

IAR02-100C COMPACT MMDS INDOOR BROADBAND REPEATER (100Watts)



- **Broadband High Power Repeater**
- **31 Analog Channels or 150 Digital TV Programs**
- **Indoor Installation**
- **Built-in VHF Monitoring Ports**
- **Efficient, Compact Size**

PRODUCT APPLICATION:

The IAR02-100C is a broadband active MMDS repeater designed to receive, amplify, and retransmit (at the same frequency) up to 31 analog television channels or 150 digital channels (64QAM, 256 QAM or OFDM modulation).

The IAR02-100C is designed to provide cost-effective coverage over a wide area. With an omnidirectional transmit antenna, it can cover an area of approximately 15 Kilometer radius when loaded with 31 channels, or 22 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 input and output signals are in the 2.5-2.7 GHz frequency range. As in all broadband repeaters, the output power depends on the number of channels. For example, with a 9 channel load the repeater delivers a total of 560mW per channel with a C/CTB of 50 dB (measured with CW carriers), or approximately 1 Watt per channel peak power.

The repeater is very easy to install and operate. Its compact design requires only 12.25 inches (31.2 cm) height in a standard 19 inches (48.3 cm) wide rack or cabinet. It is designed to operate indoors without air conditioning requirements.

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 a modular design for ease of maintenance and service. The key modules are the LNA (Low Noise Amplifier), AGC circuit, power amplifier, power supply and diagnostic circuits.

Repeater			
Input Frequency ² :	2.5 to 2.7 GHz		
Nominal Input Level for 12 TV:	-45 dBm/CH)		
Output Frequency ² :	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	27.5	30.0
	12	26.0	28.5
	18	24.0	26.5
	24	22.0	24.5
	30	21.0	23.5
Local Oscillator Frequency ² :	±1 dB		
Gain:	71 dB		
Noise Figure:	4.5 dB		
Input Return Loss:	15 dB		
Input Connector:	Type "N"		
Output Return Loss:	18 dB		
Output Connector:	Type "N"		
Temperature Range:	60° to 100°F (16° to 38°C)		
Humidity:	95% max.		
Primary Power:	120/240 VAC, 50/60Hz (per customer specification)		
Power Consumption:	840 VA RMS		
Mounting:	EIA Standard Relay Rack		
Weight:	53 lb. (24 kg)		
Dimensions:	19" rack width x 12.5" H x 24" D (48.3cm W x 31.8cm H x 61cm D)		

¹ Specifications subject to change without prior notice.

² Other frequencies available.

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