# P9CFM-100
# 100W STEREO TRANSMITTER/EXCITER

## TECHNICAL DATA FOR
## FCC CERTIFICATION

### General Description

# GENERAL DESCRIPTION

The FM-100 Exciter forms part of a new range of Professional FM Broadcast Exciters produced by Broadcast Solutions Electronics (Pty) Ltd.

1. The FM-100 forms a compact, solid state FM Broadcast transmitter with a RF output in excess of 100W in the FM Broadcasting band (87.5MHz to 108MHz). The unit is housed in a 19-inch rack mount case occupying only a 2U space. The Translator features a range of customer options including a built in, high quality Stereo coder and RS485 Telemetry.

2. The FM-100 offers a standard specification, better than the general requirements of the major broadcasters in the world. This level of performance is only found in the best equipment that the market has to offer.

3. The following basic versions are available:

a) FM-100 (W) Wideband MPX Exciter (For use with composite input).

b) FM-100 (S) Stereo Exciter (With built in Stereo coder and Audio Limiter).

c) FM-100 (M) Mono Exciter (With built in Mono input filter and Audio Limiter).

4. STRUCTURE.

The Exciter comprises of the following modules.

a) Synthesizer/Modulator module (980507).

b) Control/Monitoring module (980508).

c) 100W RF PA module (980510).

d) 100W Power supply module (980515).

e) Display module (980509).

f) Stereo coder/Limiter (980512). (Optional).

g) Fan Psu module (980518).

5. FEATURES.

The FM-100 has standard features including the following:

a) Remote/Internal frequency selection (standard) with Thumbwheel switch option available.

b) Remote telemetry with voltage free contacts (standard).

c) +24V Battery operation (standard).

d) Wideband input (MPX) with two auxiliary inputs (SST/SCA/RDS).

e) Comprehensive metering including VU meters. (Built in Stereo decoder).

f) ALC built in for absolute control of RF output power.

g) Comprehensive protection built in.

## 6. BLOCK DIAGRAM DESCRIPTION.

Refer to the Front panel layout in figure 1, Rear panel controls and connectors in figure2 and the Block diagram of FM-100 in Figure 3

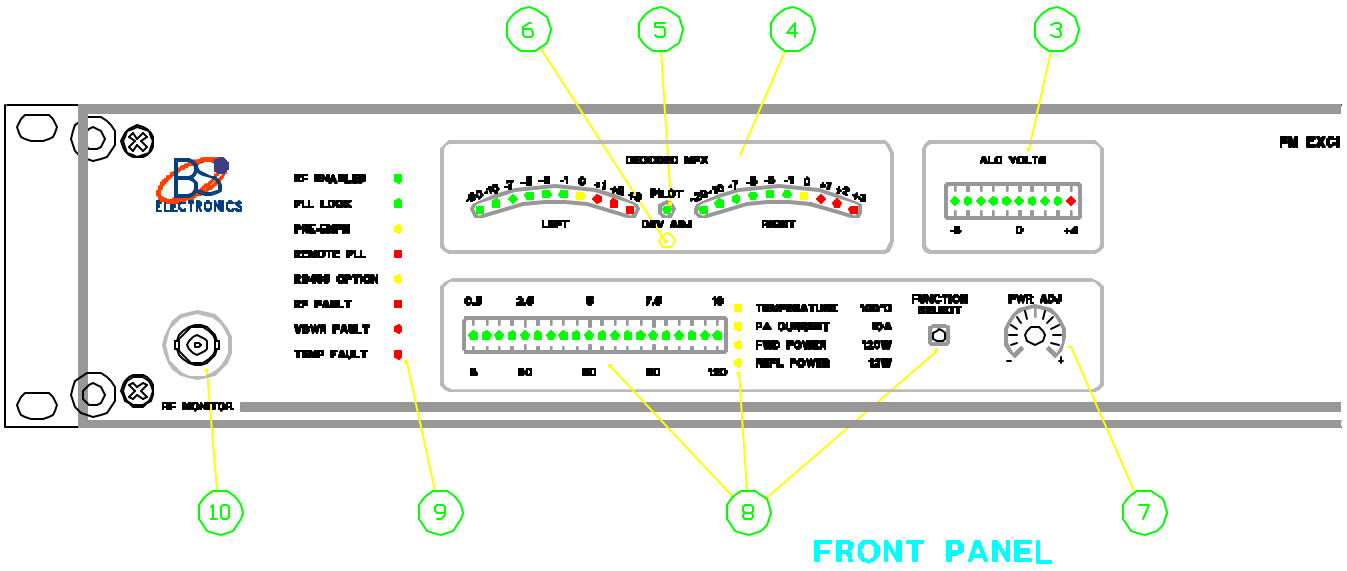



Figure 1: FM-100 Front Panel Controls

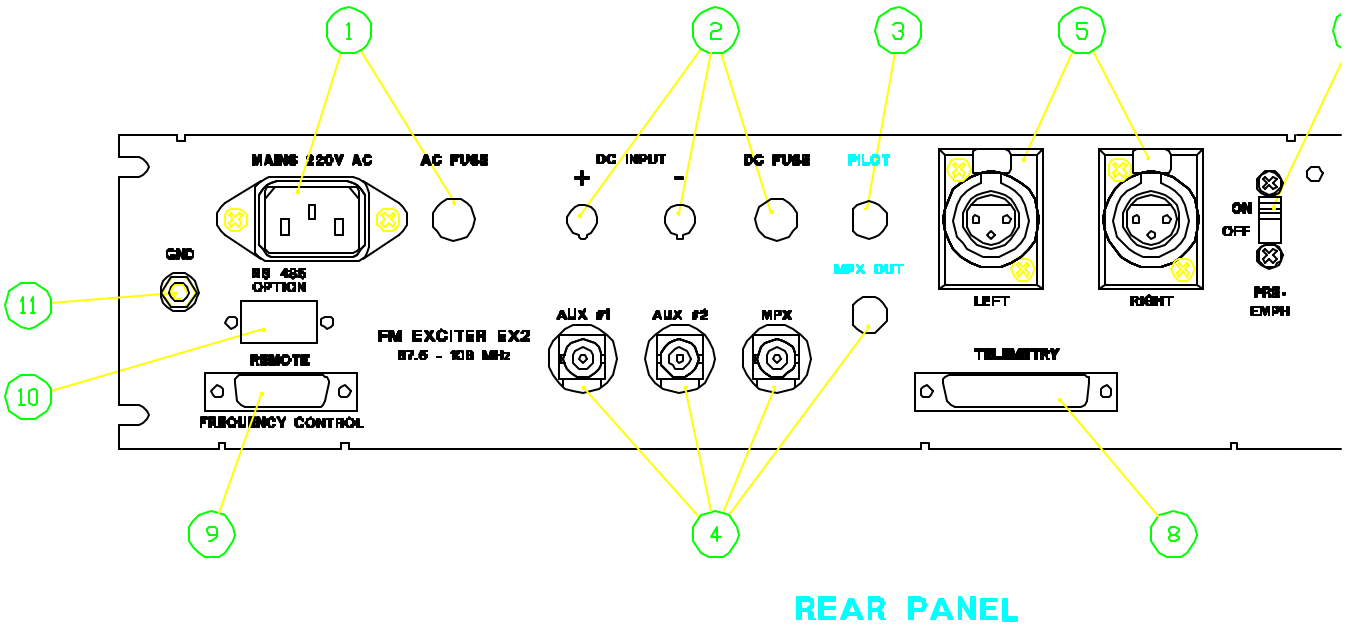
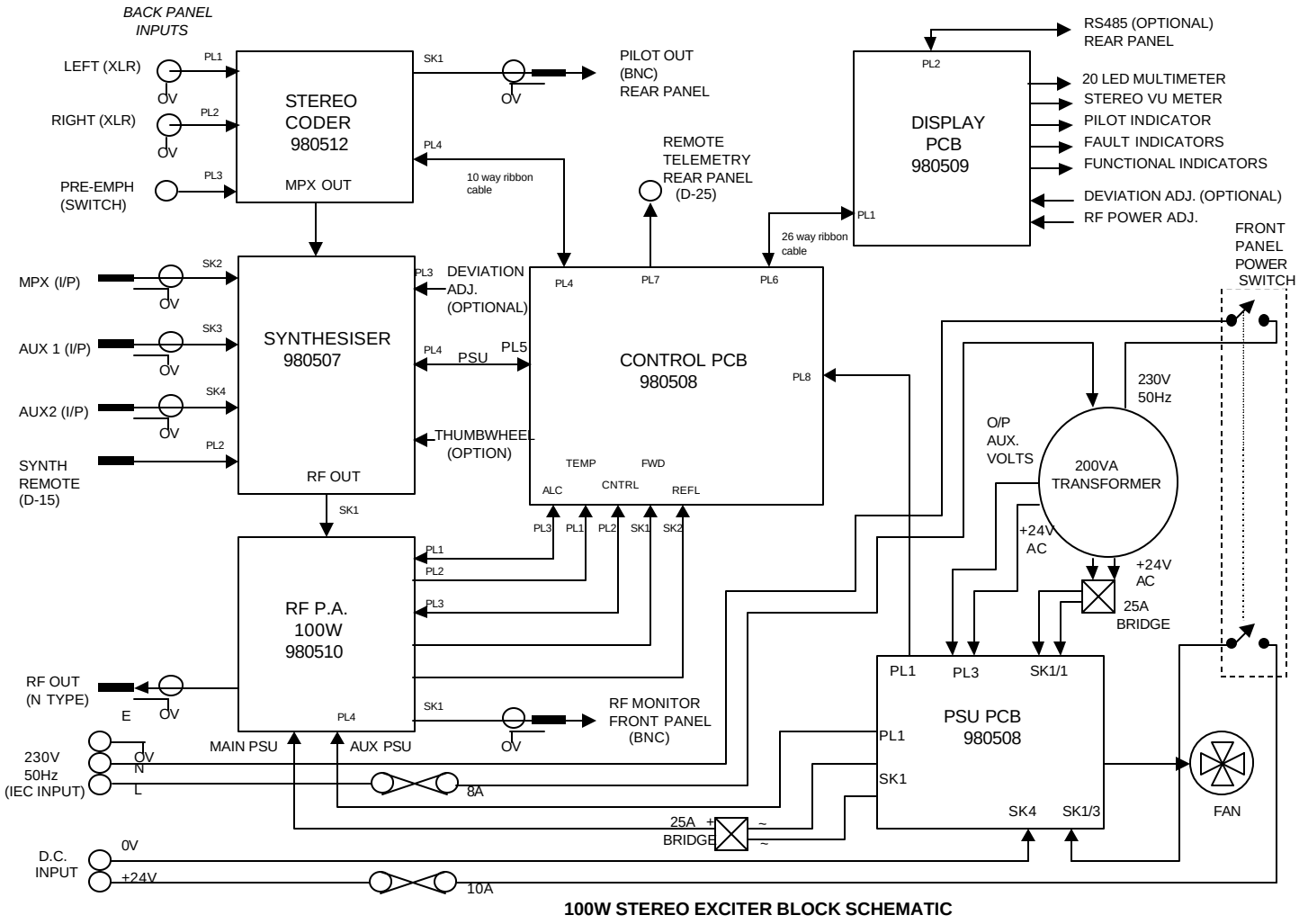



Figure 2: FM-100 Rear Panel Controls and Connectors




**100W STEREO EXCITER BLOCK SCHEMATIC**

Figure 3: Block diagram of FM-100