagnostic Tool Scan Pad with Wifi & Blu...



Customer Questions & Answers

See questions and answers

Customer Reviews

	85	
4.3 out of 5 sta	rs	
5 star	77%	Share your thoughts with other customers
4 star	9%	
3 star	0%	Write a customer review
2 star	5%	
1 star	9%	

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helped	truck	trucks	fix	download	due	

Top customer reviews

J. Lackey

October 4, 2016

Size: Launch X431 V+ Verified Purchase

I love this thing. In my opinion, its well worth the money, it does the same thing all those overpriced \$8,000 Snap On units do, for 1/6th of the price, Snap on can't write the info reading software for the cars, they must rely on the manufacturer to tell them everything. So in that way, they're no different. And look it up, that's the only real way that matters. Anything else is just fluff and puff you don't need, Buy this thing, instead of petting ripped off. Now there is something that I think the company should be more clear about. This WILL NOT WORK until you do 2 things. You must email them your serial number. Its useless until you do that. Apparently they've had a lot of knock offs, so they're protecting their IP by having you email them before you can actually download the necessary software for it. That confused me initially, as it wasn't mentioned in the paperwork. At least nowhere that I could see.

They have to activate the unit from their end, and its useless except for just OBD2 scanning until they do. You won't be able to down that lets you scan every system in the car and tells you exactly what is wrong. Not until they activate it. So you have to get in contact with them. They do give you an email address, and you just send them your serial number and ask them to activate the units or you can dewnload the software. The second thing is, you have to "pals" the wireless OBD2 connector to this. Somewhere on one of the diagnostic screens, up in the comer or something, it will ask you for the number that is on the wireless OBD2 connector. You have to put that in and essentially pair them, before this can work. That way if you ever lose the wireless connector, you can just buy another one for cheap and palt that one. Once they're paired, you don't have to do it again. But you won't be using it until you do it. Other than those two minor things, its great. You can take control of systems, and have them tell you exactly what is wrong with them. ABS light? It told

Read more



Customer images



Most recent customer reviews

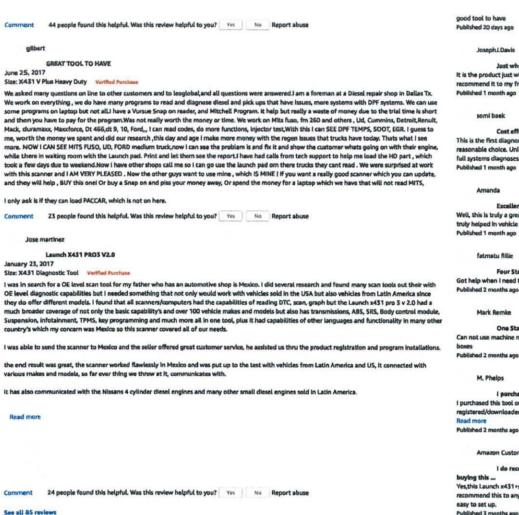
RAFAEL GONZALEZ

Four Stars ch information to go about is a bit complicated not for hed 15 days ago

Cristian Rojo

Works great on HD trucks Works great on HD trucks. Took some time to set up, however once we got It was functioning it worked very good. Worth its price. Published 17 days ago

Job Mendez



good tool to have Published 20 days ago

Joseph J. Davis

Just what I need

It is the product just what I need, and it is easy to operate, I would like to recommend it to my friends.

somi baek

Cost effective

This is the first diagnostic tool I've had of LAUNCH; however, it's a reasonable choice. Unlike others with expensive price for the capability of full systems diagnoses, this one... Read more Published 1 month ago

Excellent tablet diagnostic tool
Well, this is truly a great diagnostic tool. Used it for almost 2 weeks, and
truly helped in vehicle health status checking. Read more
Published 1 month ago

Four Stars

Got help when I need to setup the machine from agent . Very pls Published 2 months ago

Mark Remke

One Star

Can not use machine no activation code I will be returning it to not have the

I purchased this tool on Amazon Prime, received it ... ed this tool on Arnazon Prime, received it and registered/downloaded all the updated software without an issue Read more

Published 2 months ago

Amazon Customer

I do recommend this to anyone how it thinking about

Yes,this Launch x431+system diagnostic tablet meet my expectation, I do recommend this to anyone how it thinking about buying this tablet, it was Published 3 months ago

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Grocenias & More	Ship Orders	Handprised Pros	Digital Educational	Fun storios for	Food delivery from	Video Distribution
Right To Your Door	Internationally	Happiness Guarantee	Resources	locs on the go	local restaurants	Made Easy
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Inde Digital Publishing	FREE 2+ our Delivery	Uramized Photo Storage	Designer	Math Activities	Great Deals on	America's Heathlest
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RealPresence Touch ▼

I NEED TO SOLUTIONS VOICE VIDEO CONTENT SERVICES

RealPresence Touch











Control group collaboration with confidence: Simple and intuitive design lets you focus on your conversations instead of the technology



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RealPresence Touch >

I NEED TO SOLUTIONS VOICE VIDEO CONTENT SERVICES

Overview

Polycom RealPresence Touch is a touch interface for RealPresence Group Series and Polycom's Immersive Telepresence solutions. The simple and intuitive design lets you focus on your conversations instead of the technology. The design is consistent across the Polycom portfolio, whether you're calling from a conference room or using a Polycom desktop, mobile or web client. This makes it easy to use video collaboration from any environment, with an interface that is instantly familiar no matter where you're calling from.

- One touch dialing from the integrated calendar, right on the home screen
- Speed dials provide quick access to people, rooms, or virtual meeting rooms
- Search a directory to quickly connect to the right person or location
- · Easy access to share content, adjust camera views, change participant layouts and more to get the most out of your meeting
- Position it the way that you want, either standing taller or flipped over for a lower profile
- Sleek design with integrated Power over Ethernet adds style to any meeting space
- Background image can be customized to match your branding or provide information about the room
- . The home screen buttons and default screens can be selected by administrators to optimize the experience for their user base, resulting in fewer support calls

Technical Overview

For IT administrators, RealPresence Touch is easy to deploy, with Power over Ethernet for single cable connections. You can also adjust the experience to meet the unique needs of your users. The background image can be customized to match your branding or provide information about the room. Plus the home screen buttons and default screens can be selected by administrators to optimize the experience for their user base, resulting in fewer support calls.

- Compatible with RealPresence Group Series, RealPresence Immersive Studio, and RealPresence Immersive Studio Flex
- Display: 10.1" LCD panel with LED backlighting and IPS (In-Plane Switching)
- Resolution: WXGA (1280 x 800)

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CISCO TELEPRESENCE SYSTEM EX60 - VIDEO CONFERENCING KIT

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CISCO TELEPRESENCE SYSTEM EX60 - VIDEO CONFERENCING KIT



CISCO

\$1,100.00

SKU:

CTS-EX60-K9

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14.50 LBS

Availability:

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CISCO2821

Cisco 2821 Router with 2 GE Pc

\$85.00

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PRODUCT DESCRIPTION

The Cisco TelePresence System EX60 - Video Conferencing Kit is part of the Cisco family which provides the broadest line of solutions for transporting data, voice video while ensuring that networks both public and private operate with maximum performance, security, and flexibility. This video conferencing kit allows separate colleagues to work together by combining work, communications, and collaboration on the desktop with the simplicity of a touch screen interface. It's crystal clear, 1080p30 video will prove ideal for the team leader or manager who needs immediate presence with customers, partners, and employees.

Product Type: Web Conference Appliance

Dimensions (WxDxH): 20.5 in x 6 in x 20 in

We offer free FedEx Ground shipping to all our customers in the continental US. If you need more information on expedited or international shipping please see our Shipping & Returns page or ask us directly via phone, email or using our Contact Form page.

FIND SIMILAR PRODUCTS BY CATEGORY

PRODUCT REVIEWS

CUSTOMERS WHO VIEWED THIS PRODUCT ALSO VIEWED



CTS-EX90-K9 Cisco TelePresence System



CTS-1700-K9 Cisco TelePresence System 1700



CTS-SX20-PHD4X-K9 Cisco TelePresence SX20 Quick



CTS-SX20-PHD12X-K9 Cisco TelePresence SX20 Qu



Complete Home Security System



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Protect what matters most with our smart and reliable home security system. Feel safe knowing you are in control of your home from anywhere, at any time with your mobile device. Our peeland-stick wireless sensors make it easy for you to install your system and get your home protected immediately.

INCLUDED DEVICES

- XTi-5 Alarm Panel
- 2 Entry Sensors

ACCESSORIES

2 Yard Signs

MONITORING

LiveWatch Monitoring

\$599 retail value

\$99 system*

\$39.95 /mo. monitoring

- 1 Keychain Remote
- 1 Motion Detector

4 Window Stickers



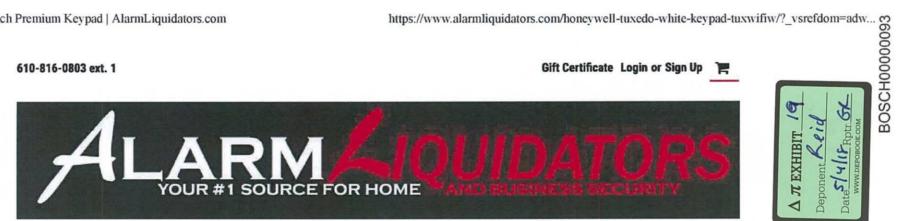


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B942 Touch Screen Keypad



· Color graphic touch screen display uses a combination of simple icons and text for easy operation

Q

- · Built-in presence detector lights the display when user approaches keypad
- . Built-in proximity reader allows use of a token or card as replacement for a passcode, or for use with dual authentication for high security areas
- · Four inputs and one output provide cost effective expansion
- · Slim, modern design blends with any decor

Details	Certificates (2)	Documents (7) Software Downloads (1)	
Dimensi	ons	6.2 in x 4.7 in x 0.65 in (158 mm x 120 mm x 16.5 mm)	Images
Weight		11.3 oz (0.32 kg)	
Material		Acrylonitrile butadiene styrene (ABS) Poly(methyl methacrylate) (PAMA)	
Display v	vindow	Touch screen Multi-line messages	Software Downloads
Indicators	1	Power indicator LEO Status Indicators Main icon. Warning and indicating tones	> All the service you need for your product



UNITED STATES PATENT AND TRADEMARK OFFICE TRADEMARK TRIAL AND APPEAL BOARD

WGI Telecom Inc)	
)	
Applicant,)	
)	
v.)	Opposition No. 91,225,003
)	
Robert Bosch Gmbh.)	
)	
Opposer.)	
WGI TELECOM INC'S RES	PONSE TO RO	DBERT BOSCH GMBH'S FIRST SET OF
	INTERROG	

INTERROGATORY NO. 1:

Identify the person(s) most knowledgeable about Your creation and design of the Mark.

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000



INTERROGATORY NO. 2:

Identify the person(s) most knowledgeable about Your decision to adopt the

Mark.

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

INTERROGATORY NO. 3:

Identify the person(s) most knowledgeable about Your decision to file the

Application to register the Mark.

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

NTERROGATORY NO. 4:

Identify the person(s) most knowledgeable about Your past, present, and planned advertising and promotion of goods bearing the Mark in the United States

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

NTERROGATORY NO. 5:

Identify the person(s) most knowledgeable about Your past, present, and planned sale of goods bearing the Mark in the United States.

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

NTERROGATORY NO. 6:

Identify each type of product You have sold, are selling, or plan to sell bearing the

Mark in the United States.

RESPONSE:

Mobile Phones, USB Dongles, MIFI, LTE CPE, 3G/4G Tablets

NTERROGATORY NO. 7:

For each product identified in response to Interrogatory No. 6, identify the channels of trade and specific outlets through which You market and sell, or plan to market and sell, each product.

RESPONSE:

Mobile Operators, Distributors, Online.

NTERROGATORY NO. 8:

Explain in detail when and how You first became aware of Bosch's Magneto Design Mark.

RESPONSE:

Seen the mark on certain kitchen appliances in the past however became more familiar after opposition was filed.

NTERROGATORY NO. 9:

Identify each third-party trademark that You believe is similar in terms of appearance, connotation, and commercial impression to Bosch's Magneto Design Mark, and is used in connection with goods or services similar to those covered by Bosch's Registration Nos.

2,051,819; 4,315,252; 4,412,647; or 2,433,397

RESPONSE:

Objection. This Interrogatory is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence.

NTERROGATORY NO. 10:

Identify all instances when a person has referred to any relationship, sponsorship or affiliation (or lack thereof) between You and Bosch, or between Your products and Bosch's products.

Mark.
RESPONSE:
Never
NTERROGATORY NO. 11:
Identify all studies, investigations, or searches conducted by You or on Your behalf to determine the
availability of the Mark for use and registration in the United States.
RESPONSE:
USPTO .GOV
NTERROGATORY NO. 12:
Identify all previous lawsuits or proceedings in which You have been involved regarding trademarks
service marks, or trade dress.
RESPONSE:
None
NTERROGATORY NO. 13:
Identify all goods with respect to which You had a bona fide intent to use the Mark on the Application filing date.
RESPONSE:
Mobile phones, Tablets, MIFI, CPE
NTERROGATORY NO. 14:

If You intend to rely upon the opinion of an expert in this action, provide the information called for in Fed. R. Civ. P. 26(a)(2)(A) and (B) for each expert

RESPONSE:

None

NTERROGATORY NO. 15:

Identify all persons who participated in the preparation or filing of the Application, including providing information for use in preparing the Application.

RESPONSE:

Amanda Harke

Research and Applications Manager

The Trademark Company, PLLC

2703 Jones Franklin Road, Suite 206

Cary, NC 27518

Phone (800) 906-8626 x103

NTERROGATORY NO. 16:

Identify all persons who participated in any way in the preparation of the answers to any of these interrogatories and/or responses to Bosch's request for production or requests for admission in this proceeding, including the nature of participation of each such person

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

Dated: May 30, 2017

Respectfully submitted,

WGI Telecom Inc,

Winston Reid

1789 North Commerce Parkway

Weston, FL, 33326

(954) 217-7000

CERTIFICATE OF SERVICE

I hereby certify that a copy of WGI TELECOMS'S ANSWER TO ROBERT BOSCH GMBH'S FIRST SET OF REQUESTS FOR PRODUCTION was served upon the following by email:

Jessica A. Ekhoff

200 South Wacker Drive

Suite 2900

Chicago, Illinois 60606

(312) 554-8000

JAE@pattishall.com

TC@pattishall.com

BOSCH TRIAL EXHIBIT 10

UNITED STATES PATENT AND TRADEMARK OFFICE TRADEMARK TRIAL AND APPEAL BOARD

WGI Telecom Inc)	
)	
Applicant, v.)	
)	
)	Opposition No. 91,225,003
Robert Bosch Gmbh.)	
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Winston Reid

1786 North Commerce Parkway

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RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

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Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

NTERROGATORY NO. 4:

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Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

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RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

NTERROGATORY NO. 6:

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USPTO .GOV
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service marks, or trade dress.
RESPONSE:
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Identify all goods with respect to which You had a bona fide intent to use the Mark on the Application filing date.
RESPONSE:
Mobile phones, Tablets, MIFI, CPE
NTERROGATORY NO. 14:

If You intend to rely upon the opinion of an expert in this action, provide the information called for in Fed. R. Civ. P. 26(a)(2)(A) and (B) for each expert

RESPONSE:

None

NTERROGATORY NO. 15:

Identify all persons who participated in the preparation or filing of the Application, including providing information for use in preparing the Application.

RESPONSE:

Amanda Harke

Research and Applications Manager

The Trademark Company, PLLC

2703 Jones Franklin Road, Suite 206

Cary, NC 27518

Phone (800) 906-8626 x103

NTERROGATORY NO. 16:

Identify all persons who participated in any way in the preparation of the answers to any of these interrogatories and/or responses to Bosch's request for production or requests for admission in this proceeding, including the nature of participation of each such person

RESPONSE:

Winston Reid

1786 North Commerce Parkway

Weston, FL, 33326

954.217.7000

Dated: May 30, 2017

Respectfully submitted,

WGI Telecom Inc,

Winston Reid

1789 North Commerce Parkway

Weston, FL, 33326

(954) 217-7000

CERTIFICATE OF SERVICE

I hereby certify that a copy of WGI TELECOMS'S ANSWER TO ROBERT BOSCH GMBH'S FIRST SET OF REQUESTS FOR PRODUCTION was served upon the following by email:

Jessica A. Ekhoff

200 South Wacker Drive

Suite 2900

Chicago, Illinois 60606

(312) 554-8000

JAE@pattishall.com

TC@pattishall.com

UNITED STATES PATENT AND TRADEMARK OFFICE TRADEMARK TRIAL AND APPEAL BOARD

Robert Bosch GmbH,)	
Opposer,)	
v.)	Opposition No. 91,225,003
WGI Telecom Inc.)	
Applicant.)	

In the matter of Application Serial No. 86/403,265

ROBERT BOSCH GMBH'S FIRST SET OF REQUESTS FOR ADMISSION

In accordance with Rule 36 of the Federal Rules of Civil Procedure and Rule 2.120(a) of the Trademark Rules of Practice, Opposer, Robert Bosch GmbH, requests that Applicant, WGI Telecom Inc., answer each of the requests for admission set forth below, subject to the following definitions and instructions:

DEFINITIONS AND INSTRUCTIONS

The following definitions and instructions apply to these requests for admission:

- A. As used herein, the term "Bosch" means Robert Bosch GmbH, its predecessors in interest, related organizations, and the officers, directors, employees, agents and representatives thereof.
- B. As used herein, the term "You," "Your," or "WGI" means WGI Telecom Inc., its predecessors in interest, its subsidiary and related organizations, and the officers, directors, employees, agents and representatives thereof.

C. As used herein, the term "Mark" refers to the mark that is the subject of United

D. As used herein, the "Application" shall refer to Your United States Application No. 86/403,265.

E. As used herein, the term "Magneto Design Mark" refers to the mark that is the subject of Robert Bosch GmbH's United States Registration Nos. 2,051,819; 4,315,252 and

4,412,647, namely,

States Application No. 86/403,265, namely,

- F. As used herein, the words "and" and "or" shall be construed disjunctively or conjunctively as necessary in order to bring within the scope of the request all responses which might otherwise be construed to be outside its scope.
- G. As used herein, the singular shall always include the plural and the present tense shall always include the past tense, and vice versa.

REQUESTS FOR ADMISSION

- 1. Admit that You did not have a bona fide intent to use the Mark in connection with computer terminals on the date You filed the Application.
- 2. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with computer terminals on the date You filed the Application.
- 3. Admit that You do not currently have a bona fide intent to use the Mark in connection with computer terminals.

- 4. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with computer terminals.
- 5. Admit that You did not have a bona fide intent to use the Mark in connection with modems on the date You filed the Application.
- 6. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with modems on the date You filed the Application.
- 7. Admit that You do not currently have a bona fide intent to use the Mark in connection with modems.
- 8. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with modems.
- 9. Admit that You did not have a bona fide intent to use the Mark in connection with netbooks on the date You filed the Application.
- 10. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with netbooks on the date You filed the Application.
- 11. Admit that You do not currently have a bona fide intent to use the Mark in connection with netbooks.
- 12. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with netbooks.
- 13. Admit that You did not have a bona fide intent to use the Mark in connection with tablet computers on the date You filed the Application.
- 14. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with tablet computers on the date You filed the Application.

- 15. Admit that You do not currently have a bona fide intent to use the Mark in connection with tablet computers.
- 16. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with tablet computers.
- 17. Admit that You did not have a bona fide intent to use the Mark in connection with cell phones on the date You filed the Application.
- 18. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with cell phones on the date You filed the Application.
- 19. Admit that You do not currently have a bona fide intent to use the Mark in connection with cell phones.
- 20. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with cell phones.
- 21. Admit that You did not have a bona fide intent to use the Mark in connection with digital phones on the date You filed the Application.
- 22. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with digital phones on the date You filed the Application.
- 23. Admit that You do not currently have a bona fide intent to use the Mark in connection with digital phones.
- 24. Admit that You have no documents reflecting a bona fide intent to use the Mark in connection with digital phones.
- 25. Admit that the Mark and the Magneto Design Mark are similar in appearance, connotation, and commercial impression.

26. Admit that the goods covered by the Application are similar to the goods and services covered by Bosch's Registration Nos. 2,051,819; 4,315,252; 4,412,647; or 2,433,397.

27. Admit that the goods covered by the Application are likely to be sold in the same

channels of trade as the goods and services covered by Bosch's Registration Nos. 2,051,819;

4,315,252; 4,412,647; or 2,433,397.

28. Admit that the goods covered by the Application are likely to be sold to the same

types of consumers as the goods and services covered by Bosch's Registration Nos. 2,051,819;

4,315,252; 4,412,647; or 2,433,397.

29. Admit that You are not aware of any third-party trademarks that are similar in

terms of appearance, connotation, and commercial impression to the Magneto Design Mark.

30. Admit that You were aware of the Magneto Design Mark when You filed the

Application.

Dated: June 17, 2016

Respectfully submitted,

PATTISHALL, MCAULIFFE, NEWBURY,

HILLIARD & GERALDSON LLP

By: /s/ Jessica A. Ekhoff

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Attorneys for Robert Bosch GmbH

CERTIFICATE OF SERVICE

I hereby certify that a copy of **ROBERT BOSCH GMBH'S FIRST SET OF**

REQUESTS FOR ADMISSION was served upon the following by first-class mail, postage

prepaid, on June 17, 2016, with a courtesy copy by email:

Winston Reid WGI Telecom, Inc. 1786 North Commerce Parkway Weston, FL 33326

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/s/ Jessica A. Ekhoff



What is a Cell Phone?

And Why Are Cell Phones Called Cell Phones?

by Russell Ware

Updated July 04, 2018

A cell phone is any portable telephone which uses <u>cellular network</u> technology to make and receive calls. The name comes from the cell-like structure of these networks. There is some confusion about cell phones being a different thing to smartphones, but technically, every mobile phone, from the latest Android handset to the simplest feature phone, is a cell phone. It is all about the technology used to transmit your calls, rather than what the handset itself can or cannot do. As long as a phone can transmit a signal to a cellular network, it is a cell phone.

The term "cell phone" is interchangeable with the terms Cellular Phone and Mobile Phone. They all mean the same thing. The term Smartphone has come to mean a cell phone which offers more advanced features than just calls, SMS messages, and basic organizer software. Often, when talking about mobile phones, cell phone is used to describe a simple feature phone, whilst smartphone is used to describe more advanced touchscreen phones.

The first commercially available cell phone was developed by Motorola between 1973 and 1983 and went on sale in the U.S. early in 1984. This huge 28 ounce (790 gram) cell phone, called the **DynaTAC 8000x**, cost \$3995.00 and needed to be charged after just thirty minutes of use. The DynaTAC 8000x is almost unrecognizable as a cell phone when compared to the devices we use today. It is estimated that there were over 5 billion cell phones in use at the end of 2012.

Cellular Networks

A cellular network, which gives cell phones their name, is made up of cellular masts or towers distributed across the country in a grid-like pattern. Each mast covers a relatively small region of the grid, usually around ten square miles, called a Cell. Large mobile phone <u>carriers</u> (AT&T, Sprint, Verizon, Vodafone, T-Mobile, etc.,) erect and use their own cellular masts and therefore have control over the level of cellular coverage they can provide. Several such masts can be located on the same tower.

When you make a call on a cell phone, the signal travels through the air to the nearest mast or tower and is then relayed to a switching network and finally on to the handset of the person you are calling via the mast closest to them. If you are making a call whilst traveling, in a moving vehicle, for example, you may quickly move from the range of one cell tower to the range of another. No two adjoining cells use the same frequency, so as to avoid interference, but the transition between cellular mast areas will normally

be seamless.

Cellular Coverage

In some countries, cellular coverage is almost total if you are with one of the large national carriers. In theory anyway. As you might expect, cellular coverage in built-up areas is usually better than in more rural areas. Areas where there is little or no coverage are normally places where there is poor access, or areas where there is little benefit to the cell carriers (sparsely populated areas, for example). If you are thinking of changing your carrier, it is certainly worth checking to see what their coverage is like in your local area.

Cellular masts in built-up areas such as cities are often quite close together, sometimes as little as a few hundred feet, because buildings and other structures can interfere with the signal. In open areas, the distance between masts can be several miles as there is less to disrupt the radio waves. If the cellular signal is just very weak (rather than non-existent), it is possible for consumers to buy a cellular repeater or network extender, both of which can amplify and boost a weak signal.

Cellular Phone

Definition - What does Cellular Phone mean?

A cellular phone is a telecommunication device that uses radio waves over a networked area (cells) and is served through a cell site or base station at a fixed location, enabling calls to transmit wirelessly over a wide range, to a fixed landline or via the Internet.

In this networked system, the cellular phone is identified as a <u>mobile</u> system consisting of the equipment and SIM card that actually assigns the mobile telephone number.

A cellular phone is also known as a cellphone or mobile phone.

Techopedia explains Cellular Phone

Derived from the mobile communication concept of two-way radio technology, the cellular phone has steadily evolved and advanced. In the infancy of cellular phones, service was very rudimentary, and phones were extremely heavy--much like heavy battery packs. Today's handheld cellular phones are smaller and pocket-sized.

The seamless quality experienced in contemporary society is the result of many years of research and development. Modern cellular phones now meet market demands need with greater efficiency, while communicating without the bonds of wire-limiting mobility. The cellular phone has evolved from voice telephony to an instrument supporting many services other than voice calls, i.e., short message services and Internet access.

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cell phone

or cell-phone

[sel-fohn]

Examples Word Origin

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noun

- a wireless telephone using a system of low-powered radio transmitters, with each transmitter covering a distinct geographical area (cell), and computer equipment to switch a call from one area to another, thus enabling broad-scale portable phone service.
- such a wireless telephone that has other functions, as text messaging or Internet access.
- 3. mobile phone.

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computer terminal

computer terminal, a device that enables a computer to receive or deliver data. Computer terminals vary greatly depending on the format of the data they handle. For example, a simple early terminal comprised a typewriter keyboard for input and a typewriter printing element for alphanumeric output. A more recent variation includes the keyboard for input and a televisionlike screen to display the output. The screen can be a cathode-ray tube or a gas plasma panel, the latter involving an ionized gas (sandwiched between glass layers) that glows to form dots which, in turn, connect to form lines. Such displays can present a variety of output, ranging from simple alphanumerics to complex graphic images used as design tools by architects and engineers. Portable terminals frequently use liquid crystal displays because of their low power requirements. The terminals of pen-based computers use a stylus to input handwriting on the screen. Touch-sensitive terminals accept input made by touching a pressure-sensitive panel in front of a menu displayed on the screen. Other familiar types of terminals include store checkout systems that deliver detailed printed receipts and use laser scanners to read the barcodes on packages, and automatic teller machines in

See L. Tijerina, Video Display Terminal Workstation Ergonomics (1984).

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Terminal

Definition - What does Terminal mean?

A terminal is an electronic communication hardware device that handles the input and display of data.

A terminal may be a PC or workstation connected to a network, Voice over Internet Protocol (VOIP) network endpoint, mobile data terminal such as a telematics device, or a text terminal, or textual language interface.

Techopedia explains Terminal

Terminals vary by required data type and format. Early terminals resembled typewriters. Current versions include input keyboards and output display screens.

Terminals are divided into the following three classes, according to their processing power:

- Intelligent Terminal: Includes main memory and CPU
- Smart Terminal (fat client): Equipped with robust data processing power, but has fewer processing capabilities than an intelligent terminal.
- Dumb Terminal (thin client): Relies on the host for processing

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Computer terminal

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A computer terminal is an electronic or electromechanical hardware device that is used for entering data into, and displaying data from, a computer or a computing system. Early terminals were inexpensive devices but very slow compared to punched cards or paper tape for input, but as the technology improved and video displays were introduced, terminals pushed these older forms of interaction from the industry. A related development was timesharing systems, which evolved in parallel and made up for any inefficiencies of the user's typing ability with the ability to support multiple users on the same machine, each at their own terminal.

The function of a terminal is confined to display and input of data; a device with significant local programmable data processing capability may be called a "smart terminal" or **fat client**. A terminal that depends on the host computer for its processing power is called a "dumb terminal" or **thin client**. A personal computer can run **terminal emulator** software that replicates the function of a terminal, sometimes allowing concurrent use of local programs and access to a distant *terminal host* system.



The DEC VT100, a widely emulated computer terminal

History

The terminal of the first working programmable, fully automatic digital [1] Turing-complete^[2] computer, the Z3, had a keyboard and a row of lamps to show results.^[3]

Hard-copy terminals

Early user terminals connected to computers were electromechanical teleprinters/teletypewriters (TeleTYpewriter, TTY), such as the Teletype Model 33 ASR, originally used for telegraphy or the Friden Flexowriter. Later printing terminals such as the DECwriter LA30 were developed. However printing terminals were limited by the speed at which paper could be printed, and for interactive use the paper record was unnecessary.

By the early 1970s, many users in the computer industry realized that an affordable video data entry terminal could supplant the ubiquitous **punched cards** and permit new uses for computers that would be more interactive. The problem was that the amount of memory needed to store the information on a page of text was comparable to the memory in low end **minicomputers** then in use. Displaying the information at video speeds was also a challenge



A Teletype Model 33 ASR teleprinter, usable as a terminal

and the necessary control logic took up a rack worth of pre-integrated circuit electronics. One company announced plans to build a video terminal for \$15,000 and attracted a large backlog of orders, but folded when their engineering plans, which included fabricating their own ICs, proved too ambitious. Another approach involved the use of the storage tube, a specialized CRT developed by Tektronix that retained information written on it without the need to refresh.

The Datapoint 3300 from Computer Terminal Corporation was announced in 1967 and shipped in 1969, making it one of the earliest stand-alone display-based terminals. It solved the memory space issue mentioned above by using a digital shift-register design, and using only 72 columns rather than the later more common choice of 80.

Early VDUs

Early video computer displays were sometimes nicknamed "Glass TTYs" ("glass Teletypes") or "Visual Display Units" (VDUs), and used individual logic gates, with no CPU or very primitive LSI chips, yet quickly became extremely popular Input-Output devices on many different types of computer system once several suppliers gravitated to a set of common standards:

- ASCII character set (rather than, say, EBCDIC or anything specific to one company), but early/economy models often supported only capital letters (such as the original ADM-3, the Data General model 6052 – which could be upgraded to a 6053 with a lower-case character ROM – and the Heathkit H9)
- RS-232 serial ports (25-pin, ready to connect to a modem, yet some manufacturer-specific pin usage extended the standard, e.g. for use with 20-mA current loops)
- 24 lines (or possibly 25 sometimes a special status line) of 80 characters of text (sometimes with two character width settings).
- Some type of blinking cursor that can be positioned (with arrow keys and/or "home" and other direct cursor address setting codes).
- Implementation of at least 3 control codes: Carriage Return (Ctrl-M), Line-Feed (Ctrl-J), and Bell (Ctrl-G), but usually
 many more, such as Escape sequences to provide underlining, dim and/or reverse-video character highlighting, and
 especially to clear the display and position the cursor.

Starting with the Datapoint 3300 in 1969, by the late 1970s and early 1980s, there were dozens of manufacturers of terminals, including Lear-Siegler, ADDS, Data General, DEC, Hazeltine Corporation, Heath/Zenith, Hewlett Packard, IBM, Televideo, and Wyse, many of which had incompatible command sequences (although many used the early ADM-3 as a starting point).

The great variations in the control codes between makers gave rise to software that identified and grouped terminal types so the system software would correctly display input forms using the appropriate control codes; In Unix-like systems the termcap or terminfo files, the stty utility, and the TERM environment variable would be used; in Data General's Business BASIC software, for example, at login-time a sequence of codes were sent to the terminal to try to read the cursor's position or the 25th line's contents using a sequence of different manufacturer's control code sequences, and the terminal-generated response would determine a single-digit number (such as 6 for Data General Dasher terminals, 4 for ADM 3A/5/11/12 terminals, 0 or 2 for TTY's with no special features) that would be available to programs to say which set of codes to use.

"Intelligent" terminals

An "intelligent" terminal does its own processing, usually implying a microprocessor is built in, but not all terminals with microprocessors did any real processing of input: the main computer to which it was attached would have to respond quickly to each keystroke. The term "intelligent" in this context dates from 1969.^[4]

Notable examples include the IBM 2250 and IBM 2260, predecessors to the IBM 3270 and introduced with System/360 in 1964.

From the introduction of the IBM 3270, and the DEC VT100 (1978), the user and programmer could notice significant advantages in VDU technology improvements, yet not all programmers used the features of the new terminals (backward compatibility in the VT100 and later Televideo terminals, for example, with "dumb terminals" allowed programmers to

continue to use older software).

Some dumb terminals had been able to respond to a few escape sequences without needing microprocessors: they used multiple **printed circuit boards** with many Integrated Circuits; the single factor that classed a terminal as "intelligent" was its ability to *process* user-input within the terminal—not interrupting the main computer at each keystroke—and send a block of data at a time (for example: when the user has finished a whole field or form). Most terminals in the early 1980s, such as ADM-3A, TVI912, Data General D2, DEC VT52, despite the introduction of ANSI terminals in 1978, were essentially "dumb" terminals, although some of them (such as the later ADM and TVI models) did have a primitive block-send capability.

The advance in microprocessors and lower memory costs made it possible for the terminal to handle editing operations such as inserting characters within a field that may have previously required a full screen-full of characters to be re-sent from the computer, possibly over a slow modem line. Around the mid 1980s intelligent terminals, costing less than most dumb terminals would have a few years earlier, could provide enough user-friendly local editing of data and send the completed form to the main computer. Providing even more processing possibilities, workstations like the Televideo TS-800 could run CP/M-86, blurring the distinction between terminal and Personal Computer.

Another of the motivations for development of the microprocessor was to simplify and reduce the electronics required in a terminal. That also made it practicable to load several "personalities" into a single terminal, so a Qume QVT-102 could emulate many popular terminals of the day, and so be sold into organizations that did not wish to make any software changes. Frequently emulated terminal types included:

- Lear Siegler ADM-3A and later models
- Televideo 910 to 950 (these models copied ADM3 codes and added several of their own, eventually being copied by Qume and others)
- Digital Equipment Corporation VT52 and VT100
- Data General D1 to D3 and especially D200 and D210
- Hazeltine Corporation H1500
- Tektronix 4014
- Wyse W50, W60 and W99

The ANSI X3.64 escape code standard produced uniformity to some extent, but significant differences remained (for example, the VT100, Heathkit H19 in ANSI mode, Televideo 970, Data General D460, and Qume QVT-108 terminals all followed the ANSI standard, yet differences might exist of codes from function keys, what character attributes were available, block-sending of fields within forms, "foreign" character facilities, and handling of printers connected to the back of the screen).

Most terminals were connected to minicomputers or mainframe computers and often had a green or amber screen. Typically terminals communicate with the computer via a serial port via a null modem cable, often using an EIA RS-232 or RS-422 or RS-423 or a current loop serial interface. IBM systems communicated over a coaxial cable using IBM's SNA protocol, but for many DEC, Data General and NCR (and so on) computers there were many visual display suppliers competing against the computer manufacturer for terminals to expand the systems. In fact, the instruction design for the Intel 8008 was originally conceived at Computer Terminal Corporation as the processor for the Datapoint 2200.

Contemporary

While early IBM PCs had single color green screens, these screens were not terminals. The *screen* of a PC did not contain any character generation hardware; all video signals and video formatting were generated by the *video display card* in the PC, or (in most graphics modes) by the CPU and software. An IBM PC monitor, whether it was the green monochrome display or the 16-color display, was technically much more similar to an analog TV set (without a tuner) than to a terminal. With suitable **software** a PC could, however, emulate a terminal, and in that capacity it could be connected to a mainframe



or minicomputer. The Data General One could be booted into terminal emulator mode from its ROM. Eventually microprocessor-based personal computers greatly reduced the market demand for conventional terminals.

In the 1990s especially, "thin clients" and X terminals have combined economical local processing power with central, shared computer facilities to retain some of the advantages of terminals over personal computers:

A Televideo ASCII character mode terminal, using a microprocessor, manufactured around 1982

Today, most PC telnet clients provide emulation of the most common terminal, the DEC VT100, using the ANSI escape code standard X3.64, or could run as X terminals using software such as Cygwin/X under Microsoft Windows or X.Org Server software under Linux.

Since the advent and subsequent popularization of the <u>personal computer</u>, few genuine hardware terminals are used to interface with computers today. Using the <u>monitor</u> and <u>keyboard</u>, modern operating systems like <u>Linux</u> and the BSD derivatives feature virtual consoles, which are mostly independent from the hardware used.

When using a graphical user interface (or GUI) like the X Window System, one's display is typically occupied by a collection of windows associated with various applications, rather than a single stream of text associated with a single process. In this case, one may use a terminal emulator application within the windowing environment. This arrangement permits terminal-like interaction with the computer (for running a command line interpreter, for example) without the need for a physical terminal device; it can even allow the running of multiple terminal emulators on the same device.

Capabilities

Text terminals

See also: Character-oriented terminal

A text terminal, or often just terminal (sometimes text console) is a serial computer interface for text entry and display. Information is presented as an array of pre-selected formed characters. When such devices use a video display such as a cathode-ray tube, they are called a "video display unit" or "visual display unit" (VDU) or "video display terminal" (VDT).

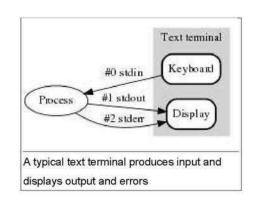
The **System console** is a text terminal used to operate a computer. Modern computers have a built-in keyboard and display for the console. Some **Unix-like** operating systems such as **Linux** and **FreeBSD** have virtual consoles to provide several text terminals on a single computer.

The fundamental type of application running on a text terminal is a **command line interpreter** or **shell**, which prompts for commands from the user and

executes each command after a press of *Enter*. This includes **Unix shells** and

some **interactive programming** environments. In a shell, most of the commands
are small applications themselves.

Another important application type is that of the **text editor**. A text editor occupies the full area of display, displays one or more text documents, and allows the user to edit the documents. The text editor has, for many uses, been replaced by the **word processor**, which usually provides rich formatting features that the text editor lacks. The first word processors used text to communicate the structure of the document, but later word processors operate in a graphical environment and provide a **WYSIWYG** simulation of the formatted output.





Programs such as Telix and Minicom control a modem and the local terminal to let the user interact with remote servers. On

the Internet, telnet and ssh work similarly.

In the simplest form, a text terminal is like a file. Writing to the file displays the text and reading from the file produces what the user enters. In unix-like operating systems, there are several character special files that correspond to available text terminals. For other operations, there are special escape sequences, control characters and termios functions that a program can use, most easily via a library such as ncurses. For more complex operations, the programs can use terminal specific ioctl system calls. For an application, the simplest way to use a terminal is to simply write and read text strings to and from it sequentially. The output text is scrolled, so that only the last several lines (typically 24) are visible. Unix systems typically buffer the input text until the Enter key is pressed, so the application receives a ready string of text. In this mode, the application need not know much about the terminal. For many interactive applications this is not sufficient. One of the common enhancements is command line editing (assisted with such libraries as readline); it also may give access to command history. This is very helpful for various interactive command line interpreters.

Even more advanced interactivity is provided with *full-screen* applications. Those applications completely control the screen layout; also they respond to key-pressing immediately. This mode is very useful for **text editors**, **file managers** and **web browsers**. In addition, such programs control the color and brightness of text on the screen, and decorate it with underline, blinking and special characters (e.g. **box drawing characters**). To achieve all this, the application must deal not only with plain text strings, but also with **control characters** and **escape sequences**, which allow to move **cursor** to an arbitrary position, to clear portions of the screen, change colors and display special characters, and also respond to **function keys**. The great problem here is that there are so many different terminals and **terminal emulators**, each with its own set of **escape sequences**. In order to overcome this, special libraries (such as **curses**) have been created, together with terminal description databases, such as **Termcap** and **Terminfo**.

Dumb terminals

Dumb terminals are those that can interpret a limited number of control codes (CR, LF, etc.) but do not have the ability to process special escape sequences that perform functions such as clearing a line, clearing the screen, or controlling cursor position. In this context dumb terminals are sometimes dubbed glass Teletypes, for they essentially have the same limited functionality as does a mechanical Teletype. This type of dumb terminal is still supported on modern Unix-like systems by setting the environment variable TERM to dumb. Smart or intelligent terminals are those that also have the ability to process escape sequences, in particular the VT52, VT100 or ANSI escape sequences.

Graphical terminals

A graphical terminal can display images as well as text. Graphical terminals are divided into vector-mode terminals, and raster mode.

A vector-mode display directly draws lines on the face of a cathode-ray tube under control of the host computer system. The lines are continuously formed, but since the speed of electronics is limited, the number of concurrent lines that can be displayed at one time is limited. Vector-mode displays were historically important but are no longer used. Practically all modern graphic displays are raster-mode, descended from the picture scanning techniques used for television, in which the visual elements are a rectangular array of pixels. Since the raster image is only perceptible to the human eye as a whole for a very short time, the raster must be refreshed many times per second to give the appearance of a persistent display. The electronic demands of refreshing display memory meant that graphic terminals were developed much later than text terminals, and initially cost much more.

Most terminals today are graphical, that is, they can show images on the screen. The modern term for graphical terminal is "thin client". A thin client typically uses a protocol like X11 for Unix-terminals, or RDP for Microsoft Windows. The bandwidth needed depends on the protocol used, the resolution, and the color depth.

Modern graphic terminals allow display of images in color, and of text in varying sizes, colors, and fonts (type faces).

In the early 1990s an industry consortium attempted to define a standard, AlphaWindows, that would allow a single CRT

screen to implement multiple windows, each of which was to behave as a distinct terminal. Unfortunately like I2O this suffered from being run as a closed standard: non-members were unable to obtain even minimal information and there was no realistic way a small company or independent developer could join the consortium. Possibly because of this the standard disappeared without trace.

Emulation

A **terminal emulator** is a piece of software that emulates a text terminal. In the past, before the widespread use of local area networking and broadband internet access, many computers would use a serial access program to communicate with other computers via **telephone line** or serial device.

When the first Macintosh was released, a program called MacTerminal was used to communicate with many computers, including the IBM PC.

Dec Terminal was one of the first terminal programs for the popular Altair.

The Win32 console on Windows does not emulate a physical terminal that supports escape sequences^[5] so SSH and Telnet programs (for logging in textually to remote computers) for Windows, including the Telnet program bundled with some versions of Windows, often incorporate their own code to process escape sequences. The terminal emulators on most Unix-like systems, such as, for example, xterm and Terminal, do emulate physical terminals including support for escape sequences; e.g. xterm can emulate the VT220 and Tektronix 4010 hardware terminals.

Modes

Terminals can operate in various modes, relating to when they send input typed by the user on the keyboard to the receiving system (whatever that may be):

- Character mode (a.k.a. character-at-a-time mode): In this mode, typed input is sent immediately to the receiving system.^[6]
- Line mode (a.k.a. line-at-a-time mode): In this mode, the terminal provides a local line editing function, and sends an entire input line, after it has been locally edited, when the user presses a return key. [6] A so-called "line mode terminal" operates solely in this mode. [7]
- Block mode (a.k.a. screen-at-a-time mode): In this mode, the terminal provides a local full-screen data function. The user can enter input into multiple fields in a form on the screen (defined to the terminal by the receiving system), moving the cursor around the screen using keys such as Tab ☐ and the arrow keys and performing editing functions locally using insert, delete, ← Backspace and so forth. The terminal sends only the completed form, consisting of all the data entered on the screen, to the receiving system when the user presses an ☐ Enter key. [8][9][6]

There is a distinction between the return and the Enter keys. In some multiple-mode terminals, that can switch between modes, pressing the Enter key when not in block mode does not do the same thing as pressing the return key. Whilst the return key will cause an input line to be sent to the host in line-at-a-time mode, the Enter key will rather cause the terminal to transmit the contents of the character row where the cursor is currently positioned to the host, host-issued prompts and all. [8]

Different computer operating systems require different degrees of mode support when terminals are used as computer terminals. The POSIX terminal interface, as provided by Unix and POSIX-compliant operating systems, does not accommodate block-mode terminals at all, and only rarely requires the terminal *itself* to be in line-at-a-time mode, since the operating system is required to provide canonical input mode, where the terminal device driver in the operating system *emulates* local echo in the terminal, and performs line editing functions at the host end. Most usually, and especially so that the host system can support non-canonical input mode, terminals for POSIX-compliant systems are always in character-at-a-time mode. In contrast, IBM 3270 terminals connected to MVS systems are always required to be in block mode. [10] [11][12][13]

See also

- Terminal server
- IBM 3270
- IBM 5250
- HP 2640
- Tektronix 4014
- Virtual console (PC)
- System console
- Remote Job Entry

- IBM 2780
- IBM 3780
- TV Typewriter
- Blit (computer terminal)
- · Green screen display
- Minitel
- Thin client
- X terminal

- Communication endpoint
- Data terminal equipment
- End system
- · Host (network)
- Node (networking)
- POSIX terminal interface
- Terminal capabilities

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- 7. ^ Bangia 2010, p. 324.
- 8. A a b Diercks 2002, p. 2.
- 9. ^ Gofton 1991, p. 73.
- 10. ^ Raymond 2004, p. 72.
- 11. A Burgess 1988, p. 127.
- 12. ^ Topham 1990, p. 77.
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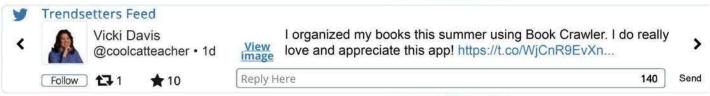
The Terminals Wiki, an encyclopedia of computer terminals.

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Definition of 'computer'

Learner: computerImageVideoAmerican: computerEnglish: computerExample sentencesTrendsTranslations Word Frequency

computer

(kəmpyutər)

Word forms: computers

1. countable noun [also by/on N]

A computer is an electronic machine that can store and deal with large amounts of information.

The data are then fed into a computer.

The company installed a \$650,000 computer system.

2. See also personal computer

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Image of 'computer'



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Video: pronunciation of 'computer'



Word Frequency

computer in American

(kəm'pjutər; kəmpyoot'ər)

noun

1.

a person who computes

2.

a device used for computing; specif., an electronic machine which, by means of stored instructions and information, performs <u>rapid</u>, often <u>complex calculations</u> or <u>compiles</u>, <u>correlates</u>, and <u>selects</u> data; <u>now</u>, esp., digital computer

see also analog computer

Webster's New World College Dictionary, 4th Edition. Copyright © 2010 by Houghton Mifflin Harcourt. All rights reserved.

Word Frequency

computer in British

(kəm'pju:tə)

noun

1.

a.

a device, usually <u>electronic</u>, that processes <u>data according</u> to a set of <u>instructions</u>. The <u>digital</u> computer <u>stores</u> data in <u>discrete</u> units and performs <u>arithmetical</u> and <u>logical operations</u> at very high <u>speed</u>. The <u>analog</u> computer has no <u>memory</u> and is <u>slower</u> than the digital computer but has a <u>continuous</u> rather than a discrete <u>input</u>. The <u>hybrid</u> computer <u>combines</u> some of the <u>advantages</u> of digital and analog computers

See also <u>digital computer</u>, <u>analog computer</u>, <u>hybrid computer</u>

b.

(as modifier)

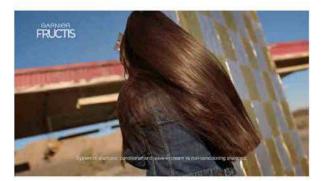
computer technology

▶ Related prefix: cyber-

2.

a person who computes or calculates

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Example sentences containing 'computer'

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Analog vs. Digital Phone

You can get phone service for your home or business with either analog phone or digital phone. The two services use different technologies and methods to carry and deliver voice signals.

So how do these services work and what's the difference between analog and digital phone?

Analog phone service uses a subscriber loop

Analog phone is also known as Plain Old Telephone Service (POTS). Each subscriber has a phone number assigned to them, which others can use to make calls to that subscriber. Users are connected through a subscriber loop made of copper wiring. This loop connects a home or business to a central switch office.

When a call is made, the voice signals are converted by the analog phone system into electronic signals. Then, these signals are carried over the telephone line to the final destination – another subscriber's home or business.

There are two main advantages to a traditional landline. First, even if there is a power outage, you will still have phone service. Second, in case of an emergency, 911 can determine your location when you call.

Digital phone service provides a higher quality sound

Digital phone service uses cable or a digital phone network to make phone calls. The voice signals are compressed and unnecessary frequency bands are taken out as the audio travels. This creates a better sound quality, compared to analog phone service.

Oftentimes, digital phone service comes with advanced features, such as call forwarding, voicemail and conference, or 3-way, calling. Like analog phone, digital phone service is bidirectional – voice signals can travel both to and from a phone.

Learn more about the difference between analog and digital phone service

Both analog phone service and digital phone service allows for communication between two homes or businesses. Call to learn more about the phone service you can get for your home.

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Digital vs. VOIP Phone Systems

Posted on Fri, Mar 14, 2014 @ 10:00 AM by Carlos Lahrssen



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Many years ago, phones were analog systems. They consisted of voice circuits made of copper wire, and transmitted voices as electrical signals. In recent decades, analog phones were replaced with digital phones, which are still traditional phone systems that make calls through phone lines.

Voice over internet protocol, or <u>VoIP</u> lines, send voice data through a data connection (the internet) rather than over phone lines. Older VoIP systems used on-premises hardware for managing calls, but in recent years, software-based VoIP solutions have become much more popular.

Software-controlled VoIP systems are managed in the cloud, offer advanced <u>features</u>, and **can integrate** with other business systems like CRM and social networking. Here's what you should know about digital vs. VoIP phone systems:

Wiring - With a VoIP phone system, **you only use half the wiring required for a digital phone system.** Digital phones require both a voice and a data cable, whereas with VoIP systems, you plug the phone into an Ethernet wall plate, and then plug a computer into the back of the phone, so there's only one cable to the desk with VoIP systems.

Cost - VoIP call costs are generally lower than costs with digital phones. Moreover, the hardware required for a VoIP system is generally less expensive too. International calls on digital systems cost around 90% more than on VoIP systems. If your business makes a lot of international calls, VoIP will save you money on these calls.

Power - Digital phones use very little power, and that is drawn from the phone line itself. In contrast, VoIP phones have to be connected to an AC source, or they have to have a converter called a Power Over Ethernet (POE) injector, which allows the phones to draw power and data through the same network cable.

Bandwidth - With a VoIP system, bandwidth is shared amongst computers and phones in the office. If bandwidth is inadequate, phones or computers may perform more slowly. VoIP phone systems can be fitted with backup internet connections, so that if your office's internet goes out, the phone system won't go out with it. Digital phones are unaffected by bandwidth, so with a digital phone system, you won't have to worry about the possible need to upgrade your broadband connection.

Mobility - VoIP phones are more portable than digital phones. With a VoIP phone system moving a phone is simply a matter of physically moving a phone to another connection the phone number follows automatically. This makes office moves much simpler. With digital phones, transferring phones requires getting a technician to transfer the numbers to the new

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However, with VoIP phones, the system can be accessed remotely by anyone with administrator access privileges. With hosted VoIP systems, software upgrades happen automatically, so on-site maintenance is practically nonexistent. Furthermore, with VoIP systems, adding new lines can be done easily and quickly, without having to have more wiring installed.

Final Verdict: Digital vs. VoIP Phone Systems

If you need a couple of simple phone lines and don't require many features, or if you want to keep voice data separate from the rest of your organization's data, then a digital phone system may be right for you.



However, if you want a range of enterprise-level phone

features for your small business, and if you want a phone system that is flexible, scalable, and easy to move, then VoIP is the way to go.

VoIP systems are also superior if you have remote workers, telecommuters, or traveling employees. With hosted VoIP systems, all the hardware except the phone handsets is located with your hosted VoIP provider, so up-front investment is low, and getting started is a matter of minutes or hours rather than days or weeks with traditional phone systems.

At <u>nexogy</u>, we provide hosted VoIP phone systems that are customized to client needs. With hosted VoIP, even very small businesses have a wide range of enterprise-level features, and accommodating remote workers is a snap. VoIP phone systems like those provided by Nexogy let businesses get more features for less money, and allow small start-ups to compete more effectively and run more efficiently.

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Highest impact nonprofit Alzheimer's research organization—in the world.

-Thomson Reuters InCites

digital phone

Also found in: Dictionary, Financial.

Related to digital phone: Cordless phone, Internet phone, VoIP phone

digital phone A desktop or cellular phone that uses a digital transmission technology. Inhouse PBX-based and key systems use digital phones that convert sound into digital at the handset. Digital cellphones come in several varieties. See digital cellphone and smartphone.

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Lowell Heddings is the founder and Editor-in-Chief of How-To Geek. He spends all his free time making sure this site can bring you fresh geekery on a daily basis, and has been doing so for over eleven years.

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Walter Glenn is the Managing Editor of How-To Geek, as well as a long time computer geek and tech writer. Though he's mostly a Windows and gadget guy, he has a fondness for anything tech.

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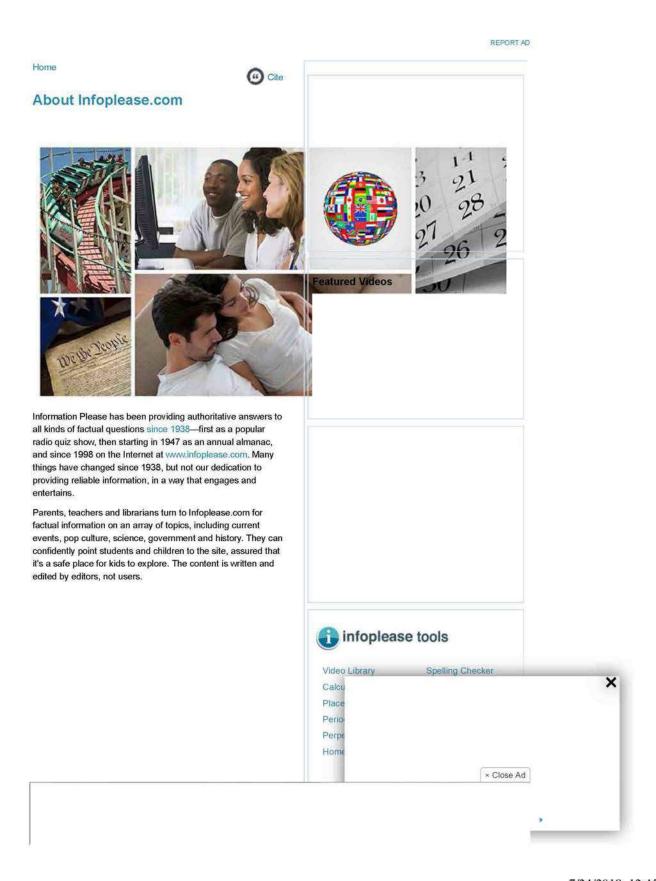


Jason Fitzpatrick is a warranty-voiding DIYer who spends his days cracking opening cases and wrestling with code so you don't have to. If it can be modded, optimized, repurposed, or torn apart for fun

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What Is a Modem in Computer Networking?

Dial-up modems gave way to high-speed broadband modems

by Bradley Mitchell Updated July 02, 2018

A modem is a hardware device that allows a computer to send and receive data over a telephone line or a cable or satellite connection. In the case of transmission over an analog telephone line, which was once the most popular way to access the internet, the modem converts data between analog and digital formats in real time for two-way network communication. In the case of the high-speed digital modems popular today, the signal is much simpler and doesn't require the analog-to-digital conversion.

History of Modems

The first devices called modems converted digital data for transmission over analog telephone lines. The speed of these modems was historically measured in baud (a unit of measurement named after Emile Baudot), although as computer technology developed, these measures were converted into bits per second. The first commercial modems supported a speed of 110 bps and were used by the U.S. Department of Defense, news services, and some large businesses.

Modems gradually became familiar to consumers in the late '70s through the '80s as public message boards and news services like CompuServe were built on early internet infrastructure. Then, with the explosion of the World Wide Web in the mid and late 1990s, dial-up modems emerged as the primary form of internet access in many households around the world.

Dial-Up Modems

Traditional modems used on <u>dial-up networks</u> convert data between the analog form used on telephone lines and the digital form used on computers. An external dial-up modem plugs into a computer at one end and a telephone line on the other end. In the past, some computer makers integrated internal dial-up modems into their computer designs.

Modern dial-up network moderns transmit data at a maximum rate of 56,000 bits per second. However, inherent limitations of public telephone networks often limit modern data rates to 33.6 Kbps or lower in practice.

When connecting to a network via a dial-up modem, the devices customarily relay through a speaker the distinctive sounds created by sending digital data over the voice line. Because the connection process and data patterns are similar each time, hearing the sound pattern helps a user verify whether the

connection process is working.

Broadband Modems

A <u>broadband modern</u> like those used for DSL or cable internet access uses advanced signaling techniques to achieve dramatically higher network speeds than traditional dial-up modems. <u>Broadband modems</u> are often referred to as high-speed modems. <u>Cellular modems</u> are a type of digital modem that establishes internet connectivity between a mobile device and a cell phone network.

External broadband modems plug into a home <u>broadband router</u> or other home <u>gateway</u> device on one end and the external internet interface such as a cable line on the other. The router or gateway directs the signal to all the devices in the business or home as needed. Some broadband routers include an integrated modem as a single hardware unit.

Many broadband internet providers supply suitable modem hardware to their customers at no charge or for a monthly fee. However, standard modems can be purchased through retail outlets.

What's the Difference Between a Modem and a Router?

by Chris Hoffman on April 25th, 2017



If you've been on the Internet for a while, you've no doubt heard the terms "modem" and "router" thrown around, but might not have taken the time to understand what they are. We're here to help.



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In short, your router creates a network between the computers in your

home, while your modem connects that network—and thus the computers on it—to the internet. When you connect to Wi-Fi, you're really connecting to your router, which forwards traffic between the internet and your computer. Many internet providers offer a combined modem/router unit that performs both these functions in one device.

So why bother to understand the difference? Because that understanding can lead to better decisions, like <u>buying your own</u> modem so you can stop paying \$8-\$15 a month to rent one from your <u>ISP</u>.

What a Router Does

RELATED: What's the Difference Between Private and Public Networks in Windows?

A router connects multiple networks and routes network traffic between them. It's really that simple. In the case of your home network, your router has one connection to the Internet and one connection to your <u>private local network</u>. In addition, most routers also contain built-in switches that let you connect multiple wired devices. Many also contain wireless radios that let you connect Wi-Fi devices.

The simple way to think about routers—especially on your home network—is like this. The router sits in between your Internet connection and your local network. It lets you connect multiple devices to the Internet through one physical Internet connection and also lets those devices communicate with one another over the local network. In addition, the router offers some protection to your devices over being exposed directly to the Internet. To the Internet, all the traffic coming from your house looks like it's coming from a single device. The router keeps track of what traffic goes to which actual device on your network.



But you can't connect directly to the Internet with just a router. Instead, your router must be plugged into a device that can transmit your digital traffic over whatever type of Internet connection you have. And that device is a modem.

What a Modem Does

Your modem serves as a bridge between your local network and the Internet. Historically, the term "modem" is shorthand for modulator-demodulator. Modems were used to modulate the signals on telephone lines so that digital information could be encoded and transmitted over them and then demodulated—and decoded—on the other end. Though more modern broadband connections—like cable and satellite—don't really work the same way, we kept using the term "modem" because it's a device people were already familiar with and associated with connecting to the Internet.



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Learn more

How a modem attaches to your network depends on the type of connection you have. The modem plugs into whatever type of infrastructure you have—cable, telephone, satellite, or fiber—and gives you a standard Ethernet cable output that you can plug into any router (or a single computer) and get an Internet connection.



Since the modem communicates with your Internet service provider, you'll need the correct type of modem that will work with your ISP's infrastructure.

Combined Routers and Modems

Some ISPs offer a modem and router in a single device. That device has the electronics and software in it to provide both functions, acting as a modem that communicates with your ISP and functioning as a router to create a home network. Some ISPs also bundle a phone interface into the same box so you can use their VOIP offerings.

While a combined unit has its attractions—just having one device cluttering up your office being one—there are also disadvantages. Using separate devices offers more flexibility in what you can do with your network and lets you make sure you're using the best quality devices you can. And using your own devices instead of the ones your ISP provides can save you some money.

Buy Your Own Modem

RELATED: Buy Your Cable Modem Instead of Renting It to Save \$120
Per Year

Buying your own modem is an easy way to save money on your

Internet bill. Check your monthly bill and you'll probably see an "Equipment rental" or "Modem rental" fee that's costing you somewhere between \$8 and \$15 per month. Rather than renting your modem from your Internet service provider, you can buy your own and hook it up. You can then return the original modem to your ISP and remove that fee from your monthly bill. Yes, it will cost you some money up front. But that typically adds up to somewhere between 6 and 10 months of monthly device rental fees. Keep the devices longer than that and you're saving money every month.

RELATED: <u>Upgrade Your Wireless Router to Get Faster Speeds and</u> More Reliable Wi-Fi

Of course, if you have a combined modem/router unit, you'll also need to buy a home router. That's not necessarily bad news, though. The router your ISP provides may not have the latest technologies like 802.11ac and 5 GHz Wi-Fi, so you may be better off buying your own router anyway.

Check to see if you're actually renting your modem and how much you're spending every month, and then find the best modem for your ISP. The Motorola SURFboard SB6141 is a good bet for most people at around \$70. If you're spending \$10 a month on a modem rental, you'll break even and start saving money after just seven months. That's hundreds of dollars saved over the life of your modem.

You can use any wireless router you want, but the modem you purchase has to be approved by your ISP to function with their network. In a sense, you can think of your router as a device that's part of your home network and the modem as a device that's part of your ISP's network.

Image Credit: Clive Darra on Flickr, Paul Boxley on Flickr, Sean MacEntee on Flickr



DID YOU KNOW

A contranym is a word that is its own antonym: for example, to dust can mean to lay down particles (as in dusting for finger prints) and to remove particles (as in to dust a shelf of collectibles).

modem 🐠

[**moh**-d*uh* m, -dem] *Computers.*

Examples Word Origin

See more synonyms on Thesaurus.com

noun

 an electronic device that makes possible the transmission of data to or from a computer via telephone or other communication lines.

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- 1. troll 'to harass, criticize, or antagonize especially by disparaging or mocking public statements'
- 2. exculpatory 'tending or serving to exculpate'
- 3. ideologue 'an often blindly partisan advocate or adherent of a particular ideology'
- 4. socialism 'a way of organizing a society in which major industries are owned and controlled by the government'
- 5. uphold 'to let stand'

SEE ALL

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Definition of modem

plural modems

: a device that converts signals produced by one type of device (such as a computer) to a form compatible with another (such as a telephone) and that is used especially to transmit and receive information between computers via <u>landlines</u>

See modem defined for English-language learners

See modem defined for kids



What Is a Netbook?

How Low Cost Windows Laptops Are Reviving an Older Computing Concept

by Mark Kyrnin

Updated March 05, 2018

Netbooks were originally developed back in 2007 as a new class of personal computer system. The original models were designed to offer basic computing experience in a compact laptop design with a price tag of roughly \$200 to \$300, which was incredibly inexpensive at the time.

Over the years, the features and price of netbooks continued to climb while classic laptop prices continued to fall. Ultimately, netbooks faded out when tablets became popular.

Most recently, however, the idea of extremely affordable and compact laptops has risen again with a number of companies essentially releasing systems that share many of the same traits as netbooks, but without that specific name.

Speed Is Not Everything

Most netbook class laptops are not what you would consider fast. They are not designed for speed but more for power efficiency. They tend to use a different class of <u>processor</u> from traditional laptops that are closer to what's used in a tablet.

This is because they only need enough processor performance to handle basic computing tasks like web browsing, email, word processing, spreadsheets, and basic photo editing.

Unless you need support for gaming and streaming, or intense photo and video editing, you do not need much computing power.

Where Is the CD/DVD Player?

When netbooks originally came out, a CD or DVD drive was still very much a requirement for most computers since that was the common way to install software. Now, however, it's becoming increasingly difficult to find a laptop that actually features one.

This is because <u>optical drives are not a requirement</u> for computers thanks to digital software distribution. Most software programs are available online, even commercial programs that aren't freely available.

Therefore, in this respect, there really isn't much of a distinction between a netbook and a traditional laptop.

Netbook Hard Drive

Solid state drives (SSDs) are becoming much more common with mobile computers. Their compact size, low power consumption, and durability make them ideal for mobile devices.

In fact, netbooks were originally some of the first personal computers to use them with any regularity. They still have the disadvantage of not offering as much storage space as traditional hard drives, though, and as a result, most netbook class laptops usually have storage capacities of roughly 32 to 64 GB.

In addition to this, they use less expensive drives that offer lower performance than standard <u>SATA</u> based drives found in many laptops.

Netbook Display and Size

LCD displays are probably the biggest cost to manufacturers of laptop PCs. In order to reduce the overall costs of these systems, manufacturers developed them using smaller screens.

The first netbooks used relatively small 7-inch screens. Since then, monitors have been getting progressively larger. Most newer laptops that would be considered netbooks feature screens with a ten to twelve-inch size. It should be noted that they often are not touchscreens and have lower resolutions to, once again, keep the costs down.

The first netbooks were incredibly light at just over two pounds, while a traditional laptop was weighing in around five pounds. Now, most laptops have become smaller, weighing between three and four pounds, and competing tablets often at less than a pound.

They don't have the ultra-compact size that they once did, but they're still very portable for many people.

Netbook Software

The typical netbook-style laptop is often sold as an extremely portable system that runs Windows, but there are restrictions that users should be aware of.

For example, they often ship with a <u>32-bit</u> version of Windows rather than <u>64-bit</u> that most systems do. This is because the netbook class laptops feature just 2 GB of <u>memory</u> and the smaller 32-bit software <u>executables</u> take up less space and memory.

The downside is that there are sometimes cases where the traditional Windows software that you wish to run on these computers, will not. More than anything else, this is often due to the hardware limitations like the memory or the speed of the processor.

If you're thinking of getting a netbook computer, look very carefully at the hardware requirements of any software you intend to run on it. Items like mail, web browsers, and productivity software, for the most part, won't be too restricted. Instead, however, it's more the media focused applications that involve graphics and video that you'll find the netbook is woefully underpowered to run.

If you find that your favorite applications will not work on a netbook, you might consider a traditional laptop or a gaming laptop.

Netbook Prices

Netbooks were always about cost, but this was their original downfall. While the original systems were priced around \$200 with laptops over \$500, the gradual price increases on netbooks and the decreasing costs of traditional laptops meant that the systems were doomed.

Now, it's relatively easy to find a traditional <u>laptop for under \$500</u>. As a result, the newer crop of <u>netbook</u> <u>laptops on the market</u> are all roughly \$200, many not even getting any more expensive than \$250.

Tablets are the primary reason that netbooks had to get back to keeping prices as low as possible.

More Information on Netbooks

The newer class of super affordable Windows laptops is a difficult one. They are certainly affordable at just \$200, but their features limit the usefulness (for most people).

It's much harder to justify a <u>netbook over a tablet</u> when you can essentially get nearly identical internal components from a netbook inside a Windows-based tablet. The main difference is seen when you decide whether or not you prefer a touchscreen or a keyboard for input.

Also, the wider range of software makes it harder to distinguish a traditional Windows system from a tablet. More than anything else, it essentially comes down to how you intend to use the devices.

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Lenovo vs HP

Netbook vs Tablets

Tablet vs 2-in-1

Used Laptops FAQs

What is a 2 in 1 laptop?

What Is a Chromebook Laptop

What is a Convertible Laptop Tablet

What is a hybrid

What is a motion control or gesture control laptop?

What is a Netbook

What is a Tablet PC

What is a TrackPad

What is An Ultrabook



What is a netbook?

The term "netbook" is a perfect description of the product: a small laptop PC intended mostly for using internet-based tools and services -- surfing the web, running lightweight apps, saving files to the cloud, and so on. Built with less costly components and fewer

optional features, netbooks were designed to be affordable systems for casual personal or family use, limited-duration business work, or as an easily portable travel companion.

Netbooks were very popular from 2007-2014 or so, but their position in the PC marketplace has eroded, with tablets becoming the preferred choice for consumers seeking ultraportable systems for casual use. Plus, the distinctiveness of the netbook as a "smaller laptop" category has decreased as ever-smaller but still full-featured laptops hit the market. Today, the difference between netbooks and regular laptops is less their size than their price, with highly usable netbooks available for \$200 or less.

The netbook market is now dominated by smaller manufacturers. Many larger PC manufacturers don't even market systems as "netbooks" anymore, instead offering their netbook-style models simply as lower priced, less powerful options within existing laptop product lines.

What defines a netbook?

The netbook has always been better defined as a concept than by a series of specific size and weight specifications. That's because companies used the term netbook to describe a wide range of smaller-than-a-laptop systems, from models with 6"-7" displays (not much bigger than a large smartphone) to ones with very laptop-like 11"-13" displays.

So, in the simplest terms, a netbook is a laptop (meaning it's got a hard frame and attached lid/display) that is intentionally designed to be smaller and cheaper than other systems in that class. To find this low-cost "sweet spot" in the marketplace, netbooks have some major differences compared to laptops:

- Processor: Netbook processors need to operate within even smaller spaces than laptop processors, so netbooks typically use low-voltage, low-power CPUs similar to those used in tablet PCs. This limits their cycle times to the range of 1 GHz to 2 GHz and makes advanced spreadsheet or photo editing programs slower than on other systems.
- Storage: To achieve their light weight (typically about 2 lbs.), netbooks contain much smaller hard drives and, therefore, less storage space.
 Capacities vary widely, from smartphone-like 32-64 GB models to ones with









RHDET

- + Tablets
 FAQs

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- + Windows FAQs
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- 150 GB or more. Systems with solid-state drives offer higher capacities but the cost of the drives pushes them to the upper half of the netbook price range.
- Features: Like tablets, netbooks are built to use the internet for accessing
 and using remote services, saving data to the cloud, and so on. So, you won't
 find a DVD drive on most netbooks. There are still multiple ports to attach
 USB devices, external monitors, etc., but the number and type of ports
 typically goes down along with the price of the system.

As with most consumer products, if you're willing to pay more, you can find netbooks with comparatively faster processors, more storage capacity and additional features such as touch screens, handles, Bluetooth connectivity, and so on. So, when shopping, read the specifications carefully. Today's market includes an amazingly wide range of netbook-style capabilities, styles and prices.

Pros and cons of netbooks

The typical netbook buyer wants a highly portable, "smaller-than-a-laptop" system but doesn't need the speediest processor, high-capacity hard drive or other features of a bigger, heavier laptop. In short, as shown in the following table, a netbook is a compromise.

Advantages of a netbook:

- Less costly than most laptops or tablets
- Convenient to hold, carry and pack
- o Extremely light weight
- Physical keyboard for email and business apps
- o Long battery life (generally)

Disadvantages of a netbook:

- Slower processors and less RAM (generally)
- Small screen size
- o Limited internal storage
- Keyboard may be smaller than typical ones
- Few peripheral options (DVD drives, etc.)

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Related FAQs

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netbook

[net-book]

Examples Word Origin

See more synonyms on Thesaurus.com

noun Computers.

 a small, lightweight laptop computer used especially for Internet access and email.

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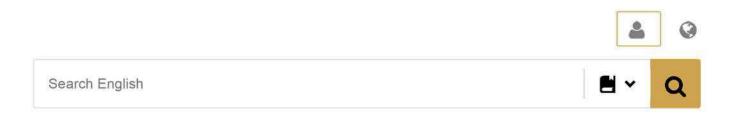
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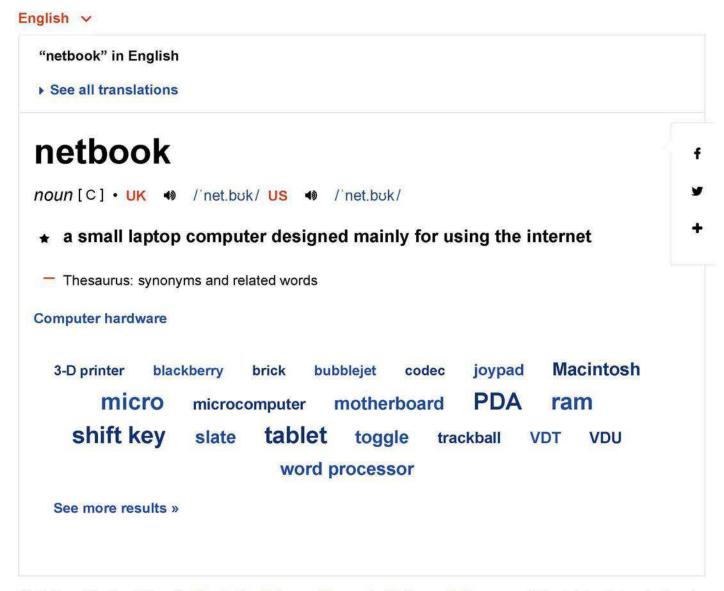
This kid redefined classic words and we are here for it.



Avoid these words. Seriously



Definition of "netbook" - English Dictionary



(Definition of "netbook" from the Cambridge Advanced Learner's Dictionary & Thesaurus © Cambridge University Press)

Examples V

Definition of 'phone'

Learner: phoneAmerican: phone1American: phone2English: phone1English: phone2Example sentencesTrends
Word Frequency

phone

(foun)

Word forms: phones, phoning, phoned

1. singular noun [usu the N, also by N]

The phone is an electrical system that you use to talk to someone else in another place, by dialing a number on a piece of equipment and speaking into it.

"I didn't tell you over the phone," she said. "I didn't know who might be listening."

She looked forward to talking to her daughter by phone.

2. countable noun

The phone is the piece of equipment that you use when you dial someone's phone number and talk to them. Two minutes later the phone rang.

- 3. See also cellular phone
- 4. singular noun

If you say that someone picks up or puts down the phone, you mean that they lift or replace the receiver. She picked up the phone, and began to dial Maurice's number.

5. transitive verb/intransitive verb

When you phone someone, you dial their phone number and speak to them by phone.

He'd phoned Laura to see if she was better.

6.

on the phone

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Phrasal verbs:

phone in

phone up

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Word Frequency

phone in American 1

(foun; fon)

US

noun, verb transitive, verb intransitiveWord forms: phoned or 'phoning

telephone

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Word Frequency

phone in American 2

(foun; fon)

noun

Phonetics

any single speech sound <u>considered</u> as a <u>physical event</u> without <u>reference</u> to its place in the <u>structure</u> of a language

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Word origin of 'phone'
Gr phone, a sound: see phonoWord Frequency

phone in British 1

(fəon)
noun, verb
short for telephone
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Word Frequency

phone in British 2

(fəun)

noun

phonetics

a single uncomplicated speech sound

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Definition of: tablet computer

tablet computer

A general-purpose computer contained in a touchscreen panel. Although earlier tablet computers required a stylus, modern tablets are operated by fingers, and a stylus is an option.

iPad, Android and BlackBerry

In 2010, Apple's iPad created a tablet revolution as dramatic as it did with the iPhone. However, Android tablets have given the iPad a run for its money with numerous models from many vendors. BlackBerry introduced a tablet for its customers, which was later discontinued (see <u>BlackBerry PlayBook</u>). See <u>iPad</u> and <u>Android</u>.

Windows Tablets

In 2000, Microsoft introduced a tablet version of Windows (see <u>Tablet PC</u>). However, Windows tablets were not widely used until Windows 8 changed the game in 2012. Any program that runs on a Windows PC can run on a Windows 8 or Windows 10 tablet. See Windows tablet.

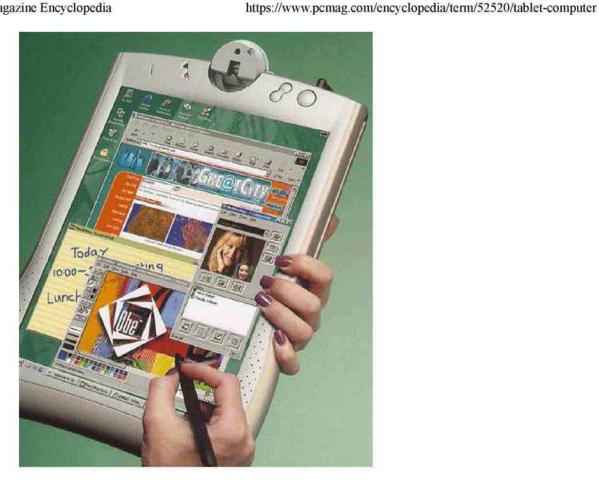
Thousands of Applications

Just like smartphones, tablets come with a Web browser and a variety of installed apps; however, a huge number of free and paid apps are available from the vendor's online store (see <u>online app store</u>). See <u>mobile compatibility</u>.



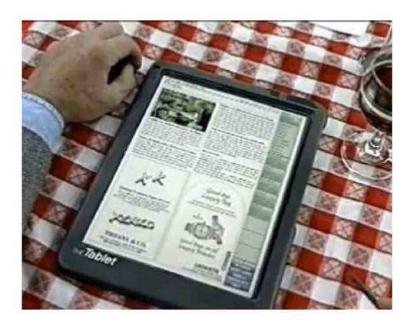
Full Size and Mini

Left to right are the Lenovo IdeaTab (Windows 8), Apple iPad (iOS) and Acer Iconia (Android). The small tablet is the Amazon Kindle Fire (Android). See <a href="https://pubmediatele.com/phases-phase



State-Of-The-Art in 1999

Although seriously bulky by today's standards, the Qbe ("Cube") Windows tablet included voice recognition, camera, analog modem, Ethernet and a keyboard for desktop use. (Image courtesy of Aqcess Technologies Inc.)



The Tablet Newspaper Prototype

In 1994, Knight-Ridder's Roger Fidler predicted newspapers would be viewed on tablets in the future. Watch the video: www.youtube.com/watch?v=7_QyktOw0JM.

SearchMobileComputing.com

tablet (tablet PC)

By Margaret Rouse

A tablet is a wireless, portable personal computer with a <u>touchscreen</u> interface. The tablet <u>form factor</u> is typically smaller than a notebook computer, but larger than a <u>smartphone</u>.

The idea of tablet computing is generally credited to Alan Kay of Xerox, who sketched out the idea in 1971. The first widely sold tablet computer was Apple Computer's Newton, which was not a commercial success. Technological advances in <u>battery</u> life, <u>display resolution</u>, handwriting recognition software, <u>memory</u> and <u>wireless</u> internet access have since made tablets a viable computing option.

Today, the most common type of tablet is the slate style, like Apple's <u>iPad</u>, Microsoft's <u>Surface</u> or Amazon's <u>Kindle Fire</u>. External keyboards are available for most slate-style tablets, and some keyboards also function as <u>docking stations</u> for the devices.

Other styles of tablets include:

- Convertible tablets. These typically have a display that rotates 180 degrees and can be folded to close, screen up, over an integrated hardware keyboard. Convertible models may allow user input through a variety of methods in addition to the hardware keyboard, including natural handwriting with a stylus or digital pen and typing through a screen-based software keyboard.
- Hybrid tablets. Sometimes referred to as convertible or hybrid notebooks, a hybrid is like a regular notebook, but has a removable display that functions independently as a slate.
- Rugged tablets. A slate-like model that is designed to withstand rough handling and extreme conditions. Rugged tablets are usually encased in a thick protective shell and have shock-protected hard drives.

Tablet PC operating systems and features

Consumers and businesses have a range of tablet devices and operating systems from which to choose. Collectively, tablets have made numerous technological advances and gained increasing popularity in enterprise BYOD environments.

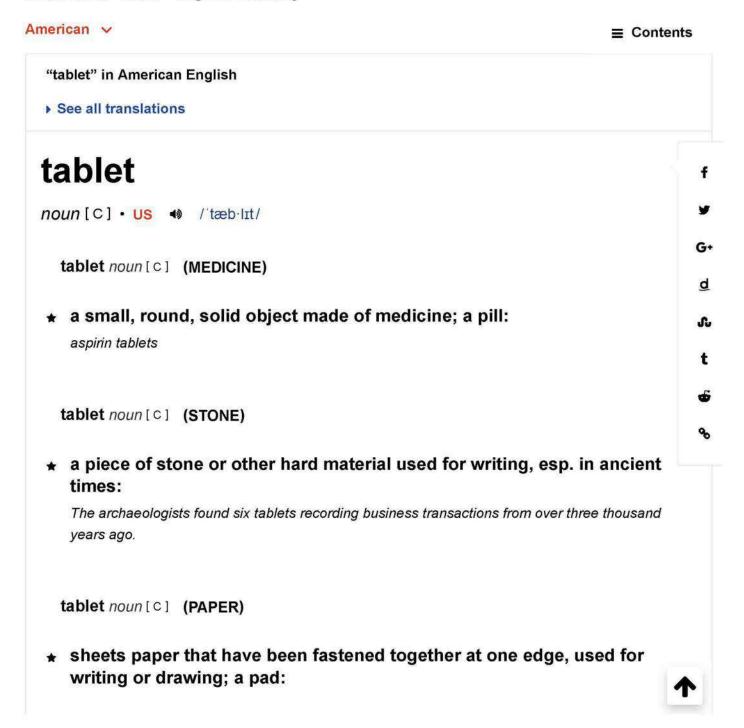
Microsoft's Surface and Surface Pro tablet PCs are configured for a 64-bit Windows operating system. The Surface Pro 4 has a 12.3-inch screen and includes a stylus for drawing and writing on the touchscreen. Google's Android is the best-selling tablet OS; the 6.0 Marshmallow version is featured on such devices as the Lenovo Pro 12 tablet, and 5.1 Lollipop is included in the Samsung's Galaxy Tab E tablet PC.

Apple is largely responsible for igniting tablets' current popularity, having released its first-generation iPad in April 2010. Since then, Apple has developed a family of associated devices, including the iPad Air, iPad Pro and iPad Mini. The iPad Pro is available in two touchscreen sizes: 9.7 inches and 12.9 inches. As for capacity, the iPad Mini ranges from 16 GB to 128 GB, while the iPad Pro is available with 32 GB to 128 GB of storage. Apple also released the Apple Pencil stylus for the iPad Pro.

08 Aug 2016

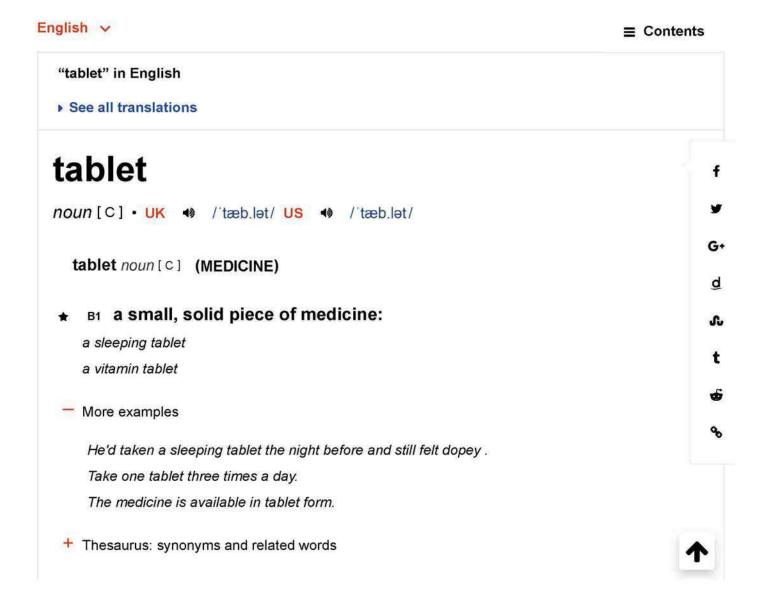
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Definition of "tablet" - English Dictionary



His pen swept across his drawing tablet.

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tablet noun[C] (BLOCK)

★ a thin, flat, often square piece of hard material such as wood, stone, or metal:

The poem was engraved on a tablet of stone.

UK a tablet of soap

Thesaurus: synonyms and related words

tablet noun[C] (COMPUTER)

- ★ ALSO tablet computer a small, flat computer that is controlled by touching the screen or by using a special pen
- + Thesaurus: synonyms and related words

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Examples v

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- Progressive Web App (/definition /33322/progressive-web-app-pwa)
- Omnidirectional Treadmill (/definition/33413/omnidirectionaltreadmill-odt)
- Data Bleed (/definition/33423 /data-bleed)
- Autoencoder (/definition/33284 /autoencoder-ae)
- Cryptocurrency Exchange (/definition/33372/cryptocurrencyexchange)
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- Denoising Autoencoder (/definition/33286/denoisingautoencoder-dae)

2

terminal

noun

Definition of terminal

1 a: either end of a carrier line having facilities for the handling of freight and passengers

b: a freight or passenger station that is central to a considerable area or serves as a junction at any point with other lines

c: a town or city at the end of a carrier line: terminus

2: a combination of a keyboard and output device (such as a video display unit) by which data can be entered into or output from a computer or electronic communications system

3: a device attached to the end of a wire or cable or to an electrical apparatus for convenience in making connections

4: a part that forms the end: extremity, termination

5: a terminating usually ornamental detail: finial

See terminal defined for English-language learners

Examples of terminal in a Sentence

- 1. I will meet you outside the bus terminal.
- 2. Flight 1584 is now departing from Gate 6 in Terminal A.
- 3. You are not allowed in the terminal without a ticket.
- 4. Ten terminals are connected to this server.
- 5. You will need to clean the corrosion off the battery *terminals*.

Recent Examples of terminal from the Web

- Others park their two-wheelers at a valet bike station next door to the t
 — rachel swan, SFChronicle.com, "Bicyclists protest as city plans for 2018
- Like Lot C, all provide shuttle service to the *terminals*.
 - chris erskine, latimes.com, "All the LAX parking lots are full and y what to do," 29 June 2018
- The pipeline currently runs from Alberta, Canada, across North Dakota terminal in Superior, Wisconsin.
 - Washington Post, "Minnesota approves Enbridge Energy Line 3 pip
- Spirit Airlines passengers arriving to Orlando got an unexpected hold-Monday when their flight had to yield to an alligator crossing a taxiwa

 ben mutzabaugh, USA TODAY, "Video: Spirit flight holds for alligation
 Orlando," 12 June 2018





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\$7.97 List price \$9.96 Save \$1.99

Mini ELM327 OBD2 II Bluetooth Car Diagnostic Tool Portable Auto Scanner

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Sold & Shipped by Hai Jing Yuan Technology (Hong Kong) Co.,Limited



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Sold & Shipped by Windy Winter Inc



\$11.99

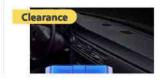
Mini ELM327 OBD2 II Bluetooth Diagnostic Car Auto Interface Scanner Tool

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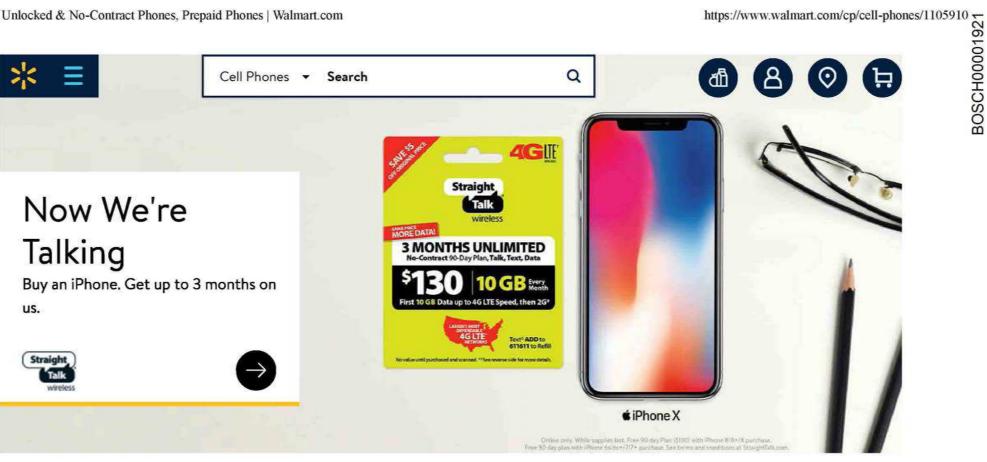


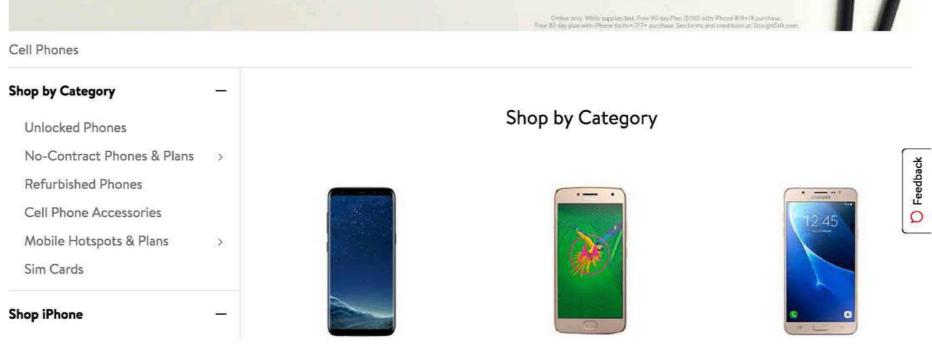




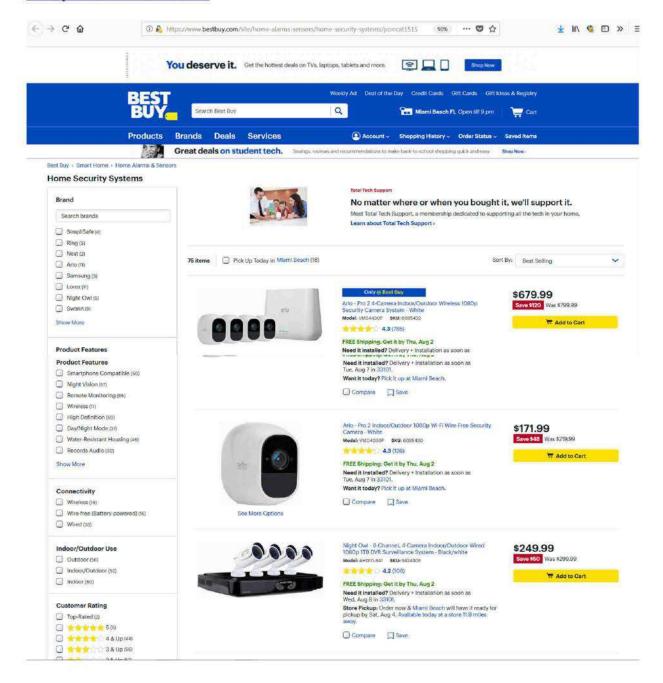


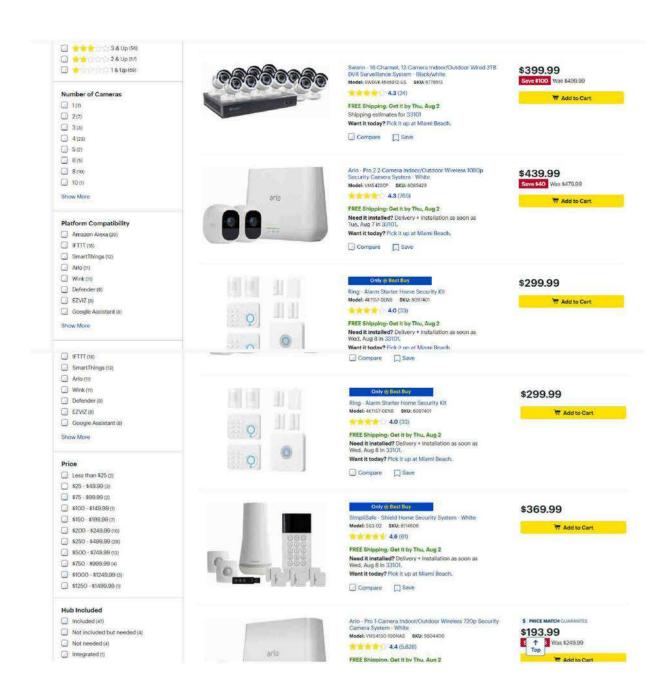


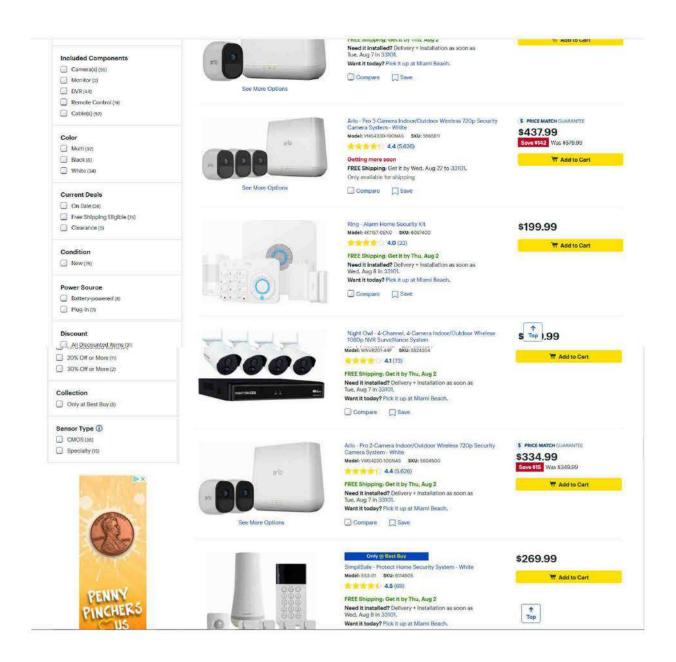


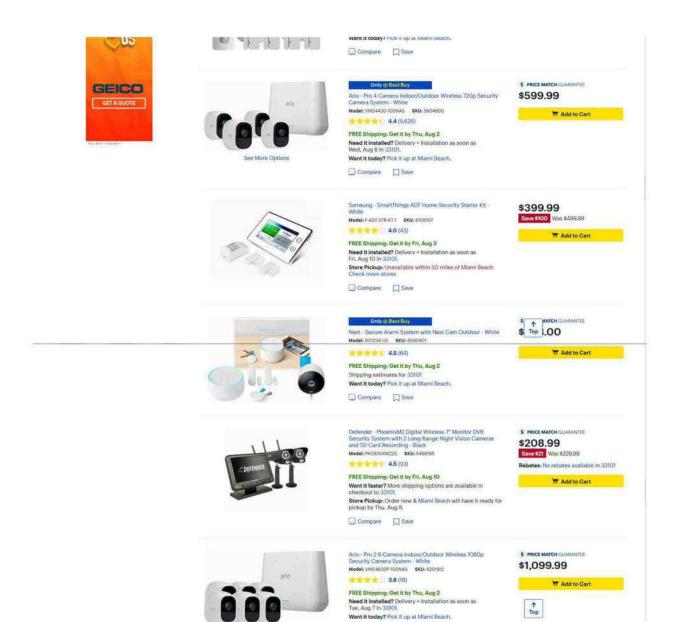


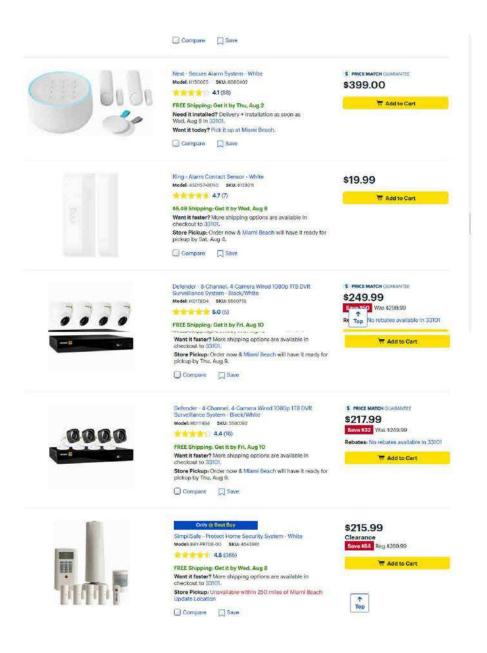
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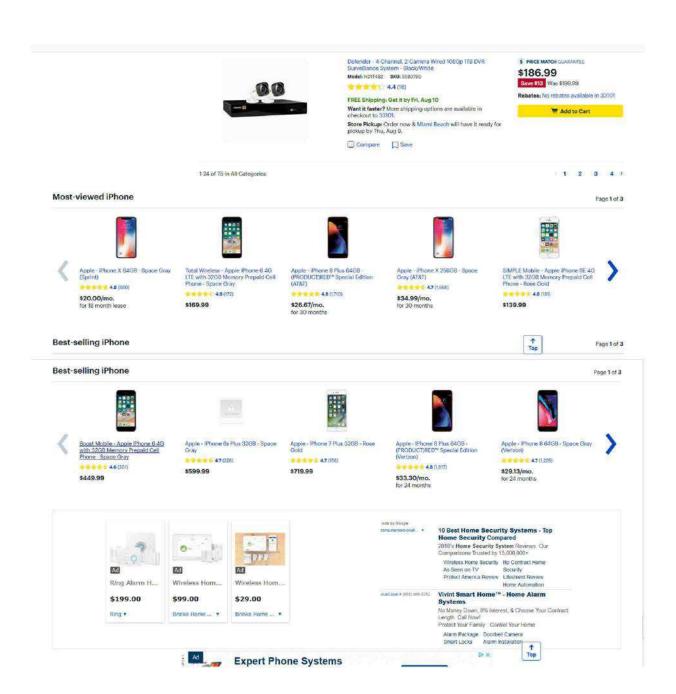


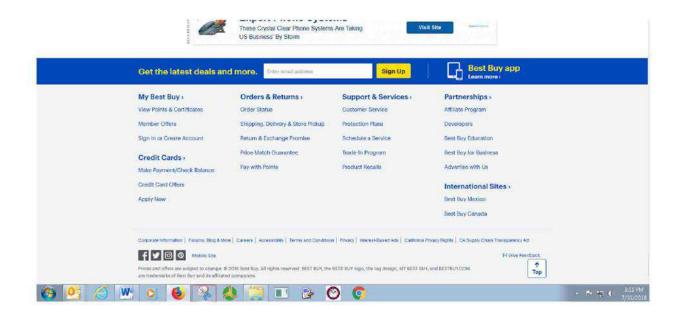




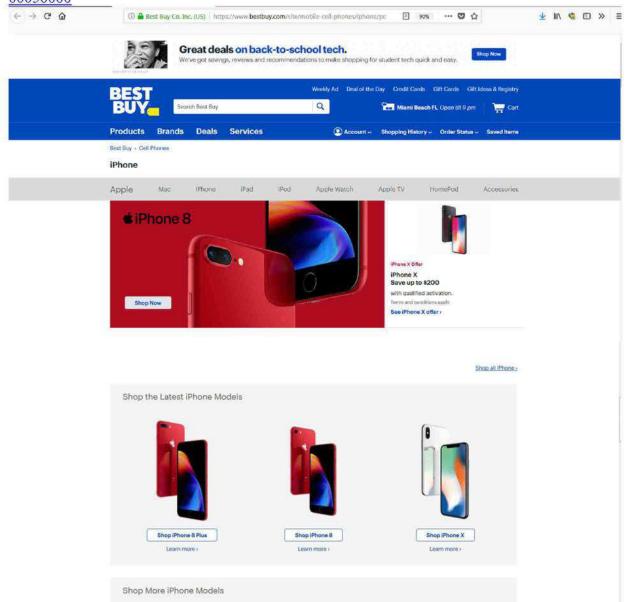


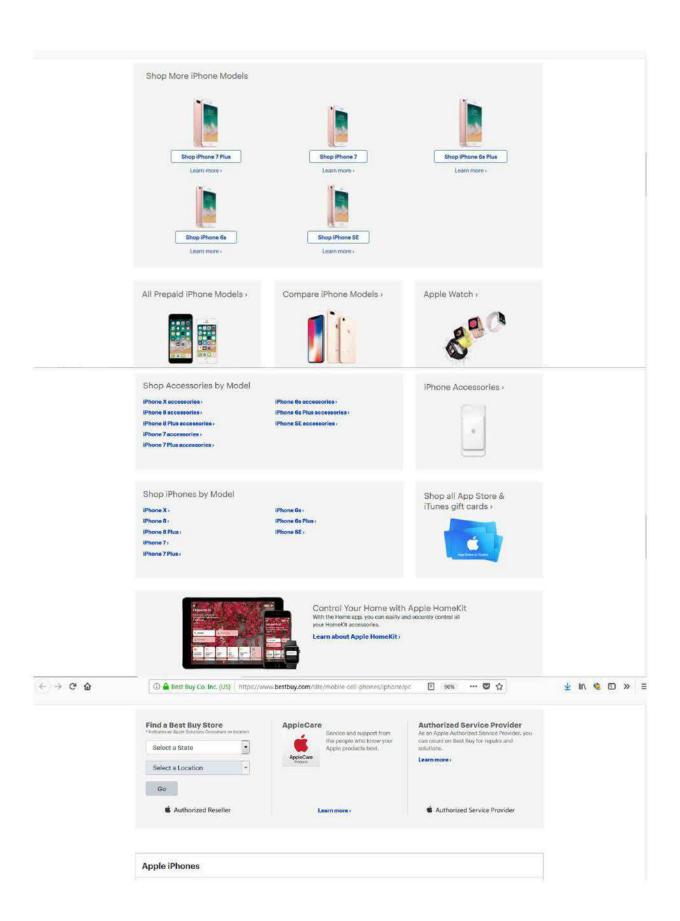






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Shopping for a New iPhone

With powerful technology and an intuitive operating system that's easy to use, the iffhore heips you stay connected and engaged with the world around you. Keeping up to date with the latest iffhore means you can capture high quality photos and videos, pay graphica-intensive games, and keep you information sate with advanced security. The Blue Shirts at Best Buy can help you choose the best iffhore for your needs based on screen size, storage space, carrier and other options.

Getting the Most from Your iPhone

With an ever-growing collection of apps for games, music, movies, productivity, reses, enterstainment and more, there's no limit to how you can cuistomize your iPhone to complement your life. You can edit photos and videos right no your device, seep tabs on social media. Iracely your finances, atream live podcasts and count your steps. You can use your iPhone to simplify your file, entich your free time and stay in touch with family, friends and business contacts.

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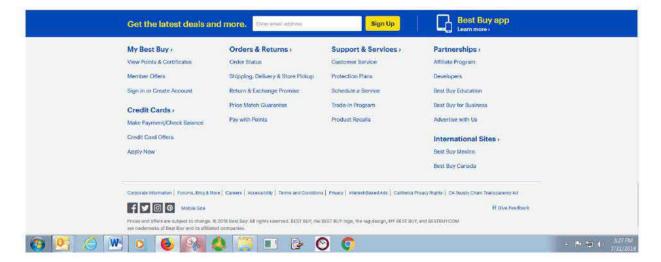
Adid protection with screen protectors and cases for iPhone. Then expand your possibilities by connecting to Wi-Fi from anywhere with mobile horspots that give you fast, reliable internet speeds.

iPhone and Apple Watch: The Perfect Pair

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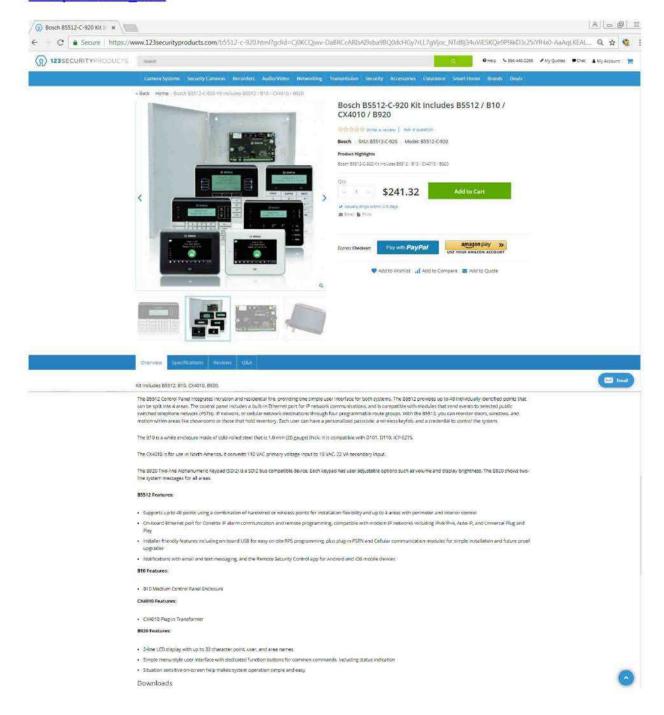


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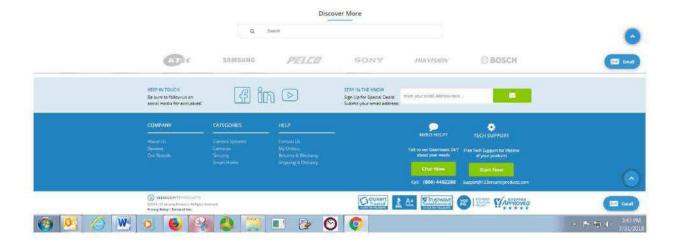
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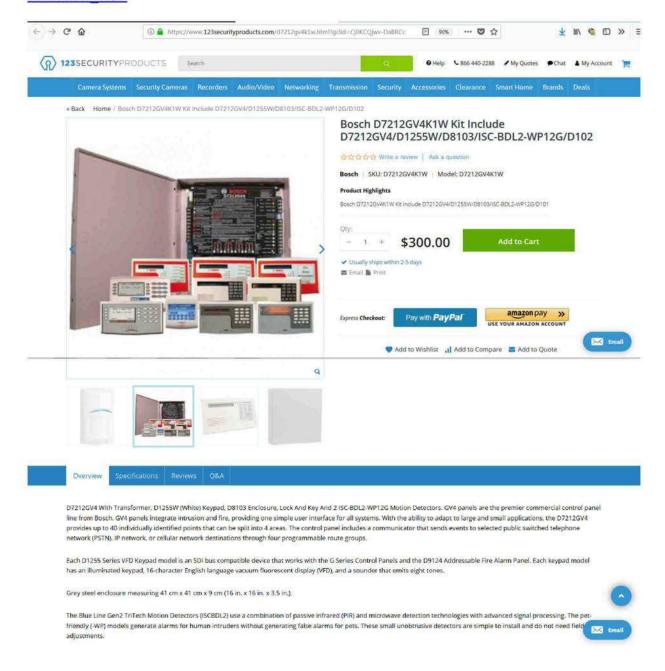


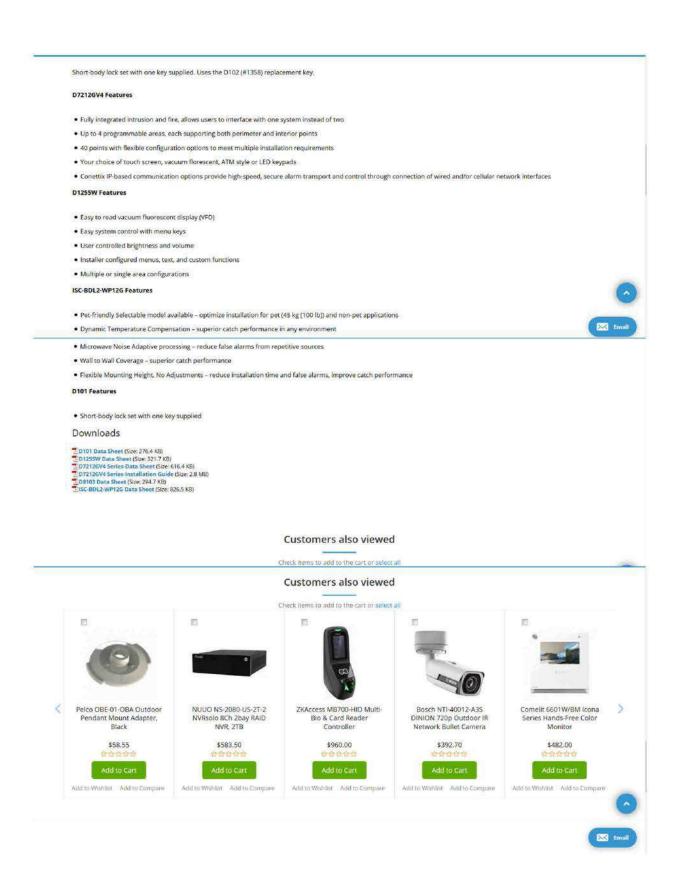


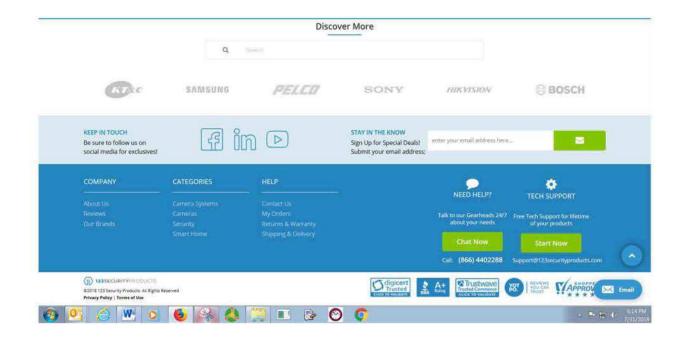


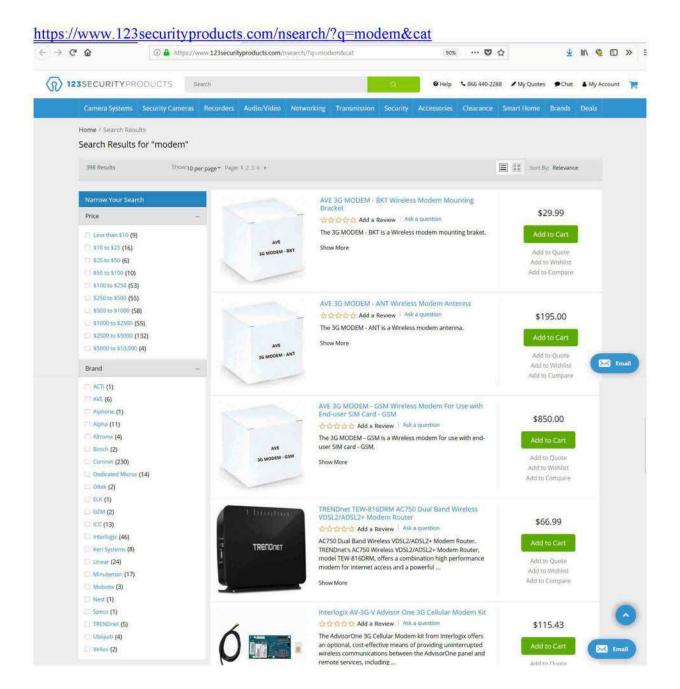


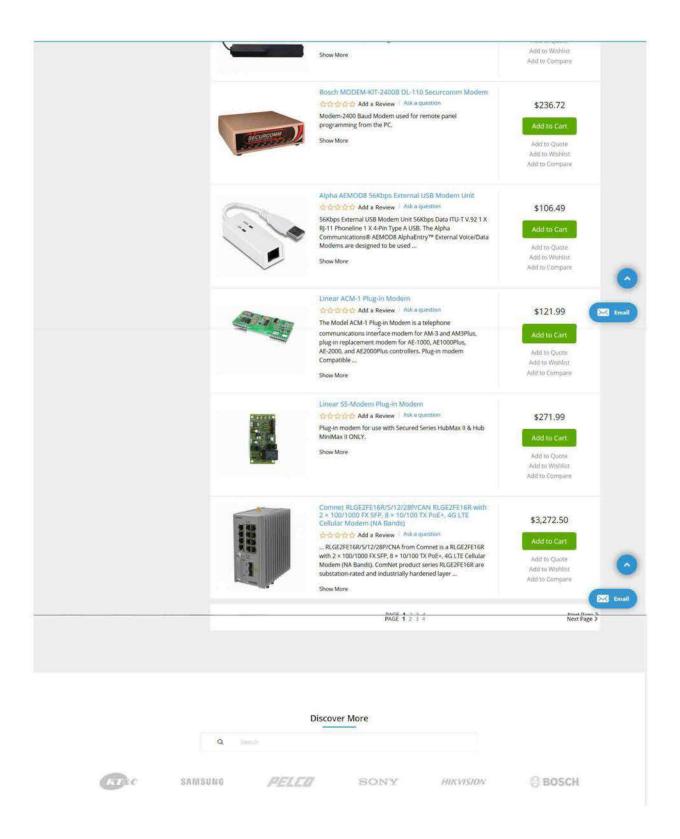
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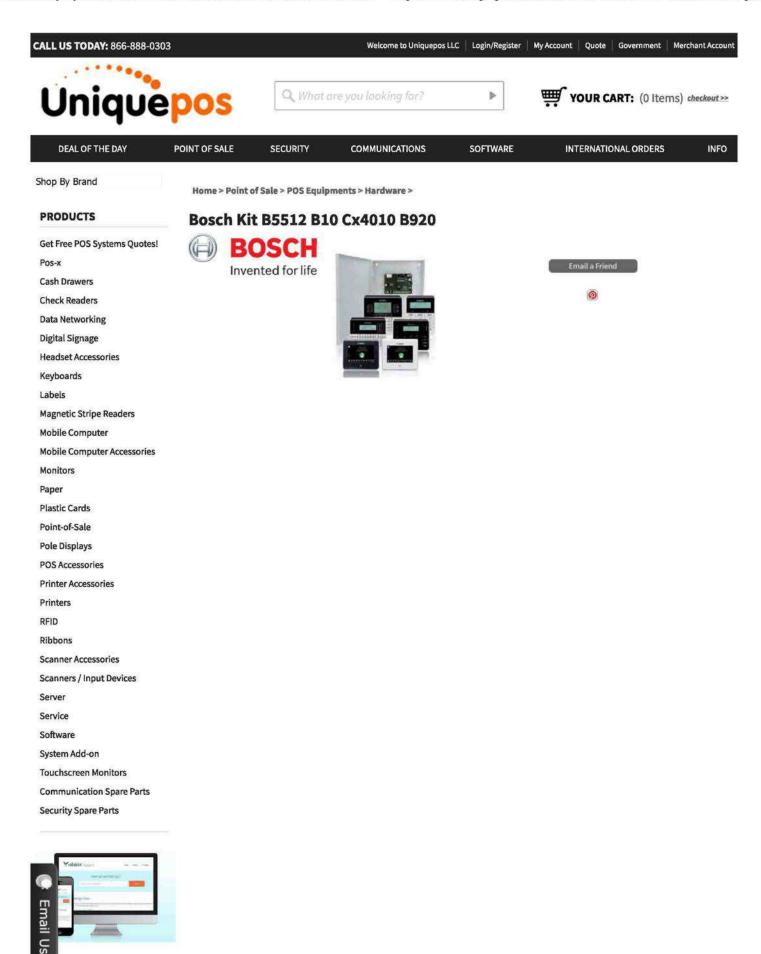








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Uniquepos Mobile Shoppping









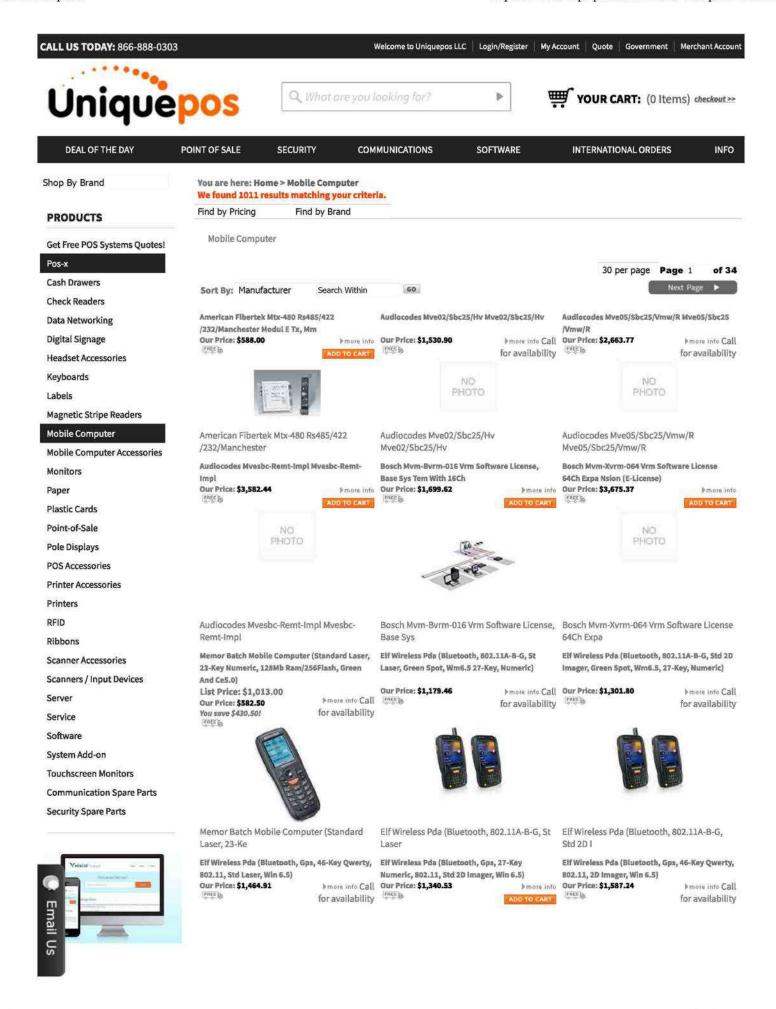












Uniquepos Mobile Shoppping



















Elf Wireless Pda (Bluetooth, Gps, 46-Key Qwerty, 8

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Our Price: \$1,179.46





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Elf Wireless Pda (Bluetooth, 802.11A-B-G, Std 2D Green Spot, Wm6.5, 46-Key Qwerty)



Elf Wireless Pda (Bluetooth, Gps, 46-Key Qwerty, 8

Falcon X3 Wireless Mobile Computer (Hh, 802.11A-B-G, Bluetooth, 29-Key Alphanumeric, 2D Imager, Std Laser, Ce 6.0)

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802.11A-B-

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Elf Wireless Pda (Bluetooth V2.0, 802.11A/B/G 802.11A/B/G, Bluetooth V2, 29-Key, Wm 6.5, Wide Ccx V4, Std Laser With Green Spot, Windows Ce 6.0, 256Mb Ram/256Mb Flash, 46-Key Qwerty) Our Price: \$980.23 I more info PARE D

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Falcon X3 Wireless Mobile Computer (H/H, 00A0Wi-2N

Elf Wireless Pda (Bluetooth 2.0, 802.11, Std Laser Falcon X3 Wireless Mobile Computer (Hh, Green Spot, Win Ce6.0, 256Mb, 27-Key Numeric)

Our Price: \$980,23 FREED



Falcon X3 Wireless Mobile Computer (Pistol Grip, 8

802.11A-B-G, Ccxv4, Bluetooth V2, 256Mb/Ram /Flash, Win Wm6.5)

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Elf Wireless Pda (Bluetooth V2.0, 802.11A/B/G Ccx

Faicon X3 Wireless Mobile Computer (Hh, 802.11A-B-G, Ccxv4, Bluetooth V2, 256Mb/Ram /Flash, Wincev3)

Our Price: \$1,295,49

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Elf Wireless Pda (Bluetooth 2.0, 802.11, Std

Rhino-Net Wireless Vehicle Mount Terminal (10 Vehicle Mount Comp, 802.11B-G, Dual Antenna, Ext Temp, Win Ce 6.0R3)

Our Price: \$2,146.05

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Falcon X3 Wireless Mobile Computer (Hh, 802.11A-B-

Elf Wireless Pda (Bluetooth 2.0, 802.11A-B-G, Ccxv4 2D Imager, Win Ce6.0, 27-Key, 256M)



Falcon X3 Wireless Mobile Computer (Hh, 802.11A-B-

Elf, Bt, V2.0, 802.11 A/B/G Ccx V4, 2D, Win Ce 6.0, 46-



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Rhino-Net Wireless Vehicle Mount Terminal

DI-Memor+802.11+Bt+2D+Ce5

DL-Memor+802.11+BT+2D+CE5

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Elf Wireless Pda (Bluetooth 2.0, 802.11A-B-G, ELF, BT, V2.0, 802.11 a/b/g CCX V4, 2D, WIN CE

Memor,Wm6.1,802.11Abg,Ccxv4,Bt 23Keynumeric, Std Lsr W/ Grnspt ▶more info Our Price: \$724.62

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Skorpio Gun, 802.11B/G Ccx V4 Bt,28-Key

Num,Ce 5.0,Laser Gs ▶more into Call Our Price: \$987.12

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MEMOR,WM6.1,802.11ABG,CCXV4,BT 23KEYNUMERIC,STD LS



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