RF Limiting Amplifier — Model TML9017

High Output Level: +10 dBm — 10 to 1000 MHz

Features

- High Output Level: +10 dBm Typical
- Good Even Order Supression
- Operating Temp. -55°C to +85°C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	10 - 1000 MHz	10 - 1000 MHz
Small Signal Gain (dB)	11.5	9.5 Min.
Power @ 1 dB Comp. (dBm)	+11	+7.0 Min.
Output Limiting Level (dBm)Pin =+20 dBm	+15	+17 Max.
VSWR In Out	<1.75:1 <1.85:1	2.0:1 Max. 2.2:1 Max.
Noise Figure (dB)	5.8	7.5 Max.
Power Vdc mA	+15 36	+15 42 Max.

Note: Care should always be taken to effectively ground the case of each unit.

Typical Intermodulation Performance at 25°C

Second Order Harmonic Intercept Point ..... +43 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +37 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +24 dBm (Typ.)

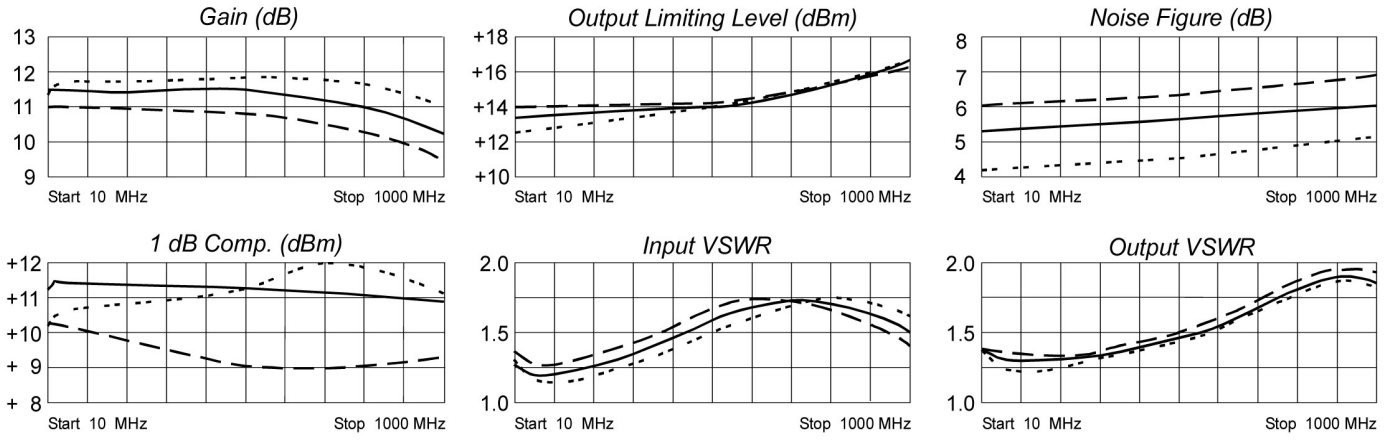
Maximum Ratings

Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 18 Volts
Continuous RF Input Power ..... + 23 dBm
Short Term RF Input Power ..... 400 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 1.0 Watt (3 µsec Max.)

Packaging Options (see Appendix)

TNL9017, 4 Pin Surface Mount (SM3)
BXL9017, Connectorized Housing (H1)
TML9017, 4 Pin TO-8 (T4)

Typical Performance Data



Legend: ——— +25°C – – – +85°C -- -- -- -- -55°C

Linear S-Parameters

Freq	----S11----		----S21----		----S12----		----S22----	
MHz	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.12	- 31	3.61	-176	.09	7	.16	166
50	.09	- 12	3.67	171	.10	- 2	.14	154
100	.09	- 6	3.64	160	.10	- 4	.15	136
200	.12	- 7	3.63	139	.10	-11	.15	101
400	.19	- 35	3.65	97	.10	-26	.21	35
600	.25	- 73	3.63	54	.11	-44	.28	- 22
800	.26	-113	3.50	8	.10	-77	.33	- 77
1000	.19	-153	3.26	- 39	.11	-72	.32	-137