

## 2.0 INSTALLATION

### 2.1 Unpacking the Unit

Carefully remove the equipment from its packing material and set it on a solid surface, such as a table or desk. If it appears damaged in any way, notify the carrier, and keep all packing materials for inspection by the carrier's agent.

### 2.2 Installing the Unit

Note: This unit should be installed by qualified service personnel only.

Diagram 2.2 details the input and output connections for the PA700.

1. Carefully identify between the electrical ground of the AC power supply and the station ground that is common to the antenna system, other RF components and the transmitter rack cabinet. Ensure that the PA700 and the CMTS ground points are connected to the station ground and not the electrical ground.
2. If installing the PA700 into an equipment rack, use the 4 mounting holes on the front of each cabinet. It is also important to connect the rear side of the PA700 chassis to the same rack cabinet using a rear support bracket (not supplied).
3. It is suggested that a heavy gauge line cord (No. 10 AWG stranded) with connector be used in most applications for connection to the AC power supply. The AC power connector and station ground stud are located on the rear panel (refer to Diagram 1.4B).
4. Prior to connection, please ensure that the frequency, modulation and BW of the CMTS or CMTS/upconverter are set for the application. PA700 type approval for the US lower 700 MHz band under FCC Part 27 is only valid for the following input frequency and modulation combinations and only when the VCom duplexer is connected between the output and the antenna.

Carrier Bandwidth	Center Frequency Range	Modulation
2 MHz	741-745 MHz	QPSK, 16QAM, 64QAM
6 MHz	743 MHz only	QPSK, 16QAM, 64QAM

5. Adjust the input level so that the input power to the unit is nominally -7 dBm.
6. Connect both upconverter/CMTS to unit and duplexer/antenna assembly
7. Adjust input level so that output power is +48 to +49 dBm as reported by MSM server or the UCD4940. Operation below this level will result in less than optimal performance and operation above this level may violate regulatory emissions requirements.

#### **WARNING!**



Maintain a distance of at least 10mm (3/8 ") between PA700 units when mounting several units in a rack.

The rear air outlets should be unobstructed.

VCom Inc.

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Approved: C.H.

DIAGRAM 2.2: PA700 SYSTEM CONNECTIONS

