

JAVAD ARVEST

JLink 3G Family



JLink 3G is a family of devices designed for organizing a local network between different devices via WiFi, Ethernet, and Bluetooth, connecting to the Internet using 3.5G cellular digital communication services.

JLink 3G family provides a robust solution linking the field GNSS equipment to RTN, where no cell phone cover is available. JLink 3G 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 3G device.

JLink 3G can be configured and supported using web-interface through Internet, and this makes the setup mechanism simple and accessible from anywhere in the world.

JLink 3G Family

Web interface for communication, monitoring and setup JLink 3G devices from anywhere in the world.



3.5G Cellular Module

Supported frequencies	GSM/GPRS/EDGE: 850, 900, 1800, 1900 MHz UMTS/HSPA: 800/850, 900, AWS1700, 1900, 2100 MHz
Data	HSPA category 6 in uplink and up to category 14 in downlink - Uplink up to 5.76 Mbps - Downlink up to 21.0 Mbps UMTS - Uplink/Downlink up to 384 kbps EDGE - Uplink up to 236.8 kbps - Downlink up to 296 kbps GPRS CSD
SIM card slot	One microSIM card can be used; user accessible, fully sealed

UHF/HF 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)/ 915-928 MHz (Australia)/ 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)

GPS Receiver

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

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Communication Ports

Wi-Fi (IEEE 802.11 b,g,n,d,e,i)
Full-duplex 10BASE-T/100BASE-TX Ethernet port

Bluetooth V2.0+EDR Class 2
High Speed USB 2.0 configurable as Device or Host port
MicroSD card slot (fully sealed)
Serial port configurable as RS232/RS422/RS485 port

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, 4A max @ 5.5V +12...34V when the battery is charged, 3.6A max @12 V
Battery (optional)	One embedded, 7.2V, 5850 mAh

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

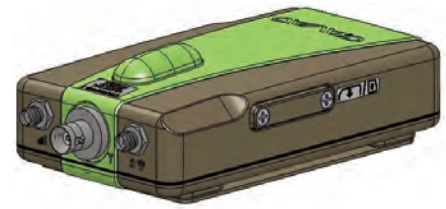
** The storage temperature range of Li-Ion batteries is -20 ° C to +60° C

Compliance

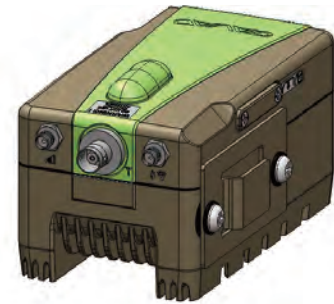
FCC	FCC Part 90, Part 15.247
Industry Canada	RSS-210
ETSI	ETSI EN 300 113-2, ETSI EN 301 489-1, ETSI EN 301 489-5, ETSI EN 300 220-1, EN 301 489-1

Pinout of JLink 3G power and communication port

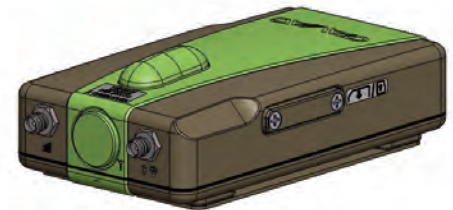
Pin #	Signal Name	I/O	Description
1	TX+/RTS_OUT	O	Transmit Data positive line (RS-422)/Request to Send (RS-232)
2	RX+/CTS_IN	I	Receive Data positive line (RS-422) /Clear to Send (RS-232)
3	DTR_OUT	O	Data Terminal Ready (RS-232)
4	USB0_DP	I/O	Data Positive line (USB)
5	USB0_DM	I/O	Data Negative line (USB)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



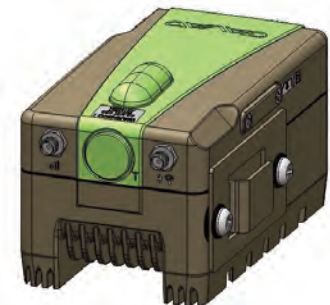
Variant 1



Variant 2



Variant 3



Variant 4

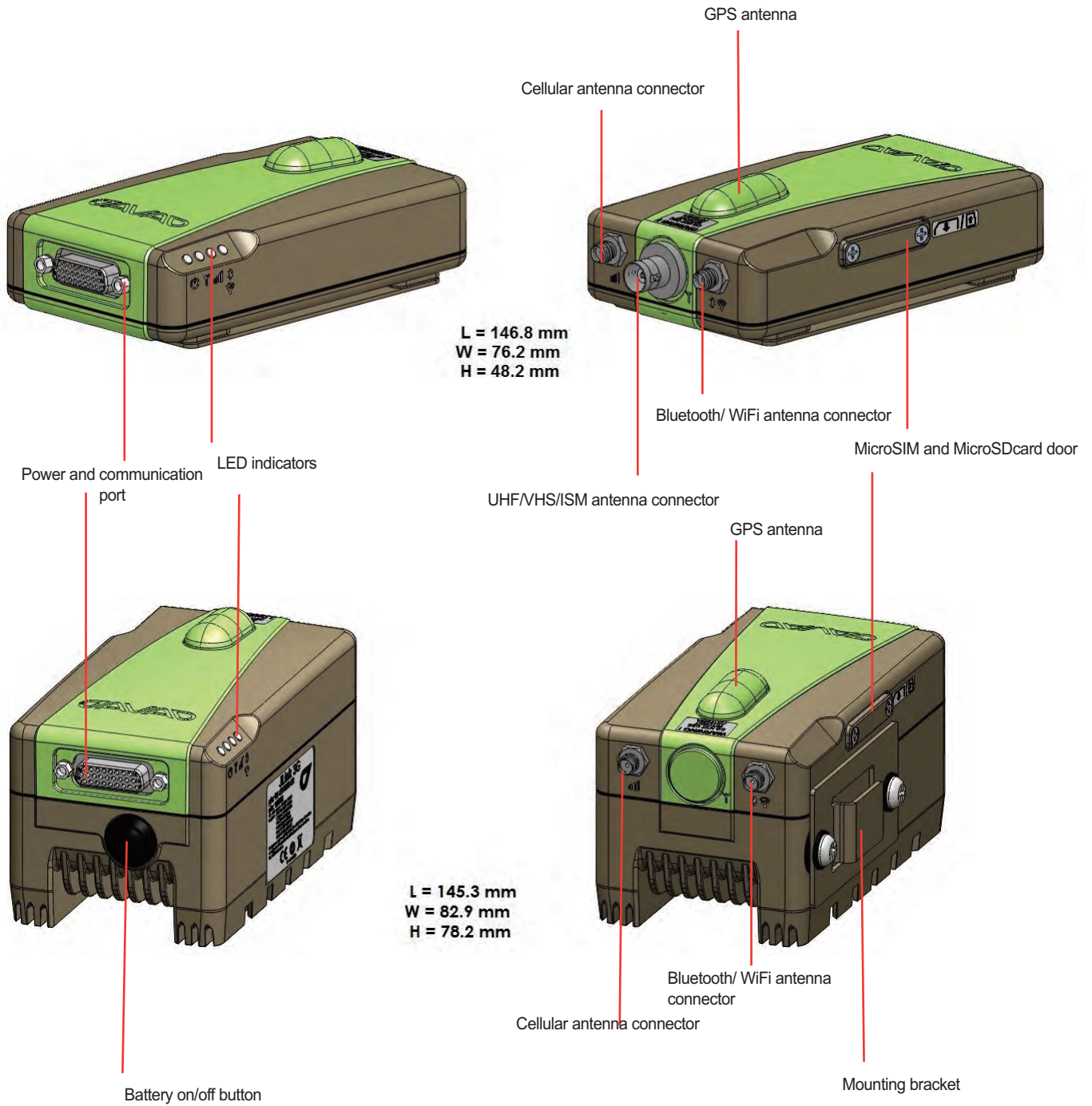
1 - UHF/VHF/ISM Transceiver / Beacon receiver, cellular module, GPS receiver, Bluetooth, WiFi, Ethernet, USB and Serial port.

2 - Variant 1 with battery.

3 - Cellular module, GPS receiver, Bluetooth, WiFi, Ethernet, USB and Serial port.

4 - Variant 3 with battery.

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Specifications are typical and subject to change without prior notice