

**IAR02-250C  
COMPACT MMDS  
INDOOR BROADBAND  
REPEATER  
(250 Watts)**



- ◆ **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 IAR02-250C is a broadband active repeater designed to receive, amplify, and retransmit (at the same frequency) up to 31 analog television channels or 150 digital TV programs (64QAM, 256 QAM or OFDM modulation).

It is designed to provide cost-effective coverage over a wide area. With an omnidirectional transmit antenna it can cover an area of approximately 24 Kilometer radius when loaded with 31 channels or a 35 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 to 2.7 GHz frequency range. As in all broadband repeaters, the output power depends on the number of channels at the input. For example, with a 9 channel load the repeater delivers more than 1 Watt per

channel (peak power) with a C/CTB of better than 50 dB.

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 inch (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.

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<b>Repeater</b>			
Input Frequency <sup>2</sup> :	2.5 to 2.7 GHz		
Nominal Input Level for 12 TV:	- 45 dBm		
Output Frequency <sup>2</sup> :	2.5 to 2.7 GHz		
Output Level for 50 dB C/CTB: (measured with CW carriers) <sup>3</sup>	<b>Channels</b>	<b>Average Power dBm/Channel</b>	<b>Peak Power dBm/Channel</b>
	9	31.5	34.0
	12	30.0	32.5
	18	28.0	30.5
	24	26.0	28.5
	30	25.0	27.5
Frequency Response:	±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:	55 lb. (163.6 kg)		
Dimensions:	19" rack width x 12.5" H x 24" D (48.3cm W x 31.8cm H x 61cm D)		

<sup>1</sup> Specifications subject to change without prior notice.

<sup>2</sup> Other frequencies available.

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