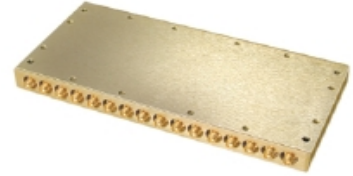


Engineering Development Model

Power Splitter/Combiner ZC16SC-ED11003/1 16 Way-0°

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : UU640

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		5		500 MHz
Isolation	5 - 50 MHz		45	dB
	50 - 250 MHz		29	dB
	250 - 500 MHz		24	dB
Insertion Loss Above 12.0 dB	5 - 50 MHz		0.80	dB
	50 - 250 MHz		1.00	dB
	250 - 500 MHz		1.40	dB
Phase Unbalance	5 - 50 MHz		0.95	deg.
	50 - 250 MHz		2.20	deg.
	250 - 500 MHz		5.70	deg.
Amplitude Unbalance	5 - 50 MHz		0.40	dB
	50 - 250 MHz		0.35	dB
	250 - 500 MHz		0.40	dB
VSWR	SUM Port		1.17	(:1)
	OUT Ports		1.29	(:1)

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	S, SMA, FEMALE
PORT 1	1, SMA, FEMALE
PORT 2	2, SMA, FEMALE
....	
PORT 16	16, SMA, FEMALE

Functional Diagram



16 Way-0° Power Splitter/Combiner

ZC16SC-ED11003/1

Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS ¹ (dB) S-1	AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)		PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)	
			1-2	3-4			S	1
1.0	13.24	0.90	26.10	37.51	4.05	1.0	1.32	2.23
3.0	12.96	0.55	30.60	46.80	2.50	3.0	1.22	1.65
5.0	12.85	0.46	33.79	55.42	1.80	5.0	1.22	1.50
7.0	12.79	0.41	35.97	60.54	1.48	7.0	1.23	1.44
9.0	12.78	0.38	37.58	57.38	1.14	9.0	1.23	1.40
10.0	12.76	0.37	38.29	55.16	1.13	10.0	1.23	1.39
12.0	12.76	0.37	39.55	51.84	0.88	12.0	1.24	1.38
14.0	12.75	0.36	40.61	49.45	0.81	14.0	1.24	1.37
16.0	12.74	0.36	41.46	47.63	0.76	16.0	1.24	1.36
18.0	12.75	0.35	42.03	46.17	0.68	18.0	1.24	1.35
20.0	12.75	0.35	42.36	45.02	0.66	20.0	1.24	1.35
56.0	12.83	0.34	36.55	35.26	0.68	56.0	1.24	1.32
92.0	12.92	0.34	32.42	31.24	1.20	92.0	1.22	1.31
128.0	12.96	0.34	30.00	28.80	1.73	128.0	1.20	1.29
164.0	13.02	0.34	28.36	27.14	2.21	164.0	1.16	1.27
200.0	13.05	0.33	27.21	25.91	2.82	200.0	1.13	1.25
225.0	13.09	0.34	26.61	25.25	3.17	225.0	1.11	1.24
250.0	13.15	0.35	26.16	24.77	3.53	250.0	1.09	1.23
280.0	13.19	0.35	25.76	24.26	3.99	280.0	1.07	1.22
310.0	13.23	0.35	25.43	23.88	4.48	310.0	1.07	1.21
340.0	13.31	0.38	25.23	23.63	4.89	340.0	1.07	1.21
370.0	13.37	0.37	25.11	23.44	5.29	370.0	1.08	1.20
400.0	13.41	0.38	25.04	23.31	5.93	400.0	1.10	1.20
420.0	13.45	0.40	25.03	23.26	6.17	420.0	1.12	1.20
440.0	13.53	0.39	25.05	23.25	6.37	440.0	1.14	1.19
460.0	13.57	0.39	25.06	23.23	6.77	460.0	1.16	1.19
480.0	13.61	0.40	25.04	23.20	7.22	480.0	1.19	1.20
500.0	13.68	0.43	24.95	23.15	7.49	500.0	1.22	1.20
531.0	13.77	0.42	24.66	22.96	7.85	531.0	1.26	1.21
562.0	13.88	0.45	24.09	22.58	8.52	562.0	1.29	1.21
593.0	13.96	0.49	23.31	22.02	9.03	593.0	1.32	1.20
624.0	14.07	0.51	22.43	21.36	9.60	624.0	1.33	1.19
655.0	14.14	0.55	21.56	20.67	10.14	655.0	1.33	1.18
686.0	14.22	0.58	20.83	20.08	10.67	686.0	1.33	1.16
717.0	14.31	0.61	20.35	19.69	11.27	717.0	1.31	1.14
748.0	14.39	0.64	20.10	19.50	11.91	748.0	1.29	1.14
779.0	14.47	0.68	20.09	19.53	12.52	779.0	1.25	1.16
810.0	14.56	0.72	20.30	19.76	13.04	810.0	1.21	1.17
840.0	14.67	0.72	20.60	20.07	13.61	840.0	1.17	1.19
870.0	14.83	0.75	20.83	20.32	14.51	870.0	1.17	1.19
900.0	14.93	0.78	20.63	20.22	15.49	900.0	1.23	1.20

¹Total Loss = Insertion Loss + 12dB Splitter Loss



REV. X2

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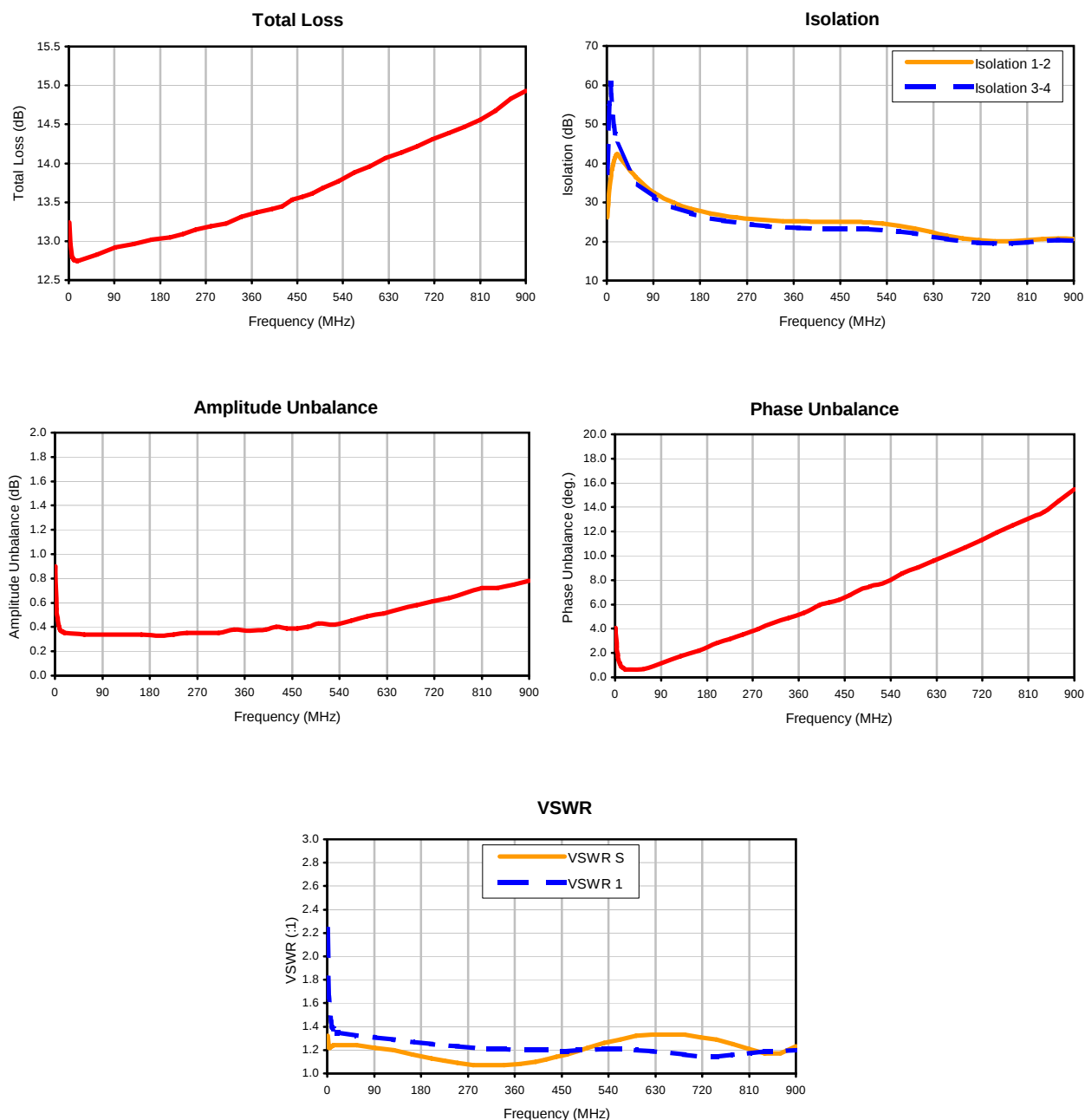
IF/RF MICROWAVE COMPONENTS

ZC16SC-ED11003/1

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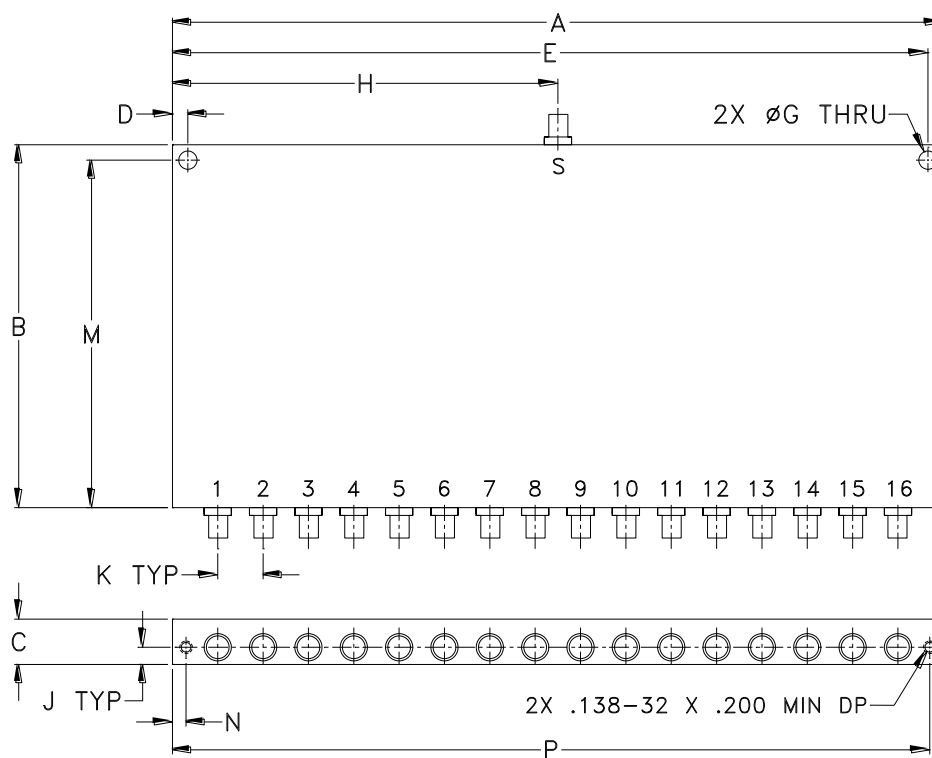
Page 1 of 1

Typical Performance Curves



Outline Dimensions

UU640



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
UU640	8.50 (215.90)	4.00 (101.60)	.50 (12.70)	.170 (4.32)	8.330 (211.58)	--	.201 (5.11)	4.25 (107.95)	.19 (4.83)	.500 (12.70)	--	3.830 (97.28)

CASE#	N	P	WT. GRAMS
UU640	.150 (3.81)	8.350 (212.09)	450

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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RF/IF MICROWAVE COMPONENTS



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