

FMT-401, FMT-402, FMT-404

High Powered, Handheld 27MHz Remote Control Digital Transmitter with LED

Features

- LED status indicator & low battery alert.
- Works in the 27MHz band.
- Maximum reliability provided by Surface-Mount technology.
- High security by 12-way code switch, enabling 4096 codes.
- Long operating distance.
- Durable plastic case.
- 2-Channel and 4-Channel versions are also available.



Application

- A remote control switching device for various uses e.g. garage doors, lights, gates, and automatic telephone dialers
- A personal security alarm activator for home safety or cash carrying businesses e.g. banks, shops, service stations, etc.
- A calling device for the elderly or handicapped

Description

The LED indicator on the FMT-401 indicates the low battery (<6.5V) status by flashing at 1Hz. To activate the transmitter, simply press the button at the front. LED will be “on” when the transmitter is activated.

Working in the **27MHz band**, the FMT-401 achieves the highest possible standard of performance by employing a crystal-controlled, frequency modulated radio signal. The microcontroller with the latest **surface-mount technology** provides maximum reliability.

High security against false operation is achieved by a 12-way code switch (part of the digital encoding system) which is used in place of the usual 8 or 10 way systems from other manufactures. This enables the user to select any one of the 4096 codes available. The code can be easily changed at any time.

Operating Distance











| Range (m) | Receiver Antenna | Receiver Type |
|-----------|------------------|----------------|
| 70 | 300mm wire | FMR-... series |
| Upto 300 | ANT27M | FMR-... series |

(Range test was done in an open area test site with line-of-sight operation and no interference. The receiver antenna wire was fixed vertically, away from any metal objects.)

Compatibility




All Elsema type FMR-... series Receivers

Products in the Range

| | | | | |
|---|---|---|--|---|
|  |  |  |  |  |
| FMT-401 1-channel | FMT-402 2-channel | FMT-404 4-channel | FMT-401NL 1-channel | FMT-402NL 2-channel |
|  |  |  |  |  |
| FMT-404NL 4-channel | FMT-401WNL 1-channel | FMT-402WNL 2-channel | FMT-404WNL 4-channel | Front view of FMT-40..WNL |

No Label – see page 5 for instructions

Accessories (available separately)

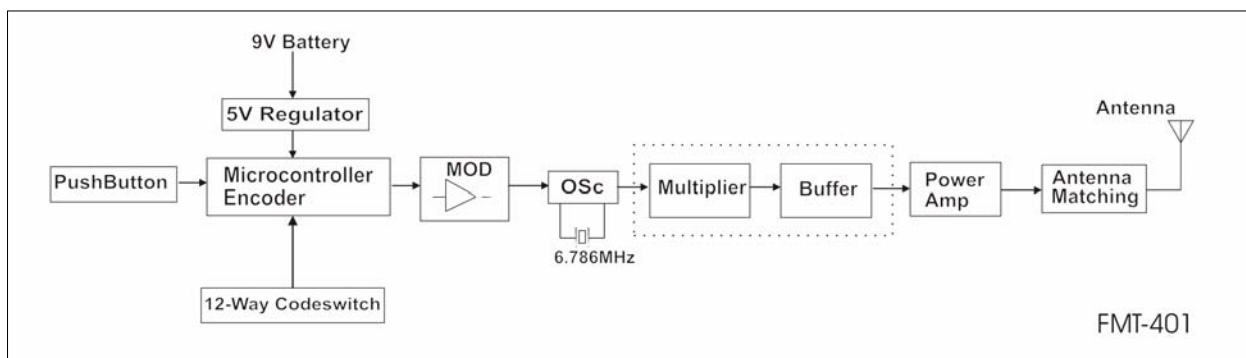
| | | |
|---|---|--|
|  |  |  |
| Stylish Leather Pouch (LP) | 6F22 9V Battery | 9V Alkaline Battery (6LR61) |

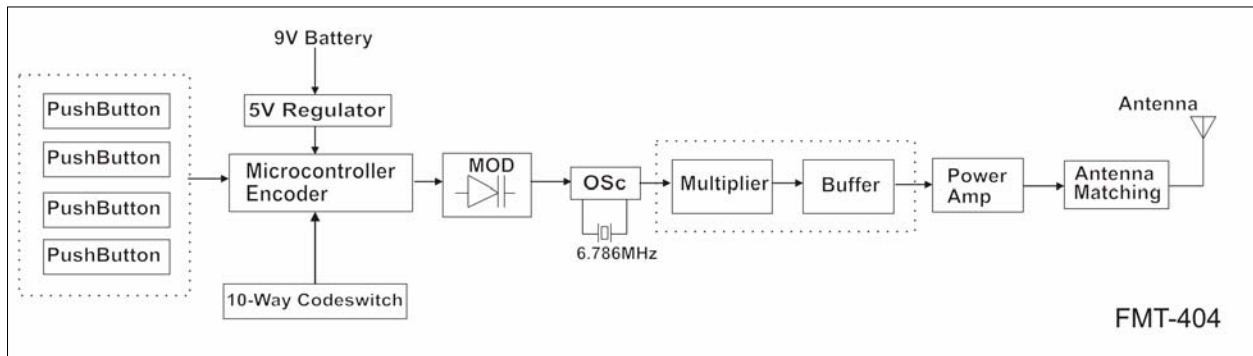
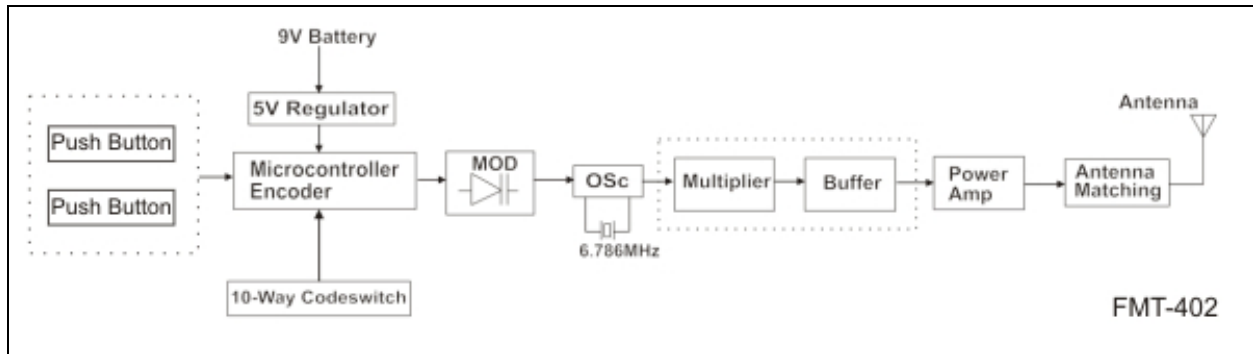
Pictures are for illustration purposes only. Final product may differ

Technical Data

| | |
|--------------------------------|--|
| Power Source | 9V Alkaline Battery |
| Battery Life | 1 year shelf life |
| Supply Voltage | 8-10 VDC (for constant RF-output) |
| Current Consumption | 115mA (typical) at 8VDC supply during transmission |
| Operating Frequency | 27.145MHz (Other freq. available: 27.045, 27.195 & 27.455MHz. NB. 27.455 freq. is not available for Australia) |
| Carrier Freq. Tolerance | Crystal controlled 30 parts per million (0-50°C) |
| Radiated Field Strength | 73dB μ V/m at 3m (\pm 3dB) or 6 μ W |
| Antenna | Built-in 50mm proprietary DILEC rod |
| Type of Emission | Narrow-bandwidth Frequency Modulation (5K00F1D) |
| Bits per second | 926bps |
| Necessary Bandwidth | \pm 5.0kHz |
| Digital Coding System | Onboard 12-way coding switch (4096 codes) (FMT-404: 10-way) |
| Dimension | 96 x 55 x 20 mm |
| Weight | 70g (excluding battery) |
| Useable Operating Range | 300m (varies upon receiver antenna & location) |
| Compatible Receivers | All Elsema type FMR series |

Block Diagram





Using FMT-402 and FMT-404

To Use FMT-402 with a 2 channel receiver, and FMT-404 with a 4 channel receiver, just match the 10 way dip switch on the transmitter to the receiver.

Using 2 Different Receivers with FMT-402

FMT-402 can also be used with 2 different single channel receivers e.g. FMR-212.

Make sure the 10 way dip switch on the transmitter board matches the first 10 dip switches on the receiver. Set the receivers dip switch 11 and 12 as described below.

When **Button A** is pressed, dip Switch 11 is transmitted as “**ON**” (Dip switch 11 on the Receiver is up)
 When **Button B** is pressed, dip Switch 11 is transmitted as “**OFF**” (Dip switch 11 on the Receiver is down)

When **wire link** is connected (Factory default), dip switch 12 is “**ON**” (Dip switch 12 on the Receiver is up)
 When **wire link** is disconnected (cut), dip switch 12 is “**OFF**” (Dip switch 12 on the Receiver is down).
 (see picture below for the location of the wire link)



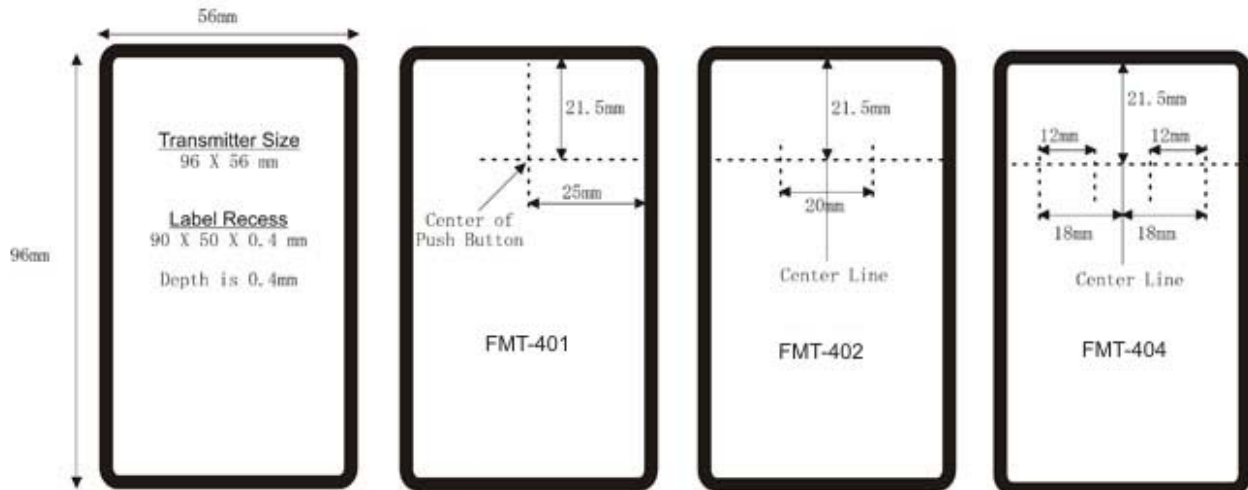
Using 4 Different Receivers with FMT-404

FMT-404 can also be used with 4 different single channel receivers e.g. FMR-212. This can be setup as follows:

1. Make sure the 10 way dip switch on the transmitter board matches the first 10 dip switches of the receiver.
2. The receivers dip switch 11 and 12 configuration is illustrated below.



Labels



Please note:

- Label size should be 0.5mm less than the above recess ie. 89.50 x 49.50 mm
- Rounding in the corners is 4.3mm (11/64”) diameter
- On the 4-channel transmitter, channel 1 is at the extreme left followed by channel-2, etc.
- Recommended label material: *Polyester Autotex F200*

Customised front labels can be made by:

Entech Electronics Pty Ltd
37 Belford Avenue, Devon Park,
South Australia 5008, Australia

Phone: (61) 8 8245 6789
Fax: (61) 8 8245 6788
Email: sales@ecg.entechgroup.net

G&M Screen Printing
Phone: (61) 2 9676 4560
Fax: (61) 2 9676 4561

Manufactured by

Elsema Pty Ltd
3/10 Hume Rd, Smithfield
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