

# **P9CFMT-25 25W FM TRANSLATOR**

## **TECHNICAL DATA FOR FCC CERTIFICATION**

### **General Description**

## INTRODUCTION

The FMT-25 FM Translator forms part of a new range of Professional FM Broadcast Equipment manufactured by Broadcast Solutions Electronics (Pty) Ltd. Coupled with the BSE range of exciters, the units provide a comprehensive translator product.

1. The FMT-25 provides a compact, synthesized, high selectivity FM off-air receiver for professional rebroadcast applications.

The unit includes a high quality “front end” PCB with tracking filters and PIN attenuator to ensure exceptional performance. A highly selective ceramic I.F. filter is used in conjunction with a tracking demodulator to ensure maximum selectivity and superior audio performance.

The FMT-25 provides outputs for MPX (composite base band to 100kHz) and stereo audio left and right, via a high quality stereo decoder. The metering facilities are provided on the front panel for monitoring of the incoming signal quality.

The receiver includes a diversity facility where two receivers can be used in a main and standby combination with automatic changeover should the main unit fail. This facility is built into the receiver as standard.

### 3. STRUCTURE.

The Translator comprises of the following modules.

- a) Front End & Synthesizer PCB.
- b) 100kHz I.F. Filter PCB
- c) Demodulator and Control PCB.
- d) Display module PCB.

Each module is Field replaceable, in line with BSE’s maintenance philosophy. This allows the customer to change a module, or to upgrade options easily.

### 4. FEATURES.

The FMT-25 has standard features including the following;

- a) Remote/Internal frequency selection (standard).
- b) Remote telemetry with voltage free contacts (standard).
- c) +24V Battery operation (standard).
- d) Wideband outputs (MPX) with stereo audio outputs.
- e) Comprehensive metering on the front panel.
- f) High selectivity (300kHz adjacent channel operation).
- g) Comprehensive protection built in.
- h) Automatic front end tuning

## 5. BLOCK DIAGRAM DESCRIPTION.

Refer to the Front panel layout and Rear panel controls and connectors in figure 1, and the Block diagram of FMT-25 in Figure 2

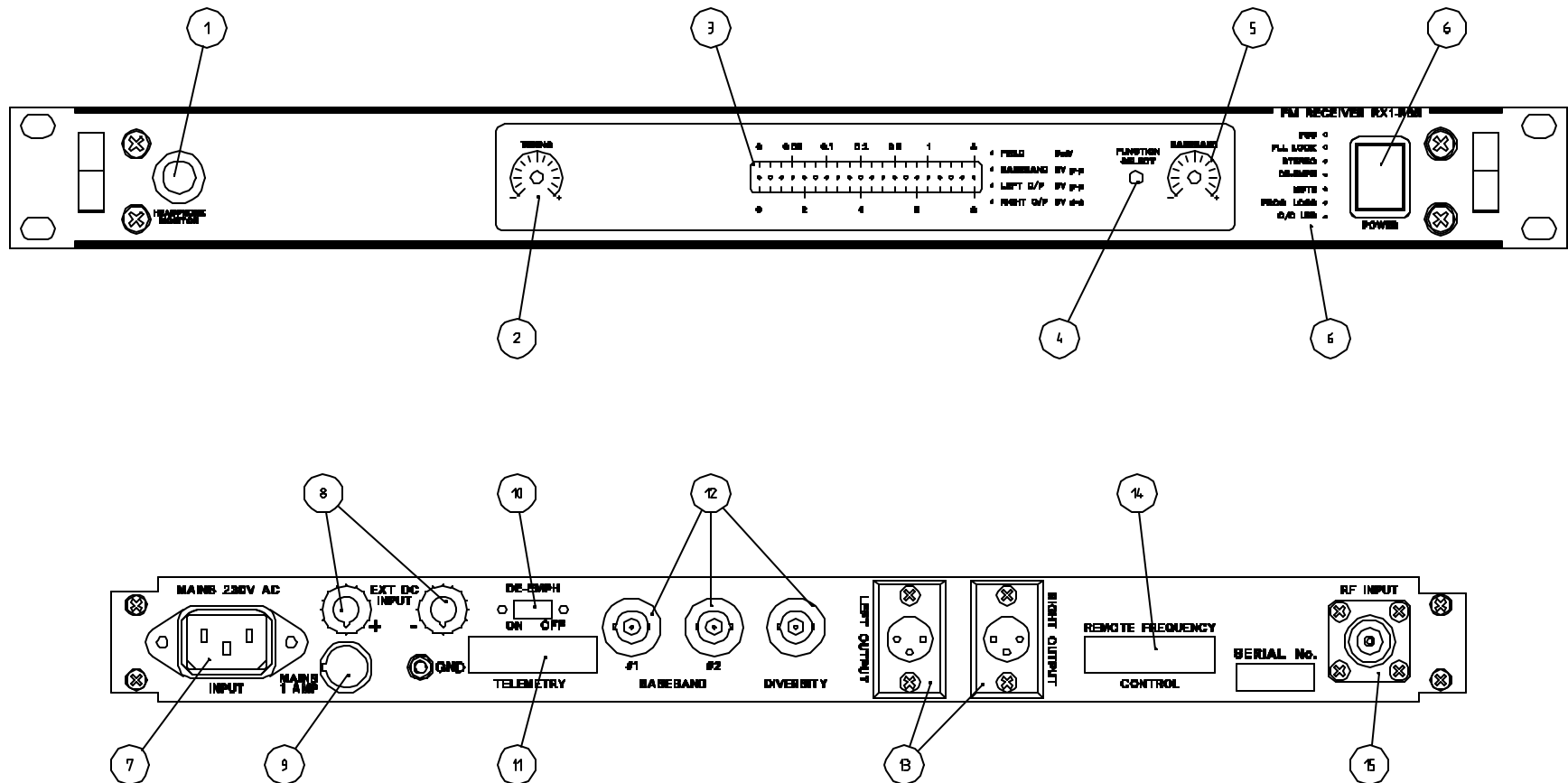


Figure 1: Front panel layout and rear panel connectors and functions

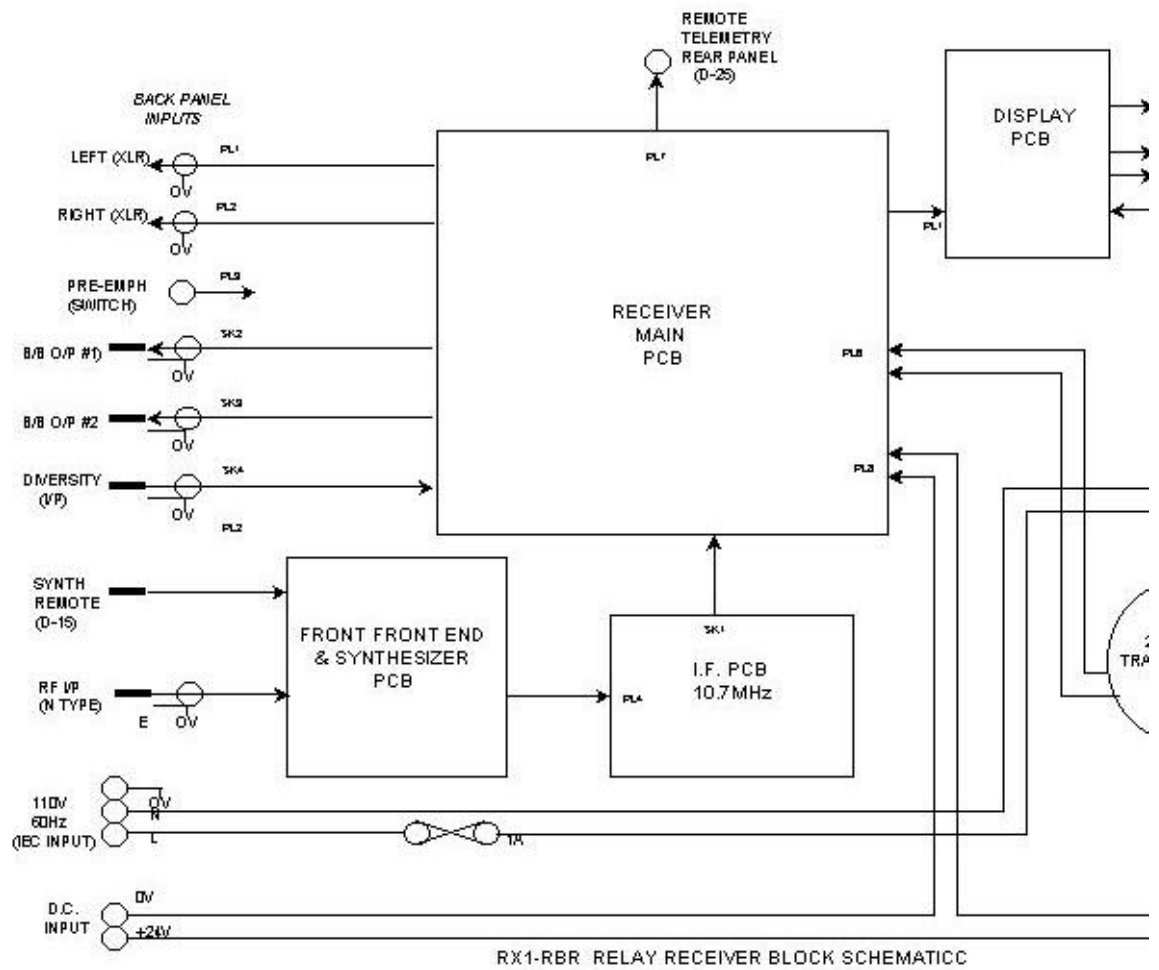


Figure 2: Block Diagram of FMT-25