Ultra High Dynamic Range

Broadband Amplifier

ZFL-272VH+

50Ω 0.03 to 2.7 GHz

Generic photo used for illustration purposes only

CASE STYLE: AW2740

Connectors	Model
SMA	ZFL-272VH+

+RoHS Compliant

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

Features

- High IP3, 47dBm typ. at 1GHz
- Gain, 17dB typ. at 1GHz
- High Pout, P1dB 30dBm typ. at 1GHz
- Internally regulated DC and reverse voltage protected

Applications

- Base station infrastructure
- LTE

Electrical Specifications at 25°C, V_{DD}=15V unless noted

Parameter	Condition (MHz)	V_{DD}=15V			Units
		Min.	Typ.	Max.	
Frequency range		0.03		2.7	GHz
Gain	30	—	17.4	—	dB
	500	—	17.8	—	
	1000	—	16.9	—	
	2000	13.1	14.5	16.1	
	2700	—	12.6	—	
Input return loss	30	—	11.6	—	dB
	500	—	24.7	—	
	1000	—	23.2	—	
	2000	—	21.2	—	
	2700	—	13.2	—	
Output return loss	30	—	14.1	—	dB
	500	—	15.5	—	
	1000	—	17.3	—	
	2000	—	19.0	—	
	2700	—	10.4	—	
Reverse isolation	2000	—	23	—	dB
Output power @1dB compression	30	—	29.1	—	dBm
	500	—	29.5	—	
	1000	—	29.5	—	
	2000	—	27.7	—	
	2700	—	25.0	—	
Output IP3[1]	30	—	49.8	—	dBm
	500	—	49.3	—	
	1000	—	47.2	—	
	2000	—	43.0	—	
	2700	—	42.0	—	
Noise figure	30	—	4.2	—	dB
	500	—	3.1	—	
	1000	—	3.4	—	
	2000	—	4.4	—	
	2700	—	5.2	—	
Device operating voltage		15	15	—	V
Device operating current		—	350	416	mA

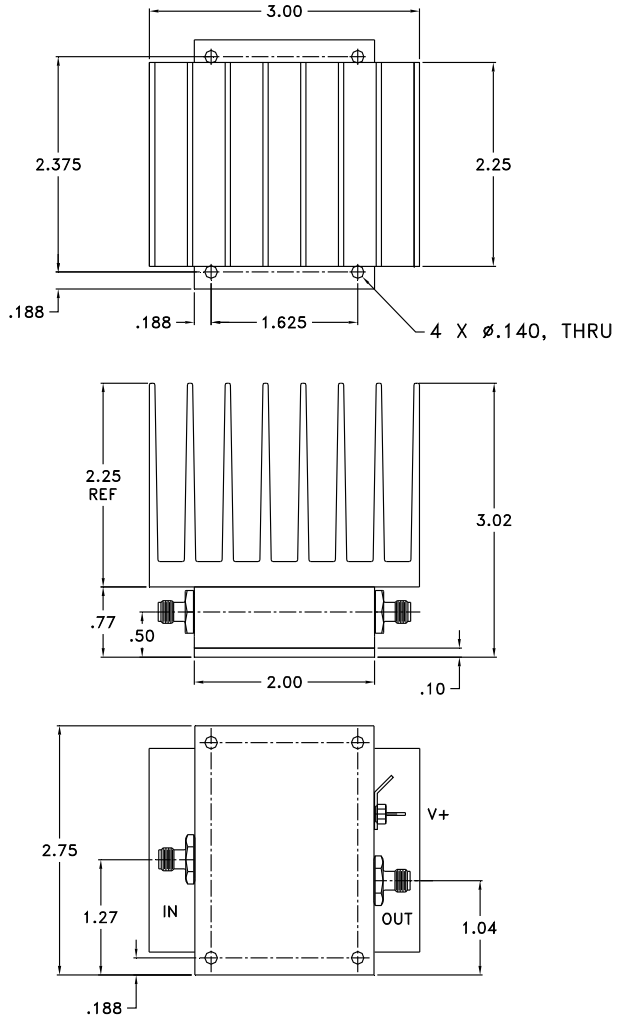
1. Tested at Pout=16 dBm / tone

Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 60°C
Storage Temperature	-55°C to 100°C
Input RF Power (no damage)	+24 dBm (5 minutes max.) 19 dBm (continuous)
DC Voltage	+17V

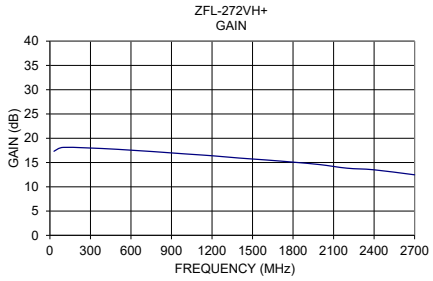
Permanent damage may occur if any of these limits are exceeded.

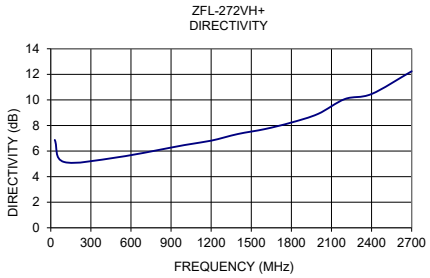
Outline Drawing

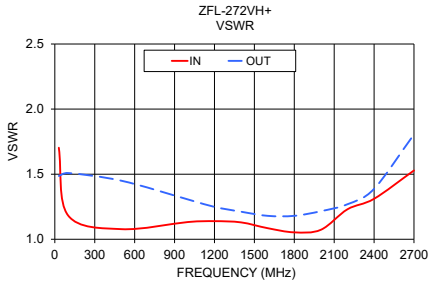


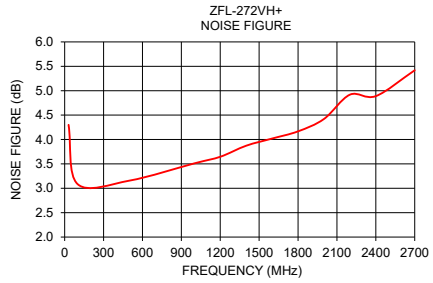
Weight: 360 grams

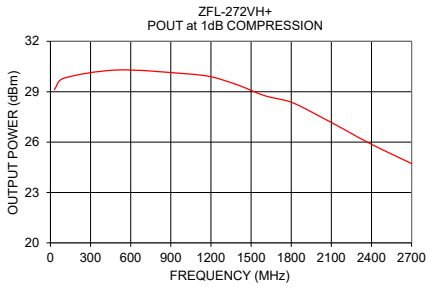
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
			IN	OUT			
30	17.32	6.87	1.70	1.49	4.30	29.12	49.02
100	18.12	5.15	1.18	1.51	3.08	29.80	50.11
500	17.72	5.51	1.08	1.45	3.16	30.29	49.02
1000	16.78	6.47	1.13	1.31	3.51	30.08	46.68
1200	16.40	6.81	1.14	1.25	3.65	29.89	46.04
1400	15.92	7.33	1.13	1.21	3.87	29.40	45.04
1600	15.53	7.72	1.09	1.18	4.02	28.77	44.16
1800	15.08	8.23	1.05	1.18	4.17	28.38	43.16
2000	14.57	8.91	1.07	1.22	4.42	27.59	41.95
2200	13.83	10.07	1.23	1.27	4.92	26.74	40.73
2400	13.50	10.46	1.31	1.39	4.89	25.87	38.99
2700	12.47	12.24	1.53	1.81	5.42	24.72	37.39

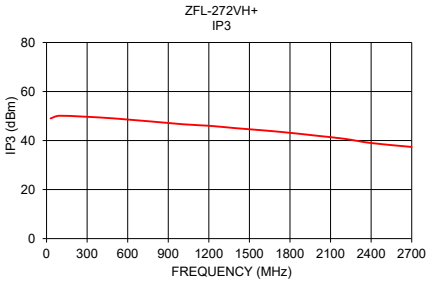












Additional Notes

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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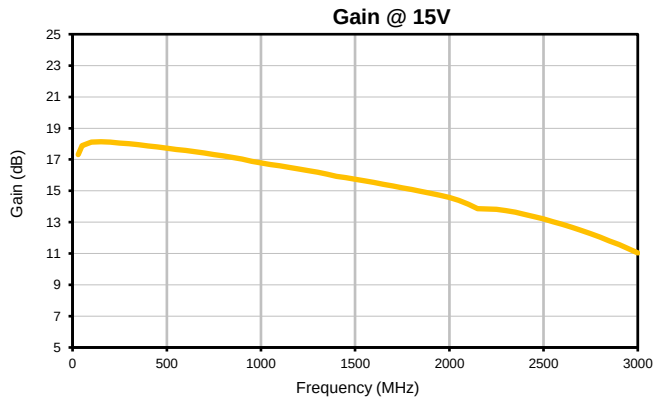
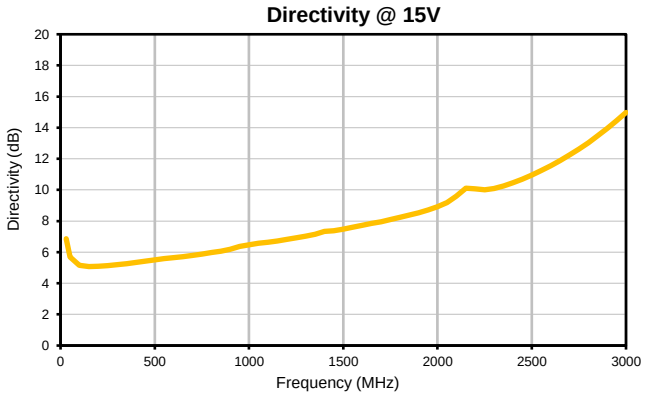
Coaxial Amplifier ZFL-272VH+

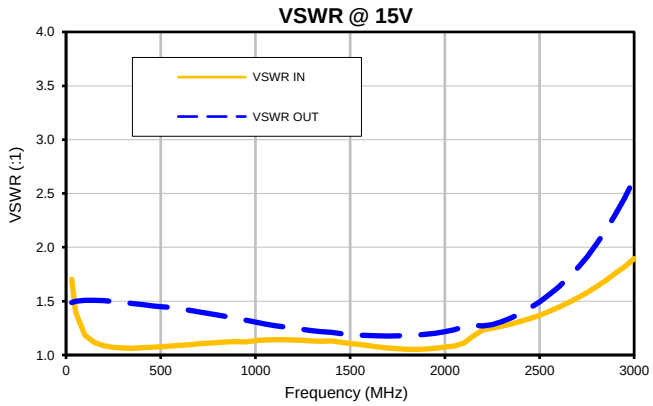
Typical Performance Data

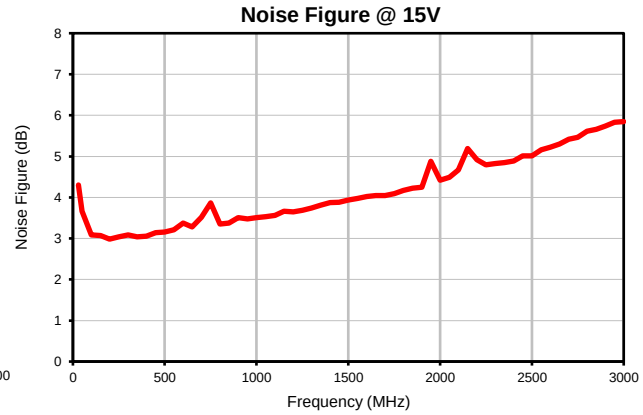
FREQUENCY (MHz)	GAIN (dB) 15V	DIRECTIVITY (dB) 15V	VSWR (:1) IN 15V	VSWR (:1) OUT 15V	NOISE FIGURE (dB) 15V	POUT @ 1 dB COMPRESSION (dBm) 15V	OUTPUT IP3 (dBm) 15V
30	17.32	6.87	1.70	1.49	4.30	29.12	49.02
50	17.88	5.69	1.40	1.50	3.67	29.77	49.98
100	18.12	5.15	1.18	1.51	3.08	29.80	50.11
150	18.14	5.07	1.12	1.51	3.07	29.89	50.84
200	18.10	5.09	1.09	1.50	2.98	29.94	51.15
250	18.06	5.14	1.07	1.50	3.04	30.10	51.87
300	18.00	5.20	1.06	1.49	3.08	30.14	50.28
350	17.95	5.26	1.06	1.48	3.04	29.98	49.30
400	17.88	5.34	1.07	1.47	3.06	30.15	49.08
450	17.80	5.42	1.07	1.46	3.14	30.20	49.13
500	17.72	5.51	1.08	1.45	3.16	30.29	49.02
550	17.64	5.59	1.08	1.44	3.21	30.19	48.71
600	17.57	5.65	1.09	1.43	3.38	30.30	48.83
650	17.49	5.72	1.10	1.42	3.28	30.46	48.26
700	17.41	5.79	1.10	1.40	3.51	30.24	47.94
750	17.32	5.88	1.11	1.39	3.86	30.33	47.57
800	17.23	5.97	1.12	1.37	3.35	30.20	47.18
850	17.13	6.07	1.12	1.36	3.37	30.29	47.10
900	17.02	6.19	1.12	1.34	3.51	30.26	47.00
950	16.88	6.37	1.12	1.32	3.47	30.11	46.77
1000	16.78	6.47	1.13	1.31	3.51	30.08	46.68
1050	16.68	6.57	1.14	1.29	3.53	30.07	46.73
1100	16.60	6.63	1.14	1.27	3.56	29.98	46.56
1150	16.50	6.72	1.14	1.26	3.66	30.09	46.46
1200	16.40	6.81	1.14	1.25	3.65	29.89	46.04
1250	16.29	6.92	1.14	1.24	3.69	29.81	45.72
1300	16.19	7.02	1.13	1.23	3.74	29.74	45.37
1350	16.07	7.15	1.13	1.22	3.81	29.59	45.08
1400	15.92	7.33	1.13	1.21	3.87	29.40	45.04
1450	15.85	7.38	1.12	1.20	3.88	29.07	44.60
1500	15.75	7.48	1.11	1.19	3.94	29.03	44.49
1550	15.64	7.60	1.10	1.18	3.97	29.06	44.38
1600	15.53	7.72	1.09	1.18	4.02	28.77	44.16
1650	15.42	7.84	1.07	1.18	4.05	28.63	43.94
1700	15.31	7.96	1.07	1.18	4.05	28.33	43.46
1750	15.20	8.09	1.06	1.18	4.09	28.31	43.16
1800	15.08	8.23	1.05	1.18	4.17	28.38	43.16
1850	14.96	8.38	1.05	1.18	4.22	28.18	42.96
1900	14.84	8.54	1.06	1.19	4.25	28.01	42.62
1950	14.71	8.71	1.06	1.20	4.88	27.74	42.25
2000	14.57	8.91	1.07	1.22	4.42	27.59	41.95
2050	14.39	9.18	1.08	1.24	4.49	27.38	41.70
2100	14.14	9.60	1.11	1.26	4.67	27.28	41.60
2150	13.86	10.10	1.18	1.28	5.19	27.18	41.41
2200	13.83	10.07	1.23	1.27	4.92	26.74	40.73
2250	13.83	10.00	1.25	1.28	4.79	26.69	40.63
2300	13.75	10.09	1.27	1.31	4.82	26.32	40.11
2350	13.63	10.26	1.29	1.34	4.85	26.22	39.86
2400	13.50	10.46	1.31	1.39	4.89	25.87	38.99
2450	13.36	10.69	1.34	1.44	5.01	25.87	39.04
2500	13.20	10.95	1.37	1.49	5.01	25.63	38.41
2550	13.03	11.24	1.40	1.56	5.16	25.66	38.89
2600	12.86	11.55	1.44	1.63	5.23	25.13	37.98
2650	12.67	11.88	1.48	1.71	5.30	25.27	38.10
2700	12.47	12.24	1.53	1.81	5.42	24.72	37.39
2750	12.26	12.63	1.58	1.91	5.46	24.99	38.08
2800	12.04	13.04	1.63	2.03	5.61	24.35	36.76
2850	11.80	13.48	1.69	2.16	5.66	24.38	36.86
2900	11.56	13.95	1.76	2.30	5.74	24.18	36.23
2950	11.30	14.46	1.82	2.46	5.83	23.86	35.54
3000	11.04	14.98	1.90	2.64	5.85	23.50	34.97

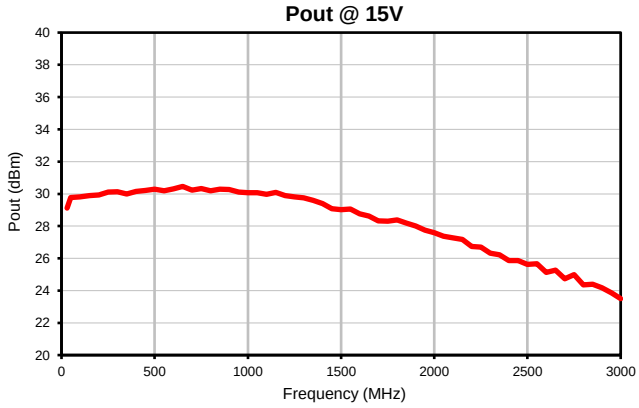
Typical Performance Curves

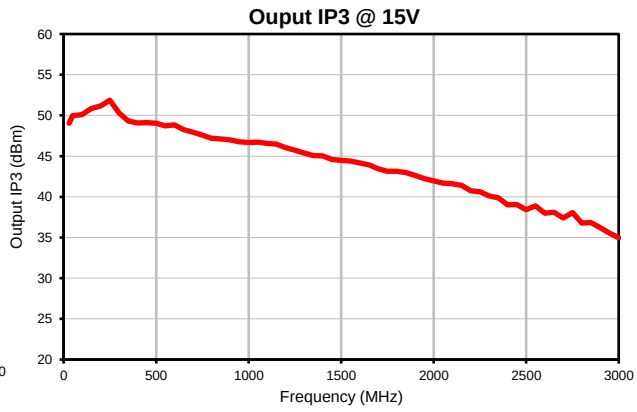






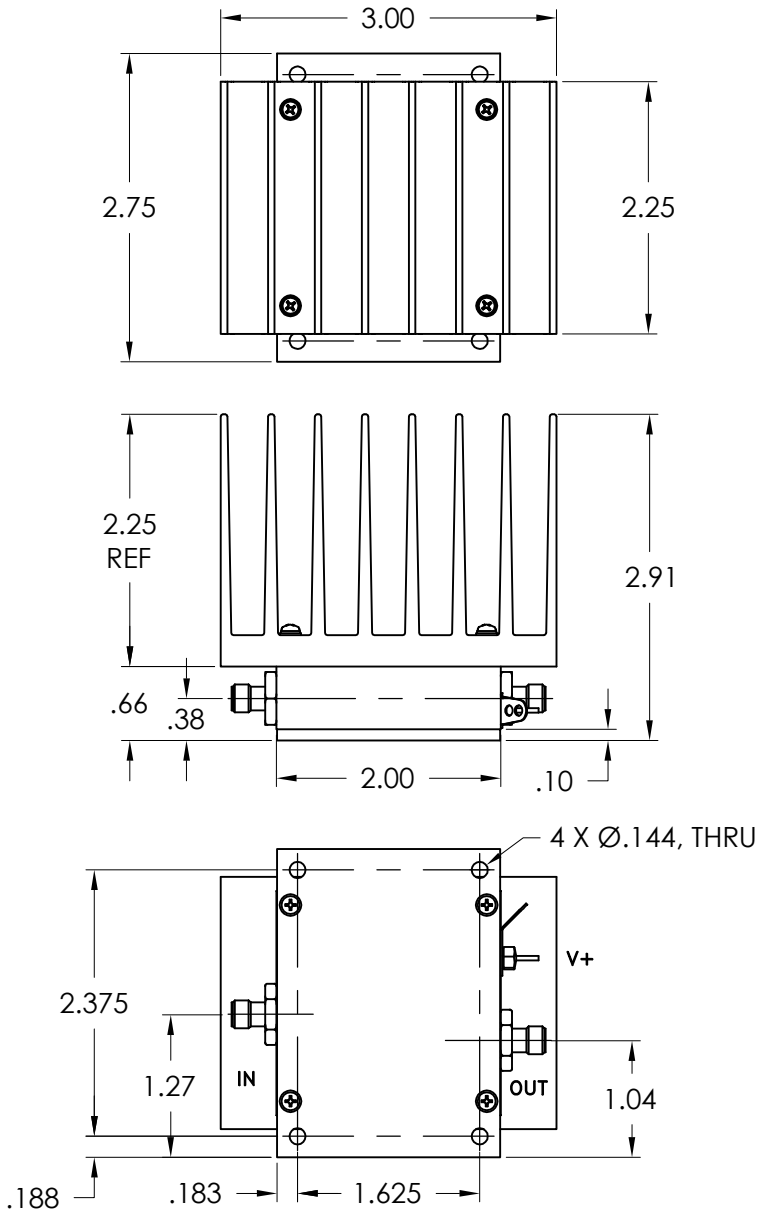






Case Style AW

Outline Dimensions AW2740



Weight:360 grams

Dimensions are in inches (mm). Tolerances: 2 Pl.±.03; 3 Pl. ±.015

Notes:
1. Case material: Aluminum alloy
2. Case finish:
   For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
3. Heat sink finish: Black anodize.

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