

Coaxial

Power Splitter/Combiner

8 Way-0° 50Ω 5 to 1000 MHz

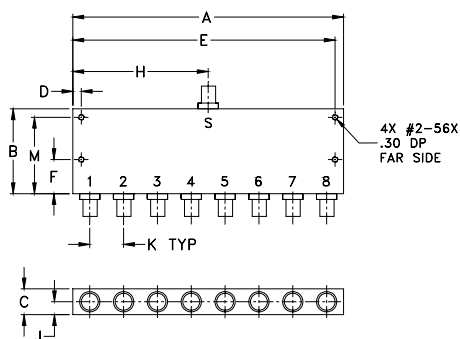
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.875W max.
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S
PORT 1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
4.00	1.25	.38	.125	3.875	.500
101.60	31.75	9.65	3.18	98.43	12.70
G	H	J	K	M	wt
--	2.00	.19	.500	1.125	grams
--	50.80	4.83	12.70	28.58	77

Features

- wide band frequency, 5 to 1000 MHz
- excellent input matching, VSWR 1.35 typ.
- excellent output matching, VSWR 1.25 typ.

Applications

- CATV
- VHF/UHF

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 9.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
f _L -f _U	Typ.	Min.	Typ.	Max.	Max.	Max.	S Typ.	OUT Typ.
5-50	34	20	0.5	1.5	5	1.0	1.05	1.35
50-500	22	18	1.2	2.2	10	0.7	1.05	1.20
500-1000	20	16	1.8	3.0	15	1.3	1.20	1.15

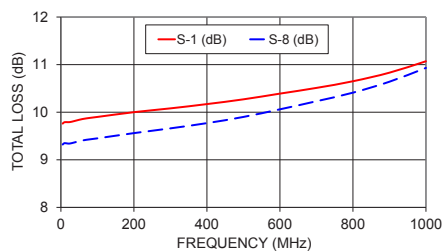
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)						Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-8	2-3	4-5				
5.00	9.76	9.60	9.62	9.46	9.46	9.32	0.44	47.36	43.32	49.01	43.33	0.96	1.06	1.37	1.30
10.00	9.79	9.62	9.64	9.49	9.46	9.35	0.44	39.19	45.59	47.12	45.66	0.75	1.05	1.36	1.27
20.00	9.79	9.61	9.63	9.49	9.46	9.34	0.44	39.09	46.15	45.92	45.94	0.34	1.04	1.34	1.26
30.00	9.80	9.63	9.64	9.50	9.47	9.35	0.45	37.15	45.88	44.67	45.55	0.22	1.05	1.34	1.25
50.00	9.84	9.66	9.68	9.54	9.51	9.39	0.45	34.00	45.61	42.19	45.52	0.25	1.05	1.33	1.25
70.00	9.87	9.70	9.71	9.56	9.54	9.42	0.45	31.62	45.27	40.07	45.47	0.26	1.06	1.32	1.24
100.00	9.90	9.73	9.74	9.60	9.58	9.45	0.46	29.10	45.04	37.68	44.94	0.33	1.06	1.31	1.24
200.00	10.00	9.83	9.85	9.71	9.69	9.56	0.44	24.39	44.37	32.71	44.87	0.54	1.09	1.26	1.20
300.00	10.08	9.91	9.93	9.80	9.79	9.66	0.42	22.14	43.62	29.91	44.19	0.79	1.12	1.19	1.16
400.00	10.17	10.00	10.03	9.90	9.91	9.77	0.40	21.01	42.58	27.96	43.32	1.00	1.15	1.13	1.11
500.00	10.27	10.11	10.14	10.02	10.05	9.90	0.37	20.74	41.10	26.57	41.28	1.21	1.18	1.08	1.09
600.00	10.39	10.23	10.27	10.16	10.22	10.06	0.33	21.07	39.31	25.61	39.25	1.43	1.20	1.07	1.10
700.00	10.51	10.36	10.40	10.31	10.41	10.23	0.31	21.66	37.56	25.10	37.09	1.65	1.19	1.09	1.13
800.00	10.65	10.50	10.56	10.48	10.62	10.41	0.32	21.58	35.88	24.98	35.53	1.90	1.14	1.10	1.14
900.00	10.83	10.68	10.76	10.69	10.87	10.64	0.32	20.32	34.32	25.24	34.24	2.21	1.14	1.09	1.12
1000.00	11.07	10.93	11.02	10.96	11.18	10.93	0.32	18.69	33.13	25.72	33.48	2.52	1.26	1.09	1.12

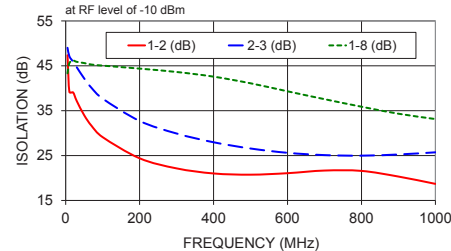
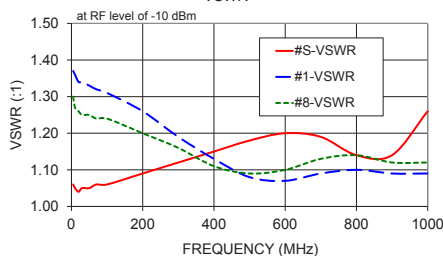
ZCSC-8-13-S+
TOTAL LOSS

1. Total Loss = Insertion Loss + 9dB splitter loss.

ZCSC-8-13-S+
ISOLATION



ZCSC-8-13-S+
VSWR



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.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp



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CASE STYLE: UU215

Connectors Model
SMA ZCSC-8-13-S+

+RoHS Compliant

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

HT-Series
Tight Spot
SMA Wrench

REV. C
M171494
ED-12783/1
ZCSC-8-13-S+
HY/IZ/CP/AM
190109

8 Way-0° Power Splitter/Combiner

ZCSC-8-13+

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹						AMP. UNBAL. (dB)	ISOLATION				PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR		
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-8	2-3	4-5			S	1	8
5.00	9.76	9.60	9.62	9.46	9.46	9.32	0.44	47.36	43.32	49.01	43.33	0.96	5.00	1.06	1.37	1.30
6.00	9.79	9.61	9.63	9.47	9.44	9.32	0.46	37.02	44.35	47.25	44.45	1.12	6.00	1.07	1.40	1.30
8.00	9.77	9.60	9.61	9.46	9.43	9.32	0.45	38.35	45.10	47.22	45.24	0.86	8.00	1.06	1.38	1.28
10.00	9.79	9.62	9.64	9.49	9.46	9.35	0.44	39.19	45.59	47.12	45.66	0.75	10.00	1.05	1.36	1.27
20.00	9.79	9.61	9.63	9.49	9.46	9.34	0.44	39.09	46.15	45.92	45.94	0.34	20.00	1.04	1.34	1.26
30.00	9.80	9.63	9.64	9.50	9.47	9.35	0.45	37.15	45.88	44.67	45.55	0.22	30.00	1.05	1.34	1.25
40.00	9.82	9.65	9.66	9.52	9.49	9.37	0.45	35.43	45.67	43.43	45.47	0.20	40.00	1.05	1.33	1.25
50.00	9.84	9.66	9.68	9.54	9.51	9.39	0.45	34.00	45.61	42.19	45.52	0.25	50.00	1.05	1.33	1.25
60.00	9.85	9.68	9.70	9.55	9.53	9.40	0.45	32.72	45.47	41.04	45.50	0.25	60.00	1.05	1.33	1.25
70.00	9.87	9.70	9.71	9.56	9.54	9.42	0.45	31.62	45.27	40.07	45.47	0.26	70.00	1.06	1.32	1.24
80.00	9.88	9.71	9.72	9.57	9.55	9.43	0.45	30.65	45.11	39.21	45.20	0.28	80.00	1.06	1.32	1.24
90.00	9.89	9.72	9.73	9.59	9.56	9.44	0.45	29.82	45.08	38.42	45.03	0.29	90.00	1.06	1.31	1.24
100.00	9.90	9.73	9.74	9.60	9.58	9.45	0.46	29.10	45.04	37.68	44.94	0.33	100.00	1.06	1.31	1.24
200.00	10.00	9.83	9.85	9.71	9.69	9.56	0.44	24.39	44.37	32.71	44.87	0.54	200.00	1.09	1.26	1.20
300.00	10.08	9.91	9.93	9.80	9.79	9.66	0.42	22.14	43.62	29.91	44.19	0.79	300.00	1.12	1.19	1.16
400.00	10.17	10.00	10.03	9.90	9.91	9.77	0.40	21.01	42.58	27.96	43.32	1.00	400.00	1.15	1.13	1.11
500.00	10.27	10.11	10.14	10.02	10.05	9.90	0.37	20.74	41.10	26.57	41.28	1.21	500.00	1.18	1.08	1.09
600.00	10.39	10.23	10.27	10.16	10.22	10.06	0.33	21.07	39.31	25.61	39.25	1.43	600.00	1.20	1.07	1.10
700.00	10.51	10.36	10.40	10.31	10.41	10.23	0.31	21.66	37.56	25.10	37.09	1.65	700.00	1.19	1.09	1.13
800.00	10.65	10.50	10.56	10.48	10.62	10.41	0.32	21.58	35.88	24.98	35.53	1.90	800.00	1.14	1.10	1.14
900.00	10.83	10.68	10.76	10.69	10.87	10.64	0.32	20.32	34.32	25.24	34.24	2.21	900.00	1.14	1.09	1.12
1000.00	11.07	10.93	11.02	10.96	11.18	10.93	0.32	18.69	33.13	25.72	33.48	2.52	1000.00	1.26	1.09	1.12

¹Total Loss = Insertion Loss + 9dB Splitter Loss



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IF/RF MICROWAVE COMPONENTS



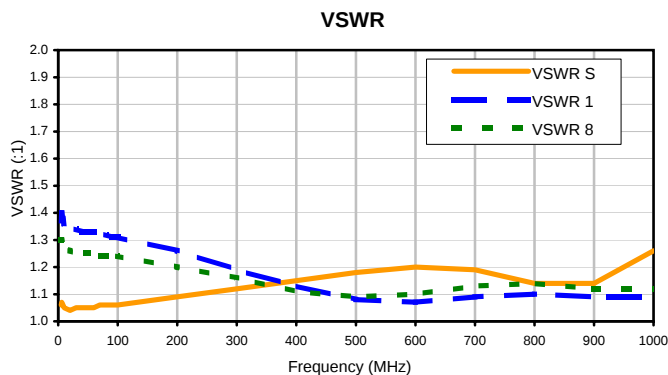
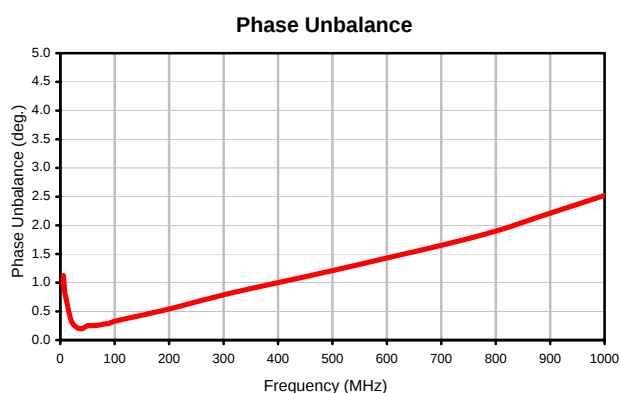
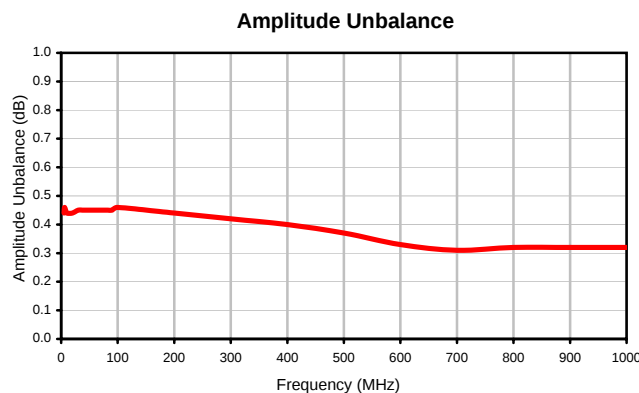
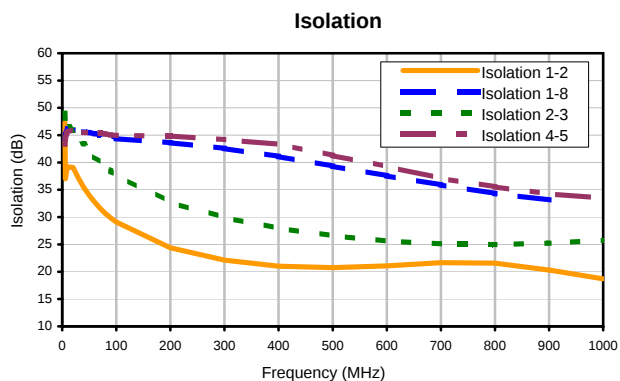
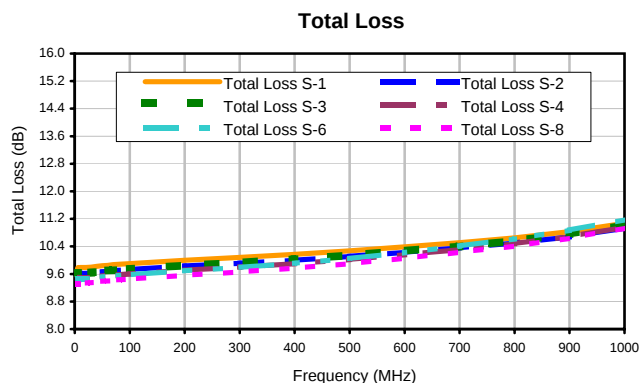
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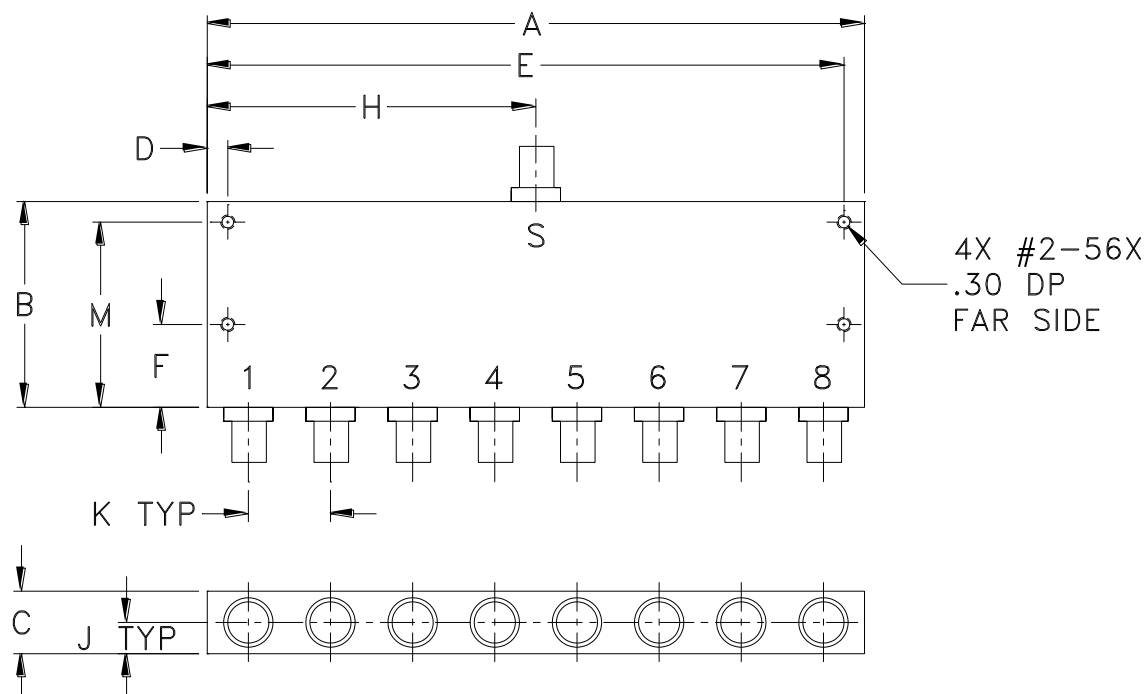
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Typical Performance Curves



Outline Dimensions

UU215



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
UU215	4.00 (101.60)	1.25 (31.75)	.38 (9.65)	.125 (3.18)	3.875 (98.43)	.500 (12.70)	-- --	2.00 (50.80)	.19 (4.83)	.500 (12.70)	-- --	1.125 (28.58)	77

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Refer to the individual model data sheet for the type of connectors available.



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UU215 Rev.: AZ (02/25/19) M172688 File: UU215

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Sheet 1 of 1



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I