

FMR-202

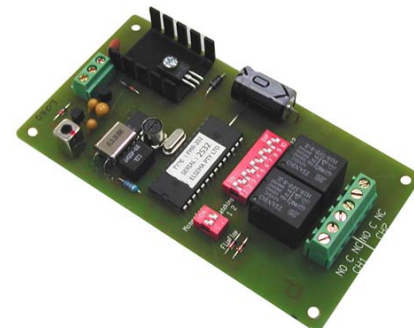
27MHz Receiver with Two Relay Outputs

Features

- Crystal Controlled
- 2-Channel
- Digitally Encoded

Applications

- Remote control of garage doors, gates, lights, alarms



Description

The FMR-202 is a crystal controlled two-channel receiver, comprising of receiving, decoding and relay-output sections. A specially designed MICRO-PROCESSOR is employed in the decoder section, which ensures operation at low supply voltage, highest reliability, associated with very low power drain.

The receiver works on a digitally encoded 27 MHz frequency modulated (FM) signal. It may be used in applications such as the remote control of garage doors, gates, lights, alarms or in any other new or existing installations where the use of conventional wiring is difficult or impossible to accomplish.

If the code, from the transmitter matches the setting of the 10-way code switch on the receiver (up to 1024 combinations), an output is obtained i.e. the relay operates. This relay provides a clean set of contacts for switching DC current up to 5 Amps.

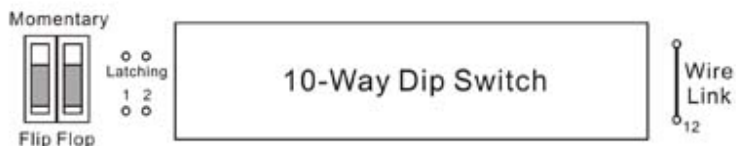
The two channels address code switch eleven. While code switch twelve is addressed with the wire link next to the receiver code switch. This feature enables the user to operate single channel transmitters on either of the two channels.

The supply and antenna connections to the receiver are via a three-way screw-type terminal block, with a separate six-way terminal block for the relay connections.

The receiver can be clipped to a Quick Mount enabling the receiver to be easily mounted against walls, roof, etc.

A proper 27 MHz CB-Antenna will give a reliable control range of up to 200 metres, when used with Elsema's FMT-301, FMT-302, FMT-304 transmitters. If a CB-Antenna is used, the shield of the cable must be connected to the "minus terminal".

The two-way code switch (See below picture) allows individual control of each relays output mode. In the momentary mode the output relays are only activated while the correct signal is received. In the flip-flop mode the output relays are toggled with every correct incoming signal. This enables the direct use for switching on/off lights etc. In flip/flop mode, the relays are off at the initial "power-up".



Latching Feature

Inserting a .4" link into the latching link holes will configure the channels to latching "ON", when the correct signal is received. To turn relay "OFF" power to the receiver must be momentarily turned "OFF".

Accessories



FMR-202E Enclosed in Plastic Case C160

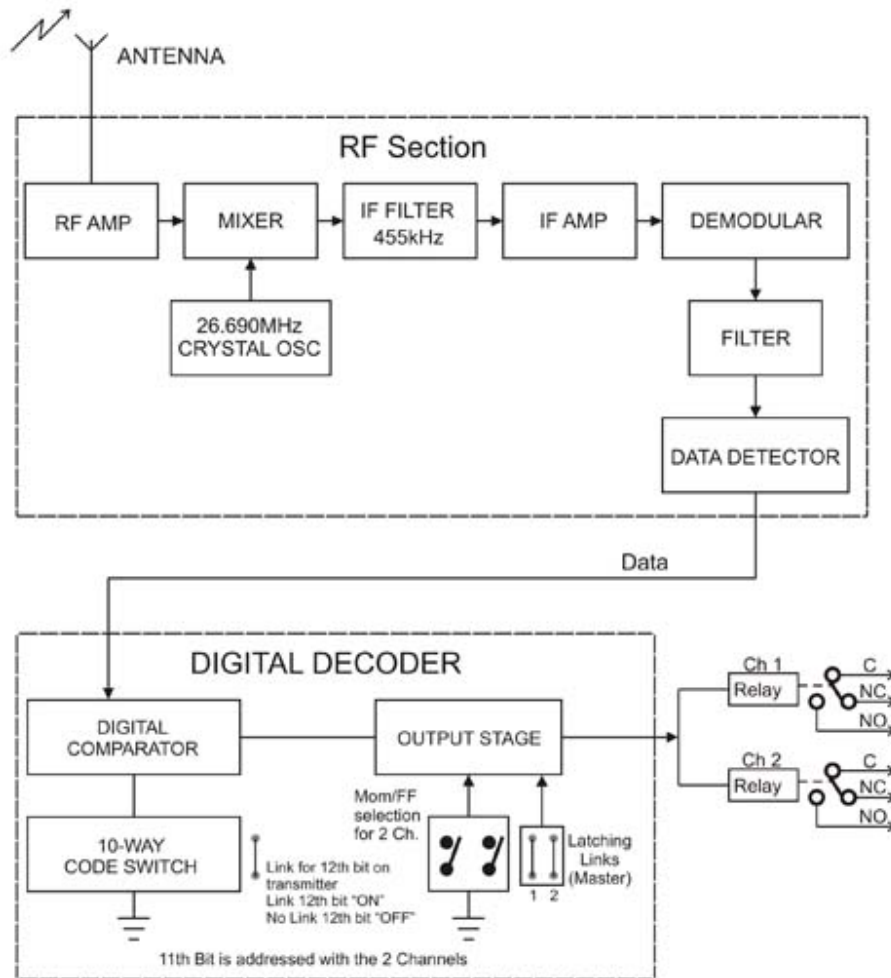


Quick Mount QM100

Technical Data

Supply Voltage	11.0 - 28 VDC, 10.0 - 28 VAC Can use Elsema AC power supply PP12 or PP24 Supply lines should be less than 3m long to comply with radio frequency authorities
Current Consumption	15mA stand by at 12 VDC; 44.0mA if one relay is "ON" at 12VDC 73.0mA if both relays "ON" at 12VDC
Receiving Frequency	27.145MHz (Other freq. available: 27.045, 27.195 & 27.455MHz. NB. 27.455 freq. is not available for Australia)
Type of Crystal Used	26.690MHz, 3rd overtone, 20pF, 30ppm at 0-50°C
IF Freq	455kHz
Selectivity	At least -40dB at ± 10 kHz
Sensitivity	Better than 1 μ V (for relay to switch on)
Type of demodulation	Narrow-bandwidth Frequency Modulation (FM)
Band Width	± 2.5 kHz
Decoding System	Onboard 10-way coding switch (4096 digital channels)
Output	Two change over relay output, rated at 5A / 240V
Relay Contacts	Two sets of Common (C) Normally Close (NC) & Normally Open (NO)
Connections	Supply & Antenna: 3-way screw type terminal block Two Relays: 6-way screw type terminal block
Antenna	50 ohms, 27MHz CB-Antenna or approximately 300mm long wire for short range applications.
Dimensions	130 x 70 x 20mm
Mounting	Clip into a QM100 or QM150 Quick Mount or UBB plastic case
Weight	89g
Compatible Transmitters	FMT-... series

Block Diagram



Manufactured by

Elsema Pty Ltd
 3/10 Hume Rd, Smithfield
 NSW 2164
 Ph: 02 9609 4668
 Fax: 02 9725 2663
 Website: <http://www.elsema.com>