

# Coaxial Broadband Amplifier

## ZFL-2000GH+

50Ω Variable Gain 10 to 2000 MHz

### Features

- wideband, 10 to 2000 MHz
- rugged, shielded case
- gain control range: 60 dB typ.
- gain control voltage: 0 to +5V
- gain, +34 to -26 dB

### Applications

- cellular
- VHF/UHF
- AGC applications



CASE STYLE: Y39

Connectors	Model
SMA	ZFL-2000GH+
BRACKET (OPTION "B")	

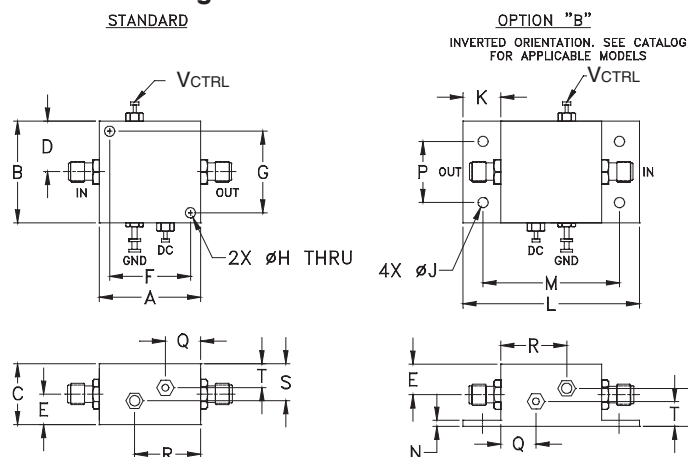
**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Electrical Specifications at 25°C, $V_{CTRL}=0V$ (or open)

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		10	—	2000	MHz
Gain	10-2000	27	32	—	dB
Gain Flatness	10-2000	—	±2.5	—	dB
Output Power at 1dB compression	10-2000	—	+14	—	dBm
Output Power at 3dB compression	10-2000	—	+16	—	dBm
Noise Figure	10-2000	—	5.5	—	dB
Output third order intercept point	10-2000	—	+25	—	dBm
Output second order intercept point	10-2000	—	+50	—	dBm
Input VSWR	10-2000	—	1.4	—	:1
Output VSWR	10-2000	—	1.5	—	:1
DC Supply Voltage		—	15	—	V
Supply Current		—	—	230	mA

Open load is not recommended, potentially can cause damage.  
With no load derate max input power by 20 dB  
 $V_{CTRL}$ : Gain Control Voltage.

### Outline Drawing



### Gain Flatness, $V_{CC}=15V$ , 10-2000 MHz

$V_{CTRL}$ (V)	Gain Flatness (dB) Typ.
0 or open	±2.5
1	±3.0
2	±4.5
3	±8.2
4	±2.2
5	±2.3

### Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 71°C
Storage Temperature	-55°C to 100°C
DC Voltage	+17V
$V_{CTRL}$	0 to +5.5V
Input RF Power (no damage)	+10 dBm

### Outline Dimensions (inch/mm)

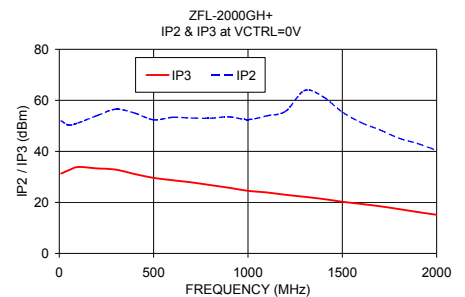
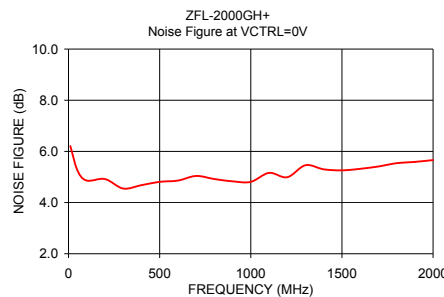
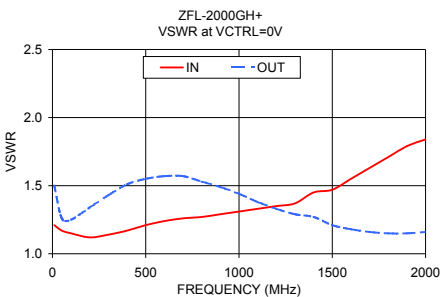
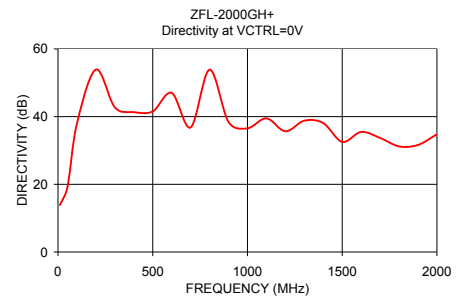
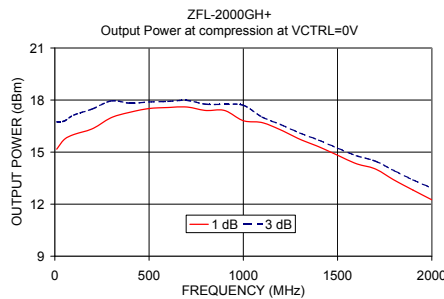
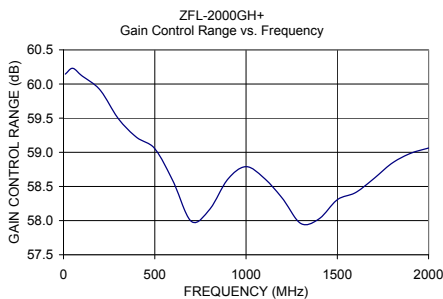
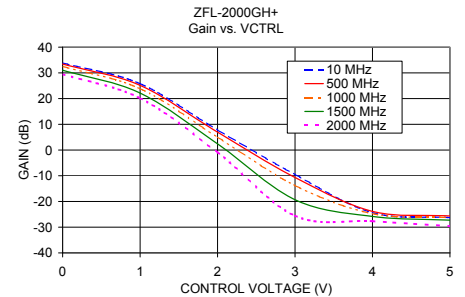
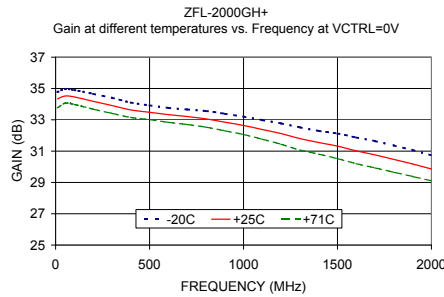
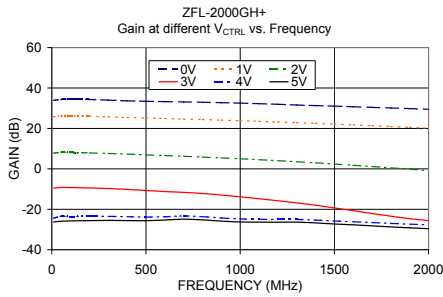
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt.
1.25	1.25	.75	.63	.36	1.000	1.000	.125	.125	.46	2.18	1.688	.06	.750	.50	.80	.45	.29	grams
31.75	31.75	19.05	16.00	9.14	25.40	25.40	3.18	3.18	11.68	55.37	42.88	1.52	19.05	12.70	20.32	11.43	7.37	38

### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	POUT at 3 dB COMPR. (dBm)	NOISE FIGURE (dB)	IP3 (dBm)	IP2 (dBm)
			IN	OUT					
10.00	33.86	13.91	1.21	1.50	15.17	16.74	6.21	31.32	51.99
200.00	34.31	53.92	1.12	1.34	16.35	17.49	4.92	33.33	54.02
400.00	33.65	41.32	1.17	1.51	17.30	17.82	4.68	31.09	54.99
600.00	33.27	47.04	1.24	1.57	17.57	17.92	4.86	28.70	53.34
800.00	32.93	53.89	1.27	1.53	17.40	17.76	4.92	26.78	52.99
1000.00	32.52	36.54	1.31	1.44	16.81	17.70	4.81	24.53	52.46
1200.00	31.95	35.67	1.35	1.33	16.27	16.58	4.99	22.97	55.74
1400.00	31.30	38.09	1.45	1.27	15.31	15.69	5.30	21.32	61.31
1600.00	30.72	35.47	1.55	1.18	14.33	14.79	5.32	19.39	51.28
1800.00	30.12	31.20	1.71	1.15	13.39	13.93	5.54	17.38	45.16
2000.00	29.47	34.79	1.84	1.16	12.25	12.93	5.66	15.14	40.39



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