

RF AMPLIFIER

MODEL *TM6516*

Available as: TM6516, 4 Pin TO-8 (T4)
 TN6516, 4 Pin Surface Mount (SM3)
 FP6516, 4 Pin Flatpack (FP4)
 BX6516, Connectorized Housing (H1)

Features

- Medium Gain: +14.5 dB Typical
- Medium Output Power: +14 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	14.5	13.5 Min.
Power @ 1 dB Comp. (dBm)	+14	+12.0 Min.
Reverse Isolation (dB)	- 17.5	- 17 Max.
VSWR In	<1.4:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	<4.0	4.5 Max.
Power Vdc	+15	+15
mA	35	38 Max.

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

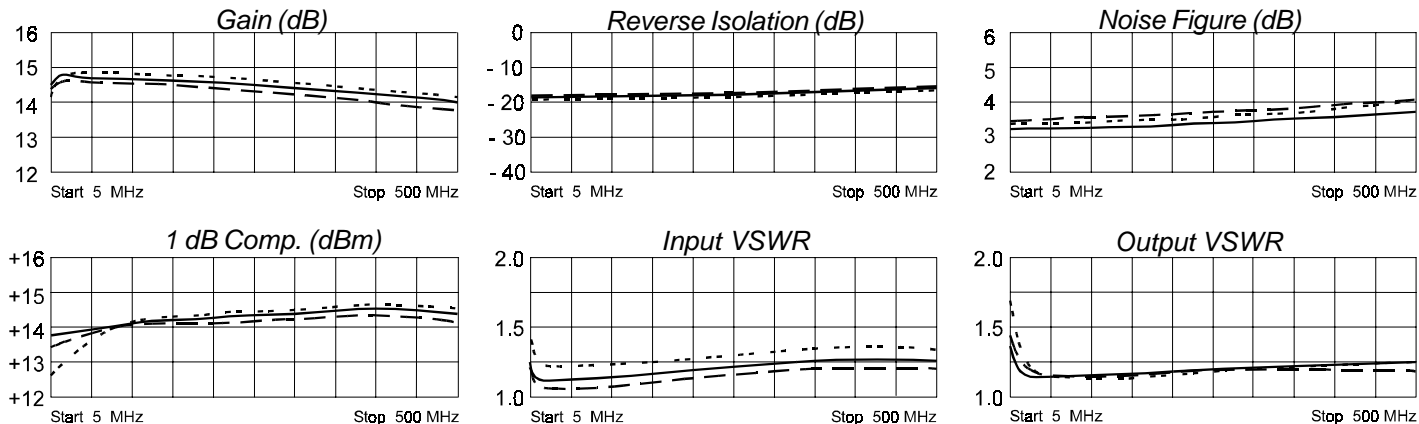
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +44 (Typ.)
 Second Order Two Tone Intercept Point +38 (Typ.)
 Third Order Two Tone Intercept Point +28 (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts
 (1 Minute Max.)
 Maximum Peak Power 0.5 Watt
 (3 µsec Max.)

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.11	-101	5.28	-170	.11	11	.17	137
50	.06	168	5.45	172	.12	0	.07	167
100	.06	135	5.44	162	.12	- 2	.07	179
200	.09	103	5.34	144	.12	- 5	.07	-175
300	.11	84	5.22	126	.12	- 8	.09	-172
400	.12	71	5.09	109	.13	-12	.10	178
500	.11	65	4.97	91	.14	-17	.11	166
600	.10	68	4.83	73	.15	-23	.10	142

Amplifonix

2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 • • • • FAX 215-464-4001 3/17/03