COAXIAL

Wideband Amplifier

ZVA-203GX+

50Ω 2 to 20 GHz

FEATURES

- Low noise figure, 2 dB at 8 GHz
- High IP3, 27.5 dBm typ. at 8 GHz
- Excellent gain flatness, ± 1.0 dB typ. from 2 to 20 GHz
- Wide input voltage range +5V to +15V

Generic photo used for illustration purposes only

Model No.	ZVA-203GX+
Case Style	AV2554-1
Connectors	2.92mm Female

+RoHS Compliant

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

APPLICATIONS

- Radar
- Very wideband test instrumentation
- Lab use
- Wideband isolation, directivity 50 dB typ.
- EW

ELECTRICAL SPECIFICATIONS AT 25°C, V_{DD}=+5.0V TYP.

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range[1]		2		20	GHz
Noise Figure	2.0 8.0 20.0		4.8 2 4	6.4 3.7 6.4	dB
Gain	2.0 8.0 14.0 20.0	26 26 25 27	29.5 29.5 28.5 30	32.0 32.0 31.0 33.0	dB
Input Return Loss	2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 20.0		17 25 20 25 27 22 15 15 10 15		dB
Output Return Loss	2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 20.0		27 30 22 22 14 10 14 14 14 10		dB
Output Power @ 1 dB compression	2.0 8.0 12.0 16.0 18.0 20.0		16 16 15 15 14 14		dBm
Output IP3	2.0 8.0 12.0 16.0 18.0 20.0		27.5 27.5 27 26.5 26 25		dBm
I_{DD}, Device Operating Current at V_{DD}=5V[2]	—		400	500	mA
Device Operating Voltage	—	+5	+9	+15	V

1. Usable 1 GHz to 22 GHz.
2. Increasing VDD, reduces IDD.

REV. B
ECO-010115
ZVA-203GX+
SP/CP/AM
211014

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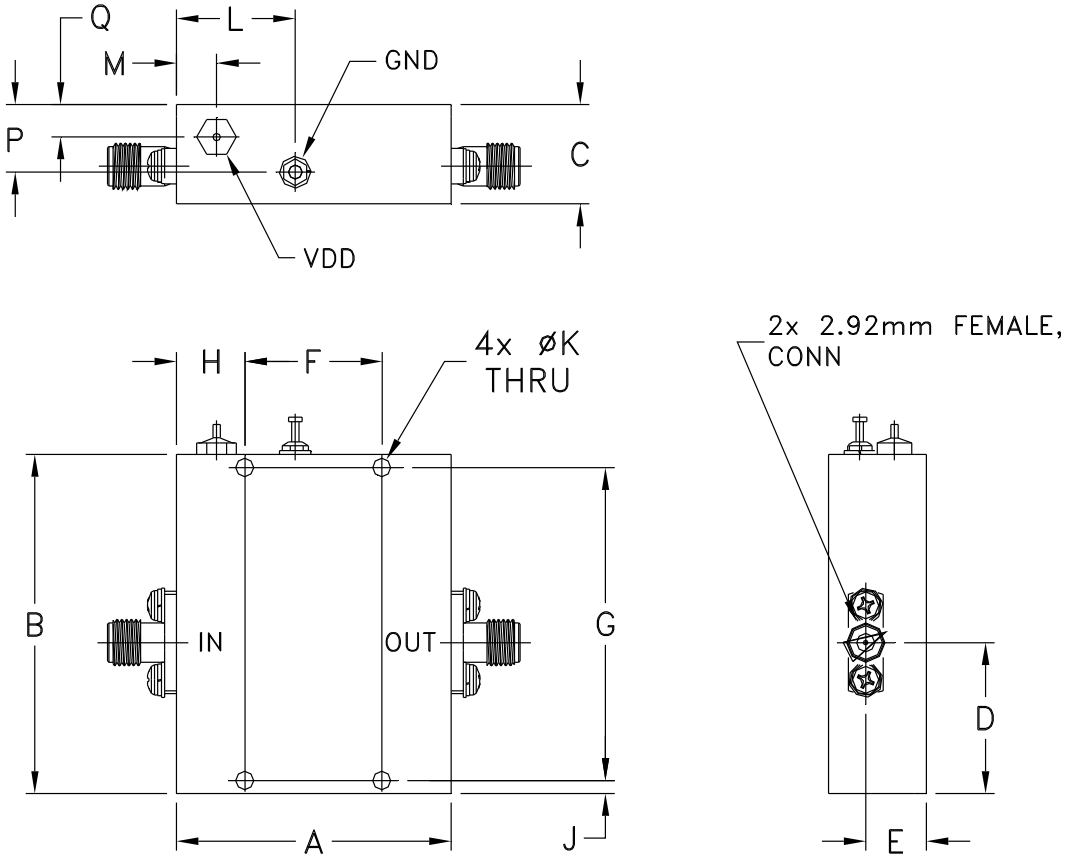
ABSOLUTE MAXIMUM RATINGS[2]

Parameter	Ratings
Operating Temperature (ground lead)	0°C to 85°C
Storage Temperature	-55°C to 100°C
Total Power Dissipation	2W
Input Power (CW), Vd=12	0 dBm
DC Voltage	+15V

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inches / mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	wt
1.5	1.82	0.53	0.81	0.33	0.75	1.680	0.380	0.070	0.098	0.65	0.22	-	0.36	0.17	grams
38.10	46.23	13.46	20.57	8.38	19.05	42.67	9.65	1.78	2.49	16.51	5.59	-	9.14	4.32	140

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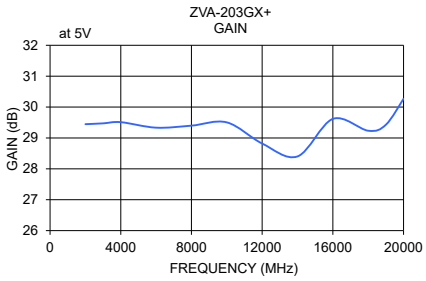
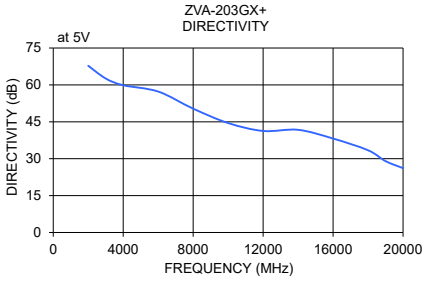
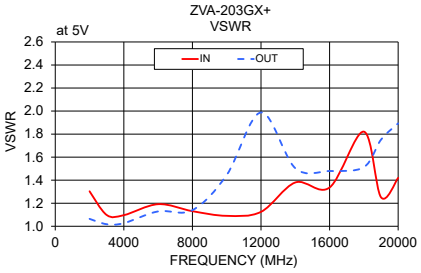
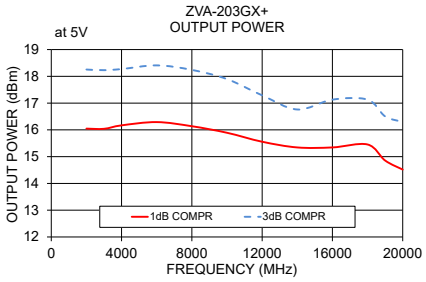
TYPICAL PERFORMANCE DATA/CURVES

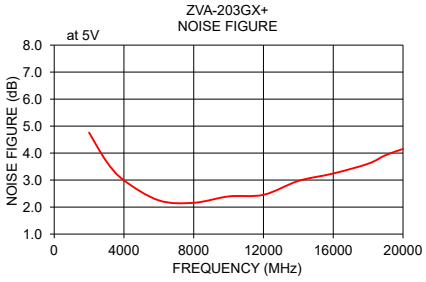
Frequency (MHz)	Gain (dB)	Directivity (dB)	VSWR (:1)		Noise Figure (dB)	Pout at 1 dB Compr. (dBm)		OIP3 (dBm)
			IN	OUT		1dB	3dB	
2000	29.45	67.79	1.30	1.06	4.76	16.05	18.25	28.72
3000	29.47	62.60	1.10	1.02	3.69	16.04	18.23	28.84
4000	29.51	59.87	1.10	1.03	2.99	16.17	18.27	29.02
6000	29.33	57.30	1.19	1.13	2.25	16.29	18.41	29.41
8000	29.40	50.34	1.13	1.14	2.16	16.14	18.24	28.68
10000	29.50	44.50	1.09	1.45	2.40	15.89	17.90	28.16
12000	28.82	41.28	1.13	1.99	2.45	15.56	17.29	28.47
14000	28.40	41.74	1.38	1.50	2.97	15.34	16.76	28.10
16000	29.62	38.19	1.34	1.48	3.24	15.34	17.13	27.39
18000	29.23	33.43	1.82	1.51	3.61	15.45	17.13	28.02
19000	29.43	29.01	1.25	1.75	3.92	14.86	16.50	27.28
20000	30.27	26.16	1.42	1.89	4.15	14.52	16.30	26.21

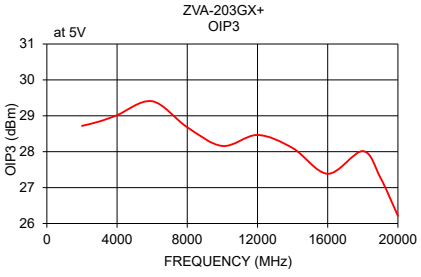












NOTES

A. 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.

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