

Power Divider, 2-way, 1.5-20.5 GHz, SMA Female

WM2PD-1.5-20.5-S-ECO

Optimized for compact size and wide bandwidth, this model is intended for general-purpose signal distribution rather than precision matched system applications.



The Werbel Microwave WM2PD-1.5-20.5-S-ECO 2-Way Power Divider covers 1.5 to 20.5 GHz and is designed for engineers who need wideband performance in a compact, cost-efficient package. Optimized for size, bandwidth, and manufacturability, it is well suited for high-volume applications, lab use, and general-purpose signal distribution where extreme port match is not required.

Manufactured in the United States, the unit provides consistent insertion loss with tight amplitude and phase balance across

the band. Its production-optimized design ensures repeatable, unit-to-unit performance without the need for post-assembly tuning.

Compared to higher-specification models, this divider offers extended bandwidth and reduced size at the expense of port match performance. It is ideal for broadband test setups, signal routing, and other non-critical RF applications where reliability, availability, and value take priority over precision matching.

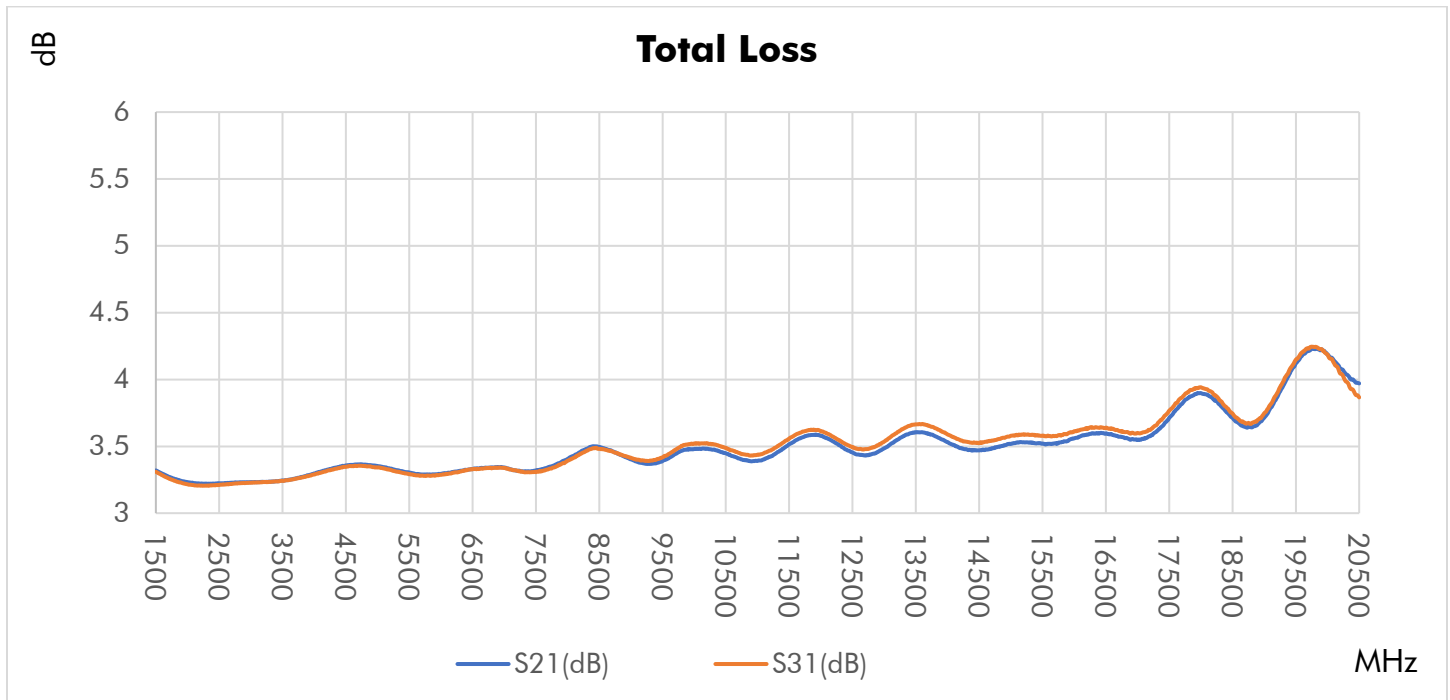
Parameter		Min.	Typ.	Max.	Unit
Frequency Range		1500		20500	MHz
Impedance			50		Ω
Return Loss (Port S)	1.5-18 GHz 18-20.5GHz	12 9.5	20.7		dB
Return Loss (Port 1-2)	1.5-18GHz 18-20.5GHz	12 9.5	20.9		dB
Insertion Loss above 3.01 dB split loss			0.5	1.5	dB
Isolation	1.5-18GHz 18-20.5GHz	16 14	26.8		dB
Amplitude Unbalance (\pm) ¹			0.2	0.7	dB
Phase Unbalance (\pm) ¹			0.3	6	Degree
Input Power (CW) ²				20	W

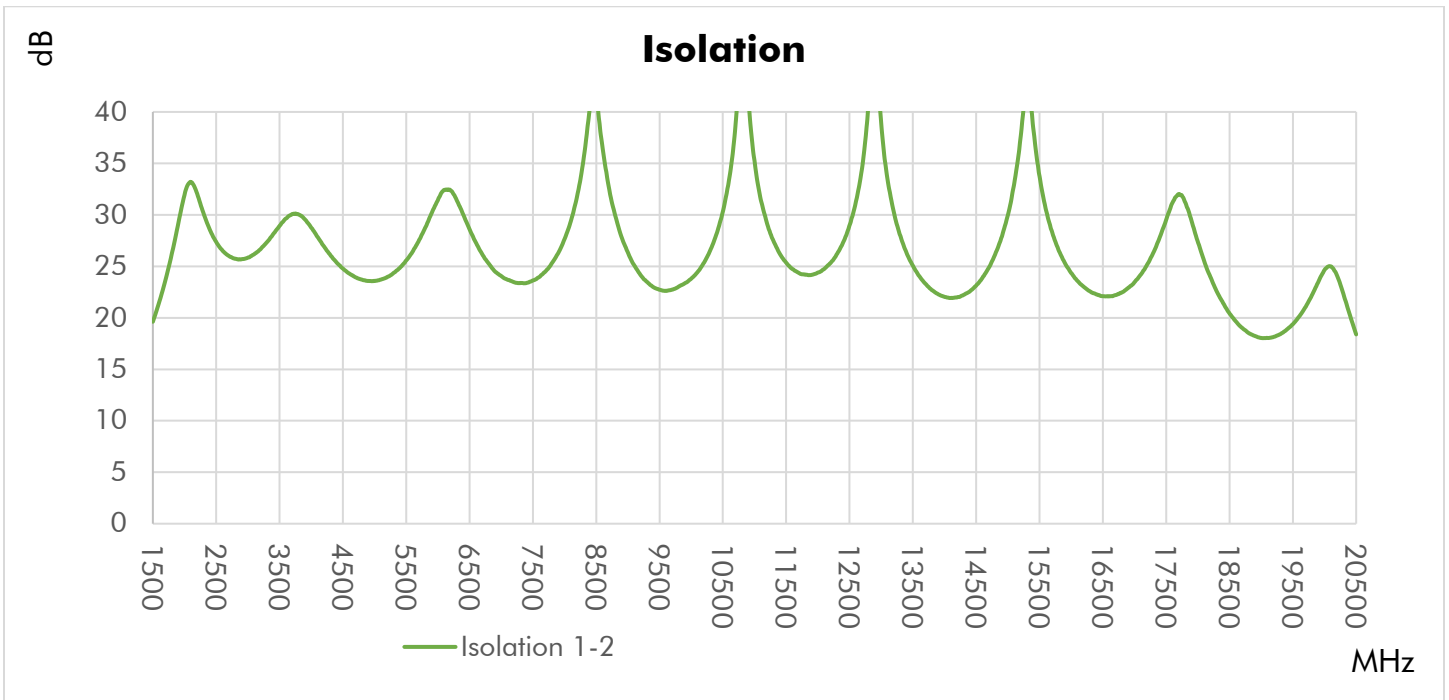
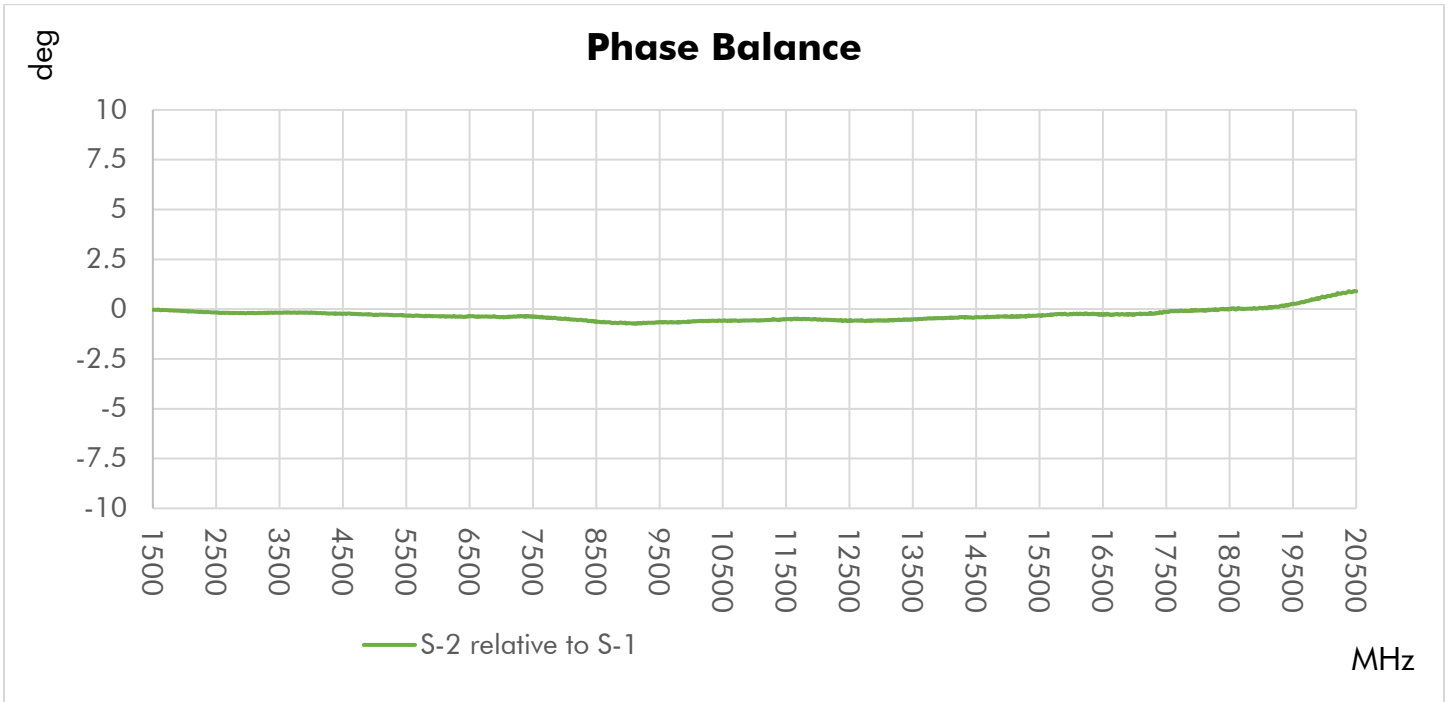
Connector Interface	SMA Female
Operating Temperature ³	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Nominal Weight	36 g (1.3 oz)
Operating Humidity	10-90% (non-condensing)
Operating Environment	Indoor Use Only
HTSUS Code	8548.00.0000
ECCN	EAR99

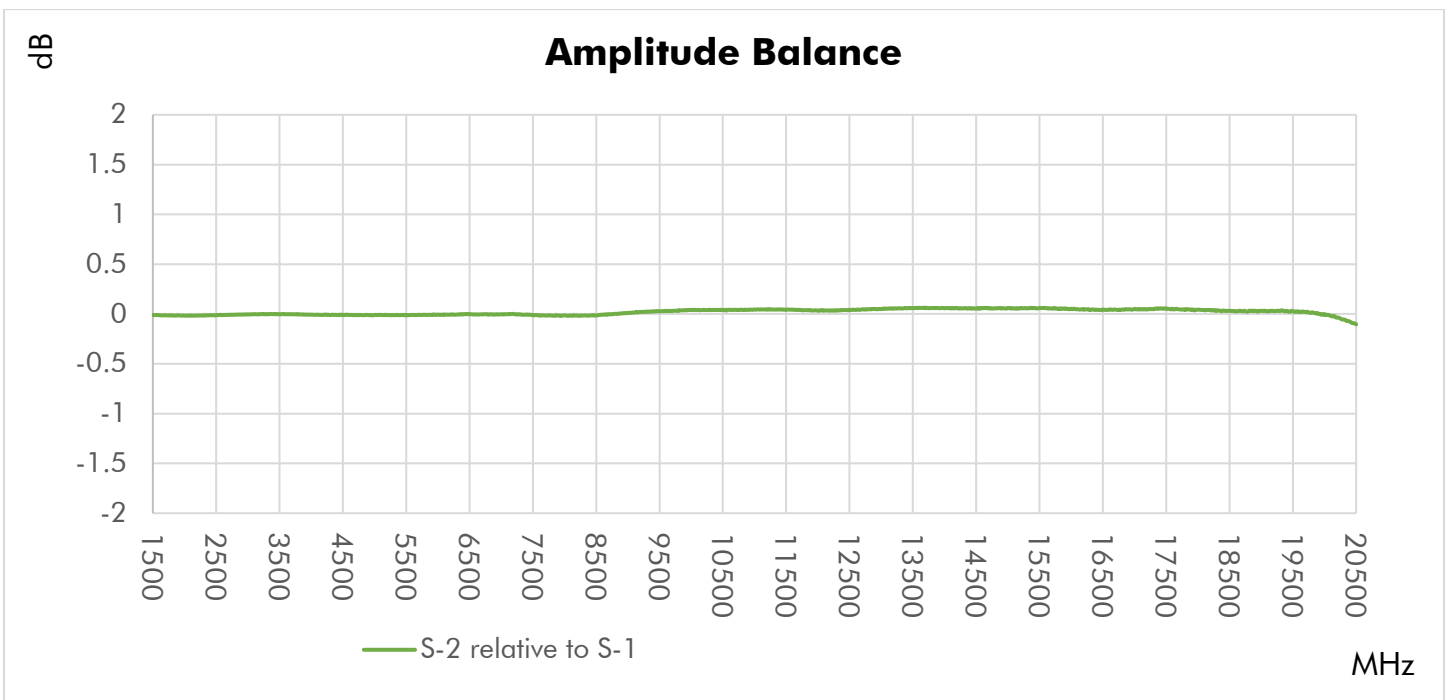
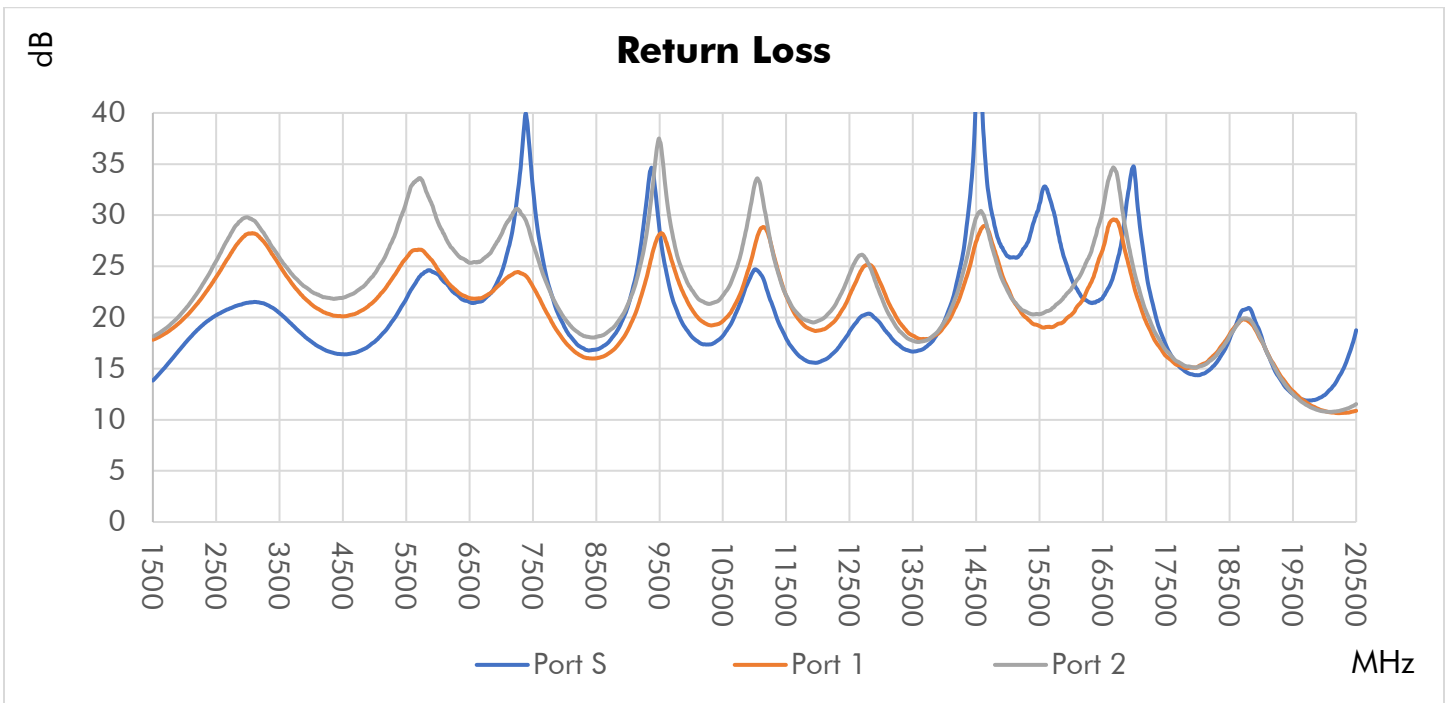
RoHS Status ⁴	RoHS3 Compliant
REACH Status ⁴	REACH Unaffected
Enclosure Material	Aluminum
Connectors Material	Stainless Steel
Contacts Material	Beryllium Copper, Gold Plated
Insulators Material	Virgin PTFE
Finish	Green Paint
Country of Origin	United States of America

1. With reference to average.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR. Derate linearly to 10% at +85°C. Performance may degrade in high mismatch environments.
3. mismatch environments.
4. Electrical specifications are tested at +25 °C.
To the best of our knowledge at the time of publication.

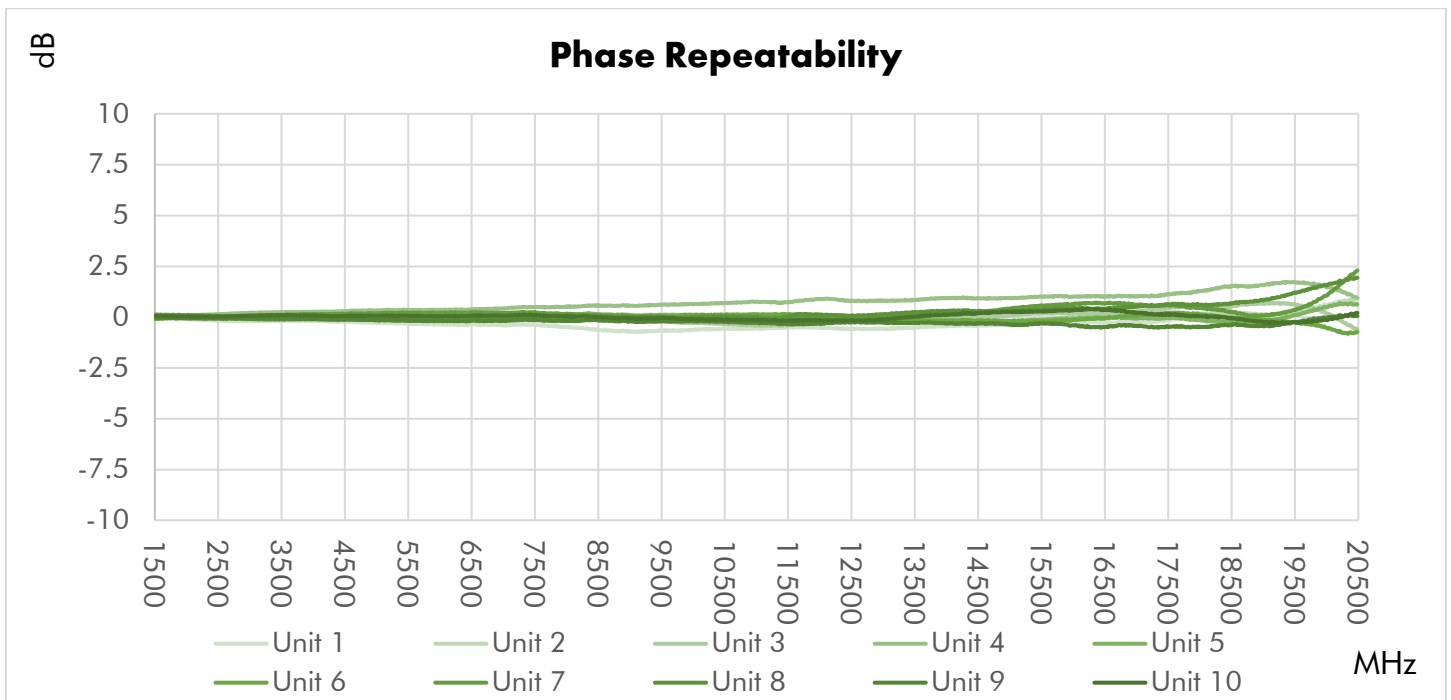
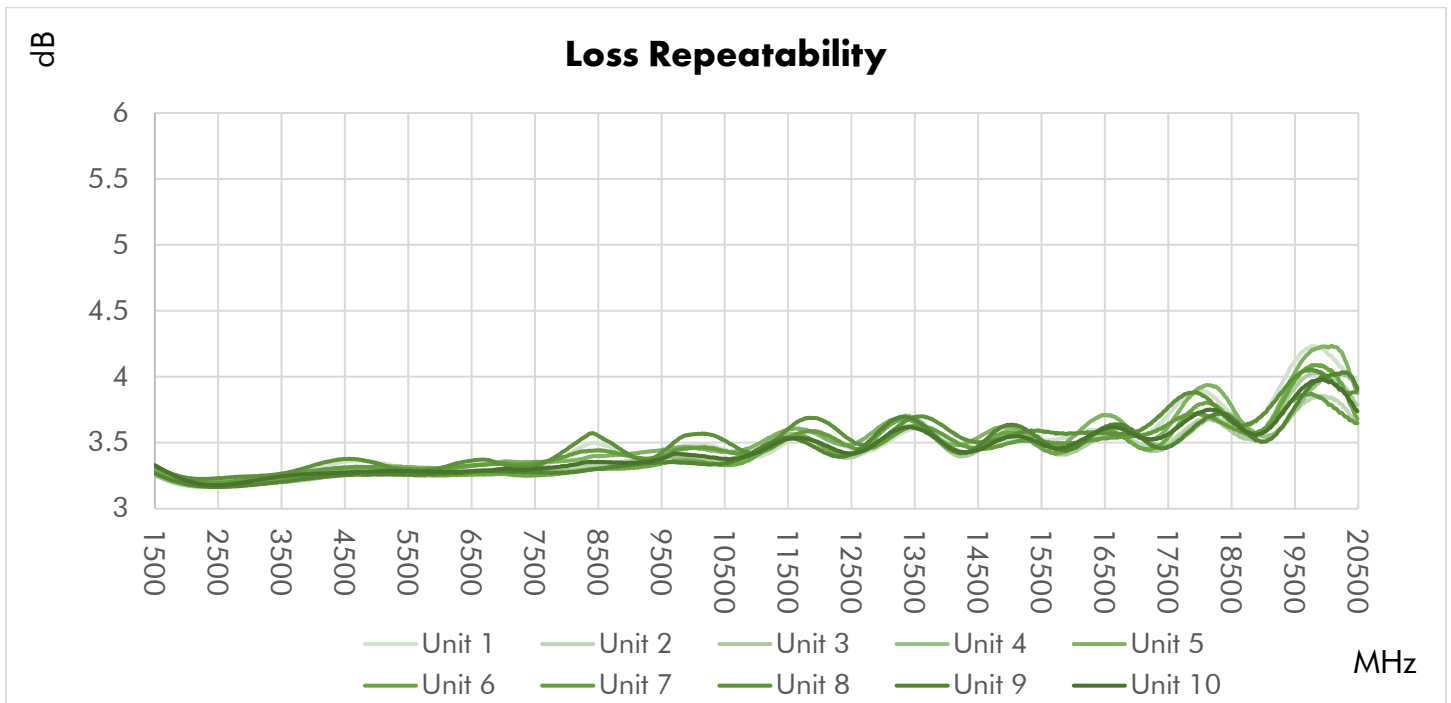
Typical Performance at +25 °C

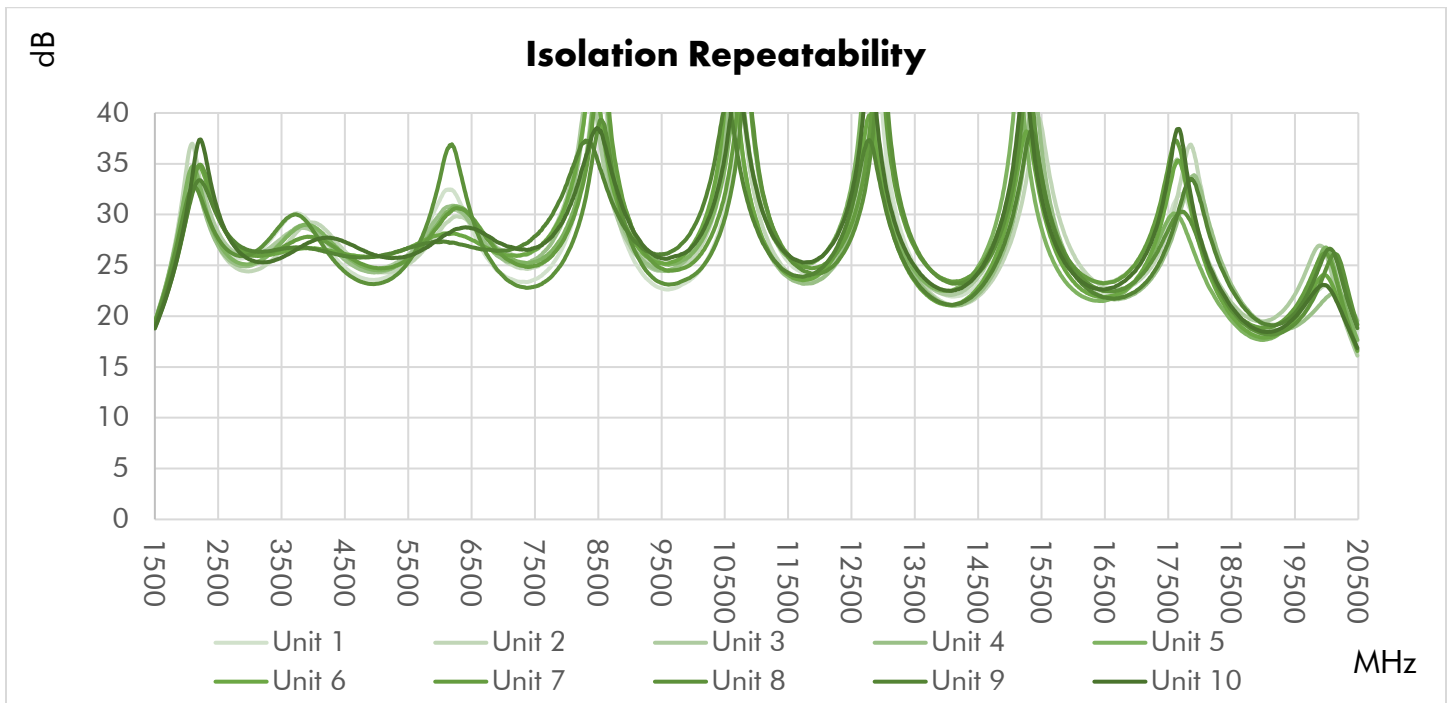






Repeatability in Production

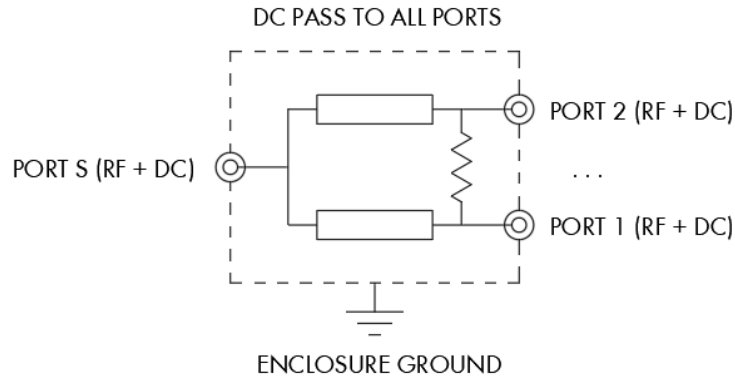




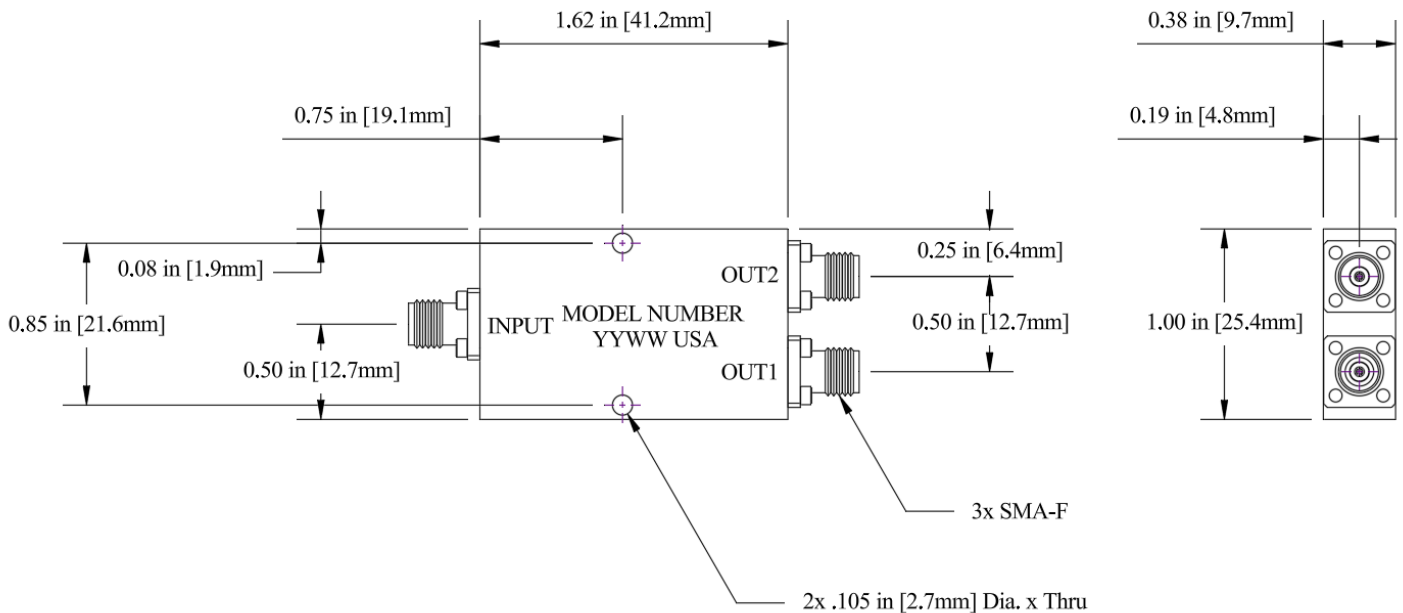
Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)
	Port S	Port 1	Port 2	S-1	S-2	
1500	13.83	17.83	18.13	3.32	3.31	19.62
2000	17.41	19.96	20.73	3.23	3.22	31.91
2500	20.22	23.94	25.50	3.22	3.21	27.40
3000	21.43	28.16	29.79	3.23	3.23	25.83
3500	20.47	25.16	25.89	3.24	3.24	28.89
4000	17.63	21.28	22.52	3.30	3.29	28.72
4500	16.41	20.11	21.94	3.36	3.35	24.77
5000	17.63	21.65	24.29	3.35	3.34	23.58
5500	21.83	25.81	31.32	3.30	3.29	25.58
6000	24.20	24.70	29.33	3.29	3.29	31.44
6500	21.51	21.90	25.35	3.33	3.33	28.62
7000	24.26	23.32	28.06	3.34	3.34	24.07
7500	32.92	23.07	27.31	3.32	3.31	23.62
8000	19.11	17.71	19.97	3.40	3.39	27.58
8500	16.86	16.01	18.11	3.50	3.48	42.04
9000	21.17	18.83	21.35	3.40	3.41	26.28
9500	28.39	28.14	37.22	3.39	3.42	22.73
10000	18.18	20.87	22.75	3.48	3.52	23.82
10500	18.20	19.66	22.15	3.45	3.49	30.34
11000	24.69	26.86	32.91	3.39	3.44	35.27
11500	17.96	22.12	22.17	3.52	3.56	25.36
12000	15.60	18.71	19.65	3.58	3.61	24.39
12500	18.58	22.10	24.17	3.46	3.49	28.91
13000	19.34	23.26	22.10	3.48	3.53	39.34
13500	16.66	18.21	17.71	3.60	3.66	25.01
14000	19.73	19.19	19.63	3.53	3.59	22.03
14500	44.05	27.48	29.78	3.47	3.53	23.16
15000	25.98	22.83	22.55	3.52	3.58	30.01
15500	31.11	19.16	20.32	3.52	3.58	33.75
16000	23.86	20.24	22.76	3.56	3.61	24.35
16500	21.93	26.62	30.53	3.60	3.64	22.11
17000	34.51	22.94	24.44	3.55	3.60	23.44
17500	17.30	16.24	16.79	3.71	3.76	29.44
18000	14.35	15.15	15.16	3.90	3.94	27.49
18500	17.95	18.39	18.24	3.71	3.74	20.38
19000	18.16	17.71	17.82	3.72	3.75	18.04
19500	12.49	12.78	12.53	4.12	4.15	19.39
20000	12.40	10.86	10.81	4.19	4.19	24.65
20500	18.75	10.88	11.53	3.97	3.87	18.39

Simplified Electrical Schematic



Outline Dimensions



Outline drawing: OL-2018

Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals: ± 0.03 . 3-pl decimals: ± 0.015 .

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