

OAR18-005 OUTDOOR BROADBAND REPEATER

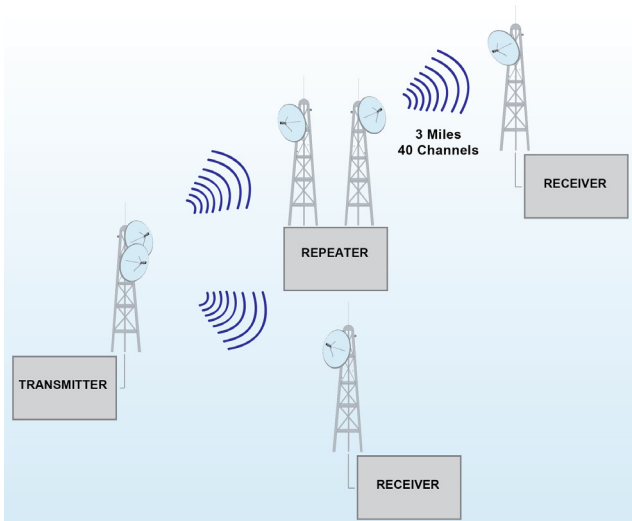
- **Broadband repeater with 72 Channel Capability**
- **Feeds Booster Amplifier**
- **Upgradeable, Modular Design**
- **Local Drop for On-Site Receiver**



PRODUCT APPLICATION:

The OAR18-005 is an on-frequency repeater designed to bypass line-of-sight obstacles between transmitter and receiver locations by amplifying an incoming signal from the main transmitter and re-transmitting it in one or more directions.

With a capacity of up to 72 channels, the OAR18-005 can feed several receivers and one local booster amplifier simultaneously.



The repeater's capability to drive a booster amplifier with a high quality signal makes it possible to significantly increase the effective of the repeater and/or the number of receivers fed from the repeater site.

The OAR18-005 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.

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 OAR18-005 delivers high output power without compromising reliability by keeping the power amplifier operating temperature below recommended limits by using linearization techniques with a proven performance record.

| Repeater | | | | | | | |
|---|--|-------------|---------|-----------|-------------|---------|-----------|
| Input/Output Frequency ² : | 17.70 to 18.30 GHz | | | | | | |
| Noise Figure (35 channels) ³ : | 5.0 dB | | | | | | |
| Output Level for 65 dB C/CTB: | Channels | Main Output | | | dBm/Channel | | |
| | | dBm/CH | C/N(db) | C/CTB(db) | dBm/CH | C/N(db) | C/CTB(db) |
| | 12 | 4.5 | 65.0 | 60.0 | -23.0 | 66.0 | 71.0 |
| | 21 | 2.0 | 62.5 | 60.0 | -25.5 | 63.5 | 71.0 |
| | 35 | -0.5 | 60.0 | 60.0 | -28.0 | 61.0 | 71.0 |
| 60 | -3.5 | 57.0 | 60.0 | -31.0 | 58.0 | 71.0 | |
| Normal Gain: | 42.5 dB | | | | | | |
| Gain Flatness: | ±1 db | | | | | | |
| Internal Attenuator Range: | 30 dB | | | | | | |
| Input Connector: | WR-42 Waveguide | | | | | | |
| Output Connector: | WR-42 Waveguide | | | | | | |
| Booster Output Connector: | WR-42 Waveguide | | | | | | |
| Temperature Range: | -40° to 130°F (-40° to 55°C) | | | | | | |
| Humidity: | 100% Max | | | | | | |
| Primary Power: | 60/120/240 VAC @ 50/60 Hz or 12/24 VDC (per Customer Spec) | | | | | | |
| Power Consumption: | 100 VA RMS | | | | | | |
| Mounting: | Antenna Pole Mount | | | | | | |
| Weight: | 50 lbs. (22.7 kg) | | | | | | |
| Dimensions: | 16" W x 12" H x 7" D (48.26cm rack width x 17.78cm H x 50.88cm D) | | | | | | |

¹ Specifications subject to change without prior notice.

² Other frequencies available.

³ Noise Figure is with repeater at nominal gain.