

# Amplifier

# ZX60-V82-S+

## Typical Performance Data

**NOTE: Use PDF Bookmarks to view DATA at required conditions or to view GRAPHS.**

**Definitions:**

Input Return Loss = -S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = -S12 (dB)

Output Return Loss = -S22 (dB)

TEST CONDITIONS: I = 97mA, Vd = 5V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
20	14.83	24.53	21.40	14.26	1.64	0.34	38.01	18.46	6.26
100	15.15	24.18	29.45	18.36	1.57	0.36	38.50	19.23	6.51
220	15.19	24.27	30.46	18.22	1.58	0.35	38.41	19.34	6.58
300	15.17	24.19	30.16	18.46	1.57	0.36	38.34	19.46	6.63
420	15.06	24.24	28.73	18.39	1.59	0.35	37.95	19.50	6.65
620	14.98	24.14	26.33	17.74	1.58	0.35	37.19	19.45	6.68
820	14.81	24.08	24.68	17.25	1.59	0.34	36.75	19.44	6.70
1000	14.66	23.99	23.27	16.60	1.59	0.33	36.39	19.51	6.73
1220	14.43	23.89	21.87	15.79	1.59	0.32	36.12	19.57	6.74
1420	14.21	23.82	20.89	15.20	1.60	0.32	35.86	19.67	6.74
1500	14.11	23.80	20.51	14.90	1.61	0.31	35.79	19.57	6.74
1620	13.96	23.75	20.06	14.51	1.62	0.31	35.71	19.55	6.75
1820	13.72	23.67	19.32	14.00	1.63	0.30	35.33	19.71	6.75
2000	13.49	23.58	18.74	13.54	1.64	0.29	35.12	19.81	6.77
2220	13.21	23.44	18.24	13.01	1.65	0.28	34.93	19.80	6.80
2420	12.97	23.41	17.98	12.58	1.67	0.27	34.67	19.70	6.83
2620	12.72	23.33	17.86	12.28	1.69	0.26	34.48	19.87	6.84
2820	12.49	23.26	17.58	12.02	1.70	0.26	34.44	19.67	6.86
3000	12.30	23.22	17.63	11.78	1.72	0.25	34.27	19.71	6.88
3220	12.07	23.10	17.80	11.63	1.74	0.25	33.98	19.85	6.89
3420	11.88	23.03	17.99	11.52	1.76	0.24	33.61	19.47	6.91
3620	11.69	22.95	18.18	11.56	1.78	0.24	33.69	19.47	6.94
3820	11.52	22.89	18.61	11.64	1.81	0.24	33.64	19.43	6.97
4000	11.36	22.84	19.08	11.65	1.83	0.24	33.64	19.40	7.00
4220	11.20	22.76	19.71	11.66	1.85	0.24	33.47	19.20	7.04
4420	11.03	22.72	20.66	11.55	1.88	0.24	33.14	19.14	7.08
4620	10.86	22.65	21.47	11.44	1.90	0.24	32.96	18.94	7.15
4820	10.67	22.64	21.60	11.07	1.93	0.24	32.65	19.04	7.20
5000	10.48	22.66	20.77	10.65	1.96	0.24	32.41	18.72	7.27
5220	10.21	22.68	18.85	9.94	1.99	0.25	32.08	18.38	7.36
5420	9.94	22.72	16.71	9.24	2.01	0.25	31.90	18.36	7.38
5620	9.64	22.83	14.86	8.64	2.05	0.26	31.67	17.96	7.47
5820	9.29	22.96	13.27	8.05	2.09	0.26	31.49	17.72	7.58
6000	8.96	23.06	11.92	7.56	2.12	0.27	31.22	17.34	7.65
6220	8.53	23.24	10.76	7.10	2.17	0.28	31.06	16.93	7.73
6420	8.12	23.38	9.77	6.76	2.22	0.28	30.90	16.74	7.81
6620	7.66	23.53	8.94	6.46	2.27	0.29	30.43	16.55	7.90
7000	6.73	23.87	7.78	6.20	2.44	0.29	30.15	16.35	8.19



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## Typical Performance Data

### Definitions:

Input Return Loss = -S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = -S12 (dB)

Output Return Loss = -S22 (dB)

TEST CONDITIONS: I = 94mA, Vd = 5V @Temperature = -40degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
20	15.01	24.51	22.04	15.63	1.62	0.35	38.15	18.37	6.34
100	15.19	24.30	27.51	17.77	1.58	0.36	38.80	19.24	6.09
220	15.21	24.17	28.65	17.25	1.56	0.36	38.44	19.14	6.06
300	15.19	24.17	30.35	18.01	1.56	0.36	38.29	19.20	6.07
420	15.11	24.14	29.97	18.71	1.57	0.35	37.92	19.24	6.10
620	15.04	24.05	26.86	17.76	1.56	0.35	37.17	19.21	6.12
820	14.86	24.05	24.87	16.90	1.57	0.34	36.74	19.23	6.13
1000	14.73	23.91	23.22	16.36	1.56	0.34	36.40	19.31	6.15
1220	14.51	23.82	21.82	15.64	1.57	0.33	36.16	19.34	6.16
1420	14.30	23.69	20.60	15.46	1.57	0.33	35.96	19.50	6.15
1500	14.21	23.66	20.15	15.23	1.58	0.32	35.92	19.42	6.14
1620	14.07	23.60	19.80	14.88	1.58	0.32	35.87	19.39	6.13
1820	13.84	23.49	19.39	14.34	1.59	0.31	35.46	19.53	6.14
2000	13.63	23.42	19.24	13.70	1.60	0.30	35.28	19.60	6.16
2220	13.33	23.38	19.12	12.87	1.62	0.29	35.13	19.61	6.16
2420	13.08	23.25	18.66	12.32	1.62	0.28	34.89	19.59	6.19
2620	12.83	23.21	18.18	11.91	1.64	0.27	34.74	19.72	6.22
2820	12.60	23.14	17.69	11.77	1.66	0.26	34.73	19.55	6.24
3000	12.42	23.09	17.52	11.67	1.68	0.26	34.60	19.60	6.19
3220	12.20	22.98	17.54	11.63	1.69	0.25	34.36	19.89	6.15
3420	12.03	22.88	17.76	11.64	1.71	0.25	34.09	19.53	6.16
3620	11.87	22.79	17.92	11.75	1.72	0.25	34.16	19.50	6.17
3820	11.71	22.68	18.02	11.99	1.74	0.25	34.16	19.57	6.20
4000	11.57	22.64	18.88	11.76	1.76	0.25	34.12	19.67	6.24
4220	11.40	22.57	20.54	11.58	1.78	0.25	34.01	19.51	6.30
4420	11.25	22.50	22.36	11.20	1.80	0.26	33.72	19.32	6.34
4620	11.08	22.46	23.34	10.99	1.82	0.26	33.57	19.20	6.40
4820	10.89	22.47	22.47	10.61	1.85	0.26	33.22	19.28	6.44
5000	10.69	22.50	21.03	10.00	1.87	0.26	33.03	18.97	6.48
5220	10.44	22.53	18.02	9.39	1.89	0.27	32.65	18.69	6.55
5420	10.19	22.58	15.90	8.92	1.91	0.27	32.50	18.75	6.60
5620	9.94	22.61	14.21	8.62	1.93	0.27	32.31	18.34	6.65
5820	9.68	22.64	13.54	8.13	1.95	0.27	32.12	18.22	6.69
6000	9.40	22.75	12.69	7.57	1.98	0.28	31.83	17.70	6.76
6220	9.05	22.88	11.46	7.14	2.01	0.29	31.66	17.32	6.83
6420	8.70	22.91	10.53	6.80	2.03	0.30	31.51	17.32	6.85
6620	8.30	23.09	9.59	6.30	2.05	0.31	31.04	17.18	6.98
6820	7.80	23.31	8.60	5.84	2.10	0.32	31.09	16.72	7.19
7000	7.35	23.48	7.79	5.58	2.14	0.33	30.73	16.66	7.31



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## Typical Performance Data

### Definitions:

Input Return Loss = -S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = -S12 (dB)

Output Return Loss = -S22 (dB)

TEST CONDITIONS: I = 99mA, Vd = 5V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
20	14.71	24.60	21.12	14.75	1.67	0.34	37.57	18.51	7.53
100	15.11	24.14	30.91	19.04	1.57	0.36	38.38	19.54	7.32
220	15.14	24.19	31.65	19.49	1.58	0.35	38.29	19.48	7.31
300	15.10	24.13	30.00	19.24	1.57	0.35	38.22	19.60	7.33
420	15.00	24.17	28.10	18.51	1.59	0.35	37.83	19.64	7.35
620	14.92	24.08	25.35	17.63	1.58	0.35	37.03	19.61	7.38
820	14.72	24.06	23.91	16.87	1.59	0.34	36.56	19.58	7.41
1000	14.58	23.96	22.46	16.37	1.59	0.33	36.15	19.63	7.43
1220	14.35	23.87	21.20	15.58	1.60	0.32	35.83	19.70	7.45
1420	14.12	23.80	20.45	14.99	1.61	0.31	35.50	19.76	7.45
1500	14.02	23.75	20.15	14.64	1.61	0.31	35.41	19.63	7.46
1620	13.88	23.71	19.74	14.31	1.62	0.30	35.29	19.64	7.46
1820	13.63	23.63	19.14	13.85	1.63	0.29	34.89	19.78	7.47
2000	13.41	23.58	18.44	13.39	1.65	0.28	34.61	19.89	7.49
2220	13.11	23.43	17.93	12.90	1.66	0.28	34.41	19.88	7.52
2420	12.86	23.37	17.56	12.45	1.67	0.27	34.08	19.74	7.55
2620	12.60	23.29	17.31	12.17	1.69	0.26	33.86	19.86	7.58
2820	12.37	23.23	17.01	11.96	1.71	0.25	33.76	19.65	7.60
3000	12.16	23.14	16.86	11.75	1.72	0.25	33.57	19.70	7.59
3220	11.91	23.08	17.03	11.53	1.75	0.24	33.25	19.69	7.58
3420	11.70	23.04	17.17	11.37	1.78	0.23	32.96	19.30	7.62
3620	11.51	22.96	17.42	11.43	1.80	0.23	32.97	19.31	7.66
3820	11.33	22.87	17.90	11.57	1.83	0.23	32.86	19.26	7.72
4000	11.16	22.82	18.54	11.47	1.85	0.23	32.78	19.15	7.74
4220	10.97	22.74	19.12	11.53	1.88	0.23	32.64	18.86	7.78
4420	10.79	22.68	19.85	11.44	1.91	0.23	32.29	18.85	7.83
4620	10.61	22.64	20.36	11.44	1.94	0.23	32.07	18.63	7.89
4820	10.38	22.65	20.29	11.08	1.98	0.23	31.81	18.68	7.96
5000	10.17	22.67	19.14	10.71	2.02	0.23	31.61	18.41	8.00
5220	9.89	22.73	17.60	10.09	2.06	0.24	31.30	18.03	8.09
5420	9.60	22.76	16.12	9.43	2.09	0.24	31.11	18.07	8.16
5620	9.29	22.86	14.49	8.90	2.14	0.25	30.92	17.59	8.25
5820	8.92	22.95	12.83	8.17	2.16	0.25	30.77	17.36	8.35
6000	8.56	23.11	11.53	7.64	2.20	0.26	30.48	16.95	8.45
6220	8.11	23.26	10.45	7.10	2.25	0.27	30.33	16.63	8.60
6420	7.67	23.40	9.50	6.78	2.30	0.27	30.21	16.31	8.68
6620	7.19	23.61	8.58	6.32	2.34	0.28	29.83	16.09	8.84
6820	6.69	23.75	7.86	6.11	2.41	0.29	29.82	15.92	9.04
7000	6.25	23.86	7.55	6.06	2.50	0.28	29.48	15.77	9.09



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