Coaxial

Low Noise Amplifier

ZQLSC-1100

50Ω 600 to 1100 MHz

Features

- High reliability balanced design
- Noise Figure, 0.6 dB typ.
- Built-in alarm monitoring
- TTL alarm output, green/red alarm status LED
- Voltage regulated/protected DC input

Applications

- Low noise receiver
- Digital cellular base stations
- TDMA, CDMA, GSM

Case Style: GZ1067

Connectors	Model	Price	Qty.
SMA	ZQLSC-1100	$295.00 ea.	(1-9)

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		600		1100	MHz
Noise Figure	600 - 824	—	0.6	1.1	dB
	824 - 849	—	0.55	0.9	
	880 - 915	—	0.55	0.9	
	915 - 1100	—	0.6	1.0	
Gain	600 - 824	17.5	20	—	dB
	824 - 849	17.5	19	—	
	880 - 915	17	18.5	—	
	915 - 1100	15	17.5	—	
Gain Flatness	600 - 824	—	±.75	±1.0	dB
	824 - 849	—	±.15	±0.3	
	880 - 915	—	±0.2	±0.4	
	915 - 1100	—	±0.9	±1.2	
Output Power at 1dB compression	600 - 824	16	18.5	—	dBm
	824 - 849	16	19	—	
	880 - 915	16	19	—	
	915 - 1000	16	19	—	
Output third order intercept point	600 - 824	—	32.5	—	dBm
	824 - 849	—	34	—	
	880 - 915	—	35	—	
	915 - 1000	—	35.5	—	
Input VSWR	600 - 824	—	2.0	—	:1
	824 - 849	—	1.7	—	
	880 - 915	—	1.8	—	
	915 - 1000	—	1.8	—	
Output VSWR	600 - 824	—	2.0	—	:1
	824 - 849	—	1.7	—	
	880 - 915	—	1.8	—	
	915 - 1000	—	1.8	—	
DC Supply Voltage[1]	600 - 1100	—	24	—	V
Supply Current	600 - 1100	—	—	185	mA

1. Other voltages available in the 6.5 to 60V range. please contact factory.

Notes

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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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Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 70°C case -40° to 60°C ambient
Storage Temperature	-55°C to 100°C
DC Voltage	+18V min, +36V max
Input RF Power (no damage)	+10 dBm

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

Pin Connections

RF input	J1
RF output	J2
DC power input	5
TTL alarm output	1
Ground to test alarm, normally open	7*,9*
No connection	3,6,8
Ground	2,4
Case ground	2,4

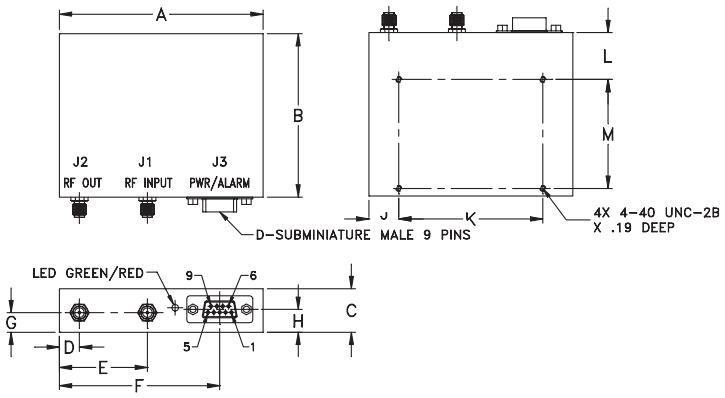
*Grounding Pin 7 will sink 75mA of current through Pin 7 creating a high-current alarm condition inside the amplifiers. A red LED and TTL high output will occur. Pin 7 floats at +4.3V typ. when open.

*Grounding Pin 9 will sink 2mA of current through pin 9 and creating a low-current alarm condition inside the amplifier. A red LED and TTL high output will occur. Pin 9 floats at about +0.6V typ. when open.

Alarm Functions

Normal:	TTL low output (0 to 0.8V), green LED
Alarm:	TTL high output (4 to 5V), red LED
DC & alarm connector:	9-pin male D-sub

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt
3.75	3.00	.80	.37	1.62	2.95	.36	.42	.55	2.650	.86	2.000	grams
95.25	76.20	20.32	9.40	41.15	74.93	9.14	10.67	13.97	67.31	21.84	50.80	280.0

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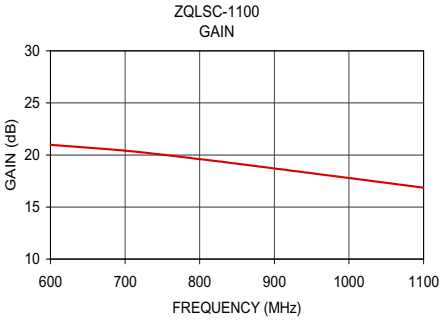
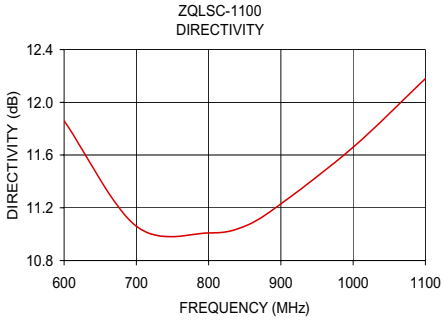
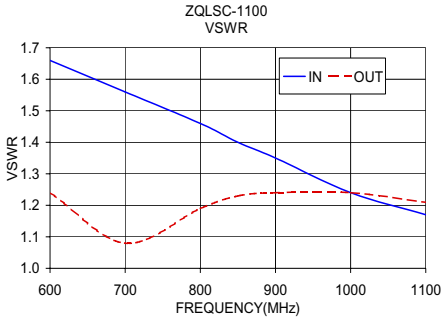
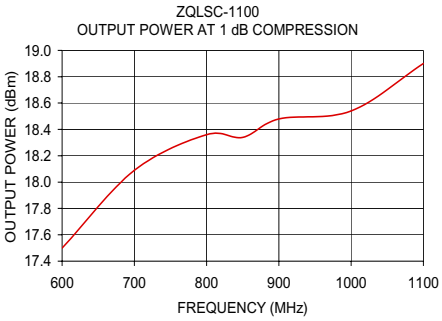
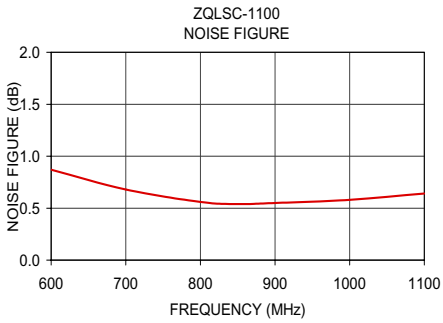
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1) 24V		POUT at 1 dB COMPR. (dBm)	IP3 (dBm)	NOISE FIGURE (dB)
	24V	24V	IN	OUT	24V	24V	24V
600.00	20.97	11.86	1.66	1.24	17.50	32.33	0.87
700.00	20.42	11.06	1.56	1.08	18.09	34.09	0.68
800.00	19.60	11.01	1.46	1.19	18.36	34.87	0.56
850.00	19.17	11.06	1.40	1.23	18.34	35.10	0.54
900.00	18.71	11.23	1.35	1.24	18.48	35.29	0.55
1000.00	17.79	11.66	1.24	1.24	18.54	35.95	0.58
1100.00	16.86	12.18	1.17	1.21	18.90	36.02	0.64

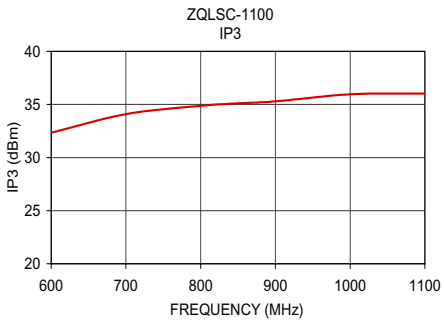












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