

High Performance Limiting Amplifiers and Limiters

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB		Power Output At 1dB Compression dBm			Output Limiting Level +20 dBm Input			SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Max. 0/50C	Max. -55/85C	Typ	Min. 0/50C	Min. -55/85C	Typ	Max. 0/50C	Max. -55/85C	Max. 0/50C	Max. -55/85C	Volts Nom.	mA Typ.
Limiting Amplifiers • Available in TO-8, SMA, and Surface Mount Packages																		
LA507	50-500	13.0	12.5	11.5	0.5	0.7	6.5	7.0	12.0	11.0	9.0	16.2	17.2	18.0	1.7	1.9	15	51
LA1017	10-1000	12.5	11.5	11.0	0.5	0.7	6.7	7.2	13.5	12.5	12.0	15.5	16.5	17.0	1.7	1.8	15	45

Model	Frequency Range MHz	Insertion Loss dB			Maximum Limiting Output Level +20 dBm Input						SWR In/Out		Bias Voltage
		Typ.	Min. 0/50C	Min. -55/85C	20V Typ.	20V Max.	15V Typ.	15V Max.	10V Typ	10V Max.	Max. 0/50C	Max. -55/85C	
Limiters • Available in TO-8, SMA, and Surface Mount Packages													
LC1501	50-1500	2.7	3.5	4.0	+2.0	+3.0	+1.0	+2.0	-1.0	0.0	2.0	2.0	5 to 20
LC1502	5-1500	2.7	3.5	4.0	+2.0	+3.0	+1.0	+2.0	-1.0	0.0	2.0	2.0	5 to 20
LC2034	500-2400	2.5	3.5	4.0	+2.2	+3.2	+1.0	+2.0	-1.0	—	2.0/2.2	2.0/2.2	5 to 20
LC3005	5-3000	0.6	1.0	1.5	—	—	—	—	+15.0 [^]	+16.0 [^]	1.5	1.7	—
LS6001	1000-6000	2.5	2.8	3.0	+4.8	+5.2	+2.5	+3.0	—	—	2.0	2.0	15 to 20



MTS High Performance Limiting Amplifiers and Limiters

Model	Frequency Range (MHz)	Input Power Limited Range (dBm) Min.	Saturated Output Power (dBm) Min..	Output Power Flatness (dBm) Max.	Noise Figure (dBm) Max.	Operating Bias (VDC)	Case Type
IF/RF Limiting Amplifiers • Guaranteed Specifications at 0° to 50°C Case Temperature							
UTL or PSL-502	5-500	-3 to +7	-4.0	±0.5	11	+15, -15	TO-8F or SM-45
UTL or PSL-503	5-500	-5 to +7	-4.0	±1.0	10	+15	TO-8U or SM-45
UDL-503	5-500	-30 to +10	-2.0	±1.0	10	+15	DIP

Model	Frequency Range (MHz)	Input Power Limited Range (dBm) Min.	Saturated Output Power (dBm) Max.	Insertion Loss (dBm) Max.	Operating Bias (VDC) Nominal	Case Type
Voltage Controlled Limiters • Guaranteed Specifications at 25°C Case Temperature						
UTL or PSL-1001	50-1000	0 to +20	-5 to +21	3.71	+5 to +20	TO-8U or SM-45
UTL or PSL-1002	5-1000	0 to +20	-5 to +21	3.71	+5 to +20	TO-8U or SM-45