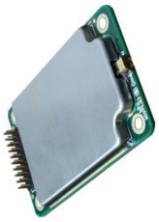
RV-Z50 Secure Wireless Modem

RV-Z50 3G
OEM Cellular Modem

The RV-Z50 certified 3G cellular modem is a small, low-power OEM radio modem for data communication over your choice of cellular networks. Low-cost data plans from Verizon, AT&T and T-Mobile make the Z50 an economical, secure, and reliable data communication link. It is also compatible with Raveon's Tech Series enclosure with flexible I/O options, and our DART Master Gateway for managing and securing you data.



Product Overview

Build Your Internet of Things (IoT)

Add reliable, secure cellular data communication to your smart things! The Z50 gives you more IoT options than any other cellular modem and Raveon's tech support team can help make your vision a reality.

- Easy setup and integration.
- Get connected quickly and easily with pass-through mode or enable Raveon's DART interface for additional security, IPV6 addressing, and many other M2M communications features.
- I/O connection and form-factor is similar to Raveon's 900MHz ISM modems and M8 series VHF, UHF, and 220MHz modems. All of which can be interchanged as your network evolves.
- The Z50 may be used with another Z50 for point-to-point communications.
- Low power consumption, secure encrypted data, and flexible addressing schemes make the Z50 an ideal choice to connect your smart devices to the internet.

PTCRB Certified

The Z50 is pre-certified by Raveon for use on cellular networks. Design in the Z50 with the confidence of knowing that there won't be any holdups with release due to certification hurdles.

Efficient Power Consumption

The RV-Z50 can operate off DC inputs from 5V-30V with an efficient on-board power regulator.

Application Interface

- NDIS NIC interface support (Windows XP, Windows 7, Windows 8, Windows CE, Linux)
- Dial-up networking
- Transparent pass-through mode
- Raveon's DART interface (WMX, IPV6, and secure data-in/Data/out mode)
- Onboard Micro-SIM slot

Secure Data and Devices

Enable Raveon's DART mode for additional encryption and device authentication. DART also simplifies the management and communication with large numbers of wireless devices.

GPS Option

The optional GPS and GLONASS receiver allows the Z50 to be a powerful Automatic Vehicle Locating (AVL) system or Time Space Position Information (TSPI) reporting device.

Tech Series I/O Options

Build your own radio by adding one of the various Tech Series enclosures to the Z50. With an easy to use digital serial interface the Z50 can be connected to any of the following Tech Series interface boards:

- RS-232 [S]
- USB [U]
- RS-485 [T]
- RS-422 [F]
- GPIO [G]

www.raveon.com/tech-series

Flexible Addressing and Error Correction

The Z50 uses a dynamic addressing scheme with a network mask. Use conventional cellular addressing, IP access via your carrier's portal, or IPV6 with a DART portal.

General Specifications

Model:
- RV-Z50-3A (5V version)
- RV-Z50-3B (7-30V version)
- RV-Z50-3B-GX (7-30V version w/GPS)
- RV-Z50-3A-GX (5V version, w/GPS)

Size:
- 61mm X 37mm

Weight:
- 1.5 oz

Input Voltage:
- 4.7-5.5 VDC full-spec standard
- 7-30 VDC optional

Power Consumption:
- Receiving data: <1W (200mA @5V)
- Transmitting data: < 2.5W (500mA@5.0V)
- Idle: < 0.1W (20mA @ 5V)
- Sleep (<50uA)

Frequency Bands:
- 850, 900, 1800, 1900

UMTS FDD:
- Band I, II, V, VIII

Carriers:
- AT&T, T-Mobile, Rogers, KT, SKT, LGU+

Serial Port Baud Rates (programmable)
1.2k, 2.4k, 4.8k, 9.6k, 19.2k, 38.4k, 57.6k, 115.2k

Full Spec Operating Temperature range:
- -30°C to +70°C

RF I/O Connector:
- MCX (Female)

Addressing:
- Carrier serviced IP addressing
- Raveon DART protocol: IPV6

Options:
GPS (with 3Asis accelerometer) - GX option

Security

Encryption Method..... *AES128, HTTPS*
Electronic Serial Number..... Silicon ESN
Configuration Monitor..... Serialized on update

Wireless Specifications

Embedded Connectivity Module:
- Sierra AirPrime HL8548

Air Interface:
- GPRS/EDGE/HSDPA/HSUPA

Frequency Bands:
- UMTS B1/B2/B5/B6/B8/B19

Certifications
- FCC ID N7NHL8548
- EMEI Type Allocation Code (TAC): 01462600
- IC ID 2417C-HL8548
- RoHS compliant

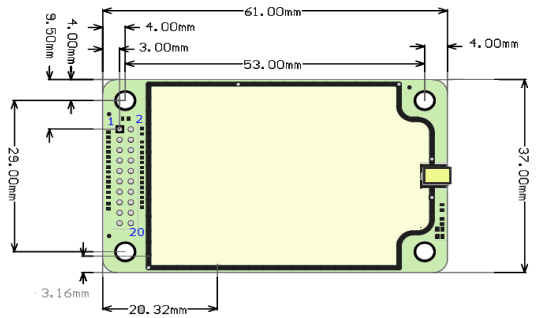
Input/Output Connection Functions

20-Pin Interface Port

1	GND	Ground
2	VCC	5V DC Input
3	CD	Carrier Detect Out.
4		
5	Data In (TXD)	Transmit data input.
6	Data Out (RXD)	Receive data output.
7	Enable	Low to shutdown the module. High to enable it.
8	Sleep	CPU Sleep input. Put in low-power fast-startup mode.
9	CTS	Clear to send output. Indicates state of internal buffers.
10	RTS	RTS input for serial flow control.
11		
12	VDIG	3.3V output, 50mA max current draw
13	IOA	IO port A, USB DP
14	IOB	IO port B, USB port, DM
15	IOC	IO port C
16	STAT1	Status IO 1
17		
18	STAT2	Status LED out
19	GND	Ground
20	V-BACK	Backup Battery In

Mechanical Specifications

Enclosure Size



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