



SocketModem[®] Cell

Embedded Cellular Modems 4G-LTE Models

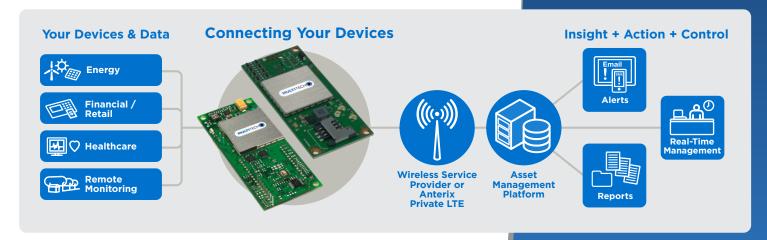
SocketModem* Cell embedded cellular modem is a complete, ready-to-integrate communications device ideal for customers looking to add 4G-LTE cellular communications to their IoT/M2M solutions. These communications devices enable easy technology transitions and allow developers to add wireless communication to products with a minimum of development time and expense. The SocketModem Cell embedded cellular modems are carrier approved and end-device certified, decreasing time to market while saving customers money.

BENEFITS

- Approved by carriers and regulatory agencies saving customers time, money, and protection from the risks associated with pursuing their own certifications
- Quick to market leveraging MultiTech's approvals
- Interchangeable communications devices for easy migration to future networks
- Long solution lifecycle reduces redesign time and cost
- Support from leading experts in IoT/M2M technology

FEATURES

- 4G Models (Cat 4, Cat 1 and Cat M1)
- Global capable Cat 4 and Cat M1/NB-IoT models
- 4G Cat 4, Cat 1 and Cat M1 include GNSS
- Universal Socket connectivity
- Short Message Services (SMS)
- Serial or USB interfaces
- Serial interface supports speeds up to 921.6K bps
- AT command compatible
- USB 2.0 high speed compatible
- Two-year warranty



SocketModem Cell Pin-Out

The SocketModem Cell cellular modem interfaces easily with existing products through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 921.6 Kbps (depending on model) and can be interfaced directly to a UART or microcontroller. The complete on-board RF transceiver interfaces with an antenna for direct connection to wireless data networks. It also includes an onboard LED to display network status.

(I/O) Tip 1 (I/O) Ring 2 Safety Void 3 (O) TX+ 4 (O) TX- 5 (I) RX+ 6 (I) RX- 7 Safety Void 8 9	0 0 X 0 0 0 X X		000000000	64 SPKR (O) 63 GND (O) 62 MICV (I) 61 VCC (I) 60 -LED SPD (O) 59 -LED COL (O) 58 -LED LINK (O) 57 -LED ACT (O) 56 -LED FDX (O)
(O) TXCLK 11 (O) RXCLK 12 13 14 15 16 17 18 19 20	0	SocketModem	0000	54 53 52 51 GPIO (I/O) 50 GPIO (I/O) 49 GPIO (I/O) 48 GPIO (I/O) 47 46 45
(I) 21 (I) Mic+ 22 (I) Mic- 23 (I) -Reset 24 (I) USB_VBUS 25 (I) GND 26 (I/O) USB_DP 27 I/O) USB_DN 28 (O) LED DCD 29 (O) LED RX 30 (O) LED DTR 31 (O) LED TX 32	0000000000		000000000000	44 43 SPK+ (O) 42 SPK- (O) 41 GND (I) 40 -DTR (I) 39 -DCD (O) 38 -CTS (O) 37 -DSR (O) 36 -RI (O) 35 -TXD (I) 34 -RXD (O) 33 -RTS (I)

Power Saving Modes (Cat M1 Models)

Extended Discontinuous Reception (eDRX) mode increases the length of time the end device can sleep before it has to check in with the network which saves power. Power Saving Mode (PSM) allows the device to notify the network it is going to sleep or dormant indefinitely only waking up based on user defined timer. Once the device wakes up and transmits it will stay awake for a few frames of time in case the network needs to reach that device. A device using PSM transmitting a small amount of data once per day could last many years using 2 AA batteries.

Developer Kits

Developer Kits allow you to plug in the communications device and use it for testing, programming and evaluation.

MTUDK2-ST-CELL.R1 developer kit is designed to work with all of our cellular SocketModem* Cell and Dragonfly™ cellular modems. Developer kits include a development board and all the necessary accessories to get you up and running right out of the box.

SPECIFICATIONS

Models	MTSMC-L1G2D MTSMC-L1G2D-U	MTSMC-L4G1 MTSMC-L4G1-U	MTSMC-L4N1 MTSMC-L4N1-U	MTSMC-L4E1 MTSMC-L4E1-U	
	Australia	Australia			
	Canada	Canada	Canada	European Union	
Region	European Union	European Union	United States	United Kingdom	
	United Kingdom United States	United Kingdom United States			
	3GPP Release 10	3GPP Release 11	3GPP Release 10	3GPP Release 10	
	4G-LTE FDD Category 1	4G-LTE FDD/TDD Category 4	4G-LTE FDD Category 4	4G-LTE FDD Category 4	
Performance	10 Mbps peak downlink	150 Mbps peak downlink	150 Mbps peak downlink	150 Mbps peak downlink	
	5 Mbps peak uplink	50 Mbps peak uplink	50 Mbps peak uplink	50 Mbps peak uplink	
	with 3G/2G fallback	with 3G/2G fallback	with 3G fallback	with 3G/2G fallback	
	4G LTE FDD (Europe): B1(2100), B3(1800), B7(2600),				
	B8(900), B20(800)	4G LTE FDD (Europe):			
	3G (Europe Fallback):	B1(2100), B3(1800), B7(2600),			
	B1(2100), B3(1800), B8(900)	B8(900), B20(800), B28(700)			
	2G (Europe Fallback): B2(1900),	3G (Europe Fallback):	4G LTE FDD (AT&T):	[†] 4G LTE FDD (Europe): B1(2100), B3(1800), B7(2600) B8(900), B20(800), B28A(700	
	B3 (1800), B5(850), B8(900)	B1(2100), B3(1800), B8(900)	B2(1900), B4(AWS1700),		
	4G LTE FDD (AT&T):	2G (Europe Fallback): B2(1900),	B12(700), B14(700-FirstNet) †		
	B2(1900), B4(AWS1700),	B3(1800), B8(900)	4G LTE FDD (T-Mobile):		
	B12(700), B14(700-FirstNet)†	4G LTE FDD (AT&T):	B2(1900), B4(AWS1700),	Be(300), B20(000), B20/(700	
Frequency Bands	4G LTE FDD (Verizon):	B2(1900), B4(AWS1700),	B5(850), B66(AWS-3 1700), B71(600)		
(MHz)	B4(AWS1700), B13(700)	B12(700)		3G (Europe Fallback):	
	4G LTE FDD (Anterix): B8(900)	4G LTE FDD (Verizon):	4G LTE FDD (Verizon): B4(AWS1700), B13(700)	B1(2100), B3(1800), B8(900)	
	4G LTE FDD (APAC):	B4(AWS1700), B13(700)		2G (Europe Fallback):	
	B1(2100), B9(1800), B18(800),	4G LTE FDD:	3G (AT&T): B2(1900), B4(AWS1700),	B3(1800), B8(900)	
	B19(850), B26(850), B28(700)	B5(850), B18(800), B19(800), B25(1900), B26(850)	B2(1900), B4(AW\$1700), B5(850)		
	3G: B1(2100), B2(1900),				
	B4(AWS1700), B5(850), B6(800),	4G LTE TDD: B38(2600), B39(1900),			
	B8(900), B19(850)	B40(2300), B41(2500)			
	Other 4G LTE FDD Bands:				
	B25(1900)				
GNSS		Ye	es		
SMS	Mobile Originate, Mobile Terminated and Cell Broadcast / PDU or Text Mode				
USB	USB 2.0 high speed compatible (-U Models)				
TCP/IP Functions*	FTP, SMTP, TCP, UDP FTP, SMTP, SSL, TCP, UDP				
	Antenna : 3 UFL (Cellular, Rx Diversity/MIMO, GNSS)				
Connectors	Mini SIM (2FF); 1.8V & 3V				
Dimensions			10 mm x 34 925 mm)		
		3.150" x 1.375" (80.01	10 mm x 34.925 mm)		
Power Requirements		3.150" x 1.375" (80.01	·		
Power Requirements Power Draw	Sleep Mode: 22 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA	Sleep Mode: 4 mA	Sleep Mode: 8 mA	
Power Requirements Power Draw Serial Models @		3.150" x 1.375" (80.01	·	Sleep Mode: 8 mA Idle: 13 mA Max Power: 747 mA (average)	
Power Requirements Power Draw Serial Models @ 5 VDC	Sleep Mode: 22 mA Idle: 31 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average)	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average)	Idle: 13 mA Max Power: 747 mA (average)	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average)	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA	Sleep Mode: 4 mA Idle: 20 mA	Idle: 13 mA	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A	Idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average)	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average)	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average)	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Gerial Models)	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average)	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Gerial Models)	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average)	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average) 5.0 v	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average) 5.0 v	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average) 5.0 ° 3.3 VDC o	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage Temperature	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC or 5.0 VDC (-40° F to +185° F)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage Temperature Relative Humidity	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC 0r 5.0 VDC	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage Temperature Relative Humidity Certifications	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC or 5.0 VDC (-40° F to +185° F)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage Temperature Relative Humidity Certifications EMC/Radio	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC or 5.0 VDC (-40° F to +185° F)	idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A	
Dimensions Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage Temperature Relative Humidity Certifications EMC/Radio Compliance	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA Max Power: 560 mA (average) CE, FCC, IC, UL/cUL/IE	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC or 5.0 VDC (-40° F to +185° F) noncondensing	Idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A Max Power: 704 mA (average) CE, UKCA	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Operating Temperature Storage Temperature Relative Humidity Certifications EMC/Radio Compliance Safety Compliance	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA Max Power: 560 mA (average)	3.150" x 1.375" (80.01) Sleep Mode: 22.6 mA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC or 5.0 VDC (-40° F to +185° F) (-40° F to +185° F) noncondensing	Idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A Max Power: 704 mA (average) CE, UKCA	
Power Requirements Power Draw Serial Models @ 5 VDC Power Draw USB Models @ 5 VDC Input Power (USB Models) Input Power (Serial Models) Environmental Deparating Femperature Storage Femperature Relative Humidity Certifications EMC/Radio Compliance Safety Compliance	Sleep Mode: 22 mA Idle: 31 mA Max Power: 570 mA (average) Sleep Mode: N/A Idle: 45 mA Max Power: 560 mA (average) CE, FCC, IC, UL/cUL/IE	3.150" x 1.375" (80.01 Sleep Mode: 22.6 mA Idle: 46 mA Max Power: 562 mA (average) Sleep Mode: N/A Idle: 46 mA Max Power: 577 mA (average) 5.0 v 3.3 VDC o -40° C to +85° C (20% to 90% RH RCM, UKCA	Sleep Mode: 4 mA Idle: 20 mA Max Power: 615 mA (average) Sleep Mode: N/A Idle: 21 mA Max Power: 672 mA (average) VDC or 5.0 VDC (-40° F to +185° F) (-40° F to +185° F) noncondensing	Idle: 13 mA Max Power: 747 mA (average) Sleep Mode: N/A Idle: N/A Max Power: 704 mA (average) CE, UKCA IEC 62368-1 IEC 60950-1	

 $[\]ensuremath{^{*}}$ See device guides or AT command guides for additional information.

[†] All future end-user (OEM) devices will and must go through FirstNet certification prior to being included in the FirstNet device ecosystem.

SPECIFICATIONS

Models	MTSMC-LAT3 MTSMC-LAT3-U	MTSMC-MNG6 MTSMC-MNG6-U	MTSMC-MNG2 MTSMC-MNG2-U	MTSMC-MNA1 MTSMC-MNA1-U	
Region	Canada United States	Australia Canada European Union United Kingdom United States	Australia Canada European Union United Kingdom United States	Canada United States	
Performance	3GPP Release 9 4G-LTE FDD Category 1 10 Mbps peak downlink 5 Mbps peak uplink with 3G fallback	3GPP Release 14 4G LTE FDD Cat M1 M1: 588 Kbps peak downlink 1 Mbps peak uplink 2G: 264 Kbps peak downlink 210 Kbps peak uplink	3GPP Release 13 4G-LTE FDD Category M1/NB1 M1: 300 Kbps peak downlink 375 Kbps peak uplink NB1: 21 Kbps peak downlink 62.5 Kbps peak uplink	3GPP Release 13 4G-LTE FDD Category M1 300 Kbps peak downlink 375 Kbps peak uplink	
Frequency Bands (MHz)	4G LTE FDD (AT&T): B2(1900), B4(AWS1700), B5(850), B12(700), B13(700) 3G (AT&T): B2(1900), B5(850)	4G LTE FDD (Europe): B1(2100), B3(1800), B8(900), B20(800) 2G (Europe Fallback): B2(1900), B3(1800), B5(850), B8(900) 4G (T-Mobile): B2(1900), B4(AWS1700), B5(850), B66(AWS-3 1700) 4G (Verizon): B4(AWS1700), B13(700) 4G LTE FDD (APAC): B1(2100), B18(800), B19(850), B26(850), B28(700) 4G LTE FDD Bands: B25(1900), B27(800)	4G-Cat M1 FDD (Europe): B3(1800), B8(900), B20(800) 2G (Europe Fallback): B2(1900), B3(1800), B5(850), B8(900) 4G (AT&T): B2(1900), B4(AWS1700), B12(700), B13(700) 4G (Verizon): B4(AWS1700), B13(700)	4G-Cat M1 FDD (AT&T): B2(1900), B4(AWS1700), B12(700) 4G-Cat M1 FDD (Verizon): B4(AWS1700), B13(700)	
GNSS	N	lo	Yes		
SMS	Mobile Originate, Mobile Terminated and Cell Broadcast / PDU or Text Mode	SMS over NAS	Mobile Originate, Mobile Terminated and Cell Broadcast / PDU or Text Mode		
USB	USB 2.0 high speed compatible (-U Models)				
TCP/IP Functions*	FTP, SMTP, SSL, TCP, UDP SSL, TCP, UDP		CP, UDP		
Connectors	Antenna: 2 UFL (Cellular, Rx Diversity/MIMO) Mini SIM (2FF); 1.8V & 3V		Antenna: 2 UFL (Cellular, GNSS) Mini SIM (2FF); 1.8V & 3V		
Dimensions		3.150" x 1.375" (80.01	10 mm x 34.925 mm)		
Power Requirement	S				
Power Draw Serial Models @ 5 VDC	Sleep Mode: 20 mA Idle: 19 mA Max Power: 400 mA (average)	Sleep Mode: 23 mA Idle: 28 mA Max Power: 318 mA (average)	Sleep Mode: 6 mA Idle: 14 mA Max Power: 191 mA (average)	Sleep Mode: 9 mA Idle: 14 mA Max Power: 122 mA (average)	
Power Draw USB Models @ 5 VDC	Sleep Mode: N/A Idle: 32 mA Max Power: 432 mA (average)	Sleep Mode: N/A Idle: 39 mA Max Power: 320 mA (average)	Sleep Mode: N/A Idle: 27 mA Max Power: 205 mA (average)	Sleep Mode: N/A Idle: 28 mA Max Power: 151 mA (average)	
Input Power (USB Models)	5.0 VDC				
Input Power (Serial Models)	3.3 VDC or 5.0 VDC				
Environmental					
Operating Temperature	-40° C to +85° C (-40° F to +185° F)				
Storage Temperature	-40° C to +85° C (-40° F to +185° F)				
Relative Humidity	20% to 90% RH noncondensing				
Certifications		CE, FCC, IC, RCM, UKCA	CE, FCC, IC, RCM, UKCA	FCC, IC	
EMC/Radio	FCC, IC	CE, 1 CC, 1C, 1C11, C1C7			
EMC/Radio Compliance	FCC, IC UL/cUL/IEC 62368-1	UL/cUL/IEC 62368-1 UL/cUL/IEC 60950-1	UL/cUL/IEC 62368-1	UL/cUL/IEC 62368-1	
Certifications EMC/Radio Compliance Safety Compliance Network Compliance		UL/cUL/IEC 62368-1		UL/cUL/IEC 62368-1	
EMC/Radio Compliance Safety Compliance Network		UL/cUL/IEC 62368-1 UL/cUL/IEC 60950-1		UL/cUL/IEC 62368-1 AT&T, Verizon	

^{*} See device guides or AT command guides for additional information.

[†] All future end-user (OEM) devices will and must go through FirstNet certification prior to being included in the FirstNet device ecosystem.

ORDERING INFORMATION

SocketModem® Cell LTE Models

Model	Description	Region
MTSMC-L1G2D	LTE Cat 1 Embedded Cellular Modem w/Fallback & GNSS (Serial Interface)	Global
MTSMC-L1G2D-U	LTE Cat 1 Embedded Cellular Modem w/Fallback & GNSS (USB Interface)	Global
MTSMC-L4G1	LTE Cat 4 Embedded Cellular Modem w/Fallback & GNSS (Serial Interface)	Global
MTSMC-L4G1-U	LTE Cat 4 Embedded Cellular Modem w/Fallback & GNSS (USB Interface)	Global
MTSMC-L4N1	LTE Cat 4 Embedded Cellular Modem w/Fallback & GNSS (Serial Interface) (AT&T/Verizon)	Canada/ United States
MTSMC-L4N1-U	LTE Cat 4 Embedded Cellular Modem w/Fallback & GNSS (USB Interface) (AT&T/Verizon)	Canada/ United States
MTSMC-L4E1	LTE Cat 4 Embedded Cellular Modem w/Fallback & GNSS (Serial Interface)	European Union/ United Kingdom
MTSMC-L4E1-U	LTE Cat 4 Embedded Cellular Modem w/Fallback & GNSS (USB Interface)	European Union/ United Kingdom
MTSMC-LAT3	LTE Cat 1 Embedded Cellular Modem w/Fallback (Serial Interface) (AT&T)	Canada/ United States
MTSMC-LAT3-U	LTE Cat 1 Embedded Cellular Modem w/Fallback (USB Interface) (AT&T)	Canada/ United States
MTSMC-MNG6	LTE Cat M1 Embedded Cellular Modem w/GNSS (Serial Interface)	Global
MTSMC-MNG6-U	LTE Cat M1 Embedded Cellular Modem w/GNSS (USB Interface)	Global
MTSMC-MNG2	LTE Cat M1/NB/2G Embedded Cellular Modem w/GNSS (Serial Interface)	Global
MTSMC-MNG2-U	LTE Cat M1/NB/2G Embedded Cellular Modem w/GNSS (USB Interface)	Global
MTSMC-MNA1	LTE Cat M1 Embedded Cellular Modem w/GNSS (Serial Interface) (AT&T/Verizon) Canada/ United States
MTSMC-MNA1-U	LTE Cat M1 Embedded Cellular Modem w/GNSS (USB Interface) (AT&T/Verizon)	Canada/ United States

Developer Kit

Model	Description	Region
MTUDK2-ST-CELL.R1	SocketModem® & Dragonfly Developer Kit	Global
	(DB9 RS-232 Connector and USB)	
	(Modem Sold Separately)	

Global models are approved for use in Australia, Canada, European Union, New Zealand, United Kingdom, and United States.

Ordering part numbers as listed are 50 packs. To order a single pack add a -SP to the end of the ordering part number. (i.e. MTSMC-L4N1-SP)

Go to www.multitech.com for detailed product model numbers.

Produced in the U.S. of U.S. and non-U.S. components. Features and specifications are subject to change without notice.

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