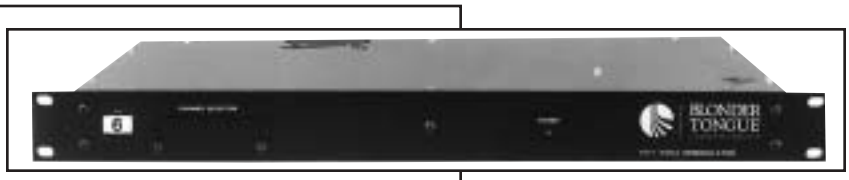
The AD-1 Series includes professional quality, agile audio/video demodulators. These units provide audio and video output from any channel in the 54 to 88 and 108 to 806 MHz frequency range. The AD-1 Series is ideal for signal monitoring and signal conditioning (audio/video processing and remodulation) applications. Agile channel selection permits on-the-fly channel changes.



The AD-1 Series takes a single channel in the 54 to 88 and 108 to 806 MHz frequency range and demodulates the audio and video information. Baseband audio and video, as well as 4.5 MHz audio subcarrier and multiplex audio, are provided as outputs. Both models feature a rock solid PLL synthesized frequency control with a tuning increment of 250 kHz. Frequency selection is accomplished via front panel DIP switches. A Nyquist filter provides stable, accurate demodulation of the vestigial sideband signal. Additionally, this filter minimizes distortion and preserves the timing of the signal. Delayed AGC circuitry automatically compensates for input signal variations. The AD-1 Series utilizes a quasi-synchronous video detector that has low differential gain and minimal phase distortion. A quadrature audio detector delivers a very low distortion audio output. Broadband multiplex audio and 4.5 MHz audio subcarrier outputs permit use in BTSC stereo applications. The AD-1 Series products are housed in a single height, 1.75" high, rack mountable, aluminum chassis.

OPTION 17 - Sub-band Input

This option provides extended frequency range for sub-band input channels (T7 through T13). A rear panel switch allows configuration of the demodulator for standard VHF/UHF (54-88 and 108-806 MHz) channels or sub-band (7-49 MHz). When invoked, this option block converts the sub-band channels to VHF channels 7 through 13 (selecting input channel VHF 7 will select sub-band channel T7).

OPTION 20 - Digital Control, Serial RS-232

This option accepts a serial RS-232 data input to change the input frequency of the demodulator, select frequency plans (standard, HRC, IRC) and to determine the status of the demodulator (frequency, frequency plan).

SPECIFICATIONS

RF	*AD-1 SERIES*	*Units*
Input Frequency Range		
Standard:	54-88 & 108-806	MHz
Option 17: Sub-band Input:	7-49	MHz
Channels:	VHF, UHF (Input)	
CATV (STD,HRC,IRC)		
Tuning Increment:	250	kHz
Input Level - Max:	+20	dBmV
Noise Figure		
VHF:	8-11	dB
UHF:	10	dB
Image Rejection - Min		
VHF:	65	dB
UHF:	50	dB
Input/Output Impedance:	75	Ω

VIDEO		
Frequency Response		
fv+25 Hz to fv+4.0 MHz:	settable to ±1.0	dB
Output Level:	1.0	V p-p
Differential Gain:	3.0	%
Differential Phase:	1.5	°
Group Delay Response:	±50	ns
Output Impedance:	75	Ω
Output Return Loss:	25	dB

AUDIO		
Baseband		
Frequency Response:		
50 Hz to 15 kHz:	±0.75	dB
Output Level:	500	mV RMS
Impedance:	600, unbalanced	Ω
Multiplexed		
Frequency Response:		
50 Hz to 100 kHz:	±0.2	dB
Output Level:	500	mV RMS
Impedance:	600, unbalanced	Ω
4.5 MHz Subcarrier		
Output Level:	+35	dBmV
Impedance:	75	Ω
Audio Signal-to-Noise:	57	dB
Total Harmonic Distortion:	0.6	%

GENERAL	*AD-1 SERIES*	*Units*
Power Requirements		
Voltage:	117, ±10%	VAC
Frequency:	60	Hz
Power:	16 (a)	W
Fuse:	1/4	A
Temperature Range:	0 to +50	°C

MECHANICAL		
Dimensions (WxHxD):	19.0 x 1.75 x 14.5	in.
	483 x 44 x 368	mm
Weight:	5.5 lbs. (2.50 kg)	

CONNECTORS (Rear Panel)	
RF Input	
Standard - VHF/UHF:	"F" type, female
Option 17: Sub-band Input:	"F" type, female
Video Output:	"F" type, female
Baseband Audio Output:	RCA Phono, female
Multiplexed (MPX) Audio Output:	RCA Phono, female
4.5 MHz Subcarrier Audio Output:	"F" type, female
Serial Data Input & Output	
Option 20: Serial Input:	RJ-12, female

CONTROLS (Front Panel)	
Frequency Selection:	DIP Switches
Video Response:	Controls

CONTROLS (Top Cover & Rear Panel)	
Sub-band Input Channels	
Option 17:	Slide Switch

INDICATORS (Front Panel)	
Power ON:	LED, green

ORDERING INFORMATION:

AD-1
Stock No. 5932

OPTIONS:

59257	AD-1-OPT 17 Option 17: Sub-band Input
59250	AD-1-OPT 20 Option 20: Digital Control, Serial RS-232
59259	AD-2-OPT 09 Option 09: Balanced Audio Input, 600Ω

NOTE: Multiple options may or may not be installed in a single unit. Please consult Blonder Tongue factory before ordering options.

FEATURES:

- 250 kHz Tuning Increment - Supports Broadcast, CATV, and UHF Channels, Including HRC and IRC Assignments
- Nyquist Filter Ensures Stable Accurate Demodulation
- AGC Circuitry Automatically Compensates for Input Level Variations
- Quasi-Synchronous Video Detector Provides Superior Linearity
- Quadrature Audio Detector Delivers Very Low Distortion
- 4.5 MHz Audio Subcarrier and Broadband Multiplex Audio Output Permits Use With BTSC Stereo Applications
- Rack Mount, 1 EIA (1.75") Spacing, Rugged Aluminum Chassis
- UL Listed

NOTES

(a) standard unit with no options installed