



WAVEGUIDE FROM ANTENNA FEEDHORN TO RECEIVER INPUT

IRX18-SERIES PHASE-LOCK LOW NOISE INDOOR RECEIVERS

- **Low-Noise, Phase-Locked, 72 Channels**
- **VHF Output connects Directly to Cable**
- **Three Models, Upgradeable**

PRODUCT APPLICATION:

Cable AML manufactures low noise, digital-ready, state of the art receivers in three versions: the IRX 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 IRX series receiver is a single unit receiver designed for indoor applications. The unit is connected to the antenna via waveguide.

The IRX, like all Cable AML receivers, is digital-ready (256 QAM, 64 QAM and QPSK or other digital modulation formats). The low noise distortion characteristics of the IRX 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 74 to 75 MHz spectrum.

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

Product Specification¹

Transmitter	
Input Frequency ² :	17.70 to 18.30 MHz
Output Frequency ² :	54 to 552 MHz
Video Channel Capacity:	80 Channels
Output Connector:	Type "F"
Input Connector:	WR-42 Waveguide
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	-001	-111	-201	-211
Noise Figure (dB):	5.0	5.0	5.0	5.0	5.0
Composite Third-Order³ (C/CTB, dB):	70.0	70.0	70.0	70.0	70.0
Composite Second-Order³ (C/CTB, dB):	61.0	61.0	61.0	61.0	61.0
Microwave AGC Dynamic Range:	N/A	N/A	13.0	N/A	13.0
VHF AGC Dynamic Range (dB):	N/A	13.0	13.0	13.0	13.0
Gain (nominal, dB)⁴:	25.0	25.0	33.0	41.0	41.0
Gain Flatness (dB):	1.5	1.5	1.5	1.5	1.5
Nominal Output Level:	28.0	28.0	28.0	28.0	28.0

Model Number Designation Table:

IRX18-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

¹ Specifications subject to change without prior notice.

² Other frequencies available.

³ 72 channel loading, C/N = 56 dB.

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