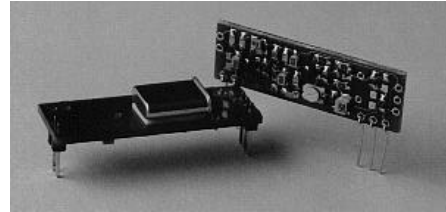


## FM Narrow Band VHF Transmitter Module

**WP-MKT4**

### Features

- MINIATURE SIL / DIL PACKAGE
- NARROW BAND 25 KHz CHANNELS
- DATA RATES TO 4800 BITS/S
- ANY VHF FREQUENCY SUPPLIED
- CRYSTAL STABILISED
- 5 VOLT SUPPLY VOLTAGE
- INDUSTRY PIN COMPATABLE
- AF AND DIGITAL INPUTS



### Applications

- VEHICLE ALARM SYSTEMS
- AUTOMATIC METER READING
- FIRE ALARM SYSTEMS
- DOMESTIC AND COMMERCIAL SECURITY

### Compatible Receiver Modules

### General Description

The WP-MKT4-XXX miniature transmitter VHF radio module enables the implementation of a simple telemetry link at data rates of up to 4800 bit/s when used with one of the compatible MK receiver modules.

Available for operation at any VHF frequency these modules are able to transmit to distances of several Km depending on types of antenna used.

The WP-MKT4-XXX module will suit one-to-one and multi-node wireless links in applications including building and car security, remote industrial process monitoring and computer networking. Because of its small size and low power requirements, this module is ideal for use in portable battery powered wireless applications.

**Absolute Maximum Ratings: Transmitter**

Operating temperature:	-20°C to +55°C
Storage temperature:	-40°C to +80°C
Supply Voltage (pin 5)	- 0,3 to + 7V
Data input (pin 3)	- 0,3 to + 7V

**Electrical Characteristics: Transmitter**

	pin	min.	Typ.	max.	units	notes
<b>DC LEVELS</b>						
Supply voltage	5	4.5	5.0	5.5	Volts	
<b>Current &amp; RF POWER</b>						
173.225 MHz						
Supply current @ V <sub>CC</sub> = 5v	5	7	10	12	mA	1
RF power @ V <sub>CC</sub> = 5V	2	8		10	dBm	1
173.250						
Supply current @ V <sub>CC</sub> = 5V	5	7	10	12	mA	1
RF power @ V <sub>CC</sub> = 5V	2	8		10	dBm	1
183.925						
Supply current @ V <sub>CC</sub> = 5V	5	7	10	12	mA	1
RF power @ V <sub>CC</sub> = 5V	2	8		10	dBm	1
<b>RF &amp; Data</b>						
2 <sup>nd</sup> harmonic			-50		dBc	1
Harmonics @ > 1GHz			-46		dBc	1
Initial frequency accuracy			±100		Hz	
Overall frequency accuracy			±2		KHz	
FM deviation (±)			2.5		KHz	
Modulation bandwidth @ -3dB			2.5		KHz	
Modulation distortion (THD)					%	
Power up time to full RF			100		µs	
Data rate		100		4800	bits/s	
Data pulse width		200			µs	

**Note 1:** measured into a 50Ω impedance

Also available on 152.650 MHz for France, and soon available on 154.065 MHz for Holland.



Connection Details

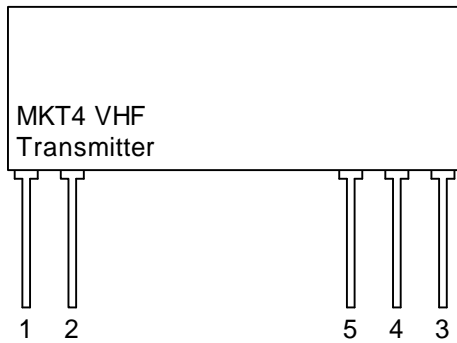


Figure 1: MKT4 Transmitter

Connection Details

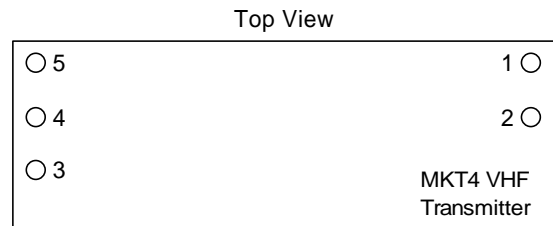


Figure 2: MKT4 Transmitter

Pin Description

**RF GND (pin 1)**

RF ground pin. This pin should ideally be connected to the nearest ground plane (e.g. coax braid, main PCB ground plane etc.)

**RF OUT (pin2)**

50Ω RF antenna output. To achieve best results the antenna impedance must match that of the module.

**Data IN (pin 3)**

This has an impedance of 47K and should be ideally driven by a CMOS logic drive or compatible.

**GND (pin 4)**

Supply and data ground connec., connected to pin 1.

**Vcc (pin 5)**

Supply should be able to source 15mA at 5 volts.

Mechanical Dimensions

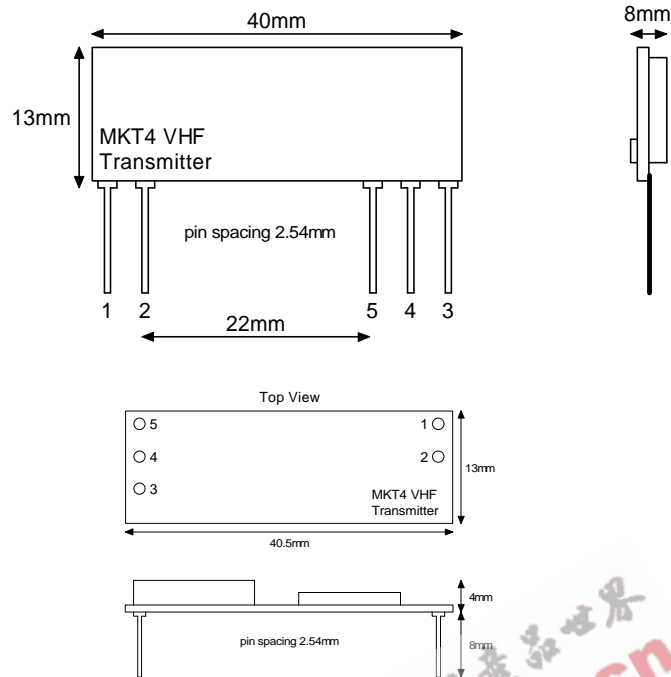


Figure 3: MKT4 FM Transmitter

Ordering Information

Standard Product;

Part No	Description
WP-MKT4-173,225-X	Transmitter 173,225 MHz
WP-MKT4-173,250-X	Transmitter 173,250 MHz

Note: X= S or D refers to SIL or DIL pin outs.

Please consult our sales department for further information.

