

Coaxial

# Power Splitter/Combiner

## ZBSC-413+

4 Way-0° 50Ω 10 to 800 MHz

### Maximum Ratings

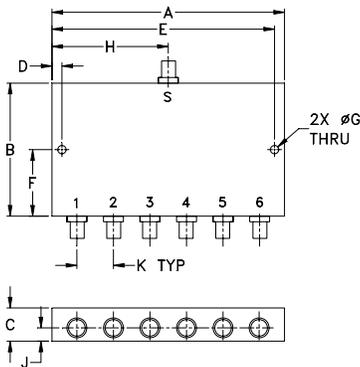
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.250W max.
Permanent damage may occur if any of these limits are exceeded.	

### Coaxial Connections

SUM PORT	S
PORT 1	2
PORT 2	3
PORT 3	4
PORT 4	5
NOT USED	1,6

Ports 1,2,3,4 occupy positions 2,3,4,5 in outline drawing; positions 1,6 not occupied.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
3.50	2.00	.50	.150	3.350	1.00
88.90	50.80	12.70	3.81	85.09	25.40
G	H	J	K	wt	
.125	1.75	.20	.55	grams	
3.18	44.45	5.08	13.97	120	

### Features

- wideband, 10 to 800 MHz
- rugged, shielded case

### Applications

- VHF/UHF
- receivers/transmitters



CASE STYLE: UU102

Connectors Model  
SMA ZBSC-413+

**+RoHS Compliant**

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

### Electrical Specifications

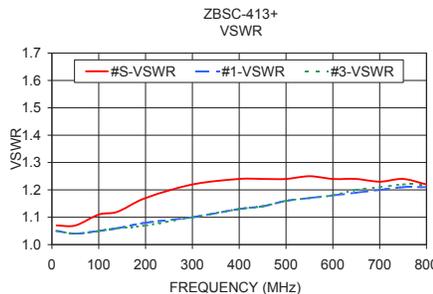
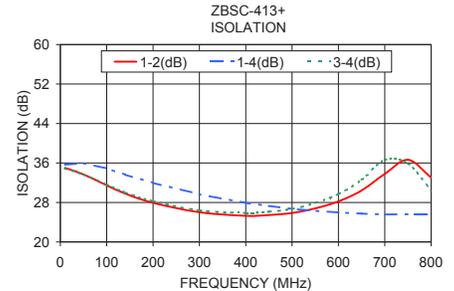
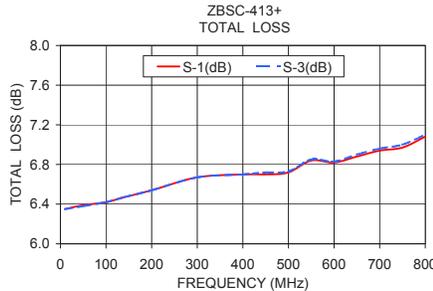
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 6.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
$f_L$ - $f_U$																		
10-800	26	20	18	15	18	15	0.6	1.0	1.0	1.5	1.6	2.0	4	8	8	0.2	0.4	0.6

L = low range [ $f_L$  to 10  $f_L$ ] M = mid range [10  $f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	1-4	3-4						
10.00	6.35	6.36	6.35	6.34	0.01	35.02	35.64	34.88	0.05	1.07	1.05	1.05	1.05	1.05
50.00	6.39	6.38	6.38	6.39	0.01	33.68	35.96	33.63	0.06	1.07	1.04	1.04	1.04	1.05
100.00	6.42	6.41	6.42	6.42	0.00	31.47	34.89	31.62	0.14	1.11	1.05	1.05	1.05	1.04
140.00	6.47	6.47	6.47	6.47	0.00	29.80	33.64	30.02	0.22	1.12	1.06	1.06	1.06	1.07
200.00	6.54	6.54	6.54	6.55	0.01	27.93	31.98	28.25	0.12	1.17	1.08	1.07	1.07	1.08
300.00	6.67	6.67	6.67	6.66	0.01	26.02	29.66	26.40	0.24	1.22	1.10	1.10	1.10	1.11
400.00	6.70	6.71	6.70	6.71	0.01	25.30	27.90	25.88	0.29	1.24	1.13	1.13	1.13	1.15
450.00	6.70	6.71	6.72	6.71	0.01	25.45	27.31	26.13	0.41	1.24	1.14	1.14	1.14	1.14
500.00	6.72	6.72	6.73	6.73	0.01	25.86	26.70	26.70	0.46	1.24	1.16	1.16	1.16	1.19
550.00	6.84	6.84	6.85	6.84	0.01	26.81	26.31	27.88	0.48	1.25	1.17	1.17	1.17	1.18
600.00	6.82	6.83	6.83	6.83	0.01	28.21	25.97	29.70	0.45	1.24	1.18	1.19	1.18	1.21
650.00	6.88	6.88	6.90	6.90	0.02	30.44	25.73	32.60	0.51	1.24	1.19	1.20	1.20	1.22
700.00	6.94	6.95	6.96	6.96	0.02	33.79	25.57	36.63	0.80	1.23	1.20	1.21	1.21	1.23
750.00	6.97	6.98	7.00	6.99	0.03	36.64	25.63	35.87	0.73	1.24	1.21	1.22	1.22	1.23
800.00	7.08	7.07	7.10	7.10	0.03	33.06	25.63	30.50	0.73	1.22	1.21	1.22	1.22	1.24

1. Total Loss = Insertion Loss + 6dB 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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