

ORXS-23 SERIES ORXS OUTDOOR LOW NOISE BROADBAND RECEIVERS

- **Low-Noise Broadband Receiver for Multicarrier Links**
- **Outdoor Unit Connects Directly to Antenna.**
- **AC Powered from Output Cable**
- **Phase locked to Transmitter through Pilot Tone**
- **Built-in Diagnostics**



PRODUCT APPLICATION:

The ORXS-101 and ORXS-201 receivers are outdoor broadband receivers for multi-carrier microwave links with the latest advances in low-noise and low-distortion technologies.

The outdoor package is designed for installation near the receive antenna, thus eliminating the need for external waveguide. This results in lower cost and improved system noise figure performance.

The receiver is phase-locked to the transmitter by a low-phase-noise CW pilot tone transmitted in the 72 to 76 MHz spectrum. The Pilot Tone allows the receiver frequency to track precisely the transmitter, thus ensuring that the VHF carriers at the output of the receiver are at exactly the same frequency as the carriers at the input to the transmitter.

In a typical application, the receiver feeds a cable plant with several hundred to several thousand subscribers.

The receiver output connector delivers the output VHF signals directly to the output cable without the need for converters of any kind.

In the standard configuration, the receiver is powered via 60 VAC from the output cable through the output connector. It can also be configured for 120-240 VAC mains input power through a separate AC input.

Diagnostic and status monitoring can be performed locally at the receiver or remotely via the VHF monitor interface connector.

ORXS-23 Series Receivers		
Input Frequency ² :	23.0 to 23.5 GHz	
Output Frequency:	54 to 490 MHz	
Video Channel Capacity:	72 Channels	
Output Connector:	5/8-24 Cable Entry	
Input Connector:	WR-28 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:	23 lb. (10.5 kg)	
Dimensions:	20" H x 16" W x 12" D (50.8cm x 40.6cm x 30.5cm)	
Receiver Specification Table:	Model	
	- 101	- 201
Noise Figure (dB):	5.5	4.5
Composite Third-Order ³ (C/CTB, dB):	72.0	72.0
Composite Second-Order ³ (C/CSO, dB):	63.0	63.0
VHF AGC Dynamic Range (dB):	15.0	15.0
Gain (nominal, dB) ⁴ :	24.0	31.0
Gain Flatness (dB):	1.5	1.5
Nominal Output Level (dBmV): :	28.0	28.0

¹ Specifications subject to change without prior notice.

² Other frequencies available.

³ 72 channel loading, C/N = 56 dB.

⁴ Gain for input level such that C/N = 56 dB