DC Pass, High Power

Power Splitter/Combiner ZC3PD-K1844+

3 Way-0° 50Ω 18 to 40 GHz

The Big Deal

- Super wideband, 18 to 40 GHz
- Low insertion loss, 1.2 dB typ.
- High Isolation, 31 dB typ.
- 13.6W power handling
- Low amplitude unbalance, 0.15 dB typ.

CASE STYLE: UU2412-2

Product Overview

Mini-Circuits' ZC3PD-K1844+ is a super wideband 3-way 0˚ splitter/combiner providing coverage from 18 to 40 GHz, supporting a wide range of applications including K-Band, instrumentation and many more. This model provides 13.6W power handling as a splitter and very low insertion loss across the entire operating frequency range, minimizing power dissipation and delivering excellent signal power transmission from input to output. The ZC3PD-K1844+ comes housed in a case measuring 1.5 x 1.7 x 0.5" with super SMA connectors.

Key Features

Feature	Advantages
Ultra-wideband, 18 to 40 GHz	Extremely wide frequency range supports many broadband applications in a single model.
Low insertion loss, 1.2 dB typ. at 22 GHz	The combination of 13.6W power handling and low insertion loss makes this model a suitable candidate for distributing signals while maintaining excellent transmission of signal power.
High isolation, 31 dB typ. at 22 GHz	Minimizes interference between ports.
Low amplitude unbalance, 0.15 dB at 22 GHz	Produces nearly equal output signals, ideal for parallel path and multichannel systems.
DC Passing, 330mA	Supports applications where DC power is needed through the RF line.

Notes
A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits 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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

DC Pass

Power Splitter/Combiner

ZC3PD-K1844+

3 Way-0° 50Ω 18 to 40 GHz

Generic photo used for illustration purposes only

CASE STYLE: UU2412-2

Connectors	Model
2.92mm-Female	ZC3PD-K1844+

+RoHS Compliant

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

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)*	13.6W* max.
Internal Dissipation	0.11W max.
DC Current	330 mA

Permanent damage may occur if any of these limits are exceeded.
* Derate linearly to 5.4W at 100°C

Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3

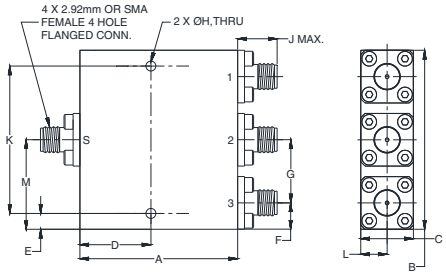
Features

- Wideband, 18000 to 40000 MHz
- Low insertion loss, 1.2 dB typ.
- Low amplitude unbalance, 0.15 dB typ.
- Excellent VSWR, 1.16 dB typ.
- High Isolation, 31 dB typ.

Applications

- Fixed Satellite
- K-band
- Mobile
- Space research
- Test Accessory

Outline Drawing

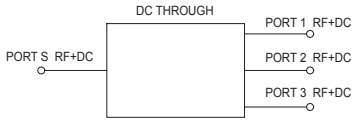


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
1.50	1.70	.50	.67	.150	.25	.60
38.10	43.18	12.70	17.02	3.81	6.35	15.2

H	J	K	L	M	wt
0.094	.43	1.400	.25	0.85	grams
2.4	11	35.56	6.35	21.59	80

Electrical Schematic



Electrical Specifications at 25°C

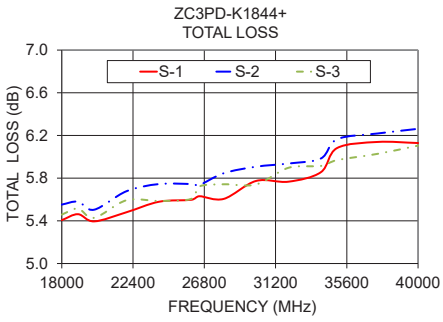
Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		18		40	GHz
Insertion Loss Above 4.8 dB	18 - 26.5	—	0.8	1.4	dB
	26.5 - 40	—	1.2	1.8	
Isolation	18 - 26.5	18	33	—	dB
	26.5 - 40	18	31	—	
Phase Unbalance (±)[1]	18 - 26.5		4.7	8	Degree
	26.5 - 40		3.7	8	
Amplitude Unbalance (±)[1]	18 - 26.5		0.1	0.5	dB
	26.5 - 40		0.15	0.7	
VSWR (Port S)	18 - 26.5		1.11	1.6	:1
	26.5 - 40		1.16	1.7	
VSWR (Port 1-3)	18 - 26.5		1.16	1.6	:1
	26.5 - 40		1.16	1.7	

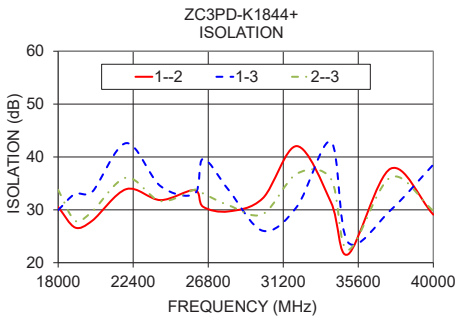
1. With reference to average

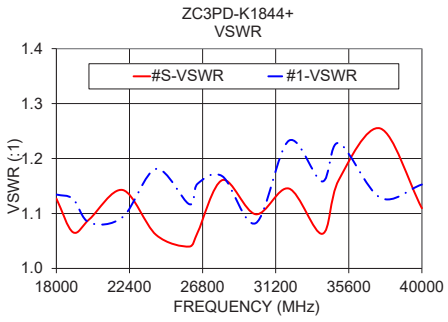
Typical Performance Data

Freq. (MHz)	Total Loss[1] (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
18000	5.41	5.55	5.46	0.15	30.55	29.94	33.80	4.34	1.13	1.13	1.19	1.13
19000	5.46	5.58	5.51	0.12	26.65	33.05	27.93	4.21	1.07	1.13	1.17	1.14
20000	5.39	5.50	5.43	0.11	27.95	33.41	29.71	4.60	1.09	1.08	1.09	1.04
22000	5.48	5.68	5.59	0.20	33.92	42.62	36.10	5.92	1.14	1.09	1.25	1.13
24000	5.58	5.74	5.59	0.17	31.84	34.49	31.66	5.27	1.06	1.18	1.15	1.10
26000	5.60	5.74	5.61	0.15	33.72	33.02	33.81	4.71	1.04	1.12	1.15	1.14
26500	5.63	5.74	5.72	0.11	30.59	39.65	33.10	4.35	1.07	1.15	1.12	1.11
28000	5.61	5.85	5.74	0.24	29.71	33.75	30.86	3.80	1.16	1.17	1.12	1.10
30000	5.77	5.91	5.74	0.17	32.19	26.04	29.20	4.25	1.10	1.08	1.11	1.11
32000	5.77	5.94	5.90	0.17	42.06	30.60	36.84	3.66	1.15	1.23	1.26	1.18
34000	5.86	5.98	5.91	0.13	31.42	42.87	35.84	2.69	1.06	1.16	1.08	1.11
35000	6.08	6.16	5.97	0.20	21.59	23.85	22.42	2.15	1.16	1.23	1.09	1.14
37500	6.14	6.22	6.03	0.19	37.80	29.95	36.16	1.73	1.25	1.13	1.11	1.11
40000	6.13	6.26	6.10	0.16	29.09	38.56	29.84	3.18	1.11	1.15	1.13	1.09

1. Total Loss = Insertion Loss + 4.8dB splitter loss.







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3 Way-0° Power Splitter/Combiner ZC3PD-K1844+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0 dBm @Temperature = +25°C

FREQ. (MHz)	TOTAL LOSS[1] (dB)			AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)			VSWR (:1)			
	S-1	S-2	S-3			1-2	1-3	2-3	S	1	2	3
10	6.00	6.01	6.02	0.02	0.04	6.06	6.07	6.06	3.01	2.97	2.98	2.96
100	6.04	6.02	6.03	0.02	0.25	6.11	6.13	6.10	2.97	2.92	2.93	2.92
1000	6.17	5.93	6.14	0.25	1.08	8.25	8.66	8.06	2.92	2.07	1.91	2.13
5000	5.17	4.89	5.18	0.29	0.74	22.29	27.61	22.49	1.45	1.15	1.23	1.12
7500	5.19	5.11	5.19	0.09	1.14	24.06	24.22	25.49	1.14	1.08	1.29	1.05
10000	5.20	5.25	5.27	0.07	2.16	31.35	41.54	33.52	1.05	1.17	1.21	1.14
10500	5.39	5.29	5.19	0.19	2.57	23.95	27.88	26.37	1.10	1.22	1.26	1.20
11000	5.18	5.45	5.41	0.26	2.10	27.31	31.02	27.95	1.12	1.21	1.29	1.18
11500	5.28	5.20	5.25	0.08	2.51	43.25	28.59	44.16	1.10	1.14	1.29	1.12
12000	5.27	5.36	5.26	0.10	2.54	22.14	27.38	22.83	1.08	1.07	1.24	1.05
12500	5.28	5.22	5.32	0.11	3.39	33.46	25.59	32.06	1.10	1.03	1.18	1.02
13000	5.23	5.37	5.25	0.14	3.97	21.44	23.70	21.77	1.11	1.00	1.12	1.01
13500	5.36	5.45	5.40	0.09	3.01	21.48	25.07	22.03	1.08	1.06	1.09	1.05
14000	5.24	5.35	5.37	0.13	3.94	30.75	37.34	31.39	1.01	1.13	1.12	1.12
14500	5.39	5.45	5.44	0.06	2.89	31.27	33.90	32.38	1.06	1.18	1.15	1.16
15000	5.29	5.33	5.32	0.03	3.61	33.10	36.43	33.92	1.11	1.16	1.16	1.15
15500	5.42	5.52	5.40	0.12	3.96	37.74	29.47	34.88	1.12	1.09	1.14	1.08
16000	5.36	5.45	5.38	0.09	3.84	33.24	33.84	34.98	1.08	1.02	1.10	1.02
16500	5.35	5.46	5.39	0.11	3.99	34.66	33.70	37.16	1.03	1.05	1.06	1.07
17000	5.40	5.48	5.42	0.08	4.17	32.54	36.86	35.93	1.06	1.08	1.08	1.10
17500	5.42	5.51	5.43	0.09	4.11	34.28	34.58	38.48	1.11	1.11	1.14	1.11
18000	5.41	5.55	5.46	0.15	4.34	30.55	29.94	33.80	1.13	1.13	1.19	1.13
18500	5.45	5.60	5.48	0.15	4.08	28.81	38.58	31.69	1.10	1.15	1.20	1.15
19000	5.46	5.58	5.51	0.12	4.21	26.65	33.05	27.93	1.07	1.13	1.17	1.14
19500	5.45	5.59	5.48	0.14	4.66	24.24	27.86	25.30	1.07	1.09	1.12	1.10
20000	5.39	5.50	5.43	0.11	4.60	27.95	33.41	29.71	1.09	1.08	1.09	1.04
20500	5.47	5.58	5.41	0.17	5.02	57.85	32.48	40.11	1.07	1.09	1.12	1.05
21000	5.46	5.75	5.45	0.30	4.95	28.08	24.37	26.86	1.06	1.09	1.17	1.08
21500	5.47	5.59	5.58	0.13	4.08	30.39	28.88	31.00	1.10	1.09	1.21	1.11
22000	5.48	5.68	5.59	0.20	5.92	33.92	42.62	36.10	1.14	1.09	1.25	1.13
22500	5.50	5.76	5.54	0.27	4.72	25.88	30.58	26.76	1.15	1.10	1.25	1.13
23000	5.55	5.68	5.62	0.12	4.80	28.54	33.44	30.16	1.12	1.12	1.22	1.12
23500	5.60	5.68	5.57	0.11	5.17	32.99	32.04	31.54	1.08	1.15	1.18	1.10
24000	5.58	5.74	5.59	0.17	5.27	31.84	34.49	31.66	1.06	1.18	1.15	1.10
24500	5.60	5.74	5.61	0.14	4.92	35.60	43.24	37.53	1.07	1.18	1.15	1.14
25000	5.61	5.77	5.63	0.16	4.96	35.14	39.96	37.03	1.06	1.15	1.17	1.16
25500	5.60	5.73	5.59	0.14	5.00	35.62	37.38	36.90	1.03	1.12	1.17	1.17
26000	5.60	5.74	5.61	0.15	4.71	33.72	33.02	33.81	1.04	1.12	1.15	1.14
26500	5.63	5.74	5.72	0.11	4.35	30.59	39.65	33.10	1.07	1.15	1.12	1.11
27000	5.79	5.84	5.64	0.19	5.31	33.52	32.99	35.50	1.10	1.20	1.10	1.10
28000	5.61	5.85	5.74	0.24	3.80	29.71	33.75	30.86	1.16	1.17	1.12	1.10
29000	5.78	5.90	5.73	0.17	4.50	26.76	33.91	29.00	1.09	1.07	1.12	1.07
30000	5.77	5.91	5.74	0.17	4.25	32.19	26.04	29.20	1.10	1.08	1.11	1.11
31000	5.96	5.96	5.76	0.21	3.34	38.18	27.62	33.44	1.25	1.26	1.18	1.16
32000	5.77	5.94	5.90	0.17	3.66	42.06	30.60	36.84	1.15	1.23	1.26	1.18
33000	5.87	6.04	5.88	0.17	3.19	32.12	31.76	34.68	1.06	1.07	1.18	1.11
34000	5.86	5.98	5.91	0.13	2.69	31.42	42.87	35.84	1.06	1.16	1.08	1.11
35000	6.08	6.16	5.97	0.20	2.15	21.59	23.85	22.42	1.16	1.23	1.09	1.14
37500	6.14	6.22	6.03	0.19	1.73	37.80	29.95	36.16	1.25	1.13	1.11	1.11
40000	6.13	6.26	6.10	0.16	3.18	29.09	38.56	29.84	1.11	1.15	1.13	1.09
42500	6.44	6.38	6.33	0.12	4.99	31.70	32.90	31.48	1.33	1.27	1.32	1.16
43500	6.29	6.43	6.18	0.24	5.37	33.22	27.71	30.83	1.41	1.25	1.37	1.21

[1]Total Loss = Insertion Loss + 4.8dB Splitter Loss

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0 dBm @Temperature = -55°C

FREQ. (MHz)	TOTAL LOSS[1] (dB)			AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)			VSWR (:1)			
	S-1	S-2	S-3			1-2	1-4	3-4	S	1	2	4
10	6.03	6.01	6.00	0.02	0.08	6.07	6.08	6.05	3.01	2.95	2.98	2.97
100	6.06	6.01	6.01	0.05	0.24	6.13	6.15	6.09	2.97	2.89	2.93	2.92
1000	6.24	5.98	6.19	0.27	1.22	8.23	8.61	8.02	2.98	2.04	1.90	2.10
5000	5.18	4.88	5.16	0.30	0.51	22.41	28.45	22.55	1.46	1.14	1.23	1.11
7500	5.19	5.08	5.16	0.11	0.89	24.22	24.12	25.41	1.15	1.07	1.30	1.05
10000	5.17	5.20	5.23	0.06	1.80	31.98	41.81	33.42	1.05	1.16	1.19	1.14
10500	5.36	5.25	5.15	0.21	2.31	24.26	27.81	26.78	1.13	1.24	1.26	1.21
11000	5.17	5.42	5.38	0.25	2.10	27.06	30.64	27.61	1.15	1.24	1.30	1.20
11500	5.25	5.18	5.21	0.08	2.03	46.32	28.81	42.79	1.11	1.17	1.29	1.13
12000	5.25	5.35	5.23	0.12	2.15	21.94	27.21	22.61	1.08	1.08	1.25	1.05
12500	5.27	5.19	5.28	0.09	2.92	32.65	25.56	31.63	1.12	1.05	1.19	1.03
13000	5.21	5.37	5.24	0.16	3.92	21.39	23.70	21.71	1.15	1.03	1.12	1.02
13500	5.34	5.42	5.37	0.09	2.67	21.24	25.02	21.76	1.12	1.03	1.07	1.03
14000	5.24	5.34	5.35	0.11	3.41	30.19	37.19	30.75	1.04	1.11	1.09	1.10
14500	5.38	5.43	5.39	0.05	2.49	31.07	33.72	31.96	1.06	1.17	1.13	1.16
15000	5.27	5.32	5.30	0.05	2.98	33.56	36.34	34.12	1.12	1.17	1.16	1.16
15500	5.39	5.50	5.37	0.13	3.52	35.99	29.27	33.83	1.13	1.12	1.15	1.10
16000	5.33	5.44	5.34	0.10	3.33	34.52	33.90	36.30	1.08	1.05	1.11	1.03
16500	5.32	5.44	5.35	0.13	3.50	35.47	33.80	38.46	1.03	1.03	1.07	1.06
17000	5.37	5.46	5.38	0.09	3.69	32.37	37.21	35.67	1.06	1.06	1.07	1.10
17500	5.39	5.50	5.40	0.11	3.62	33.71	34.91	37.85	1.10	1.08	1.12	1.11
18000	5.39	5.54	5.43	0.15	3.81	29.89	29.97	33.11	1.10	1.10	1.16	1.12
18500	5.42	5.59	5.45	0.16	3.68	28.16	37.75	30.81	1.06	1.12	1.17	1.13
19000	5.45	5.59	5.48	0.13	3.73	26.27	32.58	27.43	1.05	1.12	1.15	1.13
19500	5.45	5.56	5.45	0.11	4.11	24.03	27.46	24.96	1.06	1.13	1.13	1.10
20000	5.38	5.48	5.41	0.10	4.08	27.93	32.73	29.46	1.05	1.12	1.12	1.06
20500	5.50	5.59	5.39	0.19	4.45	48.62	32.02	38.25	1.02	1.11	1.13	1.04
21000	5.47	5.72	5.43	0.29	4.43	27.44	24.03	26.26	1.05	1.07	1.15	1.06
21500	5.47	5.59	5.53	0.12	3.55	30.19	28.32	30.47	1.09	1.04	1.17	1.09
22000	5.50	5.62	5.57	0.12	5.00	35.94	40.25	38.79	1.10	1.05	1.20	1.12
22500	5.51	5.72	5.49	0.23	4.21	26.27	31.62	27.21	1.09	1.10	1.22	1.13
23000	5.52	5.65	5.54	0.13	3.99	28.30	32.99	29.84	1.08	1.16	1.22	1.13
23500	5.59	5.65	5.53	0.12	4.41	34.29	32.89	32.68	1.07	1.20	1.19	1.11
24000	5.56	5.73	5.55	0.18	4.69	31.85	35.15	31.83	1.07	1.21	1.17	1.11
24500	5.58	5.72	5.57	0.15	4.28	34.30	41.19	36.18	1.06	1.18	1.17	1.13
25000	5.58	5.73	5.58	0.15	4.31	33.89	37.75	35.60	1.04	1.12	1.16	1.14
25500	5.58	5.70	5.55	0.14	4.38	34.99	35.60	36.00	1.00	1.06	1.13	1.13
26000	5.59	5.72	5.56	0.16	4.04	33.38	31.79	33.25	1.05	1.11	1.09	1.12
26500	5.66	5.76	5.69	0.10	3.50	31.57	41.16	34.05	1.11	1.21	1.10	1.12
27000	5.81	5.79	5.60	0.22	4.84	33.39	32.25	34.71	1.16	1.28	1.15	1.14
28000	5.56	5.84	5.71	0.28	2.91	30.37	35.39	31.86	1.18	1.20	1.16	1.10
29000	5.78	5.90	5.69	0.21	3.73	26.01	32.31	28.04	1.13	1.08	1.10	1.03
30000	5.76	5.85	5.69	0.16	3.69	32.68	26.32	29.52	1.11	1.09	1.07	1.09
31000	5.95	5.95	5.69	0.25	2.62	37.91	27.79	33.47	1.30	1.32	1.23	1.19
32000	5.70	5.87	5.82	0.17	3.06	42.51	29.88	35.58	1.18	1.27	1.30	1.20
33000	5.81	5.97	5.79	0.18	2.61	32.14	31.06	34.24	1.09	1.02	1.13	1.07
34000	5.83	5.97	5.88	0.14	1.74	31.48	39.52	35.59	1.13	1.20	1.07	1.12
35000	6.04	6.11	5.88	0.23	1.52	21.30	23.36	22.02	1.17	1.29	1.14	1.17
37500	6.12	6.22	5.94	0.27	1.15	36.32	29.47	34.72	1.22	1.18	1.15	1.13
40000	6.12	6.23	6.09	0.14	2.58	28.29	35.82	28.96	1.19	1.22	1.14	1.12
42500	6.52	6.34	6.32	0.19	4.49	31.29	31.42	30.75	1.50	1.40	1.45	1.23
43500	6.21	6.32	6.08	0.24	4.74	32.41	26.75	29.87	1.44	1.33	1.39	1.23

[1]Total Loss = Insertion Loss + 4.8dB Splitter Loss

Typical Performance Data

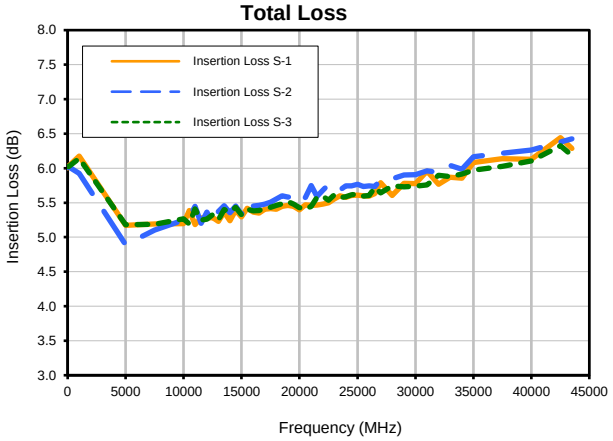
TEST CONDITIONS: INPUT POWER = 0 dBm @Temperature = +100°C

FREQ. (MHz)	TOTAL LOSS[1] (dB)			AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)			VSWR (:1)			
	S-1	S-2	S-3			1-2	1-4	3-4	S	1	2	4
10	6.03	6.04	6.03	0.01	0.07	6.07	6.06	6.05	2.99	2.96	2.97	2.97
100	6.05	6.03	6.04	0.02	0.26	6.11	6.13	6.09	2.96	2.91	2.93	2.92
1000	6.17	5.93	6.14	0.25	1.18	8.14	8.40	7.93	2.86	2.26	2.02	2.32
5000	5.18	4.91	5.18	0.27	0.49	22.00	28.97	22.14	1.45	1.19	1.24	1.17
7500	5.20	5.12	5.20	0.08	0.97	25.68	22.28	27.22	1.13	1.07	1.27	1.07
10000	5.20	5.26	5.27	0.07	2.04	31.39	41.49	32.39	1.05	1.18	1.19	1.16
10500	5.40	5.30	5.18	0.22	2.30	24.71	25.17	27.19	1.09	1.23	1.23	1.21
11000	5.18	5.44	5.41	0.26	1.78	27.86	34.81	28.19	1.11	1.22	1.25	1.19
11500	5.28	5.24	5.25	0.05	2.39	53.77	27.40	39.09	1.10	1.13	1.26	1.11
12000	5.28	5.39	5.26	0.13	2.40	22.37	30.20	22.93	1.07	1.04	1.24	1.03
12500	5.31	5.25	5.34	0.09	3.17	32.04	24.42	31.03	1.08	1.03	1.18	1.02
13000	5.22	5.41	5.27	0.19	3.85	21.78	24.01	22.04	1.10	1.01	1.13	1.02
13500	5.36	5.49	5.41	0.13	2.88	21.67	26.55	22.18	1.07	1.05	1.10	1.03
14000	5.27	5.39	5.36	0.13	3.72	31.05	51.65	31.52	1.02	1.12	1.11	1.11
14500	5.39	5.47	5.44	0.09	2.84	31.63	32.33	32.87	1.05	1.17	1.13	1.16
15000	5.31	5.38	5.33	0.07	3.50	33.23	35.02	33.65	1.10	1.16	1.13	1.15
15500	5.43	5.56	5.41	0.16	3.71	36.45	30.24	34.06	1.11	1.09	1.12	1.09
16000	5.38	5.50	5.40	0.12	3.69	34.60	31.02	36.58	1.08	1.03	1.09	1.03
16500	5.36	5.50	5.39	0.14	3.83	36.08	31.08	38.89	1.03	1.06	1.05	1.08
17000	5.41	5.52	5.42	0.11	4.00	33.49	33.32	36.93	1.06	1.08	1.07	1.11
17500	5.43	5.55	5.44	0.12	3.97	35.51	31.63	40.13	1.12	1.09	1.14	1.10
18000	5.42	5.60	5.46	0.18	4.14	30.74	28.40	33.71	1.14	1.12	1.19	1.11
18500	5.46	5.64	5.48	0.18	3.94	29.32	35.75	32.34	1.10	1.13	1.19	1.13
19000	5.47	5.61	5.52	0.14	4.21	27.23	35.61	28.61	1.05	1.12	1.15	1.13
19500	5.47	5.65	5.49	0.18	4.45	24.61	28.12	25.76	1.07	1.09	1.10	1.10
20000	5.41	5.56	5.45	0.14	4.36	28.52	32.86	30.50	1.10	1.08	1.07	1.05
20500	5.48	5.62	5.41	0.21	4.79	50.46	34.63	39.72	1.09	1.09	1.11	1.05
21000	5.48	5.79	5.45	0.34	4.72	27.84	25.07	26.71	1.06	1.09	1.16	1.08
21500	5.49	5.63	5.59	0.14	4.04	30.37	29.88	30.70	1.10	1.09	1.21	1.10
22000	5.49	5.73	5.59	0.24	5.83	34.30	39.26	35.66	1.15	1.09	1.25	1.12
22500	5.51	5.80	5.55	0.29	4.56	26.14	31.43	26.63	1.16	1.09	1.25	1.12
23000	5.58	5.72	5.64	0.15	4.80	29.05	34.65	30.32	1.13	1.10	1.22	1.11
23500	5.61	5.72	5.59	0.14	5.04	32.87	31.92	31.09	1.08	1.13	1.16	1.09
24000	5.59	5.78	5.60	0.19	5.10	32.46	36.16	31.65	1.07	1.18	1.14	1.10
24500	5.62	5.79	5.63	0.16	4.75	36.92	45.34	38.68	1.08	1.19	1.16	1.15
25000	5.64	5.81	5.64	0.18	4.77	36.04	40.08	38.28	1.07	1.17	1.18	1.17
25500	5.62	5.78	5.61	0.17	4.84	36.36	37.47	37.98	1.03	1.13	1.17	1.17
26000	5.62	5.79	5.62	0.17	4.53	34.08	32.85	34.32	1.03	1.11	1.14	1.14
26500	5.64	5.77	5.73	0.13	4.29	30.52	38.32	32.98	1.04	1.13	1.10	1.10
27000	5.79	5.87	5.65	0.23	5.11	33.98	33.70	36.00	1.08	1.17	1.08	1.09
28000	5.64	5.89	5.76	0.25	3.61	29.91	33.77	31.03	1.17	1.17	1.12	1.11
29000	5.82	5.95	5.74	0.21	4.30	27.29	33.99	29.59	1.09	1.09	1.12	1.07
30000	5.79	5.95	5.75	0.19	3.94	32.01	26.16	29.17	1.09	1.06	1.12	1.10
31000	5.99	6.02	5.79	0.23	3.15	37.67	27.72	33.38	1.22	1.23	1.16	1.15
32000	5.79	5.97	5.90	0.18	3.45	42.46	30.73	37.46	1.15	1.24	1.26	1.18
33000	5.89	6.07	5.88	0.19	2.92	32.17	31.81	35.10	1.04	1.07	1.18	1.11
34000	5.89	6.04	5.92	0.15	2.49	31.78	43.10	36.63	1.06	1.14	1.08	1.10
35000	6.12	6.21	5.98	0.22	1.96	21.81	23.90	22.68	1.13	1.22	1.09	1.13
37500	6.15	6.24	6.04	0.20	1.70	37.19	30.06	35.53	1.26	1.11	1.09	1.09
40000	6.17	6.33	6.13	0.20	3.47	29.10	38.21	29.65	1.09	1.15	1.15	1.10
42500	6.44	6.42	6.32	0.12	5.23	31.69	33.03	31.52	1.29	1.24	1.29	1.14
43500	6.35	6.53	6.23	0.30	5.77	33.33	28.00	31.10	1.40	1.25	1.37	1.21

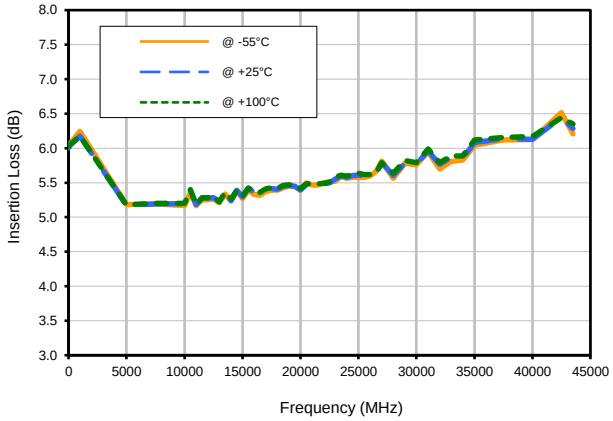
[1]Total Loss = Insertion Loss + 4.8dB Splitter Loss

Typical Performance Curves

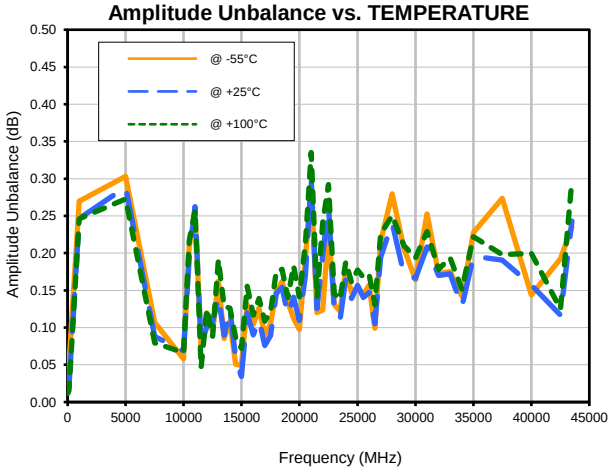
Total Loss



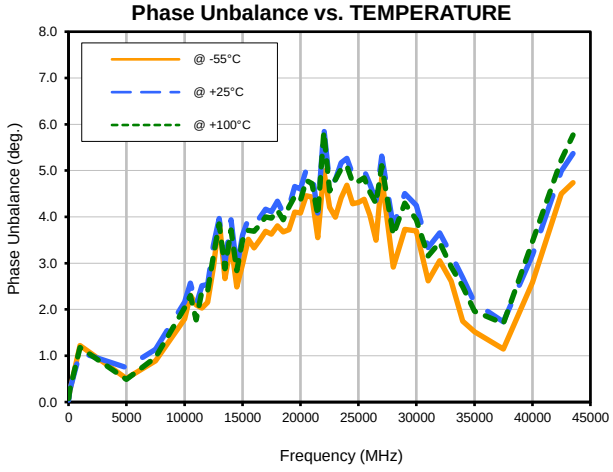
Total Loss S-1 vs. TEMPERATURE



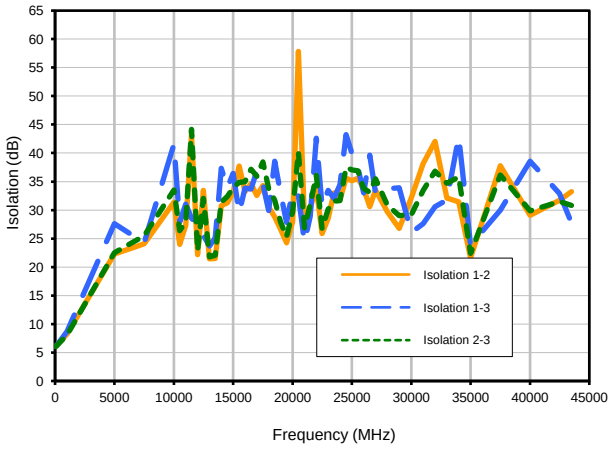
Amplitude Unbalance vs. TEMPERATURE



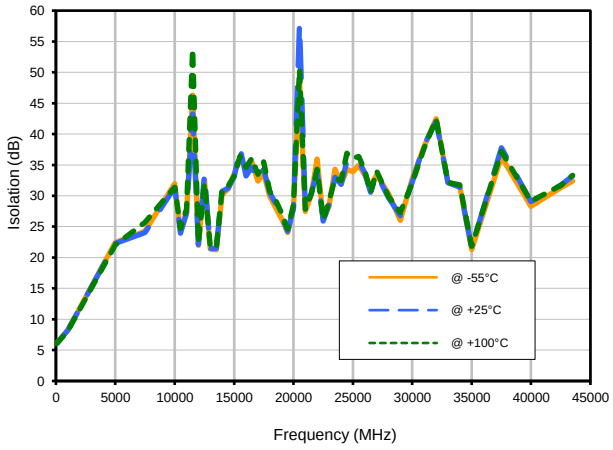
Phase Unbalance vs. TEMPERATURE



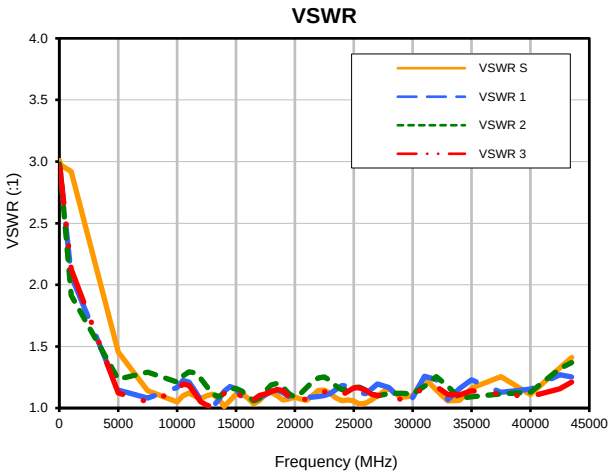
Isolation

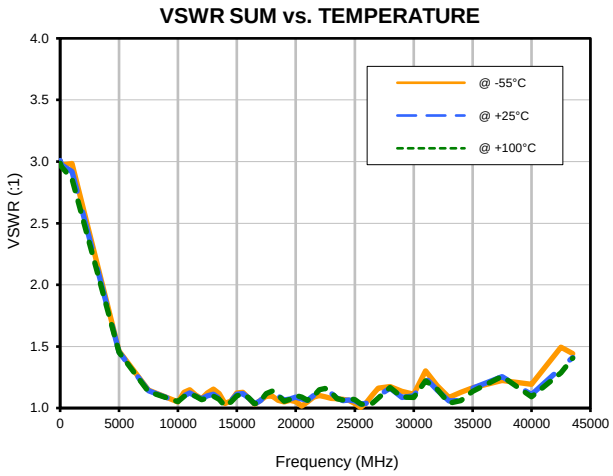


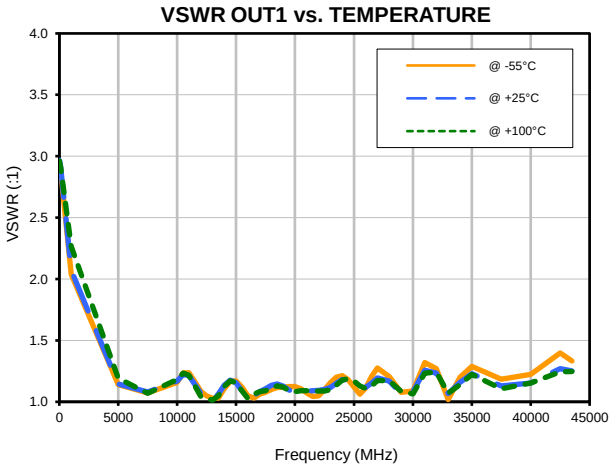
Isolation 1-2 vs. TEMPERATURE



Typical Performance Curves



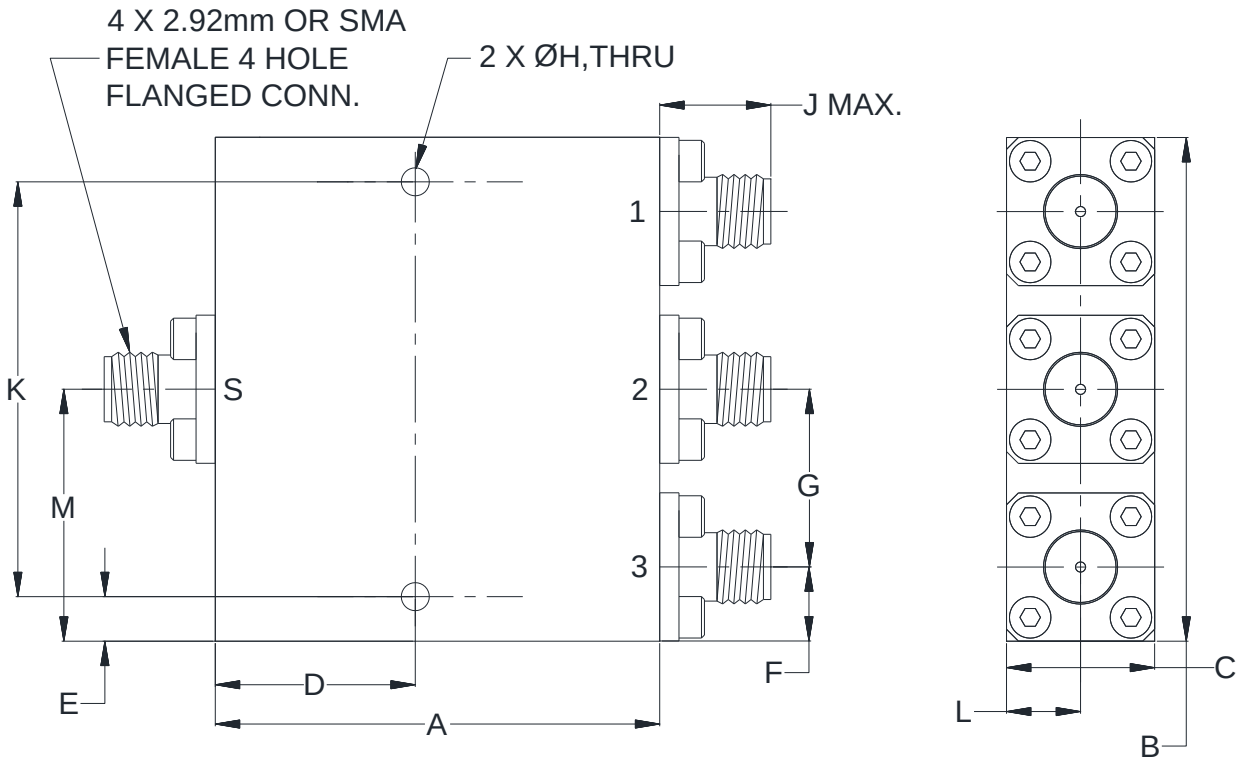




Case Style UU

Outline Dimensions

UU2412-2



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
UU2412-2	1.50 (38.10)	1.70 (43.18)	.50 (12.70)	.67 (17.14)	.150 (3.82)	.25 (6.35)	.60 (15.23)	0.094 (2.40)	.43 (11.0)	1.400 (35.56)	.25 (6.35)	0.85 (21.60)

CASE#	WT. GRAMS
UU2412-2	80

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

Notes:

1. Case material: Aluminum alloy.
2. Case finish: Painting Color: Blue.
3. Refer to the individual model data sheet for the type of connectors available.

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Mini-Circuits

Environmental Specifications **ENV102**

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, 25 cycles	MIL-STD-202, Method 107, Condition A-1 except +100°C instead of 85°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	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12

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