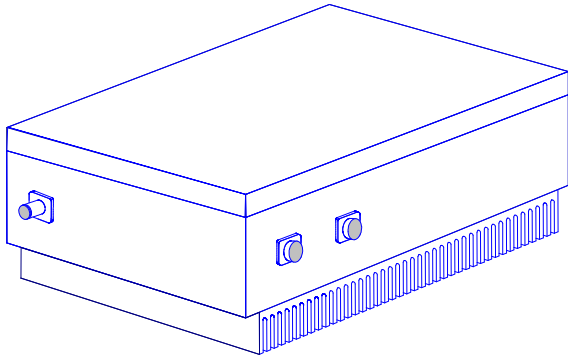


**OAR02-010
OUTDOOR ACTIVE
REPEATER
(10 Watts)**



PRODUCT APPLICATION:

The OAR02-010 is a solid-state, broadband, on-frequency repeater designed to receive, amplify, and retransmit up to 31 analog television channels or 150 digital channels (64QAM, 256 QAM or OFDM modulation).

The OAR02-010 is designed to provide cost-effective coverage over a small area. With an omnidirectional transmit antenna it can cover an area of approximately 2 Km radius when loaded with 31 channels, or a 3 Km radius when loaded with 15 channels.

A larger area can be covered if the desired coverage is less than 360 degrees in azimuth.

The output power per channel depends on the number of channels at the input. For example, with 12 channels the repeater delivers a total of over 32 milliwatts (16 dBm) per channel with a C/CTB of 50 dB (measured with CW carriers).

The OAR02-010 is designed to operate outdoors in a variable temperature environment.

- ◆ **Broadband Repeater with 31 Analog or 150 Digital Channel Capability**
- ◆ **Upgradeable to Higher Power**
- ◆ **Built-in Monitoring Ports**
- ◆ **Rugged, Durable Outdoor Design**

For increased reliability, an external cooling heatsink maintains component temperatures at low levels and an internal temperature sensor protects the high power amplifier from failure due to overheating.

To facilitate operational monitoring with a field strength meter or a TV monitor, the OAR02-010 includes a VHF input and output test point connector. Operational diagnostic voltages can be monitored locally. An option allows the voltages to be monitored remotely via serial port interface to a standard Windows-equipped PC.

The repeater features an efficient, modular design, consisting of a DC Power Supply, a Low Noise Amplifier (LNA), microwave AGC (Automatic Gain Control) circuits and a Power Amplifier module, all packaged in a weather-proof rugged outdoor enclosure.

OAR02-010

Repeater			
Input Frequency ² :	2.5 to 2.7 GHz		
Nominal Input Level for 31 Ch:	-45 dBm		
Output Frequency:	2.5 to 2.7 GHz		
Output Level for 50 dB C/CTB: (measured with CW carriers) ³	Channels	Average Power dBm/Channel	Peak Power dBm/Channel
	9	17.5	20.0
	12	16.0	18.5
	18	14.0	16.5
	24	12.0	14.5
	30	11.0	13.5
Frequency Response:	±1 dB		
Gain:	56 dB min.		
Noise Figure:	5 dB		
Input Return Loss:	15 dB		
Input Connector:	Type "N"		
Output Return Loss:	18 dB		
Output Connector:	Type "N"		
Temperature Range:	-40° to 122° F (-40° to 50° C)		
Primary Power:	60/120/240 VAC @ 50/60 Hz (per customer spec)		
Power Consumption:	250 Watts		
Mounting:	Antenna Pole		
Weight:	40 lbs (18.2 kg)		
Dimensions:	13" W x 7.5" H x 24" D (33cm x 19cm x 61cm)		

¹ Specifications subject to change without prior notice.

² Other frequencies available.

³ The C/CTB with modulated carriers is approximately 6 dB better than with CW carriers.