

# SMA Connectorized Power Splitter/Combiner

## ZX10Q-2-12+

2 Way-90° 50Ω 800 to 1250 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.

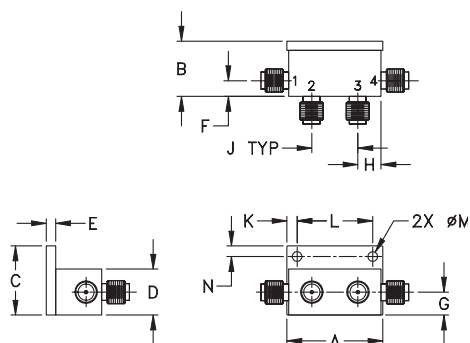
### Coaxial Connections

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

- cellular
- GSM
- balanced amplifiers
- modulators

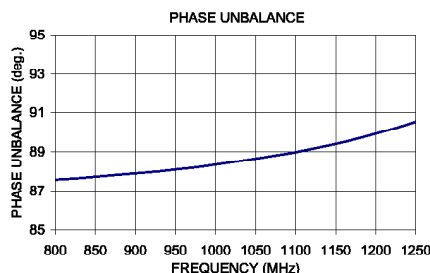
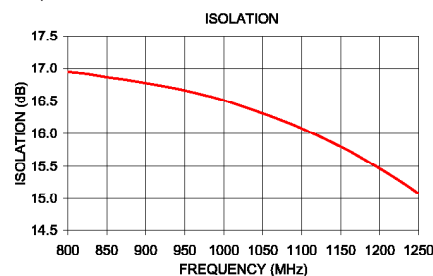
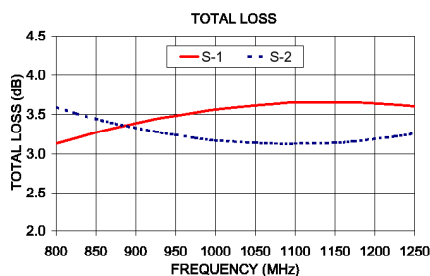
### Electrical Specifications (T<sub>AMB</sub>=25°C)

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.
800-1250								
800-1000	17	15	0.3	0.6	2.5	5.0	0.2	0.8
1000-1250	16	13	0.4	0.7	2.5	5.0	0.5	0.8

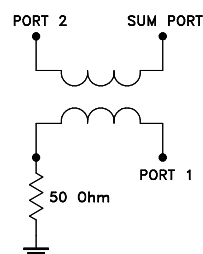
### Typical Performance Data

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						
800.00	3.13	3.59	0.46	16.94	87.58	1.27	1.20	1.11
825.00	3.20	3.51	0.31	16.91	87.64	1.27	1.20	1.10
850.00	3.27	3.44	0.18	16.86	87.73	1.27	1.19	1.10
875.00	3.33	3.38	0.05	16.82	87.82	1.27	1.18	1.09
925.00	3.44	3.28	0.16	16.72	87.99	1.27	1.16	1.08
950.00	3.48	3.24	0.25	16.66	88.10	1.27	1.15	1.07
975.00	3.52	3.20	0.32	16.59	88.21	1.27	1.14	1.07
1000.00	3.56	3.17	0.39	16.51	88.35	1.27	1.13	1.07
1050.00	3.61	3.14	0.48	16.31	88.65	1.27	1.10	1.07
1075.00	3.63	3.13	0.50	16.20	88.81	1.28	1.09	1.07
1100.00	3.65	3.13	0.52	16.08	88.98	1.28	1.07	1.07
1150.00	3.65	3.14	0.51	15.80	89.40	1.29	1.05	1.09
1175.00	3.65	3.16	0.49	15.64	89.65	1.29	1.03	1.10
1225.00	3.62	3.22	0.40	15.28	90.21	1.30	1.01	1.12
1250.00	3.60	3.26	0.34	15.08	90.53	1.31	1.03	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-Circuit's applicable established test performance criteria and measurement instructions.
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