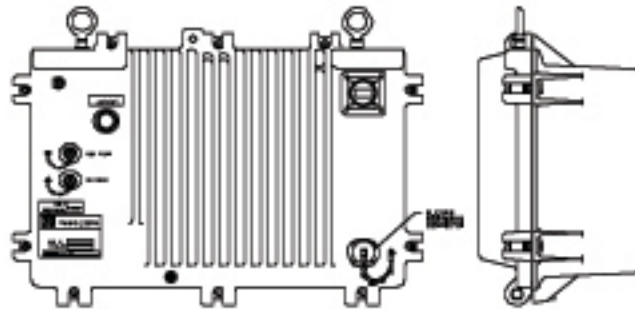


COMPACT OUTDOOR UPSTREAM RECEIVER



- **MULTI-CHANNEL**
- **COMPACT OUTDOOR HOUSING**
- **BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM**
- **AUTOMATIC GAIN CONTROL (AGC)**

DESCRIPTION

The 13 GHz compact outdoor upstream receiver is a return path downconverter, and is available in a standard version and a plus version. The standard upstream receiver block downconverts a 13163.5 to 13199.5 MHz BPSK, QPSK, 16 QAM, 64 QAM or 256 QAM input data stream to the 5 to 41 MHz VHF band. The plus version downconverts a 13213.5 to 13249.5 MHz input to the 5 – 41 MHz VHF band.

Downconversion is phase-locked to a pilot tone included with the signals transmitted from the transceiver. This allows coherent downconversion with low phase noise characteristics as required for the

reception of digitally modulated signals. In addition, the headend transmitter TCXO output is split so as to lock both its DRO and the upstream receiver DRO. With the transceiver phase-locked to the headend transmitter this means that all three units that make up the access system have identical XO frequencies and that downconversion will be to the identical VHF channel frequency assignment.

The upstream receiver incorporates AGC circuits to maintain optimal linearity and constant downconverted carrier to noise levels over a range of faded path conditions.

SPECIFICATIONS

Input Frequencies	13163.5 MHz to 13199.5 MHz (Standard)
.....	13213.5 MHz to 13249.5 MHz (Plus)
Output Frequencies	5 - 41 MHz
Nominal Gain	21 dB (For -001, -003, -101 and -103)
.....	23 dB (For -002, -004, -102 and -104)
Gain Flatness.....	+2.0 dB
AGC Dynamic Range.....	15 dB minimum
AGC Flatness.....	+1dB
Nominal Output Level	24 dBmV
Frequency Stability	+0.0005%
Output Return Loss.....	16 dB
Input Return Loss.....	16 dB
Input Connector.....	WR-75 Cover Flange
Output Connector.....	5/8-24 Cable Entry
Temperature Range.....	-40F to 120F
.....	-40C to 49C
Humidity	100%
Primary Power.....	40 to 60 VAC, 50 or 60 Hz
.....	50 Watts maximum
Mounting.....	With Optional Bracket
.....	Mounts on 4-1/2" OD Pipe
Dimensions	13.5" wide 19.5" high x 10.1" deep
.....	34.3 cm x 49.5 cm x 25.7 cm
Weight.....	46 pounds (21 kg)
Shipping Dimensions	26" wide x 20" high x 14" deep
.....	66 cm x 50.8 cm x 35.6 cm
Shipping Weight.....	55 pounds (25 kg)

Specifications subject to change without notice