Embedded Communications Systems
www.embeddedcomms.com.au

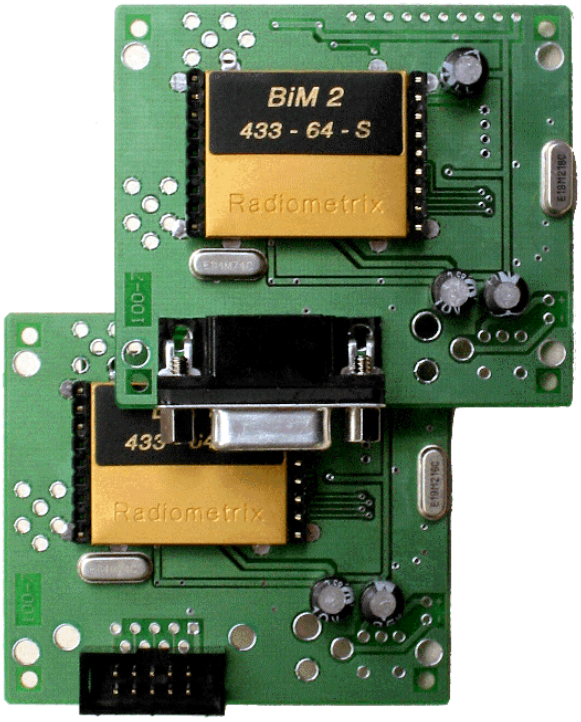
RM-232-xxx/BB RADIO MODEM

OEM. HIGH SPEED. LOW POWER. LICENCE EXEMPT RADIO LINK

The RM-232-xxx/BB is a low cost high speed OEM radio modem providing a reliable wireless data link capable of data throughput rates to 14400 bps. Its ease of use and numerous features make it ideal for adding wireless communications to any application requiring wire free serial operation.

Features

- International license exempt ISM bands
- Point-to-point, point-to-mulitpoint, broadcast multi-drop, mulitmaster
- DTE speed 600-115200 bps.
- On-air data speed 600-14400 bps.
- Flow control - hardware/software/none.
- Serial format – 8n1, 8n2, 8o1, 8e1.
- Up to 300m outdoor & 50m indoor range.
- Up to 2Km outdoor using external antenna.
- Built-in command line configuration.
- Built-in RF link diagnostics.
- Remote over-air unit configuration.
- Repeater mode for extended range.
- Modem status indicator LEDs.
- Low operating current. Auto standby mode.
- Serial interface: D9 or 10 way header.



Applications

- Remote data acquisition systems
- EPOS equipment, barcode scanners
- Wireless computer peripheral networks
- Remote monitoring and control systems
- PDA, laptop, organiser, printer connectivity
- Portable logging equipment (body worn etc)

Easy and Reliable

The RM-232-433/BB is designed as an OEM product that can be easily incorporated into existing products. The radio modem uses addressable data packets with error checking, packet acknowledgements and retransmissions to achieve a reliable wireless point-to-point/point-to-multipoint data link. Built for ease of use and rapid installation, the RS232 compliant interface ensures direct connection to serial equipment while remote configuration enables post installation setup of the modem.

Broadcast Multi-drop Networks

Configure the RM-232-433/BB for broadcast multi-drop mode and combine with any number of intelligent host computers/controllers to implement very large scale multipoint radio networks.

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TECHNICAL SPECIFICATIONS
RM-232-xxx/BB

General

- Operating Voltage — 7 to 15VDC via pin #1 of interface connector
- Operating Current — 40mA (10mW version)
  70mA (100mW version)
- Standby/Power-down — 15mA/400uA
- Operating Temperature — 0 to +55 degrees C
- Configuring Settings — Built-in software command line configurator
- Data throughput — to 14400 bps (acknowledged packets)
  to 28000bps (broadcast mode)
- Radio — Narrow band, Single channel

Interface

- RS232 Interface — DCE - 9 pin female D style or 10 way box header
- RS232 protocol — 8n1, 8n2, 8o1, 8e1
- RS232 Signals — RXD, TXD, RTS, CTS, DTR, GND
- Powerdown Control — Via DTR (software controlled)
- RS232 Handshaking — Selectable as hardware/software/none
- DTE Interface Speed — 600/1200/2400/4800/9600/14400
  19200/38400/57600/115200
- Air Interface Speed — 600/1200/2400/4800/9600/14400

Receiver

- Sensitivity — -100 dBm for 1ppm BER

Transmitter

- Output Power — 1mW ERP, 10mW ERP,
  *100mW ERP
- Spurious Emissions — -70 dB

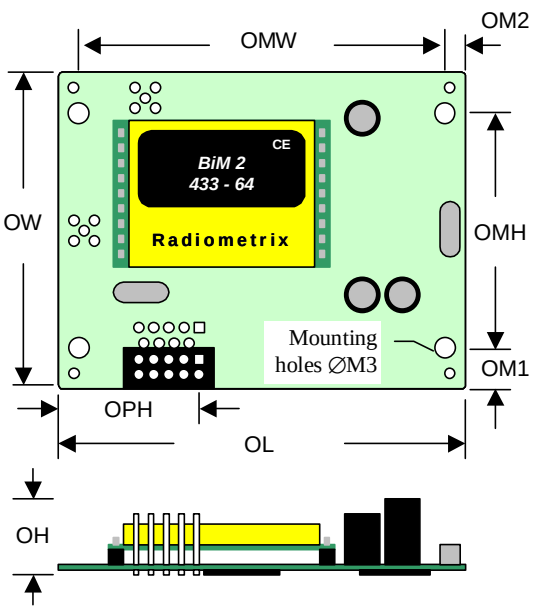
Approvals

- Australian Standards — AS 4268.2
- European Standards — EN 300-220-1,
  ETS 300-683

Physical

Mechanical Details	Typical
Length (dimension OL)	63.5mm
Width (dimension OW)	56.0mm
Height (dimension OH)	15.8mm
Mounting holes width (dimension OMW)	41.0mm
Mounting holes length (dimension OML)	57.5mm
Mounting holes position 1 (dimension OM1)	7.5mm
Mounting holes position 2 (dimension OM2)	3.0mm
Pin header from edge (dimension OPH)	26.5mm

RM-232-433/BB Dimensions



RM-232-xxx/BB Radio Options

- RM-232-433/BB — 433.920MHz @ 10mW with SMA
- RM-232-433P/BB — 433.920MHz @ 100mW with SMA
- RM-232-869/BB — 869.850MHz @ 1mW with SMA
- RM-232-914/BB — 914.500MHz @ 1mW with SMA

*Note 100mW exceeds allowable power levels in most countries. Please check with your local Communications Authority.
Specifications are subject to change without notification.

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