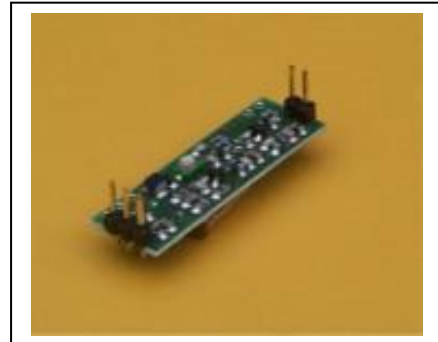


Features

- 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

- GR2 (Very High Spec Receiver)

General Description

The MKT4 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 MKT4 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
DC LEVELS						
Supply voltage	5	4.5	5.0	5.5	Volts	
Current & RF POWER						
173.225 MHz						
Supply current @ $V_{CC} = 5V$	5	7	10	12	mA	1
RF power @ $V_{CC} = 5V$	2	8		10	dBm	1
173.250 MHz						
Supply current @ $V_{CC} = 5V$	5	7	10	12	mA	1
RF power @ $V_{CC} = 5V$	2	8		10	dBm	1
152.650 MHz						
Supply current @ $V_{CC} = 5V$	5	7	10	12	mA	1
RF power @ $V_{CC} = 5V$	2	8		10	dBm	1
RF & Data						
2 nd 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				1mS	mS	
Data rate		100		4800	bits/s	
Data pulse width		200			µs	

Note 1: measured into a 50Ω impedance

Connection Details

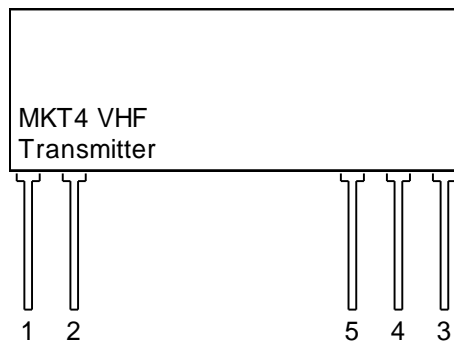


Figure 1: MKT4 Transmitter

Connection Details

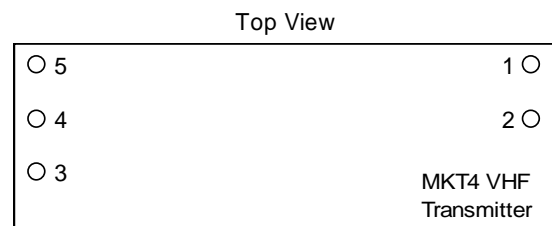


Figure 2: MKT4 Transmitter

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*)

50 Ω 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

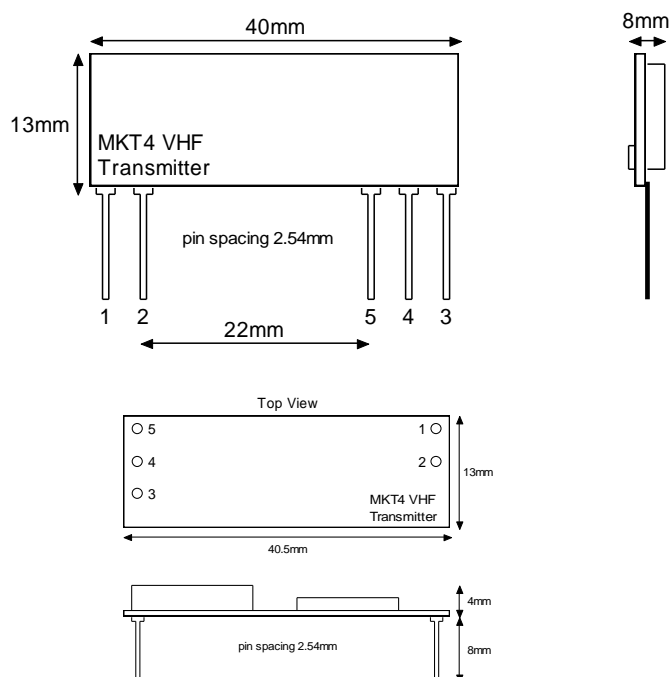


Figure 3: MKT4 FM Transmitter

Ordering Information

Standard Product;

Part No	Description
MKT4-173.225 S or D	Transmitter 173.225 MHz
MKT4-173.250 S or D	Transmitter 173.250MHz
MKT4-152.650 S or D	Transmitter 152.650 MHz
Note: S or D refers to SIL or DIL pin outs.	

Please consult our sales department for further information.

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