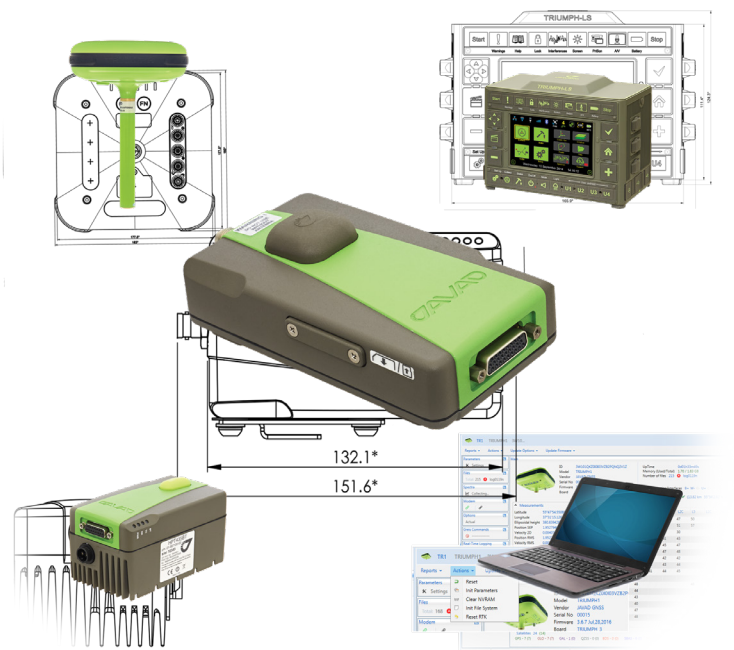




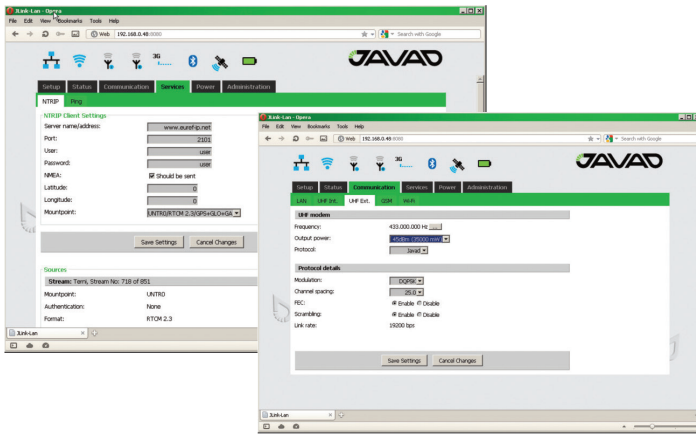
# JLINK LTE



JLink LTE is a family of devices designed for organizing a local network between different devices via WiFi, Ethernet, and Bluetooth, connecting to the Internet using 4G cellular digital communication services.

JLink LTE family provides a robust solution linking the field GNSS equipment to RTN, where no cell phone cover is available. JLink LTE devices may contain 1 W either UHF (406 to 470 MHz) or VHF (138-174 MHz), or ISM license free USA band (902-928 MHz) and European CEPT license free (868-870 MHz) radio transceiver. Marine Radiobeacon receiver (283.5 to 325 kHz) can be built-in into JLink LTE device.

JLink LTE can be configured and supported using web-interface through the Internet, and this makes the setup simple and accessible from anywhere in the world.



Web interface for communication, monitoring and setup JLink LTE devices from anywhere in the world

## 4G cellular module

|  |   |
|--|---|
| 4G LTE Mini Card (option 1)                | LTE, DC-HSPA+, HSPA+, EDGE, GPRS, GSM and CDMA networks   |
| Technology:                                |   |
| LTE  | Bands: 1 (2100 MHz), 3 (1800MHz), 7 (2600 MHz), 8 (900 MHz), 20 (800 MHz)<br>Data Rates: Category 3<br>Downlink 100 Mbps (20 MHz bandwidth), 50 Mbps (10 MHz bandwidth)<br>Uplink 50 Mbps (20 MHz bandwidth), 25 Mbps (10 MHz bandwidth)                                    |
| UMTS (WCDMA), HSDPA, HSUPA, HSPA+,DC-HSPA+ | Bands: 1 (2100 MHz), 2 (1900 MHz), 5 (850 MHz), 6 (800 MHz), 8 (900 MHz)<br>Data Rates: HSPA+ rates<br>Downlink up to 42 Mbps (category 24)<br>Uplink up to 5.76 Mbps (category 6)  |
| GSM, GPRS, EDGE                            | GSM 850 (850 MHz), EGSM 900 (900 MHz), DCS 1800 (1800 MHz), PCS 1900 (1900 MHz)<br>Data Rates: EDGE throughput up to 236 kbps   |
| 4G LTE Mini Card (option 2)                | LTE, DC-HSPA+, HSPA+, EDGE, GPRS, GSM and CDMA networks   |
| Technology:                                |   |
| LTE  | Bands: 2 (1900 MHz), 4 (AWS) (1700/2100MHz), 5 (850 MHz), 13 (700 MHz), 17 (700 MHz), 25 (1900 MHz G Block)<br>Data Rates: Category 3<br>Downlink 100 Mbps (20 MHz bandwidth), 50 Mbps (10 MHz bandwidth)<br>Uplink 50 Mbps (20 MHz bandwidth), 25 Mbps (10 MHz bandwidth)  |
| CDMA (EVDO Rel. 0 and Rel.A)               | Bands: BC0 (Cellular 800 MHz), BC1 (PCS 1900 MHz), BC10 (Secondary 800 MHz)<br>Data Rates: CDMA IS-856 (1xEV-DO Release A)<br>Up to 3.1 Mbps forward channel<br>Up to 1.8 Mbps reverse channel<br>CDMA IS-2000<br>Up to 153 kbps, simultaneous forward and reverse channels |
| UMTS (WCDMA), HSDPA, HSUPA, HSPA+,DC-HSPA+ | Bands: 1 (2100 MHz), 2 (1900 MHz), 4 (AWS 1700/2100 MHz), 5 (850 MHz),8 (900 MHz)<br>Data Rates: HSPA+ rates<br>Downlink up to 42 Mbps (category 24)<br>Uplink up to 5.76 Mbps (category 6)   |
| GSM, GPRS, EDGE                            | GSM 850 (850 MHz), EGSM 900 (900 MHz), DCS 1800 (1800 MHz), PCS 1900 (1900 MHz)<br>Data Rates: EDGE throughput up to 236 kbps   |

## UHF/VHF Radio (optional)

|                          |                                    |
|--------------------------|------------------------------------|
| Frequency Range          | 406-470 MHz/138-174 MHz            |
| Channel Bandwidth        | 25/20/12.5/6.25 kHz                |
| Modulation               | DBPSK/DQPSK/D8PSK/D16QAM/4FSK/GMSK |
| Transmitter Output Power | 1W (+30 dBm)                       |
| Communication Mode       | Half duplex, simplex, repeater     |

## ISM Radio (optional)

|  |  |
|--|--|
| Frequency Range                              | 902-928 MHz (USA)/<br>915-928 MHz (Australia)/<br>868-870 MHz (EU) with 25/12.5 kHz CS |
| Modulation                                   | GMSK   |
| Data Rate of Radio Interface (USA/Australia) | 64000 bps  |
| Data Rate Radio Interface (EU)               | 9600 bps   |
| Transmitter Output Power                     | 1W (+30 dBm)   |
| Communication Mode                           | Half duplex, simplex, repeater   |

## Beacon Receiver (optional)

|                 |   |
|-----------------|---|
| Frequency Range | 283.5- 325 kHz                              |
| User Data Rates | 50, 100, 200 bps (manual or Auto selection) |
| Sensitivity     | 1.5 mV/m for 6 dB SNR (200 bps)             |

## GNSS Receiver

|                               |                 |
|-------------------------------|-----------------|
| Tracking Channels             | GPS/GLONASS L1  |
| Signals Tracked               | C/A Code        |
| Cold / Warm Start             | 42 / 30 seconds |
| Sensitivity for Reacquisition | - 161dBm        |

## Communication Ports

|   |
|---|
| Wi-Fi 2.4 and 5 GHz (IEEE 802.11 a, b, g, n, d,e,i)                               |
| Full-duplex 10BASE-T/100BASE-TX Ethernet port                                     |
| Bluetooth 4.1 Compliance and CSA2 Support<br>Dual-Mode Bluetooth and Bluetooth LE |
| High Speed USB 2.0 configurable as Device or Host port                            |
| MicroSD card slot (fully sealed)  |
| Serial port configurable as RS232/RS422/RS485                                     |

## Environmental

|                       |  |
|-----------------------|--|
| Enclosure             | aluminum, IP67   |
| Color                 | Two-tone Gray / Green  |
| Operating Temperature | -40° C to +70° C *   |
| Storage Temperature   | -40° C to +85° C **  |
| Humidity              | 100% condensing  |
| Weight                | 468 g / 970 g  |
| Power Supply Voltage  | +5.5...36V without battery charging, 4Amax<br>+12...34V when the battery is charged, 3.6Amax |
| Battery (optional)    | One embedded, 7.2V, 5850 mAh   |

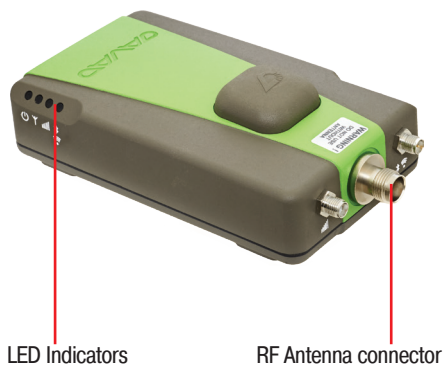
\* The operating temperature of Li-Ion batteries is -20 ° C to +45° C

\*\* The storage temperature range of Li-Ion batteries is -20 ° C to +60° C

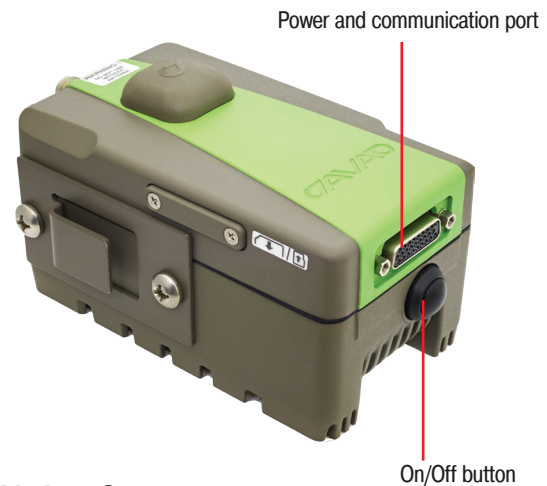
## Pinout of JLink LTE power and communication port

| Pin # | Signal Name | I/O | Description   | Pin # | Signal Name | I/O | Description                       |
|-------|-------------|-----|---|-------|-------------|-----|-----------------------------------|
| 1     | TX+/RTS_OUT | O   | Transmit Data positive line (RS-422) / Request to Send (RS-232) | 14    | USB0_VBUS   | PWR | Power line (USB)                  |
| 2     | RX+/CTS_IN  | I   | Receive Data positive line (RS-422) / Clear to Send (RS-232)    | 15    | USB0_ID     | I   | USB0 ID line                      |
| 3     | DTR_OUT     | O   | Data Terminal Ready (RS-232)                                    | 16    | ETD-        | O   | Transmit Data negative line (LAN) |
| 4     | USB0_DP     | I/O | Data Positive line (USB)  | 17    | ERD-        | I   | Receive Data negative line (LAN)  |
| 5     | USB0_DM     | I/O | Data Negative line (USB)  | 18    | PWR_IN      | PWR | +5.5 to +36 VDC Power Input       |
| 6     | ELED+       | O   | LED line (LAN)  | 19    | GND         | PWR | Power Ground                      |
| 7     | ETD+        | O   | Transmit Data positive line (LAN)                               | 20    | GND         | PWR | Power Ground                      |
| 8     | ERD+        | I   | Receive Data positive line (LAN)                                | 21    | GND         | PWR | Power Ground                      |
| 9     | PWR_IN      | PWR | +5.5 to +36 VDC Power Input                                     | 22    | RESERVE     | -   | Not used. Reserve                 |
| 10    | TX-/TX_OUT  | O   | Transmit Data negative line (RS-422) / Transmit Data (RS-232)   | 23    | RESERVE     | -   | Not used. Reserve                 |
| 11    | RX-/RX_IN   | I   | Receive Data negative line (RS-422) / Receive Data (RS-232)     | 24    | POWER_OUT   | O   | Power for FAN, +12V@0.3A max      |
| 12    | DSR_IN      | I   | Data Set Ready (RS-232)   | 25    | RESERVE     | -   | Not used. Reserve                 |
| 13    | DCD_OUT     | O   | Data Carrier Detect (RS-232)                                    | 26    | PWR_IN      | PWR | +5.5 to +36 VDC Power Input       |

# JLINK LTE



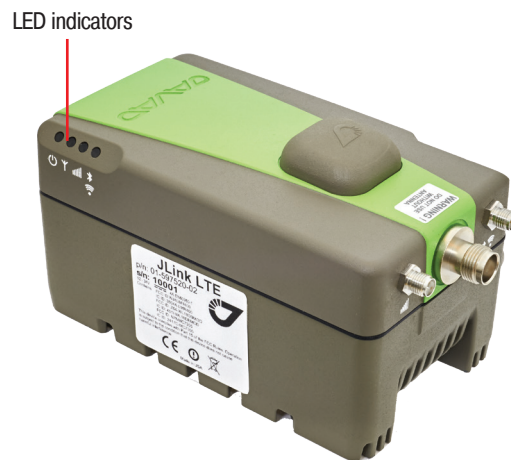
Variant 1



Variant 2



Variant 3



Variant 4

- 1- UHF/VHF/ISM Transceiver / Beacon receiver, cellular module, GPS receiver, Bluetooth, WiFi, Ethernet, USB and Serial port.
- 2 - Variant 1 with battery.
- 3 - Cellular module, GPS receiver, Bluetooth, WiFi, Ethernet, USB and Serial port.
- 4 - Variant 3 with battery.

Specifications are subject to change without notice



**JAVAD GNSS**  
**www.javad.com**  
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