



AmpliTech

"Amplify Your Potential"

LIMITING AMPLIFIERS

DESCRIPTION

Limiting amplifiers are very useful in applications where you need a constant output level while having a variable input signal. These amplifiers are very useful for the system integrator who needs a steady level output and to protect all subsequent components from saturation or overdrive damage. These amplifiers, along with AmpliTech's ultra low noise characteristics, make a perfect match to produce a clear, consistent, amplified signal.

This amplifier has become a very popular solution in DLVA's, SDLVA's, and IFM systems (2nd harmonic suppression), receivers, and simulators because we provide a clean, low-error response across the entire 2-18 GHz frequency range. The unique construction of these amplifiers yields low phase noise characteristics which is a very important requirement for systems integration.



FEATURES

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| <ul style="list-style-type: none">• Ultra-Wide Bands (2-18 GHz)• Removable SMA Connectors• Unconditionally Stable• State-of-the-Art Technology• Flexible design for custom solutions• Very lightweight, compact designs• Multiple connector interfaces (SMA, GPO, etc)• Low Current Consumption• High Reliability (Mil-Std 883)• High Dynamic Range | <ul style="list-style-type: none">• Hermetically Sealable• Flat Gain Response• High Gain (up to 80 dB)• Exceptional Two-Tone (Harmonic) Suppression for IFM Applications• Low Saturated Harmonic Levels (-20 dBc typ.)• Temperature Compensated (-40° to 90°C)• Low Phase Noise Characteristics |
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LIMITING AMPLIFIERS

OPTIONS

Custom designs for all specifications
 MIL-STD 883 / Space Level screening
 Hermetic Laser Sealing
 +5 TO +28 VDC power options
 Gain Equalization
 Weatherproofing
 Extended Operating Temperature Ranges
 Special Testing options

Temperature Compensation
 Internal Input Limiter
 Phase Matching
 Amplitude Matching
 Sloped Gains
 High Gain Options (up to 90 dB)
 AC or DC Coupling

LIMITING AMPLIFIER SPECIFICATIONS

MODEL NUMBER	FREQ. RANGE (GHz)	INPUT RANGE (dBm)	NOISE FIGURE (dB, Max.)	VSWR INPUT (Max.)	VSWR OUTPUT (Max.)	OUTPUT RANGE (dBm)	NOM. DC POWER (+15 V, mA)	AmpliTech OUTLINE DRAWING
APT5-00100200-5011-D6-LM	0.1-2.0	-50 to 0	5.00	2.5 :1	2.5 :1	+11 to +16	250	D6
APT3-00100200-5000-D6-LM	0.1-2.0	-30 to 0	5.00	2.5 :1	2.5 :1	0 to +10	175	D6
APT3-00500100-1515-D6-LM	0.5-1.0	-15 to +10	1.50	2.0 :1	2.0 :1	+15 to +20	100	D4
APT3-01000200-1515-D4-LM	1-2	-15 to +10	1.50	2.0 :1	2.0 :1	+15 to +20	100	D4
APT3-02000400-2515-D4-LM	2-4	-15 to +10	2.50	2.5 :1	2.5 :1	+15 to +20	200	D4
APT3-02000600-3015-D4-LM	2-6	-15 to +10	3.00	2.5 :1	2.5 :1	+15 to +20	200	D4
APT4-02000800-3515-D4-LM	2-8	-15 to +10	3.50	2.5 :1	2.5 :1	+15 to +20	200	D4
APT4-04000800-3515-D4-LM	4-8	-15 to +10	3.50	2.5 :1	2.5 :1	+15 to +20	200	D4
APT4-08001200-4015-D4-LM	8-12	-15 to +10	4.00	2.5 :1	2.5 :1	+15 to +20	225	D4
APT5-08001800-5015-D6-LM	8-18	-15 to +10	5.00	2.5 :1	2.5 :1	+15 to +20	300	D6
APT5-12001800-5015-D6-LM	12-18	-15 to +10	5.00	2.5 :1	2.5 :1	+15 to +20	275	D6
APT55-02001800-D66-LMS	2.0-18.0	-55 to 5	3.00	2.5 :1	2.5 :1	+11 to +16	350	D6+D6
APT55-02001800-5011-D66-LM	2.0-18.0	-50 to 0	5.00	2.5 :1	2.5 :1	+11 to +16	300	D6+D6
APT5-02001800-5000-D6-LM	2.0-18.0	-30 to 0	5.00	2.5 :1	2.5 :1	0 to +10	250	D6

NOTE: Input and output ranges can be modified to suit customer specifications



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