



COAXIAL

Wideband Amplifier

ZVA-203GX+

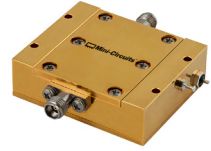
50Ω 2 to 20 GHz

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

APPLICATIONS

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



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

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		4.8	6.4	dB
	8.0		2	3.7	
	20.0		4	6.4	
Gain	2.0	26	29.5	32.0	dB
	8.0	26	29.5	32.0	
	14.0	25	28.5	31.0	
	20.0	27	30	33.0	
Input Return Loss	2.0		17		dB
	4.0		25		
	6.0		20		
	8.0		25		
	10.0		27		
	12.0		22		
	14.0		15		
	16.0		15		
	18.0		10		
	20.0		15		
Output Return Loss	2.0		27		dB
	4.0		30		
	6.0		22		
	8.0		22		
	10.0		14		
	12.0		10		
	14.0		14		
	16.0		14		
	18.0		14		
20.0		10			
Output Power @ 1 dB compression	2.0		16		dBm
	8.0		16		
	12.0		15		
	16.0		15		
	18.0		14		
Output IP3	2.0		27.5		dBm
	8.0		27.5		
	12.0		27		
	16.0		26.5		
	18.0		26		
	20.0		25		
I _{DD1} 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.





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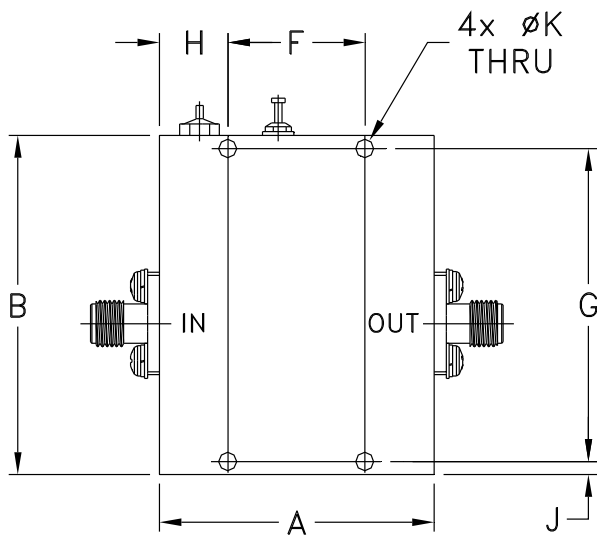
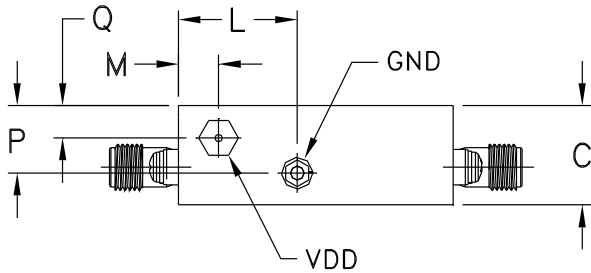
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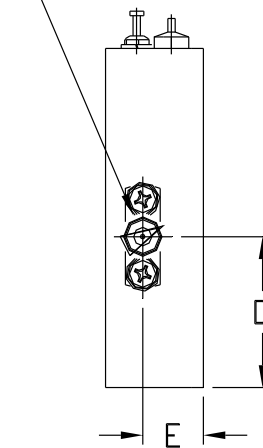
ABSOLUTE MAXIMUM RATINGS²

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



2x 2.92mm FEMALE, CONN



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





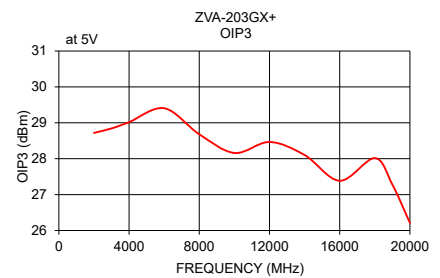
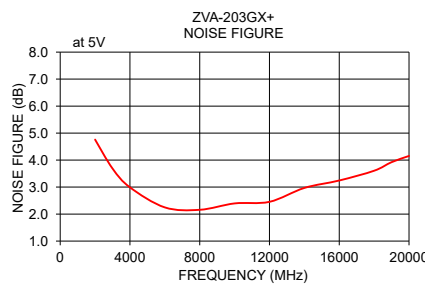
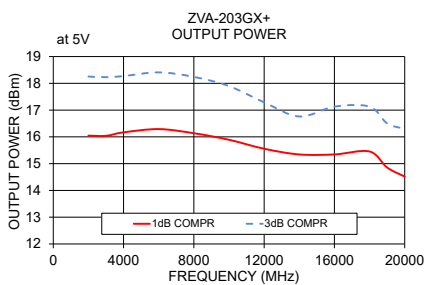
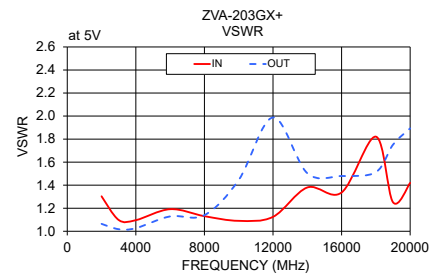
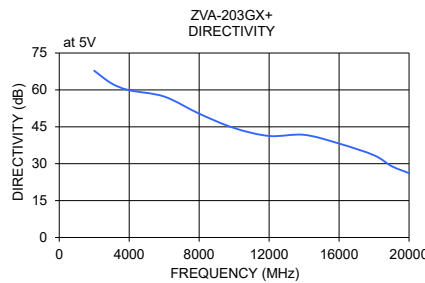
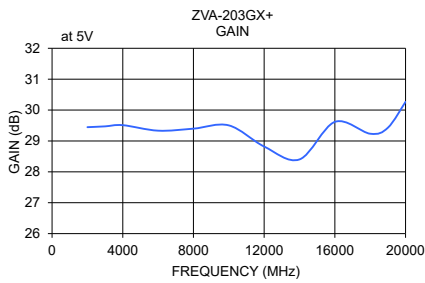
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TYPICAL PERFORMANCE DATA/CURVES

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.
- B. 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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