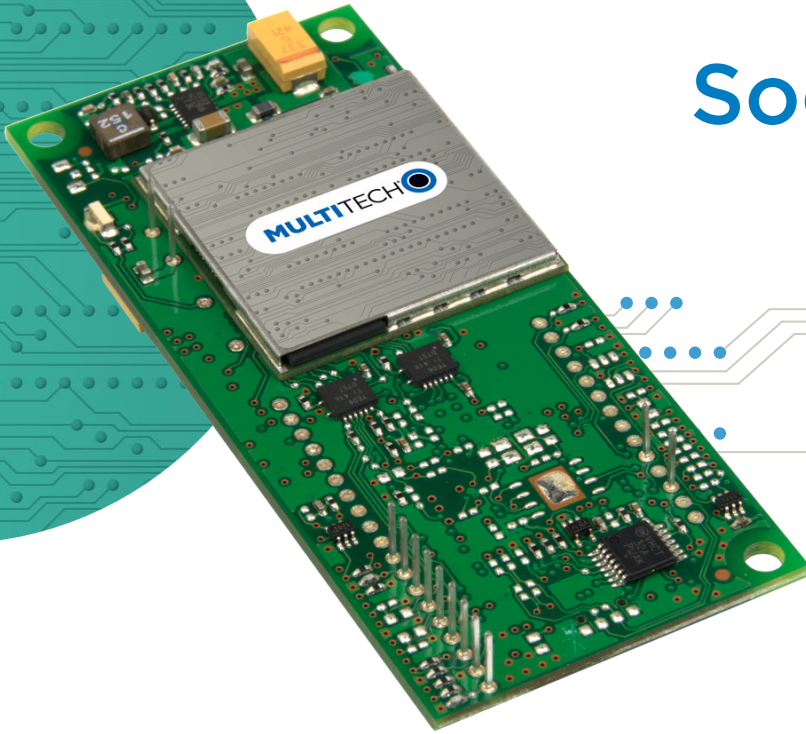


SocketModem[®] Cell

Embedded Cellular Modems
4G-LTE Models



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

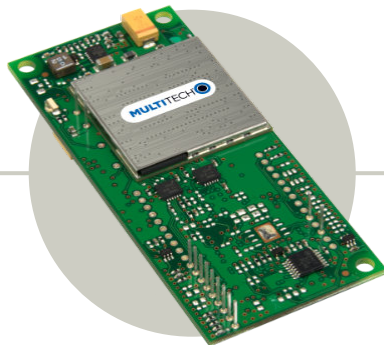
- 4G Models (Cat 4, Cat 1 and Cat M1)
- Global capable Cat 4 and Cat M1/NB-IoT models
- 4G Cat 4, Cat 1 Sprint and Cat M1 include GNSS
- Universal Socket connectivity
- Short Message Services (SMS)
- Serial or USB interfaces
- Serial interface supports speeds up to 921.6K bps
- AT command compatible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

The 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.

Your Devices & Data



Connecting Your Devices



Wireless Service Provider



Asset Management Platform

Insight + Action + Control



HIGHLIGHTS

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. (Note: Some power saving modes will be available in a future firmware release.)

SPECIFICATIONS

| Models | MTSMC-L4G1 MTSMC-L4G1-U | MTSMC-L4N1 MTSMC-L4N1-U | MTSMC-L4E1 MTSMC-L4E1-U | MTSMC-LAT3 MTSMC-LAT3-U |
|-----------------------|---|--|--|--|
| Performance | LTE 3GPP Release 11 (Category 4; 150 Mbps peak downlink/50 Mbps peak uplink) with HSPA and 2G Fallback | LTE FDD Cat.4, 3GPP release 10 compliant (Category 4; 150 Mbps peak downlink/50 Mbps peak uplink) with 3G Fallback | LTE FDD Cat.4, 3GPP release 10 compliant (Category 4; 150 Mbps peak downlink/50 Mbps peak uplink) with 3G/2G Fallback | LTE 3GPP Release 9 (Category 1; 10 Mbps peak downlink/5 Mbps peak uplink) with HSPA Fallback |
| Frequency Bands (MHz) | 4G FDD: B1(2100), B2(1900), B3(1800), B4(AWS1700), B5(850), B7(2600), B8(900), B12/B13(700), B18(850), B19(850), B20(800), B25(1900), B26(850), B28(700) TDD: B38(2600), B39(1900), B40(2300), B41(2500) 3G: B1(2100), B2(1900), B4(AWS1700), B5(850), B6(800), B8(900), B19(850) 2G: B2(1900), B3(1800), B5(850), B8(900) | 4G: B2(1900), B4(AWS1700), B5(850), B12(700a), B13(700c), B14(700 FirstNet),† B66(AWS-3 1700), B71(600) AT&T: B2, B4, B5, B12, B14 Verizon: B4, B13 3G: B2(1900), B4(AWS1700), B5(850) | 4G: B1(2100), B3(1800), B7(2600), B8(900), B20(800), B28A(700) 3G: B1(2100), B3(1800), B8(900) 2G: B3(1800), B8(900) | 4G: B12/B13(700), B5(850), B4(AWS1700), B2(1900) 3G: B5(850), B2(1900) |
| 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, SSL, TCP, UDP | | | |
| Connectors | Antenna : 3 UFL (Cellular, Rx Diversity/MIMO, GPS) / Mini SIM (2FF); 1.8V & 3V | | | Antenna: 2 UFL (Cellular, Rx Diversity/MIMO) / Mini SIM (2FF); 1.8V & 3V |
| Dimensions | 3.15" x 1.375" (80.010 mm x 34.925 mm) | | | |
| Power Draw* | Serial Model @ 5VDC; 22.6mA sleep, 46mA idle, 562mA average at max power USB Model @ 5VDC; 46mA idle, 577mA average at max power | Serial Model @ 5VDC; 4mA sleep, 20mA idle, 615mA average at max power USB Model @ 5VDC; 21mA idle, 672mA average at max power | Serial Model @ 5VDC; 8mA sleep, 13mA idle, 747mA average at max power USB Model @ 5VDC; 816mA average at max power | Serial Model @ 5VDC; 13mA sleep, 20mA idle, 400mA average at max power USB Model @ 5VDC; sleep N/A, 32mA idle, 432mA average at max power |
| Input Power | 3.3V - 5VDC | | | |
| 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 | | | | |
| EMC/Radio Compliance | FCC Part 15 Class B FCC Part 22, 24, 27 CE Mark, RED (EU) RCM (AU) | FCC Part 15 Class B FCC Part 22, 24, 27 | CE Mark, RED | FCC Part 15 Class B FCC Part 22, 24, 27 |
| Safety | UL/cUL 60950-1 2nd ED, IEC 60950-1 2nd ED +Am.2 | UL 60950-1 2nd ED, cUL 60950-1 2nd ED | IEC 60950-1 2nd ED | UL 60950-1 2nd ED, cUL 60950-1 2nd ED, IEC 60950-1 2nd ED |
| Network | PTCRB | PTCRB | N/A | PTCRB |
| Carrier | AT&T, Verizon | AT&T, Verizon | N/A | AT&T |

* 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.

Developer Kits

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

The MTUDK2-ST-CELL developer kit is designed to work with all versions of our cellular SocketModems as well as the MultiTech Dragonfly™ family of cellular SoMs and 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-LVW3 MTSMC-LVW3-U | MTSMC-LSP3 MTSMC-LSP3-U | MTSMC-MNG2 MTSMC-MNG2-U | MTSMC-MNA1 MTSMC-MNA1-U |
|--------------------------|---|---|--|---|
| Performance | LTE 3GPP Release 9 (Category 1; 10 Mbps peak downlink/ 5 Mbps peak uplink) (No Fallback) | LTE 3GPP Release 10 (Category 1; 10 Mbps peak downlink/ 5 Mbps peak uplink) | LTE 3GPP Release 13 (Category M1; Up to 300 Kb/s Downlink Up to 375 Kb/s Uplink NB1; Up to 250 Kb/s Downlink (multi-tone) Up to 20 Kb/s Uplink (single-tone)) | LTE 3GPP Release 13 (Category M1; Up to 300 Kbps downlink & up to 375 Kbps uplink) |
| Frequency Bands (MHz) | B13(700), B4(AWS1700), B2(1900) | 4G: B12(700), B5/25(850), B4(AWS1700), B2/25(1900), B25(1900+) | 4G: B1(2100)/B2(1900)/ B3(1800)/B4(AWS1700)/ B5(850)/B8(900)/ B12(700)/ B13(700)/ B18(800)/ B19(800)/ B20(800)/ B26(850)/ B28(700)/ B39(1900) 2G: B2(1900)/B3(1800)/ B5(850)/B8(900) | AT&T: B12(700), B4(AWS1700), B2(1900) Verizon: B13(700), B4(AWS1700) |
| 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, SSL, TCP & UDP | | | |
| Connectors | Antenna: 2 UFL (Cellular, Rx Diversity/MIMO) / Mini SIM (2FF); 1.8V & 3V | Antenna: 3 UFL (Cellular, Rx Diversity/MIMO, GPS) / Mini SIM (2FF); 1.8V & 3V | Antenna: 2 UFL (Cellular, GPS) Mini SIM (2FF); 1.8V & 3V | Antenna: 2 UFL (Cellular, GPS) Mini SIM (2FF); 1.8V & 3V |
| Dimensions | 3.15" x 1.375" (80.010 mm x 34.925 mm) | | | |
| Power Draw* | Serial Model @ 5VDC; 16mA sleep, 19mA idle, 373mA average at max power USB Model @ 5VDC; sleep N/A, 104mA idle, 388mA average at max power | Serial Model @ 5VDC; 7mA sleep, 55mA idle, 551mA average at max power USB Model @ 5VDC; sleep N/A, 69mA idle, 603mA average at max power | Serial Model @ 5VDC; 6mA sleep, 14mA idle, 191mA average at max power USB Model @ 5VDC; sleep N/A, 27mA idle, 205mA average at max power | Serial Model @ 5VDC; 9mA sleep, 14mA idle, 122mA average at max power USB Model @ 5VDC; sleep N/A, 28mA idle, 151mA average at max power |
| Input Power | 3.3V - 5VDC | | | |
| 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 | | | | |
| EMC/Radio Compliance | FCC Part 15 Class B FCC Part 27 | FCC Part 15 Class B FCC Part 22, 24, 27 | FCC Part 15 Class B FCC Part 22, 24, 27 CE Mark, RED (EU), RCM (AU) | FCC Part 15 Class B FCC Part 22, 24, 27 |
| Safety | UL 60950-1 2nd ED, cUL 60950-1 2nd ED, IEC 60950-1 2nd ED | UL 60950-1 2nd ED | UL/cUL 60950-1 2nd ED, IEC 60950-1 2nd ED +Am.2 | |
| Network | N/A | N/A | PTCRB | |
| Carrier | Verizon | Sprint | AT&T, Verizon | |

* See device guides or AT command guides for additional information.