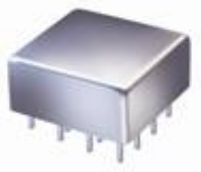
Non-Catalog Model

Power Splitter/Combiner PSC-4A-475

4 Way-0°



Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.

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

CASE STYLE : C07

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		10		800	MHz
Isolation	**10 - 100 MHz**	20	30		dB
	100 - 400 MHz	20	33		dB
	400 - 800 MHz	18	25		dB
Insertion Loss Above 6.0 dB	**10 - 100 MHz**		0.40	0.70	dB
	100 - 400 MHz		0.60	0.90	dB
	400 - 800 MHz		1.20	1.60	dB
Phase Unbalance	**10 - 100 MHz**		0.204		deg.
	100 - 400 MHz		0.855		deg.
	400 - 800 MHz		2.709		deg.
Amplitude Unbalance	**10 - 100 MHz**		0.016	0.200	dB
	100 - 400 MHz		0.084	0.400	dB
	400 - 800 MHz		0.298	0.800	dB
VSWR	**SUM Port**		1.27		(:1)
	OUT Ports		1.16		(:1)

Notes: Matched power rating: 1 Watt.
Internal load dissipation: 0.25 Watt.
Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	2
PORT 1	8
PORT 2	12
PORT 3	5
PORT 4	9
GND EXT	all other pins

Functional Diagram

4 Way-0° Power Splitter/Combiner PSC-4A-475

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS[1] (dB)				AMP. UNBAL. (dB)	ISOLATION (dB)			PHASE UNBAL. (deg.)
	S-1	S-2	S-3	S-4		1-2	2-3	3-4	
10.0	6.22	6.22	6.23	6.23	0.01	28.88	22.48	29.05	0.01
20.0	6.24	6.24	6.24	6.26	0.02	27.72	23.99	27.91	0.13
30.0	6.25	6.25	6.25	6.26	0.01	26.69	24.76	26.89	0.09
40.0	6.26	6.26	6.27	6.27	0.01	26.06	25.21	26.24	0.13
50.0	6.27	6.28	6.28	6.28	0.02	25.68	25.49	25.83	0.21
60.0	6.28	6.29	6.29	6.30	0.02	25.39	25.68	25.52	0.20
70.0	6.29	6.29	6.30	6.30	0.01	25.16	25.83	25.28	0.31
80.0	6.29	6.29	6.30	6.31	0.02	25.00	25.94	25.08	0.34
90.0	6.31	6.30	6.31	6.31	0.02	24.89	26.06	24.97	0.30
100.0	6.30	6.30	6.31	6.32	0.02	24.82	26.13	24.90	0.32
120.0	6.32	6.32	6.35	6.35	0.03	24.75	26.28	24.81	0.34
140.0	6.34	6.34	6.37	6.36	0.03	24.75	26.43	24.84	0.45
160.0	6.35	6.35	6.38	6.38	0.03	24.85	26.57	24.93	0.55
180.0	6.34	6.33	6.38	6.37	0.04	24.98	26.72	25.03	0.60
200.0	6.35	6.34	6.39	6.37	0.05	25.12	26.87	25.23	0.63
220.0	6.38	6.36	6.43	6.41	0.07	25.37	27.09	25.43	0.66
240.0	6.41	6.38	6.45	6.42	0.07	25.64	27.31	25.70	0.81
260.0	6.37	6.35	6.44	6.40	0.09	25.89	27.51	25.96	0.87
280.0	6.37	6.35	6.44	6.41	0.09	26.22	27.74	26.26	0.97
300.0	6.41	6.37	6.48	6.44	0.11	26.59	28.07	26.61	0.98
320.0	6.43	6.39	6.50	6.46	0.11	27.00	28.39	26.96	1.13
340.0	6.44	6.39	6.52	6.47	0.13	27.42	28.75	27.32	1.19
360.0	6.43	6.37	6.51	6.45	0.14	27.88	29.12	27.68	1.32
380.0	6.43	6.39	6.55	6.48	0.16	28.39	29.56	27.99	1.41
400.0	6.47	6.41	6.58	6.51	0.17	28.98	30.10	28.29	1.45
420.0	6.46	6.42	6.60	6.51	0.17	29.58	30.64	28.52	1.46
440.0	6.47	6.40	6.61	6.50	0.21	30.11	31.22	28.65	1.71
460.0	6.48	6.41	6.62	6.52	0.22	30.70	31.96	28.65	1.89
480.0	6.53	6.46	6.68	6.55	0.22	31.30	32.78	28.63	1.85
500.0	6.53	6.44	6.68	6.57	0.24	31.85	33.65	28.43	2.07
520.0	6.54	6.43	6.69	6.57	0.26	32.33	34.80	28.13	2.16
540.0	6.55	6.45	6.72	6.59	0.27	32.66	35.98	27.71	2.34
560.0	6.58	6.47	6.77	6.62	0.30	32.85	37.43	27.28	2.48
580.0	6.59	6.48	6.78	6.63	0.30	32.94	39.23	26.81	2.68
600.0	6.60	6.49	6.81	6.65	0.33	32.80	41.53	26.29	2.79
620.0	6.63	6.51	6.85	6.68	0.34	32.53	44.17	25.72	2.93
640.0	6.65	6.51	6.88	6.70	0.38	32.10	46.26	25.18	3.07
660.0	6.69	6.54	6.92	6.72	0.38	31.68	45.81	24.63	3.40
700.0	6.76	6.61	6.99	6.80	0.39	30.57	40.01	23.59	3.87
750.0	6.85	6.67	7.10	6.90	0.44	29.09	34.39	22.29	4.48
800.0	7.02	6.81	7.26	7.05	0.45	27.57	30.50	21.07	5.42

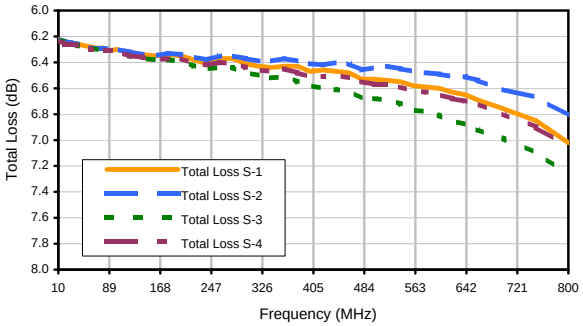
FREQ. (MHz)	VSWR (:1)				
	S	1	2	3	4
10.0	1.32	1.15	1.15	1.16	1.16
20.0	1.32	1.08	1.08	1.08	1.09
30.0	1.32	1.06	1.06	1.06	1.06
40.0	1.32	1.05	1.05	1.05	1.05
50.0	1.32	1.06	1.06	1.05	1.05
60.0	1.31	1.06	1.06	1.05	1.05
70.0	1.31	1.06	1.06	1.06	1.06
80.0	1.31	1.07	1.07	1.06	1.06
90.0	1.31	1.07	1.07	1.07	1.06
100.0	1.31	1.08	1.08	1.07	1.07
120.0	1.31	1.09	1.09	1.08	1.08
140.0	1.31	1.10	1.10	1.09	1.09
160.0	1.31	1.11	1.11	1.10	1.10
180.0	1.31	1.12	1.12	1.11	1.11
200.0	1.31	1.13	1.14	1.12	1.11
220.0	1.32	1.14	1.15	1.13	1.13
240.0	1.32	1.15	1.16	1.14	1.14
260.0	1.32	1.17	1.18	1.15	1.15
280.0	1.31	1.18	1.19	1.16	1.15
300.0	1.31	1.19	1.20	1.16	1.16
320.0	1.31	1.19	1.21	1.17	1.17
340.0	1.30	1.20	1.22	1.17	1.17
360.0	1.30	1.21	1.22	1.18	1.18
380.0	1.29	1.22	1.23	1.18	1.18
400.0	1.29	1.22	1.24	1.18	1.19
420.0	1.28	1.23	1.25	1.19	1.19
440.0	1.28	1.24	1.25	1.19	1.19
460.0	1.27	1.24	1.26	1.19	1.20
480.0	1.27	1.25	1.27	1.19	1.20
500.0	1.26	1.26	1.27	1.19	1.20
520.0	1.25	1.26	1.28	1.19	1.20
540.0	1.23	1.26	1.28	1.19	1.20
560.0	1.22	1.27	1.29	1.19	1.20
580.0	1.20	1.27	1.30	1.19	1.20
600.0	1.19	1.28	1.30	1.19	1.20
620.0	1.17	1.28	1.30	1.19	1.20
640.0	1.16	1.28	1.30	1.18	1.20
660.0	1.14	1.28	1.30	1.18	1.19
700.0	1.10	1.28	1.30	1.17	1.19
750.0	1.06	1.28	1.30	1.16	1.18
800.0	1.10	1.28	1.30	1.16	1.19

[1] Total Loss = Insertion Loss+ 6dB Splitter Loss

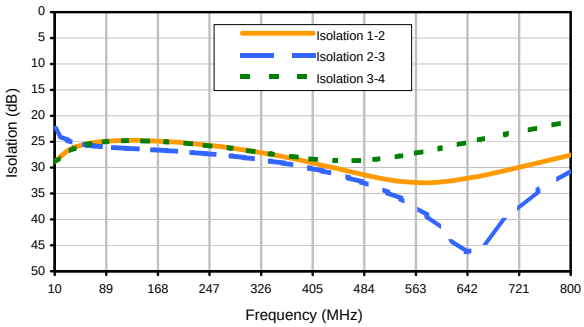
4 Way-0° Power Splitter/Combiner PSC-4A-475

Typical Performance Curves

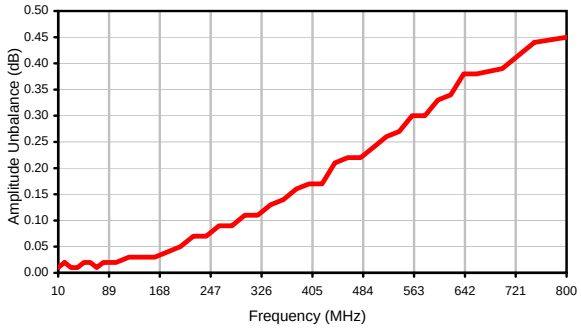
Total Loss



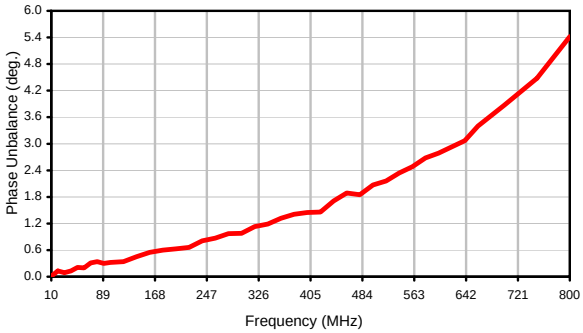
Isolation



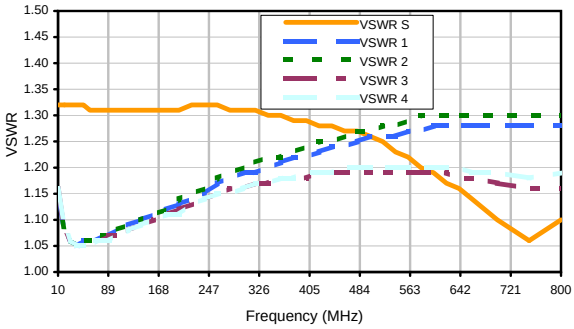
Amplitude Unbalance



Phase Unbalance



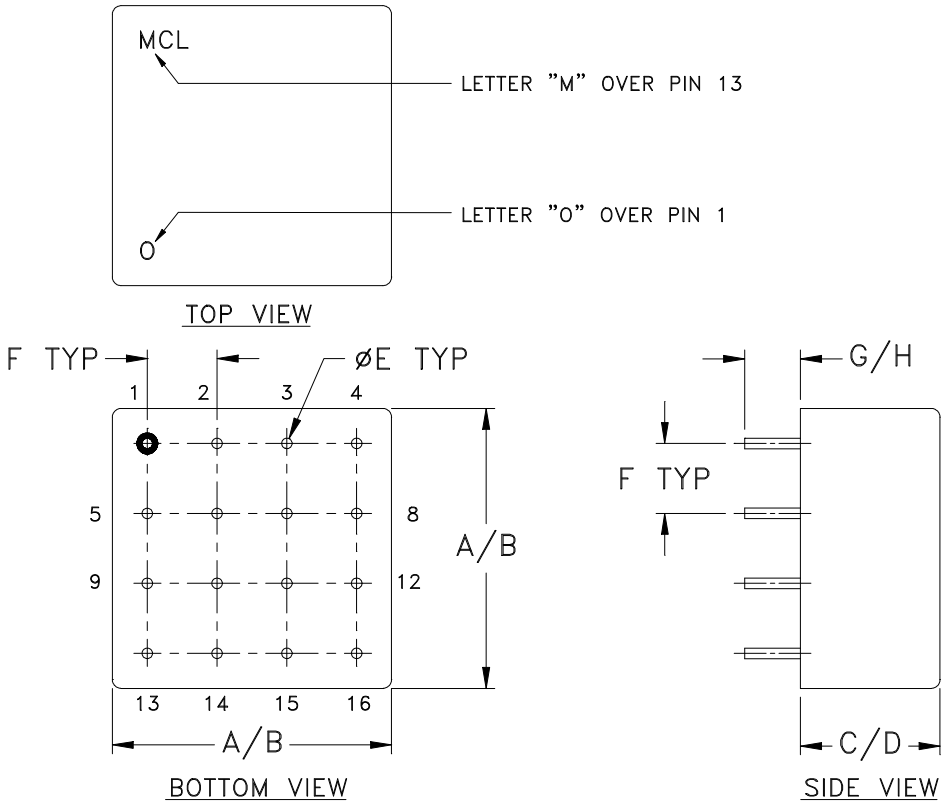
VSWR



Case Style C

Outline Dimensions

C07



CASE#	A	B	C	D	E	F	G	H	WT. GRAM
C07	.770 (19.56)	.810 (20.57)	.380 (9.65)	.410 (10.41)	.030 (.76)	.200 (5.08)	.20 (5.08)	.14 (3.56)	11.0

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

Notes:

1. Header material: C.R.S.
   Pin material: #52 alloy.
   Cover material: Cupro-Nickel.
2. Pin finish: Electro Tin-Silver..
3. Tolerance on pin diameter +/-.005 inch.
4. Glass meniscus 0.015 inch max.
5. Blue bead indicates Pin 1. Pin numbers do not appear on unit, for reference only.

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Environmental Specifications ENV01

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
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
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	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Moisture Resistance	10 cycles, 24 hours per cycle	MIL-STD-202, Method 106, Condition A, except 50°C and end point electrical test done within 12 hours
Solderability	10X Magnification	J-STD-002, 95% Coverage
Resistance to Solder Heat	260°C for 10 seconds	MIL-STD-202, Method 210, Condition B
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215
Terminal Strength	4 1/2 Pound Pull	MIL-STD-202, Method 211, Condition A

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
Gross Leak	125°C Bubble Test	MIL-STD-202, Method 112, Condition D
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D