

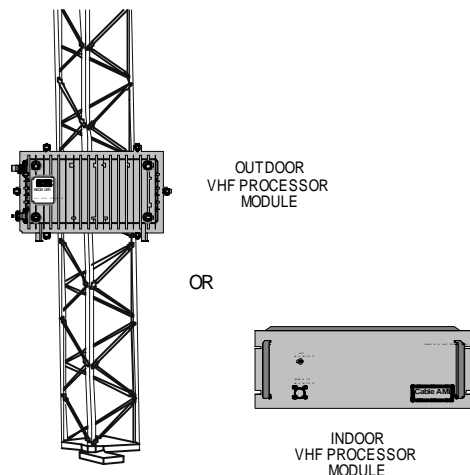
## ORX18-SERIES PHASE-LOCK LOW NOISE OUTDOOR RECEIVERS

- ◆ Low-Noise, Phase-Locked, 72 Channels
- ◆ No Need for Waveguide, Connects Directly to Antenna
- ◆ VHF Output Connects Directly to Cable
- ◆ Three Models, Upgradeable

### PRODUCT APPLICATION:

The ORX series receivers are the latest in state-of-the-art performance and packaging. Their low noise distortion characteristics are a significant improvement over previous designs.

The two-piece receiver configuration avoids the need for waveguide, thus reducing system cost, improving performance, and eliminating the need for waveguide pressurization.



The small downconverter unit is normally attached directly to the antenna feed at the back of the antenna, while the VHF unit is placed at the base of the tower, or indoors. The two units are interconnected by standard cable. Other mounting configurations are also possible.

Diagnostic and status monitoring can be performed at the VHF unit, or remotely via the VHF unit's monitor interface connector. Receivers can be field upgraded to improve noise figure and to add VHF AGC.

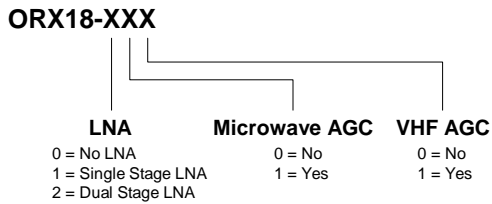
The receiver is phase-locked to the transmitter by a low phase noise CW pilot tone transmitted in the 74 to 75 MHz spectrum. The 5/8-24 receiver port delivers the VHF signals directly to the output cable and accepts the 60 VAC input power from the cable.

## ORX18 Series

Input Frequency <sup>2</sup> :	17.70 to 18.30 GHz
Output Frequency:	54 to 552 MHz
Video Channel Capacity:	72 Channels
Output Connector:	"F"
Input Connector:	WR-42 Waveguide
Temperature Range:	-40° to 122°F (-40° to 50°C)
Primary Power:	Cable Powered 60 VAC, 50/60 Hz, 1.5 A (max.)
Weight: Downconverter Unit:	6.5 lb. (3 kg)
VHF Unit:	16.5 lbs. (7.5 kg)
Dimensions: Downconverter Unit:	10" W x 7" H x 5" D (25.5 x 17.5 x 12.5 cm)
VHF Unit:	15" W x 9" H x 7" D (36 x 22 x 17.5 cm)

Receiver Specification Table	Model		
	000	101	201
Noise Figure (dB):	13.0	5.5	4.5
Composite Third-Order <sup>3</sup> (C/CTB, dB):	66.0	70.0	68.0
Composite Second-Order <sup>3</sup> (C/CTB, dB):	60.0	60.0	60.0
Microwave AGC Dynamic Range:	N/A	N/A	N/A
VHF AGC Dynamic Range (dB):	N/A	15.0	15.0
Gain (nominal, dB) <sup>4</sup> :	25.0	24.0	31.0
Gain Flatness (dB):	1.5	1.5	1.5
Nominal Output Level:	26.0	28.0	30.0

**Model Number Designation Table:**



<sup>1</sup> Specifications subject to change without prior notice.

<sup>2</sup> Other frequencies available.

<sup>3</sup> 72 channel loading, C/N = 56 dB.

<sup>4</sup> Gain for input level such that C/N = 56 dB.