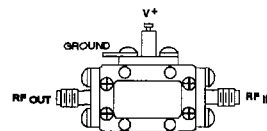


**PRODUCT DESCRIPTION**

Avantek's ACT Series are multi-stage, high performance amplifiers packaged in a hermetic stainless steel Avanpak™ package with removable connectors for SMA connections or drop-in assembly. The 5 to 2000 MHz part of the line uses some of Avantek's most popular UTO type devices cascaded in substrate form. This permits the cascades to be factory-tuned to provide a wide selection of low NF, high gain, flat fre-

quency response and moderate output power products. Other parts in the line are a 0.1 to 4000 MHz extremely broadband unit, and several narrowband ultra-low-NF amplifiers. The ACT line is recommended for use as instrumentation amplifiers, LNAs, Fiber optic system amplifiers or any other application where performance plays a major role.



AS-2, p. 16-8

**ACT SERIES CASCADED AMPLIFIERS**

(Guaranteed Specifications @ 0° to 50°C Case Temperature, V = 15 VDC)

Model	Frequency Range MHz	Gain (dB) Typ./Min.	Noise Figure (dB) Maximum	Power Output for 1 dB Gain Compression (dBm) Minimum	Gain Flatness (dB) Maximum	Intercept Point for IM Products (dBm) Typical	VSWR 50 Ohms In/Out Maximum	Input Bias Current (mA) Typical
<b>10 to 500 MHz</b>								
ACT5-200	10-500	26.5/25	2.7	+6	±1.5	+22	2.0:1	35
ACT5-201	10-500	37/35	2.7	+7	±1.5	+20	2.0:1	33
ACT5-202	10-500	51.5/49	2.7	+6	±1.5	+18	2.0:1	60
ACT5-203	10-500	64.5/62	2.7	+6	±2.0	+18	2.0:1	70
ACT5-210	10-500	27.5/26	3.0	+14	±1.5	+30	2.0:1	78
ACT5-211	10-500	38/36	3.5	+14	±1.5	+30	2.0:1	76
ACT5-212	10-500	47/45	2.7	+14	±1.5	+27	2.0:1	80
ACT5-213	10-500	54/52	2.7	+14	±2.0	+27	2.0:1	92
ACT5-214	10-500	67/65	2.7	+14	±2.0	+27	2.0:1	103
ACT5-220	10-500	24.5/23	3.5	+23	±1.5	+35	2.0:1	165
ACT5-221	10-500	35/33	3.0	+23	±2.0	+35	2.0:1	190
ACT5-222	10-500	46/44	3.0	+23	±2.0	+35	2.0:1	193
ACT5-223	10-500	60.5/58	3.0	+23	±2.0	+35	2.0:1	210
<b>10 to 1000 MHz</b>								
ACT10-210	10-1000	21.5/20	4.5	+11	±2.0	+28	2.0:1	60
ACT10-211	10-1000	31/29	3.7	+9	±1.5	+20	2.0:1	37
ACT10-212	10-1000	41/39	3.7	+9	±2.0	+20	2.0:1	62
ACT10-213	10-1000	52/50	3.7	+12	±1.5	+27	2.0:1	101
ACT10-220	10-1000	22.5/21	5.0	+20	±2.0	+35	2.0:1	125
ACT10-221	10-1000	33/31	4.5	+20	±2.0	+35	2.0:1	150
ACT10-222	10-1000	42/40	3.7	+20	±2.0	+35	2.0:1	127
ACT10-223	10-1000	49/47	3.7	+20	±2.0	+35	2.0:1	163
<b>10 to 2000 MHz</b>								
ACT20-210	10-2000	19.5/18	5.0	+7	±1.5	+17	2.2:1	41
ACT20-211	10-2000	28/26	5.0	+14	±2.0	+29	2.2:1	91
ACT20-212	10-2000	34/32	6.0	+14	±2.0	+29	2.2:1	104
ACT20-213	10-2000	40/38	6.0	+12	±2.0	+29	2.2:1	126

ACT SERIES SELECTION GUIDE (continued)

AVANPAK CASCADED AMPLIFIER

(Guaranteed Specifications @ 0° to 50°C Case Temperature)

Model	Frequency Range (MHz)	Gain (dB) Typ./Min.	Noise Figure (dB) Maximum		Power Output @ 1.0 dB Comp. (dBm), Min.		Gain Flatness (dB) Maximum	Third-Order Intercept Point (dBm) Typ.		Input Power Voltage (VDC)	Current (mA) Typ.	Page Number
			0.1 to 2000 (MHz)	>2000 to 4000 (MHz)	0.1 to 2000 (MHz)	>2000 to 4000 (MHz)		0.1 to 2000 (MHz)	>2000 to 4000 (MHz)			
ACT-4032	0.1-4000	19/18	7.5	9.0	7.5	2.0	±1.0	19.0	10.0	15	105	3-222

ACT SERIES ULTRA LOW NOISE, NARROWBAND AMPLIFIER

(Guaranteed Specifications @ 0° to 50°C Case Temperature, V = 15 VDC)

Model	Frequency Range (MHz) Min.	Gain (dB) Min.	Noise Figure (dB) Max.	Power Output @ 1 dB Gain Compression (dBm) Min.	Gain Flatness (dB) Max.	Third-Order Intercept Point (dBm) Typ.	Input Power Voltage (VDC)	Current (mA) Typ.	Page Number
ACT-120923	950-1250	35.5	1.5	+14	±0.5	26	12-15	95	3-224
ACT-141223	1200-1400	35	1.5	+13	±0.5	25	12-15	95	3-226
ACT-161223	1200-1600	34	1.5	+15	±0.7	24	12-15	90	3-228