

# SMA Connectorized Power Splitter/Combiner

## ZX10Q-2-27-S+

2 Way-90° 50Ω 1700 to 2700 MHz

### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.

\* Derate linearly to 7W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

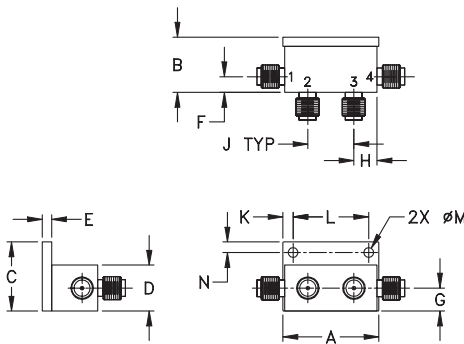
### Coaxial Connections

INPUT PORT	1
PORT 1 (+90°)	2
PORT 2 (0°)	3
50 OHM TERM EXTERNAL**	4



\*\* Recommended external termination  
Mini-Circuits Part. No. ANNE-50L

### Outline Drawing



### Outline Dimensions (inch/mm)

	A	B	C	D	E	F	G
	1.04	.60	.75	.50	.10	.17	.25
	26.42	15.24	19.05	12.70	2.54	4.32	6.35
	H	J	K	L	M	N	wt.
	.25	.50	.11	.820	.106	.12	grams
	6.35	12.70	2.79	20.83	2.69	3.05	21.0

### Features

- low insertion loss, 0.4 dB typ.
- excellent amplitude unbalance
- very good phase unbalance
- small size
- low cost
- protected by U.S Patent 6,790,049

### Applications

- PCS
- DCS
- UMTS
- ISM
- balanced amplifiers
- I & Q demodulators

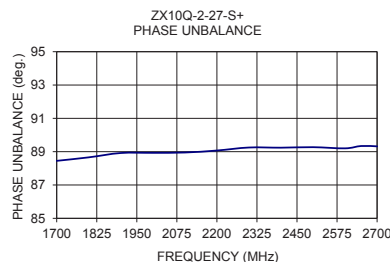
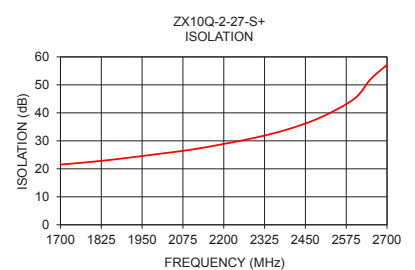
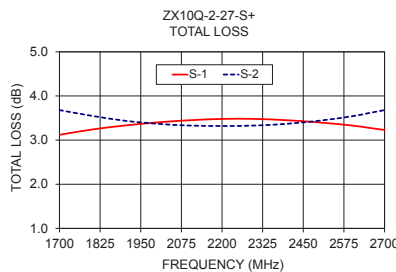
### Electrical Specifications (T<sub>AMB</sub>=25°C)

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
1700-2700								
1700-1800	21	18	0.4	0.7	3	6	0.5	1.0
1800-2000	22	18	0.4	0.7	2	6	0.3	0.8
2000-2400	30	20	0.4	0.7	3	6	0.2	0.8
2400-2700	30	20	0.5	0.9	3	6	0.6	1.0

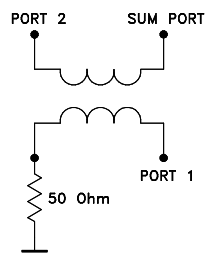
### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1700.00	3.12	3.68	0.56	21.52	88.45	1.23	1.26	1.19
1800.00	3.24	3.55	0.31	22.55	88.66	1.21	1.24	1.17
1900.00	3.33	3.44	0.12	23.84	88.92	1.18	1.23	1.14
2000.00	3.40	3.37	0.03	25.33	88.93	1.16	1.21	1.12
2100.00	3.45	3.33	0.12	26.85	88.95	1.14	1.20	1.10
2200.00	3.48	3.32	0.16	28.90	89.07	1.12	1.19	1.09
2300.00	3.48	3.33	0.15	31.22	89.25	1.10	1.18	1.09
2400.00	3.45	3.37	0.08	34.26	89.24	1.08	1.17	1.10
2500.00	3.40	3.44	0.04	38.56	89.27	1.06	1.17	1.11
2600.00	3.33	3.54	0.22	45.07	89.20	1.04	1.16	1.12
2650.00	3.28	3.61	0.33	52.09	89.34	1.03	1.16	1.13
2700.00	3.23	3.68	0.45	57.17	89.32	1.01	1.16	1.14

1. Total Loss = Insertion Loss + 3dB splitter loss.



### electrical schematic



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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CASE STYLE: GW1052

Connectors	Model
SMA	ZX10Q-2-27-S+

### +RoHS Compliant

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