ARWEST
A JAVAD COMPANY

ALPHAWAVE
NARROWBAND RADIO MODEMS
WIRELESS SOLUTIONS

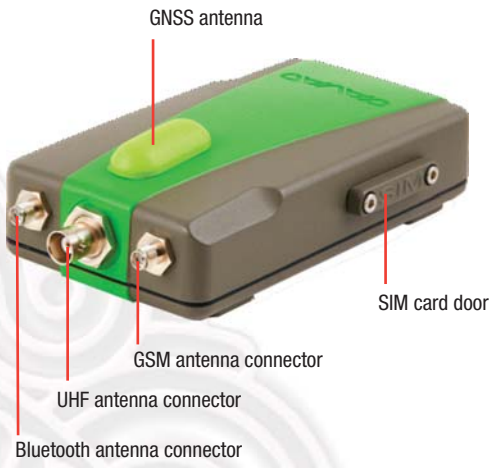
JLink Lite

JLink Lite allows the GNSS rover capturing of RTK quality data points where cell phone cover is poor. It provides a robust solution linking the field GNSS equipment to VRS network, where no cell phone cover is available. Jlink Lite enables to surveyors to capture data points up to 13 km from where the nearest cell phone coverage is available. Embedded GPS L1 functionality allows using JLink Lite as standalone wireless network RTK field access point. JLink Lite contains 1 W UHF Radio Transceiver with built-in quad band GSM/GPRS module. It access VRS network using TCP/IP protocols. It takes incoming data from the network, modulates it with GMSK, FSK, PSK or most spectrum efficient QAM modulation and transmits it at RF power output levels from 10 dBm up to 30 dBm operating in UHF frequency band (406 to 470 MHz). The JLink Lite is also capable of receiving RF signal from remote UHF transmitter, and the data could be send over the cellular network using built-in GSM/GPRS module if such operation mode is selected. The unit's user settings can be changed through the CLI interface or through ModemVU. The output transmit power, receive signal strength (RSSI), antenna/feed line condition, and data decode performance will be transmitted online without application interruption.

JLink Lite

GNSS Receiver

Total 50 channels: all-in-view (GPS L1, Galileo E1)	
Tracking Channels	GPS L1, Galileo E1
Signals Tracked	C/A Code
Cold Start	29 seconds
Warm Start	29 seconds
Sensitivity for Reacquisition	- 160dBm
GNSS Antenna	Embedded



Radio

GSM/GPRS Module	Internal GSM/GPRS quad-band module
SIM card slot	One
UHF Radio Modem	Internal 406-470MHz radio transceiver, up to 38.4kbps
Base Power Output	1 Watt
UHF Antenna	External, BNC
GSM Antenna	External, SMA
Bluetooth Antenna	External, SMA

Radio Transceiver Specifications

Frequency Range	406-470 (EU) 406.1 - 470 MHz (USA) 406-430;450-470 (Canada)
Channel Spacing	25/12.5/6.25 kHz (USA, Canada) 25/20/12.5 kHz (ETSI EN 300 113) 20/12.5 kHz (ETSI EN 300 220)
Carrier Frequency Stability	±1 ppm
Modulation	GMSK/DBPSK/DQPSK/D8PSK/D16QAM
Communication Mode	Half duplex, simplex

Radio Receiver Specifications

Receiver Sensitivity for DBPSK (BER 1x 10-4)	-113 dBm for 25 kHz Channel Spacing -113 dBm for 20 kHz Channel Spacing -114 dBm for 12.5 kHz Channel Spacing -114 dBm for 6.25 kHz Channel Spacing
Receiver Sensitivity for DQPSK (BER 1x 10-4)	-110 dBm for 25 kHz Channel Spacing -110 dBm for 20 kHz Channel Spacing -111 dBm for 12.5 kHz Channel Spacing -111 dBm for 6.25 kHz Channel Spacing
Receiver Dynamic Range	-119 to -10 dBm

Modem Specification

Data Rate (25/12.5/6.25 kHz Channel Spacing)	9600/4800/2400 bps – DBPSK/GMSK 19200/9600/4800 bps – DQPSK/4FSK 28800/14400/7200 bps – D8PSK 38400/19200/9600 bps – D16QAM
Forward Error Correction (FEC)	Reed-Solomon Error Correction
Data scrambling	Yes

GE865-QUAD GSM Module Specification

Operating Systems	Quad band: 850/900/1800/1900 MHz
Tx power	850/900 MHz – Class 4 (2 Watt)/ 1800/1900 MHz – Class 1 (1 Watt)
Typical RX sensitivity	-107dBm - 850/900MHz -106dBm - 1800/1900 MHz
GPRS	GPRS Class 10 Mobile station class B Coding scheme 1 to 4 Embedded TCP/IP stack, including TCP, IP, UTP, SMTP, and FTP protocols
CSD	Max BR 14.4 Kbps
SMS	Text and PDU modes , Cell broadcast

I/O

Communication Ports	Bluetooth V2.0+EDR Class 2 supporting SPP Slave and Master Profiles High Speed USB 2.0 Device port Serial (RS232) up to 115200 bps RS422 or RS 485 (about using and configuration RS-485 please contact JAVAD GNSS support)

Compliance

FCC	FCC Part 90
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

Environmental

Enclosure	Aliminum, IP66
Color	Two-tone Silver / Gray
Operating Temperature	-40° C to +70° C
Storage Temperature	-40° C to +85° C
Humidity	100% condensing
Dimensions	146 mm x75 mm x44 mm
Weight	488 g

Specifications are typical and subject to change without prior notice

ArWest Communications Corp. 900 Rock Avenue, San Jose, CA 95131
Tel+1 408 770 1790 Fax: +1 408 770-1799 Email: sales@arwestcom.com

www.arwestcom.com
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