

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	10 - 500 MHz
Gain (dB)	14	12.5 Min.
Power @ 1 dB Comp. (dBm)	+25	+22.5 Min.
Reverse Isolation (dB)	-16.5	---
VSWR In	<1.5:1	2.0:1 Max.
VSWR 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 (NO DAMAGE) Ratings

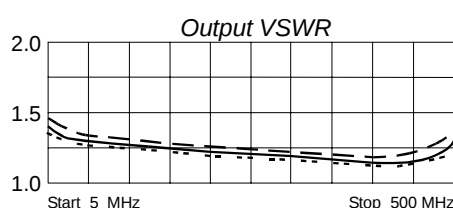
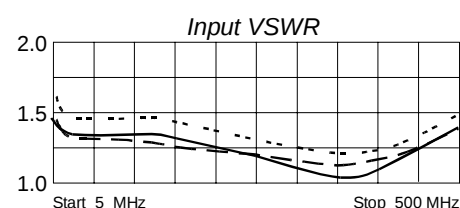
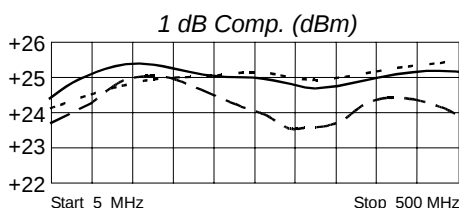
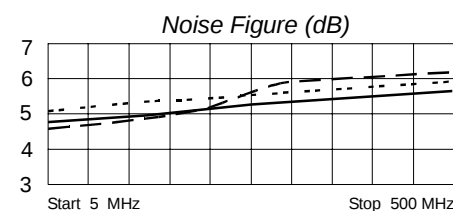
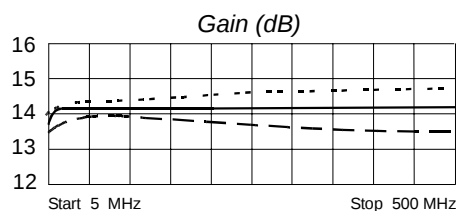
Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 18 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Revision: July 31, 2024

ECN: Changed Start Frequency from 5 to 10 MHz.

Removed RI Min/Max value

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	Mag	S11 Deg	Mag	S21 Deg	Mag	S12 Deg	Mag	S22 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

