

MReX TELEMETRY AND MESSAGING TRANSCIVER MODULE

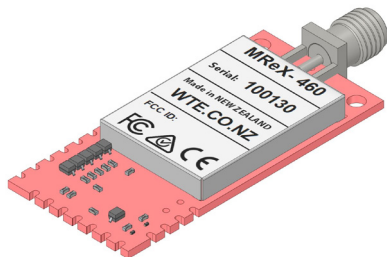
The MReX is a low cost, very high sensitivity transceiver module for mobile paging and general telemetry use.

Suitable for a number of monitoring and control applications in sectors such as industry, agriculture, farming, retail, hospitality, security and emergency services.

Single modular type approval means that the module can be incorporated into other products, in some cases with no required testing for FCC and CE compliance. This can result in a very short time to market for products.

APPLICATIONS:

- Transmit DMR Messages to a variety of standard DMR radios.
- Transmit and receive POCSAG paging messages for use with legacy belt pager type systems.
- Transmit and receive serial and telemetry data at high data rates (optional).
- Repeat and forwarding telemetry and paging messages in poor coverage areas (optional).
- Remotely control outputs or monitor inputs



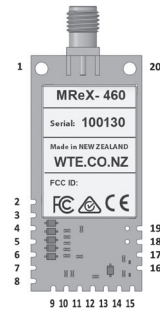
FEATURES:

- Sends and receives 512, 1200 and 2400 baud POCSAG paging messages.
- Transmits DMR Tier 1 text messages (optional).
- Sends telemetry data from 512 baud to 9600 baud
- Paging store and forward repeater operation with configurable duplicate reject (optional).
- Data transmit rates from 512 baud to 9.6K baud.
- Supported channel spacing of 25kHz, 12.5kHz and 6.25kHz.
- Optionally can be used as a point to point wireless serial link operating at speeds up to 9600 baud. In this manner a wireless transparent serial link can be achieved.
- 5 inputs. One Input may be reconfigured to be an open collector output.
- Periodic message support to ensure link integrity.
- High stability 0.5PPM oscillator ensuring minimal drift over the entire specified temperature range.
- High sensitivity receiver (-127dBm at 512 baud).
- Operation through external power supply (5-9Vdc) or 3V battery pack.
- Configured inputs can be programmed to send POCSAG and DMR messages simultaneously when triggered.
- Configured outputs can be controlled via received messages.
- Autonomous operation without the need for any host processor.
- Compliant as mobile and base station transceiver meaning that the user can select a suitable antenna for best performance.

DMR MESSAGING SUPPORT

The MReX supports the transmission of short Digital Mobile Radio text messages, allowing direct messaging to a variety of DMR radios.

MReX PINOUT



| Pin Number | Description |
|------------|------------------------------------|
| 1 & 2 | GND |
| 3 | Input/Output – Digital 5 |
| 4 | Input/Output – Digital 4 |
| 5 | Input/Output – Digital 3 |
| 6 | Input/Output – Digital 2 |
| 7 | Input/Output – Digital 1 |
| 8 | Output – Digital 1 (open drain) |
| 9 | TX Serial TTL (out 3.3V) |
| 10 | RX Serial TTL (in 3.3V) |
| 11 | GND |
| 12 | Power IN + (5-9Vdc, 150mA) |
| 13 & 14 | GND |
| 15 | LED 2. (open drain). Red Transmit. |
| 16 | LED 1. (open drain). Green Status. |
| 17 | GND |
| 18 | Power IN + Battery (3V) |
| 19 & 20 | GND |

CUSTOMISATION

The MReX has been developed and is maintained "in-house". WTE can work with your team to customize the MReX to meet your system needs. Designed and manufactured in New Zealand.

