P9CFM-250
250W STEREO TRANSMITTER/EXCITER

TECHNICAL DATA FOR
FCC CERTIFICATION

General Description

GENERAL DESCRIPTION

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

1. The FM-250 Exciter forms a compact, solid state FM Broadcast transmitter with a RF output in excess of 250W 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 Exciter features a range of customer options including a built in, high quality Stereo coder.

2. The FM-250 Exciter 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-250 (W) Wideband MPX Exciter (For use with composite input).

b) FM-250 (S) Stereo Exciter (With built in Stereo coder and Audio Limiter).

c) FM-250 (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) 250W RF PA module (980510).

d) 250W Power supply module (980515).

e) Display module (980509).

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

g) Fan Psu module (980518).

5. FEATURES.

The FM-250 Exciter 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) +48V 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-250 in Figure 3

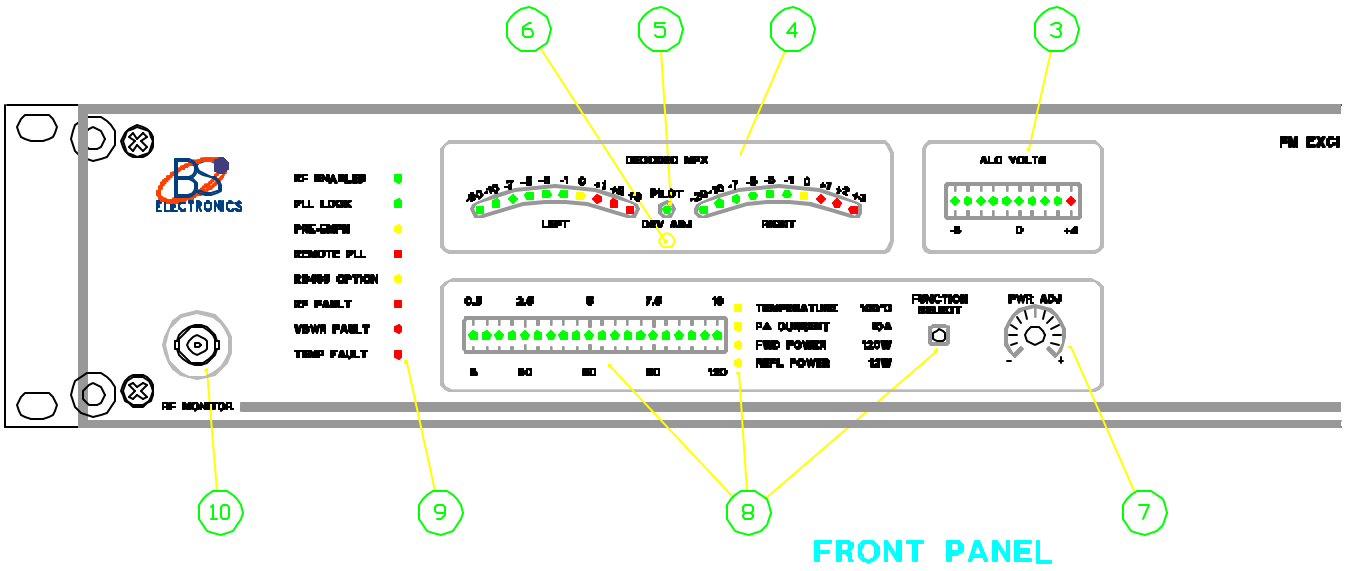

Figure 1: FM-250 Front Panel Controls

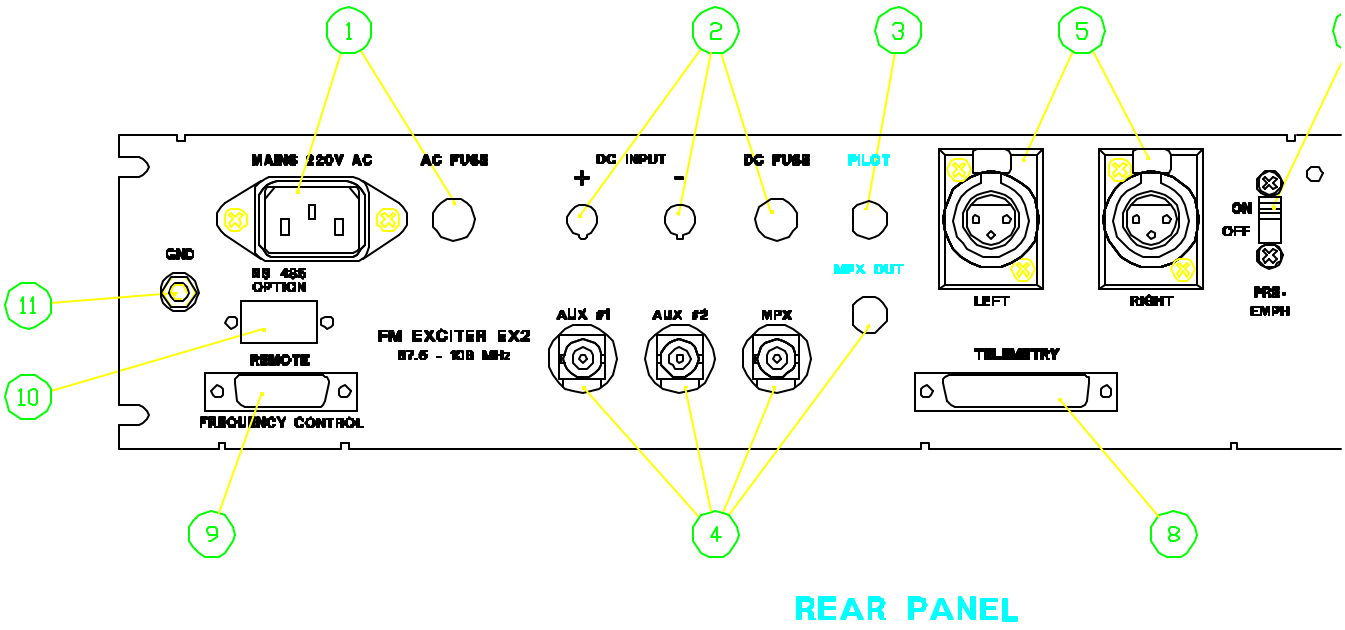

Figure 2: FM-250 Rear Panel Controls and Connectors

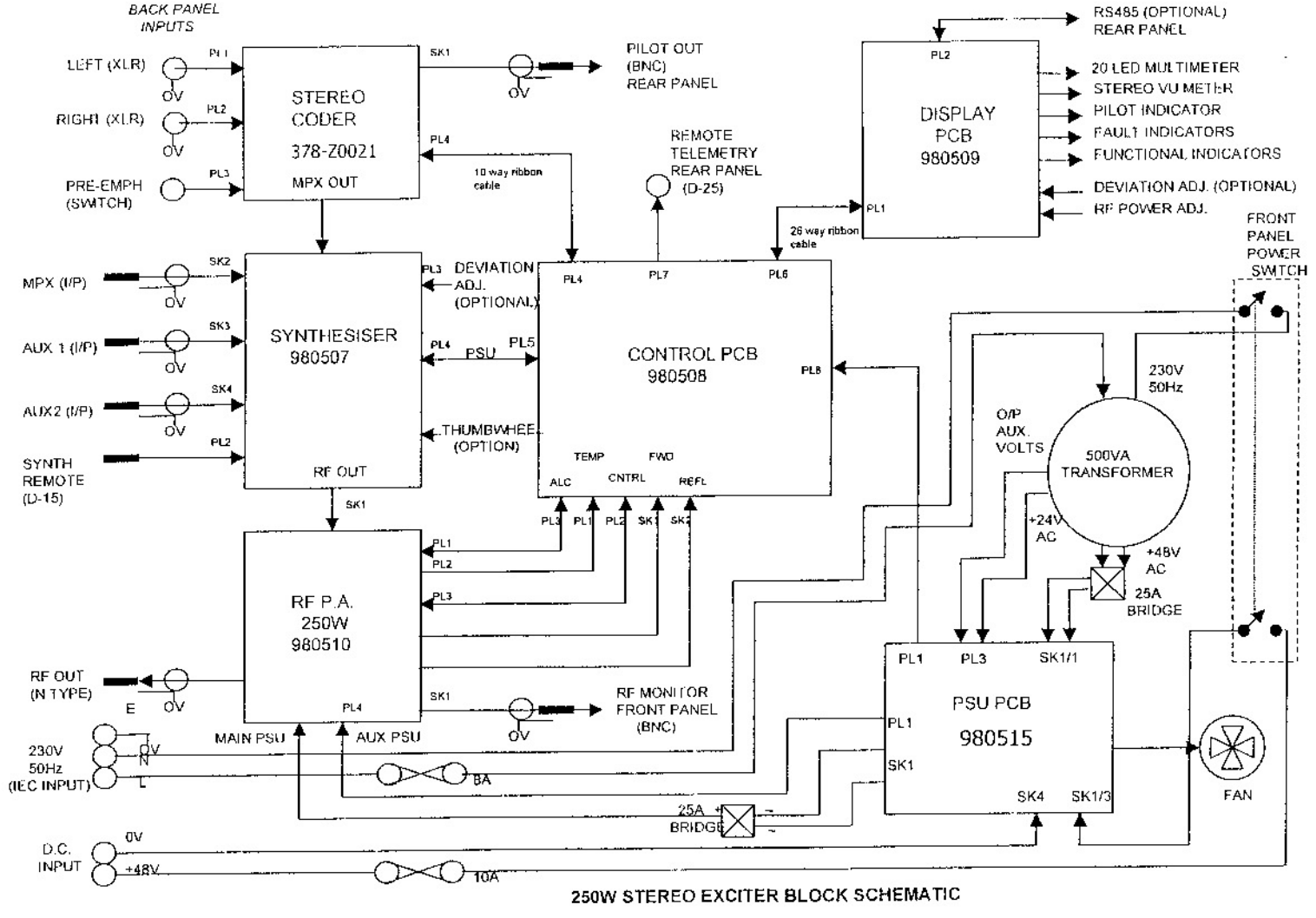

Figure 3: Block diagram of FM-250