## UNITED STATES PATENT AND TRADEMARK OFFICE

## **BEFORE THE PATENT TRIAL AND APPEAL BOARD**

## TCT MOBILE (US), INC.; TCT MOBILE (US) HOLDINGS, INC.; HUIZHOU TCL MOBILE COMMUNICATION CO. LTD.; AND TCL COMMUNICATION, INC., Petitioners

v.

FUNDAMENTAL INNOVATION SYSTEMS INTERNATIONAL LLC, Patent Owner

U.S. Patent No. 7,239,111 Issue Date: July 3, 2007 Title: UNIVERSAL SERIAL BUS ADAPTER FOR A MOBILE DEVICE

Case No. IPR2021-\_\_\_\_

## PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT 7,239,111 CHALLENGING CLAIMS 1-14, AND 16-18 UNDER 35 U.S.C. §312 AND 37 C.F.R. §42.104

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	1.	"mea	ns for receiving energy from a power socket"
	2.		ns for regulating the received energy from the r socket to generate a power output"
	3.	indica	ns for generating an identification signal that ates to the mobile device that the power socket is USB hub or host"
	4.		ns for coupling the power output and identification I to the mobile device"
VIII. ANA	LYSIS	S	
А.	OBV	IOUS	14 AND 16-18 ARE UNPATENTABLE AS UNDER 35 U.S.C. §103 OVER MORITA
	AND	OR T	HE KNOWLEDGE OF A POSITA
	1.	Clain	n 1
		a.	1[Pre]: A Universal Serial Bus ("USB") adapter for providing power to a mobile device through a USB port, comprising:
		b.	1[a]: a plug unit configured to receive energy from a power socket
		c.	1[b]: a power converter coupled to the plug unit, the power converter being configured to regulate the received energy from the power socket to generate a power output
		d.	1[c]: an identification subsystem configured to generate an identification signal, wherein the identification signal is configured to indicate to the mobile device that the power socket is not a USB host or hub; and
		e.	1[d]: a USB connector coupled to the power converter and the identification subsystem, the USB connector being configured to couple the power output and the identification signal to the mobile device
	2.	unit i	n 2. The USB adapter of claim 1, wherein the plug s configured to couple directly with the power st

3.	Claim 3. The USB adapter of claim 2, wherein the plug unit is configured to couple to at least one power socket selected from the group consisting of: North American power socket, United Kingdom power socket, European power socket, Australian power socket, airplane power socket, and automobile power socket
4.	Claim 4. The USB adapter of claim 1, further comprising a plug adapter that is configured to couple the plug unit to the power socket
5.	Claim 5. The USB adapter of claim 4, wherein the plug adapter is configured to couple to at least one power socket selected from the group consisting of: North American power socket, United Kingdom power socket, European power socket, Australian power socket, airplane power socket, and automobile power socket54
6.	Claim 6. the USB adapter of claim 1, wherein the identification signal comprises a voltage level that is applied to at least one data line in the USB connector
7.	Claim 7. The USB adapter of claim 1, wherein the identification subsystem comprises a hard-wired connection of a voltage level to one or more data lines in the USB connector
8.	Claim 8. The USB adapter of claim 1, wherein the identification subsystem comprises a USB controller that is configured to provide a voltage level to one or more data lines in the USB connector
9.	Claim 9. The USB adapter of claim 1, wherein the identification subsystem further comprises a switch that is configured to couple the power output to the USB connector
10.	Claim 10. The USB adapter of claim 9, wherein the identification subsystem is configured to cause the switch to disconnect the power output from the USB connector61
11.	Claim 11. The USB adapter of claim 10, wherein the identification subsystem is configured to cause the switch to reconnect the power output to the USB connector

12.		n 12. The USB adapter of claim 1, further prising an auxiliary USB connector6	1			
13.	Claim 13. The USB adapter of claim 12, wherein one or more data lines of the auxiliary USB connector are coupled to one or more data lines of the USB connector via the identification subsystem					
14.	Claim 14. The USB adapter of claim 12, wherein the power converter is operable to generate a second power output that is coupled to the auxiliary USB connector					
15.	powe select conve	Claim 16. The USB adapter of claim 1, wherein the power converter comprises at least one component selected from the group consisting of: switching converter, transformer, DC source, voltage regulator, linear regulator and rectifier				
16.	Claim 17					
	a.	17[Pre]: A method for providing energy to a mobile device using a USB adapter that includes a USB connector for coupling the USB adapter to the mobile device, comprising:	66			
	b.	17[a]: receiving a power input from a power socket;	7			
	c.	17[b]: generating a regulated DC power output from the power input;6	57			
	d.	17[c]: generating an identification signal that is configured to indicate to the mobile device that the power socket is not a USB host or hub;6	57			
	e.	17[d]: providing the identification signal on one or more data pins of the USB connector; and6	57			
	f.	17[e]: providing the power output on one or more power pins of the USB connector6	58			
17.	Claim 18					
	a.	18[Pre]: A Universal Serial Bus ("USB") adapter for providing a source of power to a mobile device through a USB port, comprising:6	58			

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