

MReX-5B MESSAGING TRANSMITTER

The MReX-5B is a portable, 5 button messaging and control transceiver. The MReX-5B incorporates the MReX-460 telemetry module.

MESSAGING SUPPORT

DMR:

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

POCSAG:

The MReX can be used to send POCSAG messages, directly to legacy belt pager systems. Singular and batched transmissions are supported for both alphanumeric and numeric pagers.

FEATURES:

- Sends and receives 512, 1200 and 2400 baud POCSAG paging messages.
- Transmit DMR Messages to a variety of standard DMR radios.
- Transmits DMR Tier 1 text messages (optional).
- Configured inputs can be programmed to send POCSAG and DMR messages simultaneously when triggered.
- Base station approval allows the user to operate at a higher power level than other handheld "portable" approved transmitting devices.
- Supported channel spacing of 25kHz, 12.5kHz and 6.25kHz.
- 5 inputs.
- Output power up 100mW
- High stability 0.5PPM oscillator ensuring minimal drift over the entire specified temperature range.
- "Polite" operation, checking the channel is clear before transmission.
- Operates from 2 AA batteries allowing for many thousands of transmissions.
- Approved for use at rates up to 9600 bps for fast telemetry control.
- Approved for use with any antenna - allows the user to choose between size, performance or elevated external antennas.
- Transmit LED and sounder.
- Parameters can be changed using any common serial terminal program. A serial terminal program that also allows saving and loading of configuration files can be downloaded from wte.co.nz/tools.html

INTEGRATION:

The MReX-5B works seamlessly with other WTE products such as the MReX-SF and TRex. Together, these units provide a complete transmit and receive control solution.

APPLICATIONS:

- Transmit paging messages.
- Transmit DMR messages.
- Remote control

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.



SPECIFICATIONS:

FREQUENCY RANGE	MReX-460: 421MHz to 480MHz
TX POWER	Up to 100mW (+20dBm)
RECEIVER SENSITIVITY	450MHZ (512 BAUD) -126 dBm
	450MHZ (1200 BAUD) -124 dBm
MAXIMUM RX INPUT POWER	13 dBm
Tx/Rx FREQUENCY ACCURACY	0.5ppm
BATTERY SUPPLY VOLTAGE	2 standard AA (Min 2.7V Max 3.3V)
OPERATING CURRENT:	
RECEIVING:	21mA
TRANSMITTING:	95mA
STANDBY:	<300nA in transmit only standby
BUTTONS INPUTS	5 Tactile Dome Switch
MESSAGE INPUT MESSAGE LENGTH	50 Characters
CONFIGURATION INTERFACE	SERIAL TTL (3V) 9600:8-N-1 BAUD
ANTENNA CONNECTOR	SMA female

MECHANICAL:

LENGTH:	102mm (excluding antenna)
WIDTH:	51mm
HEIGHT:	28mm
WEIGHT:	100 Grams
IP RATING:	IP51

ENVIRONMENTAL

OPERATING TEMPERATURE	-10 to +55 °C
HUMIDITY	Maximum 95% non-condensing

DMR SUPPORT:

ENCODE	Partial ETSI TS 102 361-1 (Tier 1 direct mode). Short Message Type, unconfirmed. Max Message Length 50 characters.
DECODE	N/A

POCSAG SUPPORT:

ENCODE AND DECODE BAUD RATES	512, 1200, 2400, 4800, 9600
SUPPORTED MODES	Alphanumeric and numeric, singular or batched for 25KHz, 12.5KHz and 6.25KHz channel spacing Adjustable preamble from 64 to 5000 bits

MODULATIONS SUPPORT:

25KHZ CHANNEL WIDTH	512 BAUD (FSK), 1200 (FSK)
12.5KHZ CHANNEL WIDTH	512 BAUD (FSK), 1200 (FSK), 1800(GFSK), 2400 (GFSK), 4800 (GFSK), 9600 (GFSK), 9600 (4GFSK)
6.25KHZ CHANNEL WIDTH	512 BAUD (FSK), 4800 (4GFSK)

REGULATORY COMPLIANCE

FCC	FCC Part 90.217
EN	EN 300 224 (base station and mobile transceiver compliant).
EN	EN 50385
AS/NZ	AS/NZ 4769.1:2000
EMC	EN 301 489
SAFETY	EN 62368
RoHS (Restriction of Hazardous Substances)	Compliant
WEEE (Waste Electrical and Electronic Equipment)	Compliant ¹
FCC ID	2ASGC-MREX460

Notes: ¹ Please contact your WTE dealer for further information regarding safely disposing of electronic equipment

For latest information and specifications please visit wte.co.nz



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