4.3 RF OUTPUT LOAD

The load impedance should be 50 ohms, and as good a match as possible (preferably 1.4:1 or better) in the operating frequency band for good power transfer to the transmit antenna.

4.4 AMPLIFIER FUNCTIONAL DESCRIPTION

The MAP800-70S amplifier (figures 1-1, and 1-2) is a linear, multi-channel power amplifier that operates in the 25 MHz frequency band from 869 MHz to 894 MHz at an average composite output power of up to 70-110W, depending on the number of CDMA carriers. Each amplifier is a self-contained module and is functionally independent of any other amplifier modules in the system. Each amplifier module has an alarm board that monitors the amplifier performance. If a failure or fault occurs in an amplifier module, it is transmitted to the host system via the D-SUB 21W4 connector at the rear of the module.

The amplifier is compliant to the requirements of FCC Part 22 and TIA/EIA-97C with respect to spurious emissions

4.5 AMPLIFIER MODULE COOLING

Each amplifier module is contained within a thermally conductive finned chassis which, when properly cooled with external fans, will provide sufficient cooling to maintain the amplifier within the specified operating temperature range.

4.6 POWER DISTRIBUTION

Primary DC power for the amplifier is provided when the module is plugged into the subrack, which should be 27V DC. An internal DC/DC converter provides the 5V necessary for digital circuitry.

SECTION 5
MAINTENANCE

5.1 FIELD REPLACEMENT OF THE MODULE

The MAP800-70S multi-channel power amplifier module can be easily and quickly replaced in the field on site by a qualified technician with experience maintaining RF power amplifiers and similar equipment:

To replace a power amplifier module, proceed as follows:

1. Set on/off switch on the front panel of the amplifier module to OFF (down).
2. Loosen the two thumbscrews (top and bottom of the faceplate) that secure the amplifier module to the subrack.
3. With steady even pressure, use handle on front of amplifier to pull module out of subrack.
4. Install replacement in reverse order of steps 1 through 3 above.

5.2 TUNE UP PROCEDURE

The MAP800-70S has no user adjustable controls and can not be "tuned up", therefore no instructions are Included or available.

SECTION 6
TROUBLESHOOTING

6.1 INTRODUCTION

This section contains a brief list of problems which users have encountered and a few suggested actions that may correct the problem. If the suggested corrective action does not eliminate the problem, please contact your Paradigm field representative or the factory for further instructions.

NOTE

Check your sales order and equipment warranty before attempting to service or repair the unit. Do not break the seals on equipment under warranty or the warranty will be null and void. Do not return equipment for warranty or repair service until proper shipping instructions are received from the factory.

6.2 TROUBLESHOOTING

Refer to table 6-1 for troubleshooting suggestions.

Table 6-1.
Troubleshooting.

SYMPTOM	SUGGESTED ACTION
MAP800-70S Inoperative	1. Check for proper power supply voltage. 2. Verify all RF connections. 3. Verify that unit does not have a major fault (red LED on front panel). Power cycle the amplifier.
RF Appears in Wrong Sector	1. The subrack may have multiple inputs and outputs for different sectors. Check that the correct input and output are used in the rack

6.3 RETURN FOR SERVICE PROCEDURES

When returning products to Paradigm, the following procedures will ensure optimum response.

6.3.1 Obtaining a RMA

A Return Material Authorization (RMA) number must be obtained prior to returning equipment to the factory for service. Please contact our Customer Service Department at (949) 260-1840 to obtain this number. Failure to obtain this RMA number may result in delays in receiving repair service or the shipment being refused at Paradigm.

6.3.2 Packaging for Shipment

To ensure safe shipment of the amplifier, it is recommended that the original shipping container designed for the amplifier be used. The original packaging material is reusable. If it is not available, contact Paradigm's Customer Service Department for packing materials and information.