



FEATURES

- 160 MHz IF Input
Other IF's Optionally Available
- High Input Intercept Point
- Low Distortion
- Up To Four IF Bandwidths
- Computer Control - Option

DESCRIPTION

The Model 701 AM/FM Demodulator accepts an IF input at 160 MHz with a nominal input bandwidth of 50 MHz. The input signal is filtered, amplified, and demodulated in high-performance FM and AM demodulators. Front panel controls allow selection of IF/Video/Audio gain, IF/Video bandwidth, AGC/MGC and AM/FM demodulation. Up to four user-specified IF bandwidths are optionally available, ranging from 0.5 to 36 MHz. Gain control, either manual or automatic, is effective over 70 dB range of input level. Group delay distortion and demodulator nonlinearity are carefully controlled to minimize NPR and BER degradations. All functions can be under IEEE-488 control.

The Model 701 AM/FM Demodulator is housed in an EIA standard 1-3/4 inch high chassis, suitable for rack mounting.

SPECIFICATIONS

Center Frequency	160 MHz - Standard (others optional)
Noise Figure	20 dB, maximum
Third Order Input Intercept Point	+10 dBm, minimum
Level Range	-75 to 0 dBm
Impedance	50 ohms
Return Loss	14 dB, maximum
IF Bandwidth (4 maximum)	
User Specified	0.5, 1, 2, 4, 8, 10, 16, 20, 30, 36 MHz
Discriminator Linearity	±2.5%
Video AM or FM Output	
Level (75 ohms)	1.5 Vp-p unsaturated
Gain Control Range	60 dB, minimum
Frequency	20 Hz to 0.5 x BW _{IF}
Response (1dB) Filter	DC coupled output - Optional
Characteristic	5-pole Bessel
Gain Ripple	±0.5 dB
Audio Output	
Level (600 ohms)	10 dBm, nominal
Gain Control Range	30 dB, minimum
Frequency	
Response (3dB)	200 Hz to 4 kHz, minimum

Specifications are subject to change without notice.

ORDERING INFORMATION

A standard Model 701 AM/FM Demodulator accepts an input center frequency of 160 MHz, provides two customer specified IF bandwidths, and is manually controlled. Two additional IF bandwidths and computer control are available as options. When ordering, please specify:

701	AM/FM Demodulator
Option B55	500 kHz IF Bandwidth
Option B16	1 MHz IF Bandwidth
Option B26	2 MHz IF Bandwidth
Option B46	4 MHz IF Bandwidth
Option B66	6 MHz IF Bandwidth
Option B86	8 MHz IF Bandwidth
Option B17	10 MHz IF Bandwidth

IF Output Level	-7 dBm rated
Impedance	50 ohms
Return Loss	14 dB, maximum
Frequency Response	IAW selected IF filter

Signal Monitor Output Level	Input level ±1 dB
Impedance	50 ohms
Return Loss	14 dB
Bandwidth	50 MHz
Center Frequency	160 MHz

Controls - front panel	AM/FM, AGC/MGC, BW (IF, Video) Gain (IF, Video, Audio), Power
- rear panel	IEEE-488 Address Switch

Indicators	8 character alpha-numeric LED's
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Connectors - rear panel (BNC)	IF Input, Audio Out, IF Out, Video Out, IEEE 488 - Optional
- front panel (J-K)	Audio Output

Temperature - Operating	0° to 50°C
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Power	115/230 Vac, 47-62 Hz
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Style	Standard EIA 19-inch rack mount chassis, 1-3/4 inches high, 20 inches deep
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WARRANTY

All of Reaction Instruments' equipment is warranted for one year, except for damage caused by accident or misuse, provided the equipment is returned for repair to the plant in Herndon, VA

Adams Russell

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OCTOBER 1988