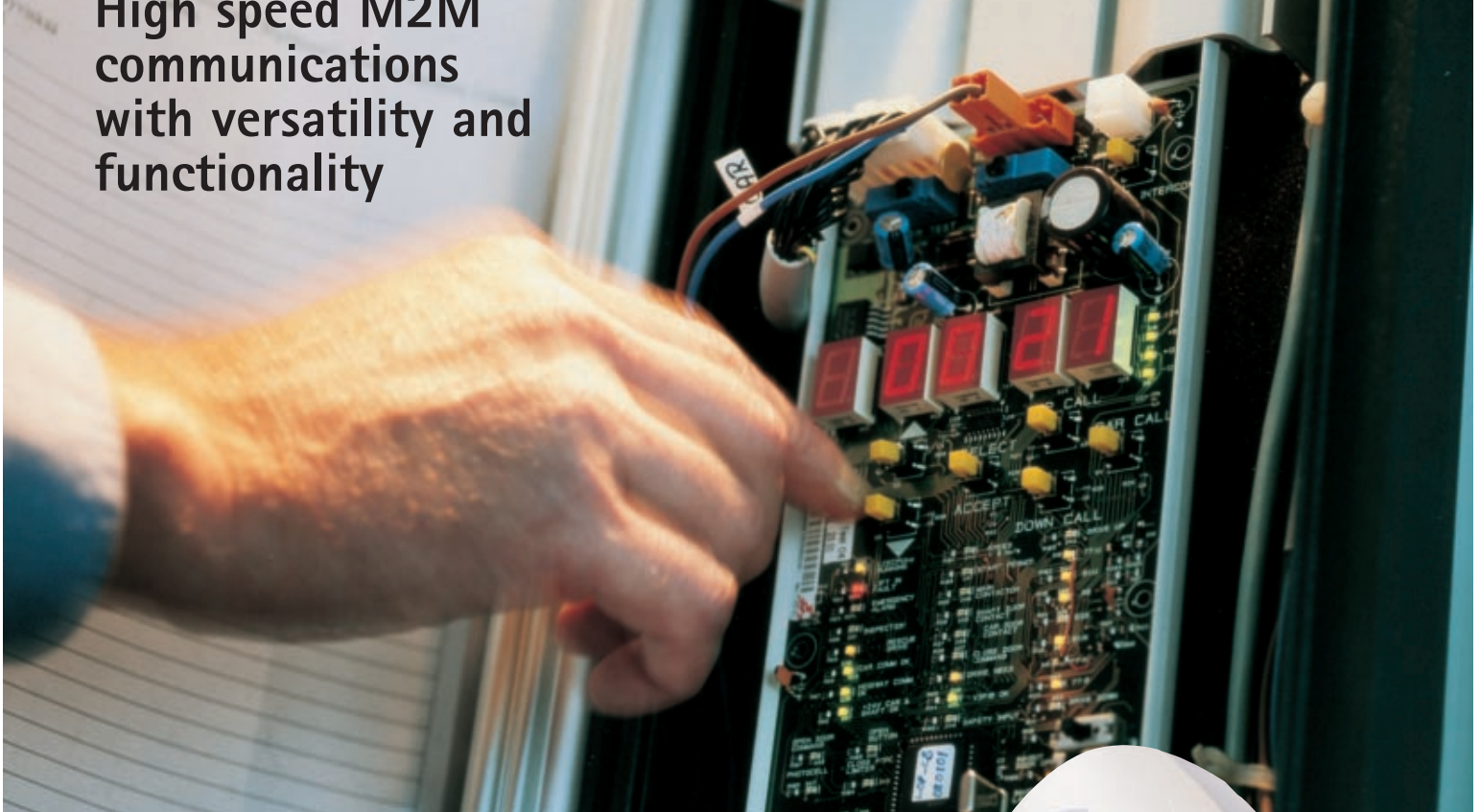


High speed M2M  
communications  
with versatility and  
functionality



## NOKIA GSM Connectivity 20 Terminal



The Nokia 20 GSM Connectivity Terminal is a M2M (machine-to-machine) communications device with versatile interfaces and advanced functions. Connected to different machines and devices, Nokia 20 provides wireless connectivity and remote management possibilities for customer applications. Nokia 20 is a part of the Nokia M2M Platform solution which consists of the connectivity terminals and the Nokia M2M Gateway. Nokia 20 offers high-speed data, voice, fax and short message services over EGSM900/1800 networks.

### Easy integration and reliability

Nokia 20 is easily integrated with various M2M applications such as vending, security, automatic meter reading, elevator control, telematics and many more. Supporting several wireless bearers, the Nokia 20 allows choice of the most appropriate and cost effective alternative. As the data transfer is

separated from the application, introducing new wireless technologies is possible through upgrades even without changing the application itself. Ready-made protocol stacks enable easy application development.

Superb reliability is achieved through live checks, reset mechanics and AutoPIN

feature. AutoPIN means inserting the PIN code only once after a power cut, Nokia 20 relays the PIN code automatically. Normal GSM encryption and security codes are also supported in Nokia 20.

**NOKIA**  
CONNECTING PEOPLE

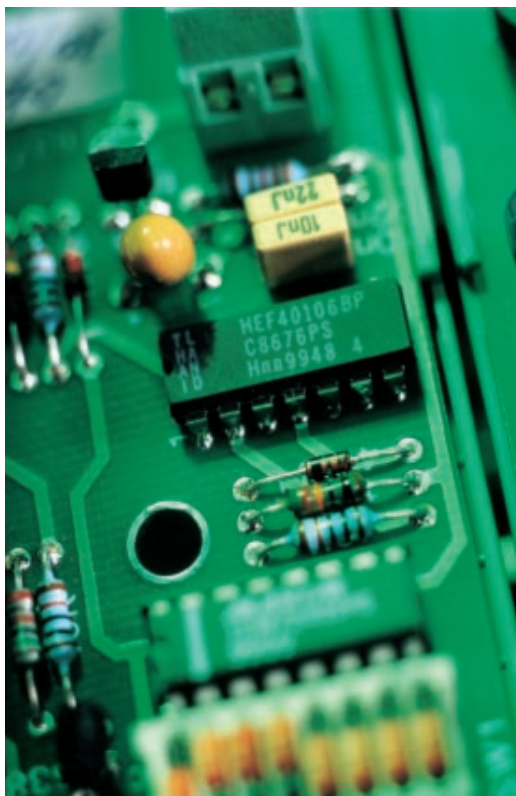
**DOCKET  
ALARM**

Find authenticated court documents without watermarks at [docketalarm.com](http://docketalarm.com).

Nokia 20 has two operating modes: M2M system mode and AT command mode. In M2M system mode the terminal is used together with Nokia M2M Gateway (Nokia M2M Platform). This mode offers an open interface for application developers and effective and reliable methods for controlling the terminals and the application via CORBA messages. In AT command mode the terminal is controlled through 9 pin RS-232 connector via AT commands. In this mode Nokia 20 acts as a normal GSM data modem.

As a user interface Nokia 20 has five light indicators in the upper cover: three for the terminal itself and two for the application. There is also a regulator which provides current supply from Nokia 20 to the application module through the M2M system connector.

Configurator software for Nokia 20 is available as an accessory for more advanced installation and configurations.



#### Technical data

Dimensions	190 x 80 x 29 mm
Weight	250 g
Operating temperature	0°C...+55°C
Storage temperature	-40°C...+70°C
Operating humidity	20...75%
Storage humidity	5...95%
SIM card	small
Band	dual band 900/ 1800MHz
RF power	2W (900MHz)/ 1W (1800MHz)
Input Vdc	6.5 Vdc - 15.6 Vdc
SMS service	send and receive
HSCSD	up to 43.2 kbps (3+1)

#### M2M System interface

50 pin male connector  
CORBA messages  
Power input/output  
Digital audio (external audio codec required)

#### RS-232 Interface

D9 female connector  
AT commands (ITU-T V.25ter, ETSI GSM 07.07 and ETSI 07.05)  
CORBA messages

#### Power supply ACW-3

Voltage 6.8 V  
DC 1.4 A  
Operating range between 90 – 264 Vac  
Frequency range 47 – 63 KHz  
Output voltage 6.75 V +/- 0.15 V  
Weight 75 g + cables  
Volume < 115 cm<sup>3</sup>

#### Antenna

Integrated  
External antenna adapter cable is available

#### Electro-magnetic compatibility (Europe)

Nokia 20 is tested for electro-magnetic compatibility (EMC) according to the ETS 300342-1/13.



#### Nokia Mobile Phones

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