

OAR-002 OUTDOOR BROADBAND REPEATER



- ◆ **Broadband Repeater with 80 Channel Capability**
- ◆ **6 Mile (10 Kilometer) Range**
- ◆ **Modular Design**
- ◆ **Upgradeable to Higher Power**
- ◆ **Digital Ready**

PRODUCT APPLICATION:

The OAR-002 Repeater is an on-frequency repeater designed to bypass line-of-sight obstacles between transmitter and receiver locations. It works by amplifying an incoming signal from the main transmitter and re-transmitting it in one or more directions.

With a capacity of up to 80 channels, the OAR-002 can feed several receivers and one local booster amplifier simultaneously.

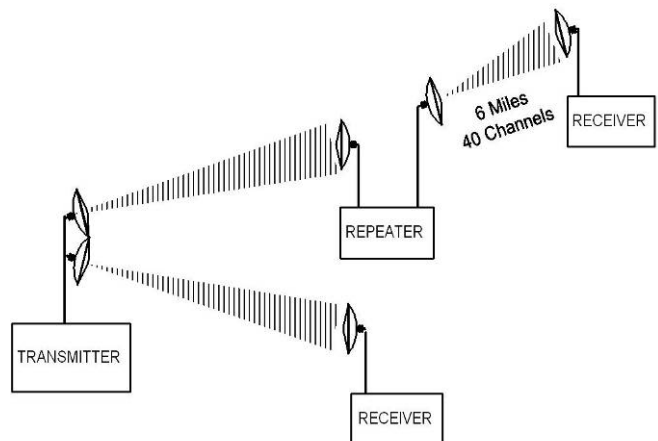
The capability to drive a booster amplifier with a high quality signal makes it possible to increase the number of receivers fed from the repeater site.

The repeater incorporates an Automatic Gain Control (AGC) circuit and state-of-the-art Solid State GaAs amplifiers (LNA at the input and Power Amplifier at the output) for best reliability and performance.

The OAR-002 features operating diagnostics such as output signal level monitoring and

power supply voltages as well as local VHF drop to facilitate connection to an on-site receiver.

Designed for many years of trouble-free operation in an outdoor environment, the OAR-002 can be easily upgraded to the higher power OAR-005 repeater to accommodate additional requirements for more receiver sites or higher channel load.



OAR-002

| Repeater | | | | | | | | | | | |
|----------------------------------|---|---------------------------|---------------------------|----|------|----|------|----|------|----|------|
| Output Frequency ² : | 12.7 to 13.2 GHz | | | | | | | | | | |
| Noise Figure: | 7 dB | | | | | | | | | | |
| Output Level for 65 dB C/CTB: | <table border="1"> <thead> <tr> <th>Channels</th> <th>Average Power dBm/Channel</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>-1.0</td> </tr> <tr> <td>21</td> <td>-3.5</td> </tr> <tr> <td>35</td> <td>-6.0</td> </tr> <tr> <td>60</td> <td>-8.5</td> </tr> </tbody> </table> | Channels | Average Power dBm/Channel | 12 | -1.0 | 21 | -3.5 | 35 | -6.0 | 60 | -8.5 |
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| | 12 | -1.0 | | | | | | | | | |
| | 21 | -3.5 | | | | | | | | | |
| | 35 | -6.0 | | | | | | | | | |
| 60 | -8.5 | | | | | | | | | | |
| Nominal Gain: | 35 dB | | | | | | | | | | |
| Gain Flatness: | ±1 dB | | | | | | | | | | |
| AGC Range: | 20 dB | | | | | | | | | | |
| Input Connector: | WR-75 Waveguide | | | | | | | | | | |
| RF Output Connector: | WR-75 Waveguide | | | | | | | | | | |
| Remote Monitor Output Connector: | MS3112E14-15P | | | | | | | | | | |
| Power Input Connector: | Dependent upon line voltage | | | | | | | | | | |
| Temperature Range: | -40° to 122° F (-40° to 50° C) | | | | | | | | | | |
| Primary Input: | 60/120/240 VAC @ 50/60 Hz (per customer spec) | | | | | | | | | | |
| Power Consumption: | 75 VA RMS | | | | | | | | | | |
| Mounting: | Antenna Pole Mount | | | | | | | | | | |
| Weight: | 46 lbs (21 kg) | | | | | | | | | | |
| Dimensions: | 16" W x 12" H x 7" D (48.26 cm x 17.78 cm x 50.88 cm) | | | | | | | | | | |

¹ Specifications subject to change without prior notice.

² For Group C: other frequencies available.