RF AMPLIFIER
MODEL *TM6559*

Available as: TM6559, 4 Pin TO-8 (T4)
TN6559, 4 Pin .450" Sq. Surface Mount (SM3)
FP6559, 4 Pin Flatpack (FP4)
BX6559, SMA Connectorized Housing (H1)

Features

- High OutputPower: +22 dBm Typical
- Gain:11.5 dB Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5-500 MHz	5-500 MHz
Gain (dB)	11.5	10 Min.
Power @ 1 dB Comp. (dBm)	22	20 Min.
Reverse Isolation (dB)	-15	-
VSWR In Out	1.5:1 1.5:1	2.0:1 Max. 2.0:1 Max.
Noise figure (dB)	5.5	7.0 Max.
Power Vdc mA	+15 88	+15 Min. 98 Max.

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

Revision 2-19-2024

Typical Intermodulation Performance at 25 º C

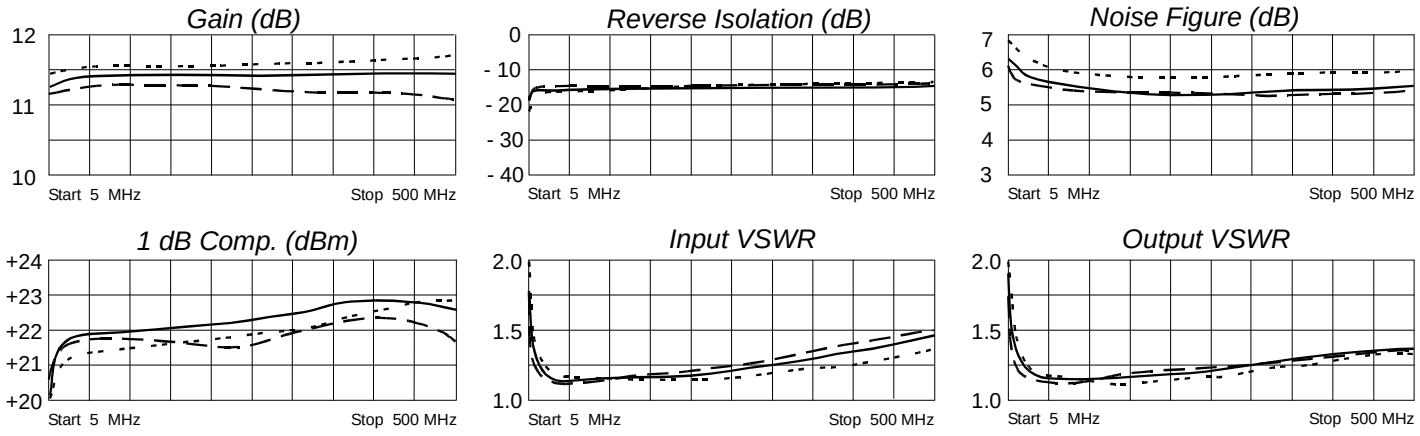
Second Order Harmonic Intercept Point.....+52 dBm (Typ.)
Second Order Two Tone Intercept Point.....+46 dBm (Typ.)
Third Order Two Tone Intercept Point.....+37 dBm (Typ.)

Maximum (No Damage) Ratings

Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 17 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power .... 200 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

ECN 2-19-2024: Reduced Continous RF Input from +20 dBm to +13 dBm

Typical Performance Data



Legend ——— + 25 ºC – – – + 85 ºC - - - - - - -55 ºC

Linear S-Parameters

FREQ.	S11		S21		S12		S22	
MHz	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.31	- 51	3.70	-154	.12	32	.39	113
50	.05	-112	3.65	175	.16	2	.07	110
100	.06	-121	3.66	166	.16	-1	.07	102
200	.08	-121	3.66	149	.16	- 2	.09	81
300	.11	-127	3.65	133	.17	- 5	.11	71
400	.15	-134	3.67	117	.17	-8	.14	59
500	.19	-142	3.66	101	.17	-12	.16	49

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