Universal Socket Connectivity Selector Guide

Multi-Tech's **Universal Socket** flexible comm-port architecture provides cellular, Ethernet, PSTN or Wi-Fi® socket connectivity with interchangeable communications devices. This means you can utilize one system design and populate it with the appropriate connectivity option. Now you can provide a full-line of connectivity by simply dropping in the communications device of choice. In addition, you are assured a seamless migration to future technologies – simply upgrade your connectivity module and keep your product current and design intact.

(I/O) Tip	1	O	O	64	SPKR (O)
(I/O) Ring	2	O	O	63	GND (O)
Safety Void	3	×	O	62	MICV (I)
(O) TX+	4	O	O	61	VCC (I)
(O) TX-	5	O	O	60	-LED SPD (O)
(I) RX+	6	O	O	59	-LED COL (O)
(I) RX-	7	O	O	58	-LED LINK (O)
Safety Void	8	×	O	57	-LED ACT (O)
	9		O	56	-LED FDX (O)
	10			55	
(O) TXCLK	11	O		54	
(O) RXCLK	12	O		53	
	13			52	
	14		O	51	GPIO (I/O)
	15		O	50	GPIO (I/O)
	16		O	49	GPIO (I/O)
	17		O	48	GPIO (I/O)
	18			47	
	19			46	
	20			45	
(I)	21			44	
(I) Mic+	22	O	O	43	SPK+ (O)
(I) Mic-	23	O	O	42	SPK- (O)
(I) -Reset	24	O	O	41	GND (I)
(I) USB_VBUS	25	O	O	40	-DTR (I)
(I) GND	26	O	O	39	-DCD (O)
(I/O) USB_DP	27	O	O	38	-CTS (O)
(I/O) USB_DN	28	O	O	37	-DSR (O)
(O) LED DCD	29	O	O	36	-RI (O)
(O) LED RX	30	O	O	35	-TXD (I)
(O) LED DTR	31	O	O	34	-RXD (O)
(O) LED TX	32	O	O	33	-RTS (I)

Universal Socket

SocketModem iCell
SocketModem Cell
SocketModem EDGE
SocketModem
SocketModem IP
SocketEthernet IP
SocketWireless Bluetooth
SocketWireless Wi-Fi

Multi-Tech's intelligent **Universal IP**™ consists of a common set of TCP/IP networking protocols and machine-to-machine (M2M) applications implemented using a standard AT command interface. Universal IP allows developers to write their host application one time while having the freedom to select from a growing number of Universal Socket communication devices and use the latest 2G and 3G technologies.
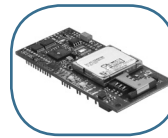
The **Universal Socket Developer's Kit** allows you to plug in the communications device and use it for testing, programming and evaluation. Contact your local Multi-Tech distributor or sales representative for complete details or visit www.multitech.com/pdfs/devkit.go

Our **Universal Socket Developer's Guide** assists you in evaluating the embedded family of connectivity solutions as you consider the different options for current, as well as, future requirements of your product strategy. To obtain a guide, contact Multi-Tech directly or visit our website at www.multitech.com/primers/universal_socket.go
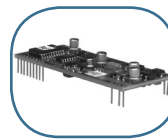
SocketModem® iCell
Intelligent cellular modems
· 2G and 3G, GSM and CDMA
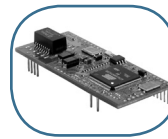· Serial and USB
· GPS
· Persistent connectivity
· GPIO

SocketModem® Cell
Cellular modems
· 2G, GSM and CDMA
· Serial interface
· Embedded TCP/IP stack

SocketModem® & SocketModem® IP
Global*
· V.92/56K data rates
· V.34/33.6K fax
· Serial or parallel interface
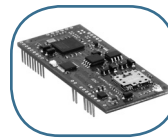· 3.3 or 5V models
· Universal IP available

SocketEthernet IP®
Serial-to-Ethernet device server
· 10/100BaseT Ethernet interface
· Medical/high voltage isolation (EN60601)
· Multiple LED driver outputs

SocketWireless® Wi-Fi®
Serial-to-Wi-Fi device server
· 802.11b/g wireless networking
· Wi-Fi security using WEP, WPA and WPA2
· Supports ad-hoc and infrastructure mode
· Serial interface speeds to 921.6K bps

SocketWireless® Bluetooth®
Serial-to-Bluetooth device server
· 100 meter (330 ft.) range
· Class 1 Bluetooth V2.0 compliant
· Point-to-point and multi-point communications

* Multi-Tech's global modems are designed for worldwide applications with approvals in many countries. This means one SKU can ship virtually anywhere.

MultiTech®
Systems

Embedded Analog Modems

Complete, ready-to-integrate voice/data/fax modems.

Models	MT2492SMI-xx	MT9234SMI-xx	MT5692SMI-xx
Telecom Approvals			
Global		X	X
Interface			
Serial	X	X	X
Parallel		X	X
Power			
3.3 Volt	X	X	X
5 Volt	X	X	X
Maximum Data Rate			
V.92/56K	X	X	X
V.34/33.6K	X	X	X
V.22bis/2400 baud	X		
Fax Capability			
V.34 Fax		X	
V.17 Fax		X	X
V.29/V.27/V.21 Fax		X	X
Fax Class 1		X	X
Fax Class 1.0		X	X
Fax Class 2		X	
Fax Class 2.0/2.1		X	
Fax Compression (MH, MR, MMR)		X	
Error Correction Mode (ECM)		X	
Memory Type			
Flash + RAM		X	
Masked ROM	X		X
Features			
11-bit Mode		X	
U.S. Caller ID	X	X	X
Leased Line		X	
V.22bis Fast Connect	X	X	X
FastPOS (V.29)			X
Callback Security		X	
Industrial Temp Range		X	X
Medical Isolation		X	
LED Pin Outputs		X	X
Extension Pickup Detection	X		X
Remote Hang-up Detection	X		X
Line-in-use Detection	X		X
Digital PBX Detection & Protection	X		X
Voice Record & Playback (TAM)		X	X
Speakerphone I/O			X

See datasheets for more specifications and ordering part numbers.

Features and specifications are subject to change without notice.

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Embedded Cellular Modems

Complete, ready-to-integrate and carrier-approved cellular modems.

Models	MTSMC-H4-xx	MTSMC-EV2-xx	MTSMC-E1-xx	MTSMC-G2-xx	MTSMC-C1-xx
Network Type	HSPA 7.2	EV-DO Rev A	EDGE Class 12	GPRS Class 10	CDMA2000 1xRTT
Dual-band CDMA (800/1900 MHz)		X			X
Quad-band GSM (850/900/1800/1900 MHz)	X		X	X	
Tri-band HSPA (850/1900/2100 MHz)	X				
Maximum Packet Data Rate - Download	7.2M	3.1M	240K	85.6K	153.6K
Maximum Packet Data Rate - Upload	5.76M	1.8M	240K	85.6K	153.6K
Short Message Service	X	X	X	X	X
14.4K Circuit-switched Data	X	X	X	X	X
Maximum DTE Speed	921.6K	921.6K	460K	115.2K	230K
USB 2.0 Full Speed	X	X			
AT Command Compatible	X	X	X	X	X
UFL Antenna Connector	X	X		X	X
MMCX Antenna Connector		X			
5 VDC Operation	X	X	X	X	X
GPS Tracking	X	X		X	X

Embedded Universal IP™

Models	MT5692SMI-IP-xx	MT100EM-IP	MT810SWM-IP	MTSMC-H4-IP/GP	MTSMC-EV2-IP/GP	MTSMC-G2-IP/GP	MTSMC-C1-IP/GP
Network Protocol Support							
ARP		X	X				
DHCP Client		X	X				
DNS	X	X	X	X	X	X	X
FTP Client	X	X	X	X	X	X	X
ICMP (Ping)	X	X	X	X	X	X	X
POP 3 (Receive mail)	X	X	X	X	X	X	X
PPP (Dial-out)	X			X	X	X	X
SMTP (Send mail)	X	X	X	X	X	X	X
TCP Socket	X	X	X	X	X	X	X
UDP Socket	X	X	X	X	X	X	X
Telnet Server		X	X				
M2M Features							
Automatic/Persistent Connect	X	X	X	X	X	X	X
Device Monitor	X	X	X	X	X	X	X
Modem Emulation	X	X	X	X	X	X	X
Ping/TCP Keep Alive	X	X	X	X	X	X	X
Wake-up on Ring	X			X	X	X	X
Wake-up on Caller ID	X			X	X	X	X
Authentication Protocols							
CHAP	X			X	X	X	X
PAP	X			X	X	X	X

MultiTech® Systems