

# RF AMPLIFIER

## MODEL *TM6518*

Available as: TM6518, 4 Pin TO-8 (T4)  
 TN6518, 4 Pin Surface Mount (SM3)  
 FP6518, 4 Pin Flatpack (FP4)  
 BX6518, Connectorized Housing (H1)

### Features

- High Output Power: +25 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +46 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +40 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +33 dBm (Typ.)

### Specifications

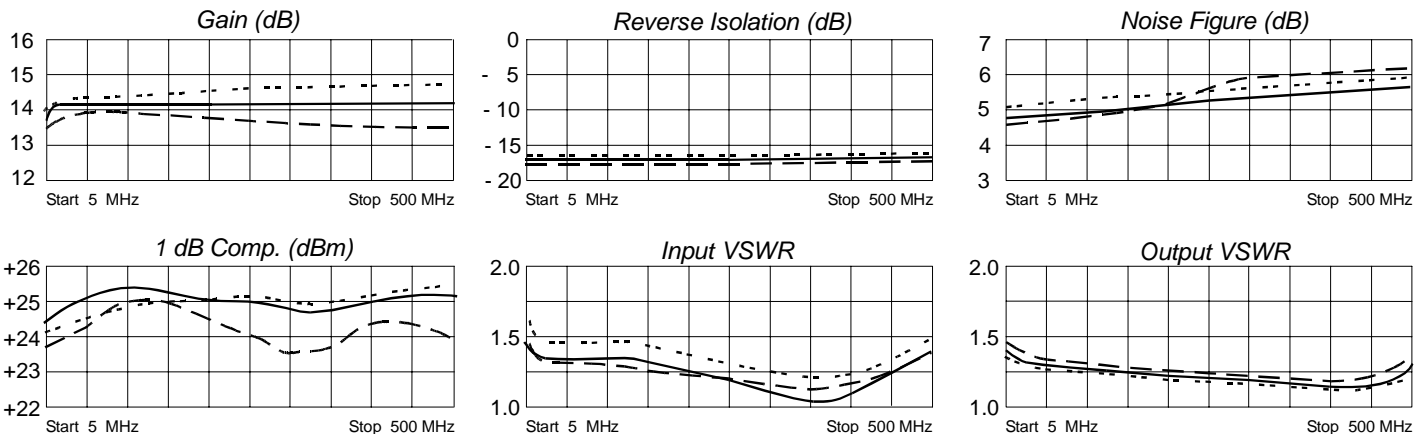
CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		5 - 500 MHz	5 - 500 MHz
Gain (dB)		14	12.5 Min.
Power @ 1 dB Comp. (dBm)		+25	+22.5 Min.
Reverse Isolation (dB)		-16.5	-15.5 Max.
VSWR	In	<1.5:1	2.0:1 Max.
	Out	<1.3:1	2.0:1 Max.
Noise figure (dB)		5.25	6.5 Max.
Power	Vdc	+15	+15
	mA	125	135 Max.

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

### 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 ..... + 18 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	.17	-135	4.89	-169	.11	14	.24	159
50	.14	165	5.04	169	.12	0	.18	166
100	.14	140	5.02	156	.12	-1	.17	160
200	.14	101	5.03	132	.12	-7	.15	144
300	.15	60	5.06	107	.13	-12	.14	136
400	.16	27	5.08	80	.14	-19	.13	140
500	.18	3	5.11	52	.15	-28	.19	143



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