



WAVEGUIDE FROM ANTENNA FEEDHORN TO RECEIVER INPUT

## IRX08-SERIES PHASE-LOCK LOW NOISE INDOOR RECEIVERS

- **Low-Noise, Phase-Locked, 80 Channels**
- **Digital Ready, Low Phase Noise**
- **Designed for Integrated System Use**
- **Five Models, Upgradeable**

### PRODUCT APPLICATION:

Cable AML manufactures low noise, digital-ready, state of the art receivers in three versions: the IRX08 series for indoor operation, the ORX series for outdoor operation, and the SRX series configured with the downconverter mounted outdoors on the antenna feed, and the VHF processor located indoors.

The IRX08 is a one piece receiver housing the Downconverter and VHF Processor modules in the same compact, rack mountable enclosure.

The IRX08, like all Cable AML receivers, is digital-ready (256 QAM, 64 QAM, QPSK or other digital modulation formats). The low noise distortion characteristics of the IRX08 series receivers are a significant improvement over previous designs. The receiver is phase-locked to the transmitter by a low phase noise CW pilot tone transmitted in the 72 to 76 MHz spectrum.

Diagnostic and status monitoring can be performed directly at the receiver, or remotely via the VHF unit's monitor interface connector.

The IRX08 Receiver can be configured with various LNA, Microwave AGC, and VHF AGC options (see the Model Designation Table). Receiver upgrades involving these options can be performed in the field with minimum down time.



IRX RECEIVER

| <b>Receiver</b>                 |   |
|---------------------------------|---|
| Input Frequency <sup>2</sup> :  | 7.85 to 8.40 GHz                                  |
| Output Frequency <sup>2</sup> : | 54 to 550 MHz                                     |
| Video Channel Capacity:         | 80 Channels                                       |
| Output Connector:               | Type "F"  |
| Input Connector:                | Type "N" - Female                                 |
| Temperature Range:              | 60° to 100°F (16° to 38°C)                        |
| Primary Power:                  | 120/240 VAC, 50/60Hz (per customer specification) |
| Weight:                         | 18.5 lb. (8.4 kg)                                 |
| Dimensions:                     | 19" W x 7" H x 12" D (48.3cm x 17.8cm x 30.5 cm)  |

| Receiver Specification Table                           | Model |      |      |      |      |
|--|-------|------|------|------|------|
|  | -000  | -101 | -111 | -201 | -211 |
| <b>Noise Figure (dB):</b>                              | 13.0  | 5.5  | 6.0  | 4.5  | 5.0  |
| <b>Composite Third-Order<sup>3</sup> (C/CTB, dB):</b>  | 70.0  | 74.0 | 74.0 | 72.0 | 74.0 |
| <b>Composite Second-Order<sup>3</sup> (C/CTB, dB):</b> | 61.0  | 63.0 | 63.0 | 67.0 | 67.0 |
| <b>Microwave AGC Dynamic Range:</b>                    | N/A   | N/A  | 15.0 | N/A  | 15.0 |
| <b>VHF AGC Dynamic Range (dB):</b>                     | N/A   | 13.0 | 13.0 | 13.0 | 13.0 |
| <b>Gain (nominal, dB)<sup>4</sup>:</b>                 | 25.0  | 24.0 | 24.0 | 31.0 | 31.0 |
| <b>Gain Flatness (dB):</b>                             | 1.5   | 1.5  | 1.5  | 1.5  | 1.5  |
| <b>Nominal Output Level:</b>                           | 28.0  | 28.0 | 28.0 | 28.0 | 28.0 |

### Model Number Designation Table:

IRX08-XXX

LNA

Microwave AGC

VHF AGC

0 = No LNA  
 1 = Single Stage LNA  
 2 = Dual Stage LNA

0 = No  
 1 = Yes

0 = No  
 1 = Yes

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

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

<sup>3</sup> 72 channel loading, C/N = 56 dB.

<sup>4</sup> Gain for input level such that C/N = 56 dB.