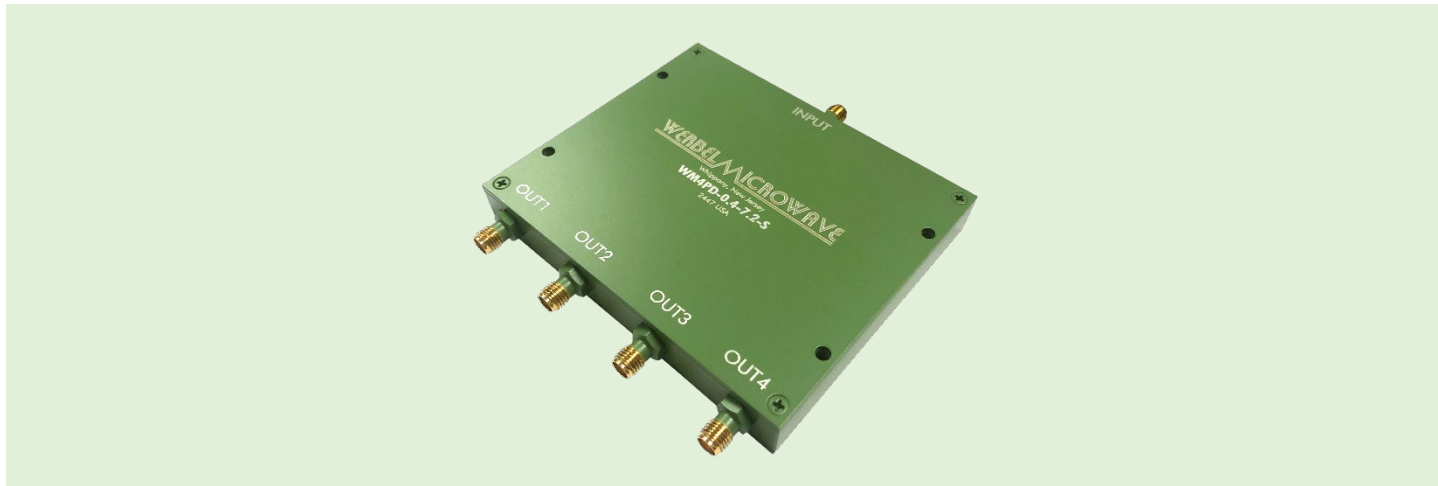


Power Divider, 4-way, 0.4-7.2GHz, SMA Female

WM4PD-0.4-7.2-S



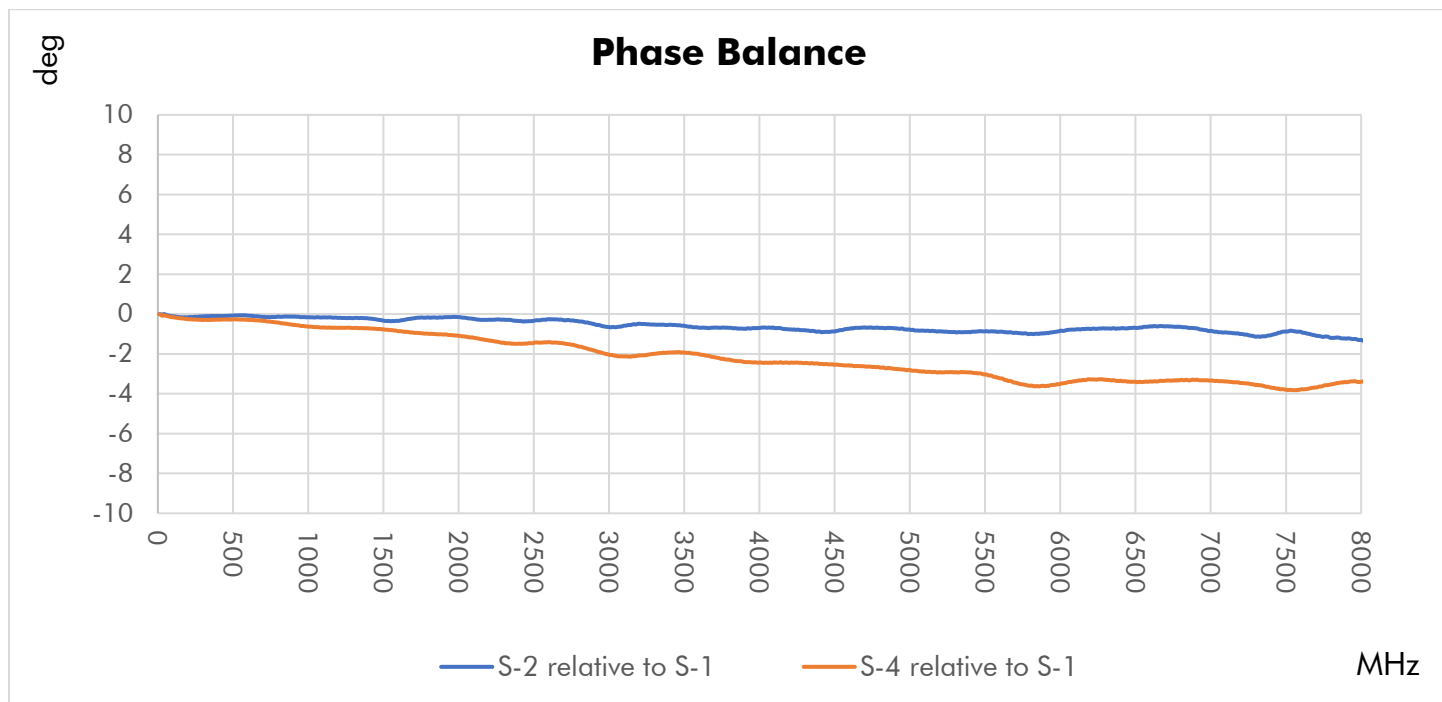
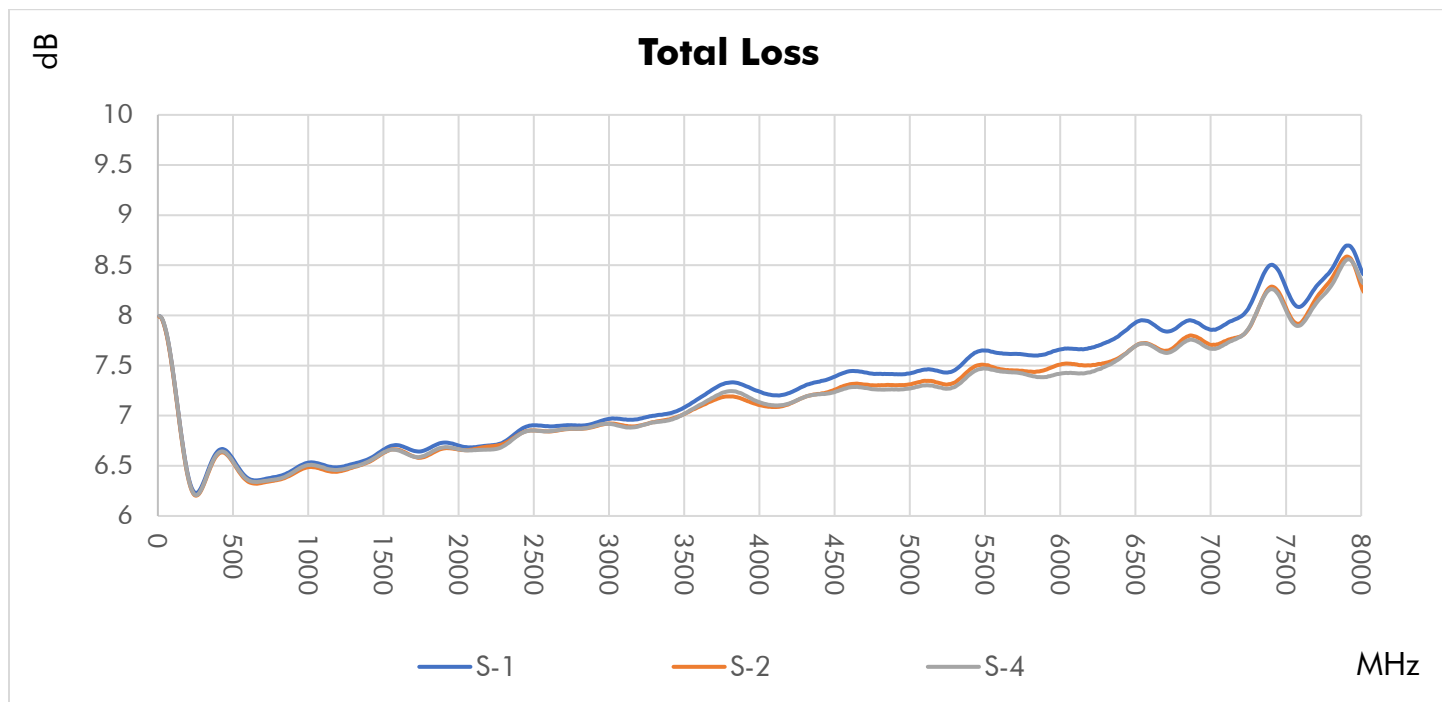
Parameter	Low Band	Mid Band	High Band	Unit
Frequency Range	400-600	600-6000	6000-7200	MHz
Impedance	50			Ω
Return Loss (Port S)	9.5	12	12	dB, min.
Return Loss (Port 1-4)	15	16	16	dB, min.
Insertion Loss above 6.02dB	1.0	2.3	2.7	dB, max.
Isolation	15	16	15	dB, min.
Amplitude Unbalance ($\pm$) ¹	0.2	0.5	0.8	dB, max.
Phase Unbalance ($\pm$) ¹	2	10	14	Degree, max.
Input Power (CW) ²	30			W, max.
Combining Power (CW) ²	0.5			W/port, max.
DC Current	0.18			A/port, max.

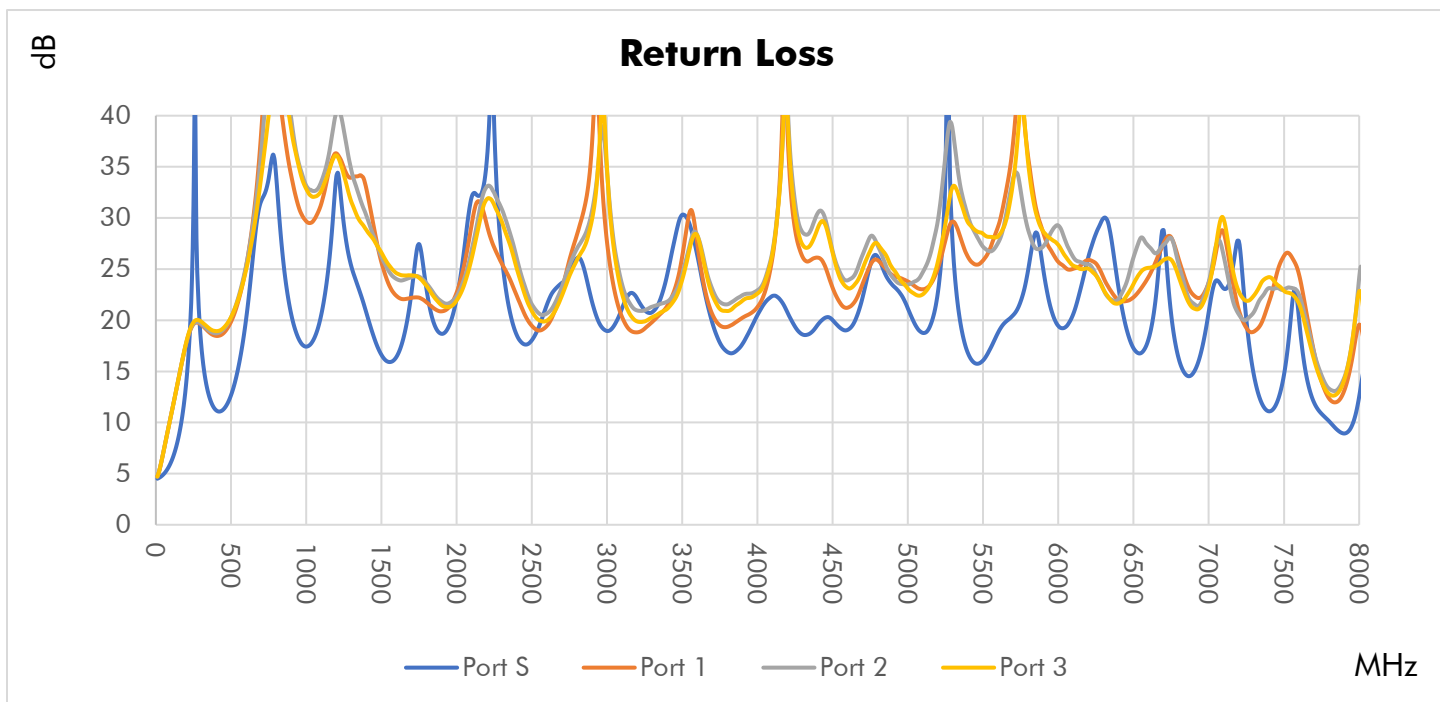
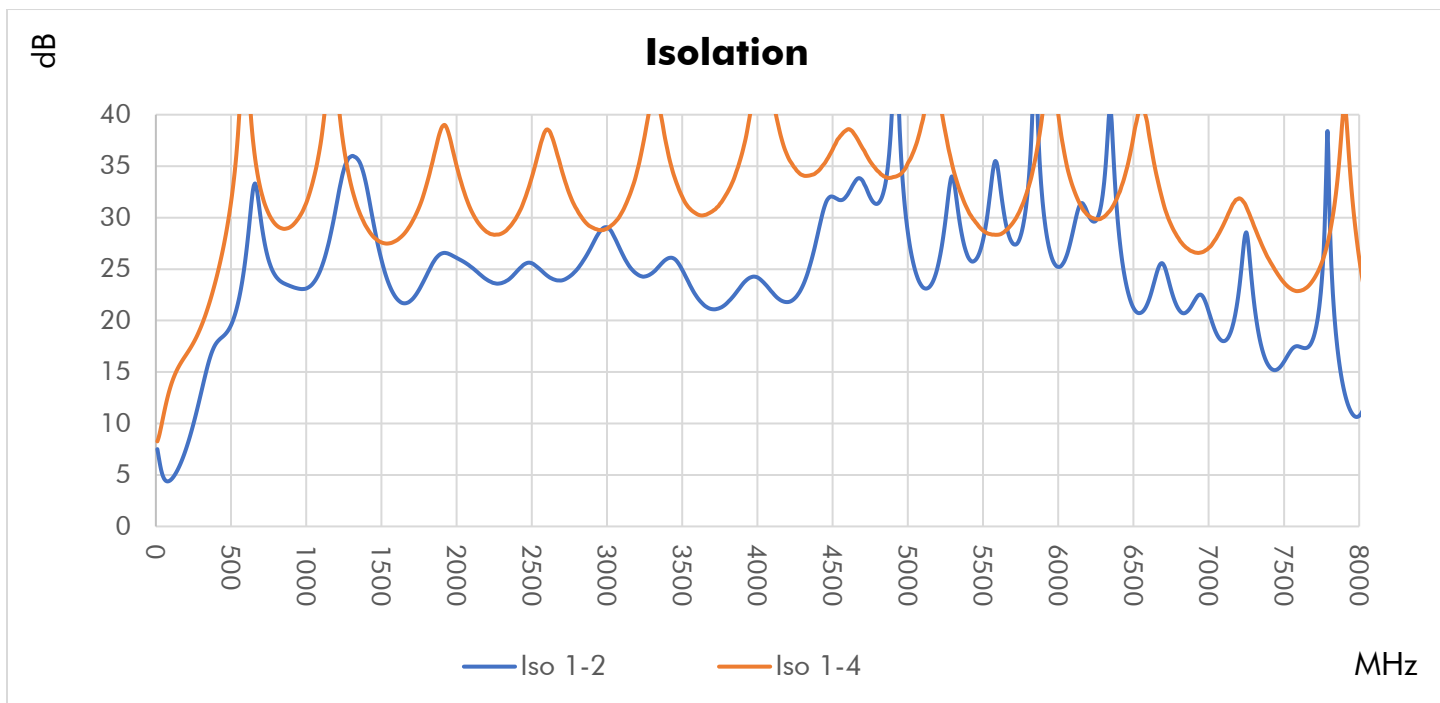
Connector Interface	SMA Female
Operating Temperature ³	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Nominal Weight	170 g (6.0 oz)
Operating Humidity	10-90% (non-condensing)
Operating Environment	Indoor Use Only
HTSUS Code	8548.00.0000
ECCN	EAR99

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

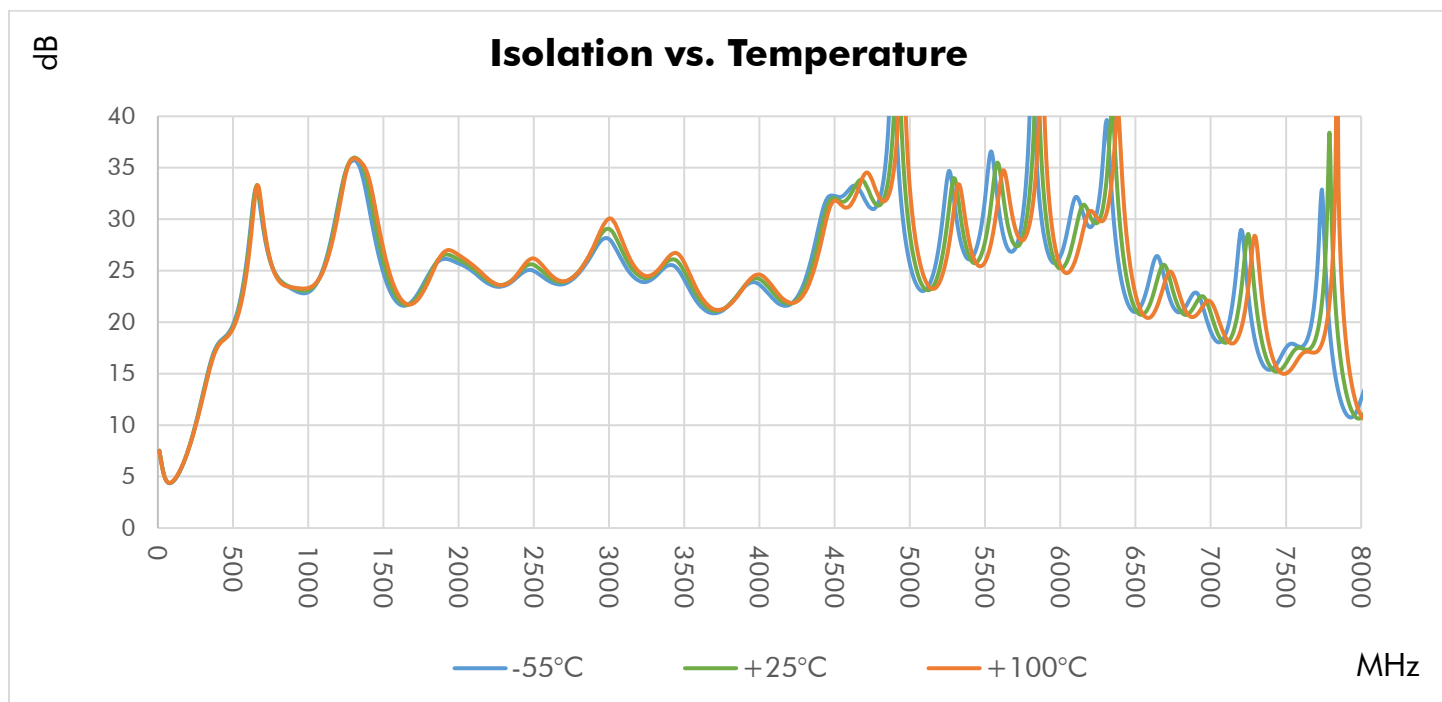
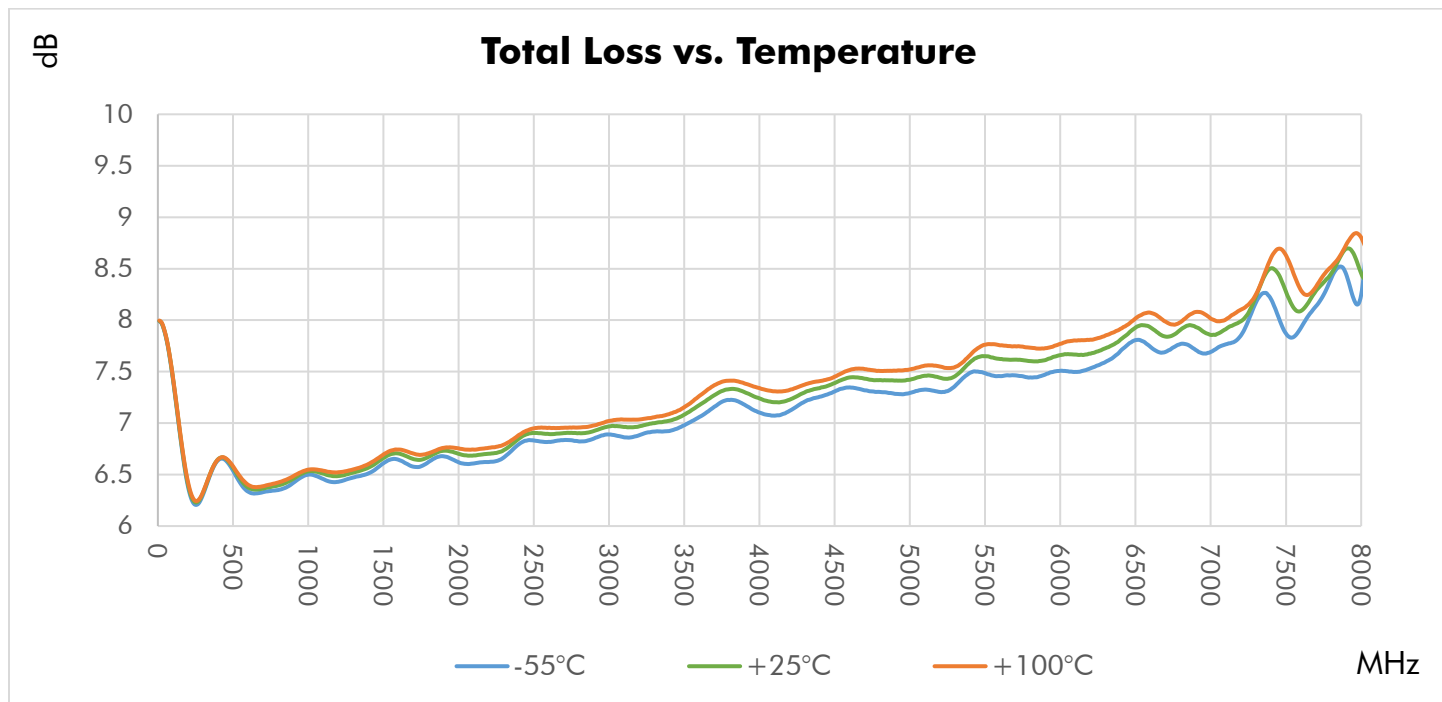
1. With reference to average.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
3. Electrical specifications are tested at +25 °C.
4. To the best of our knowledge at the time of publication.

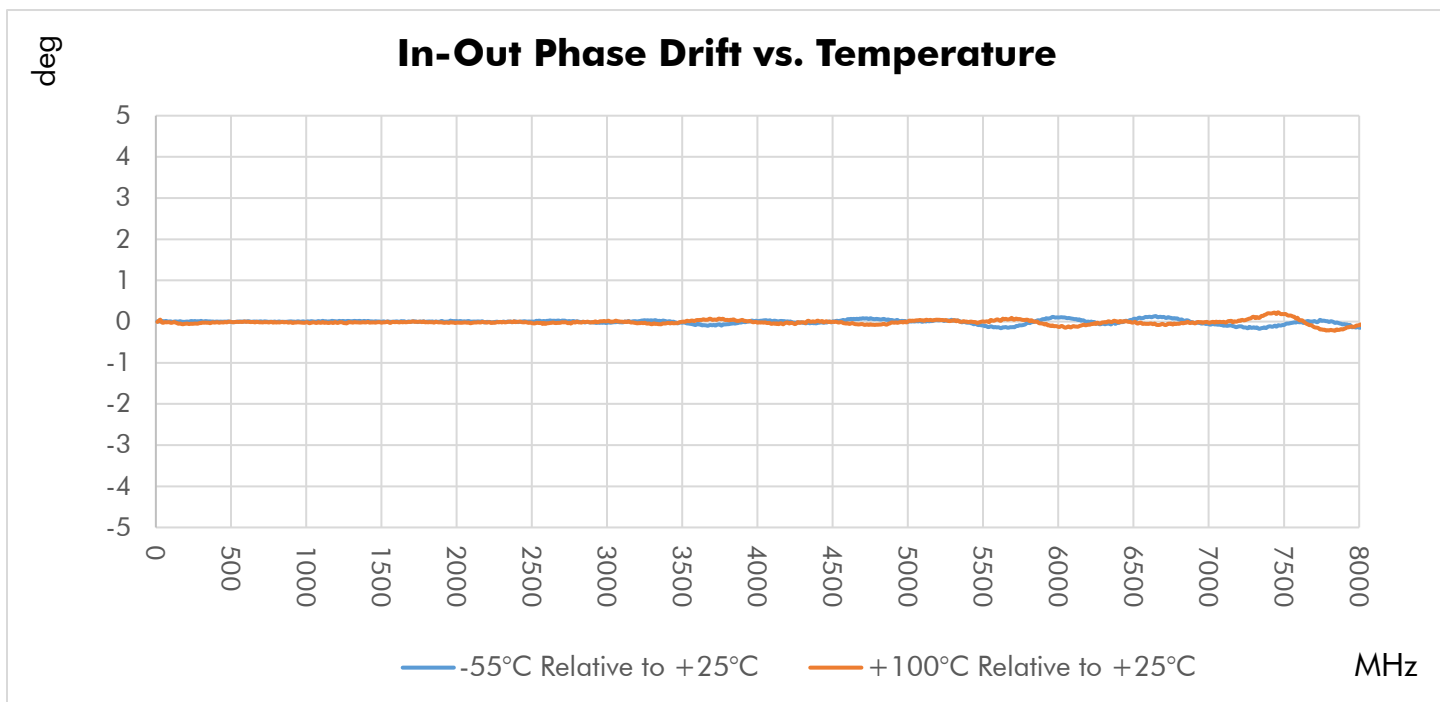
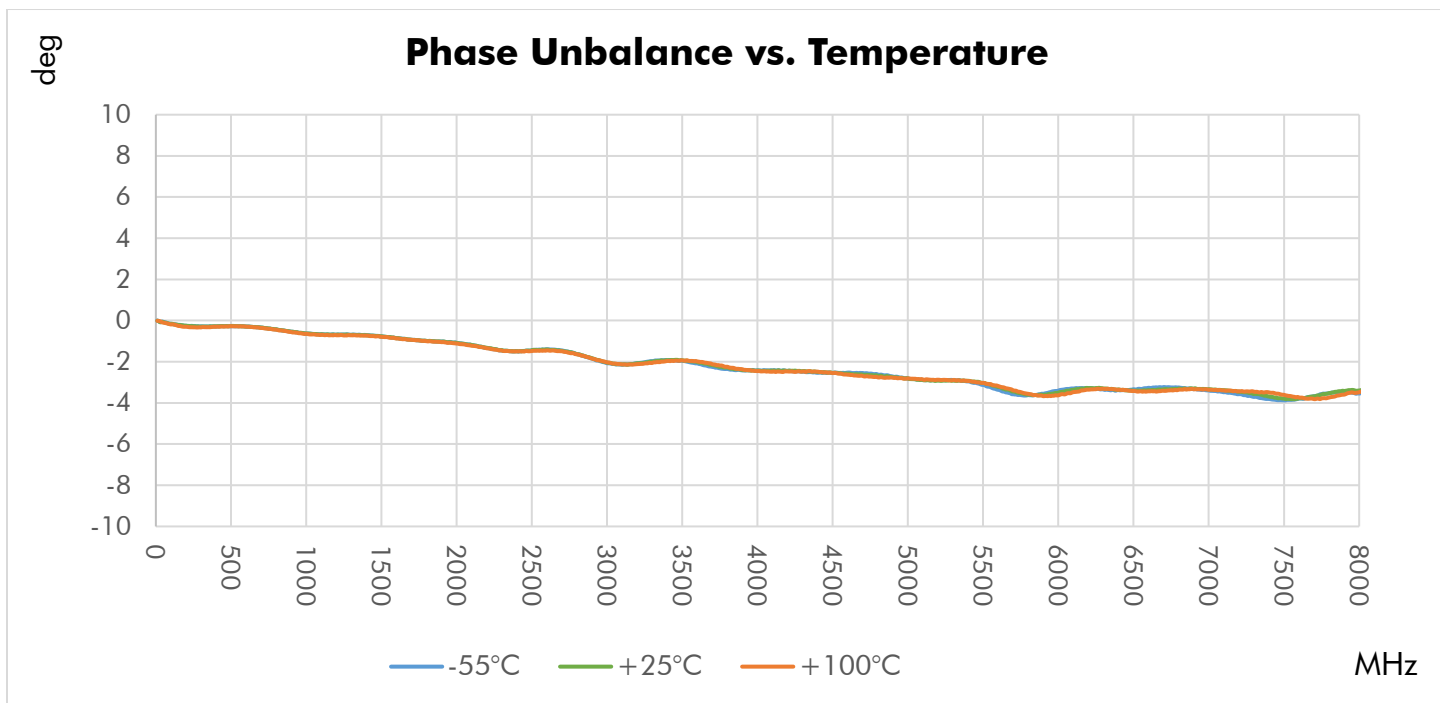
Typical Performance at +25 °C





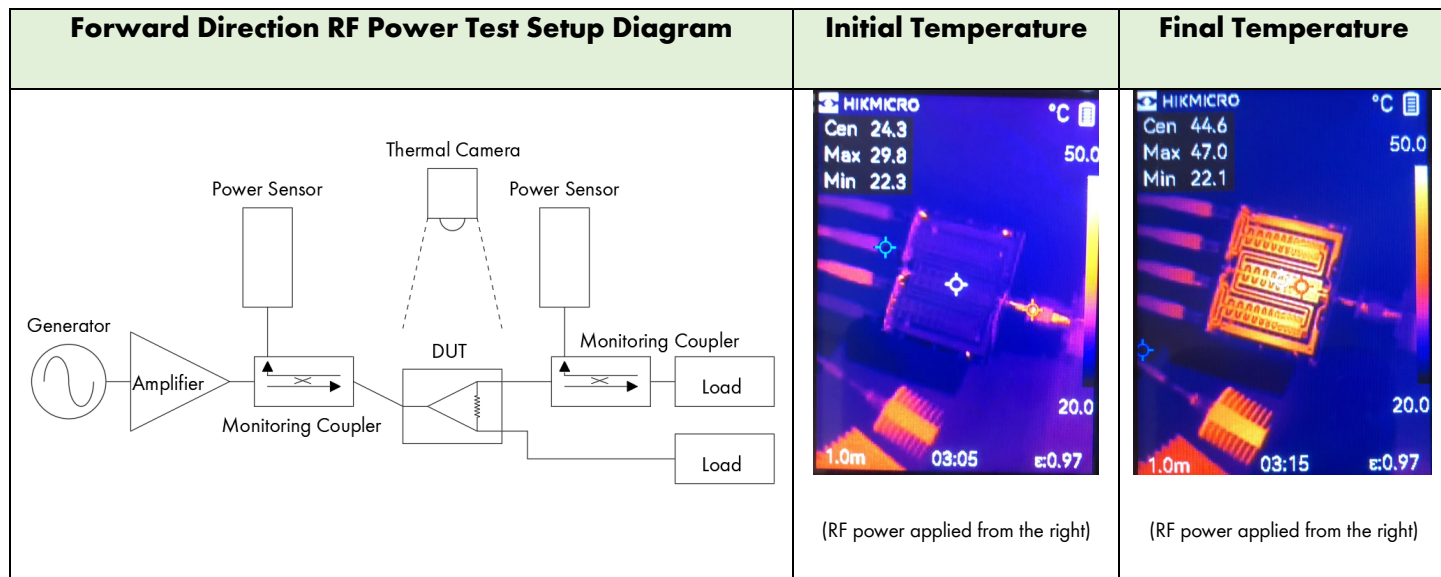
Typical Performance Over Temperature



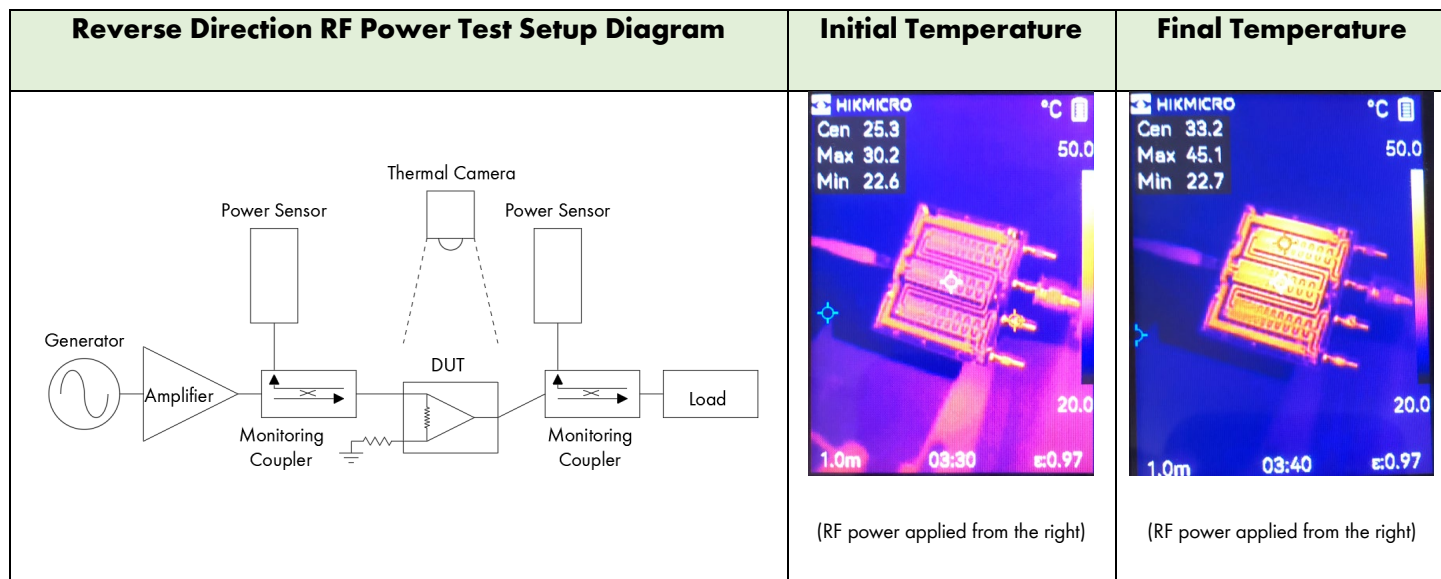


Reliability Testing

RF power test was performed to determine the input power required to produce a nominal temperature rise of 20°C at the hottest point. The test was performed at room temperature without forced air. A heatsink was not used unless it came standard with the product.

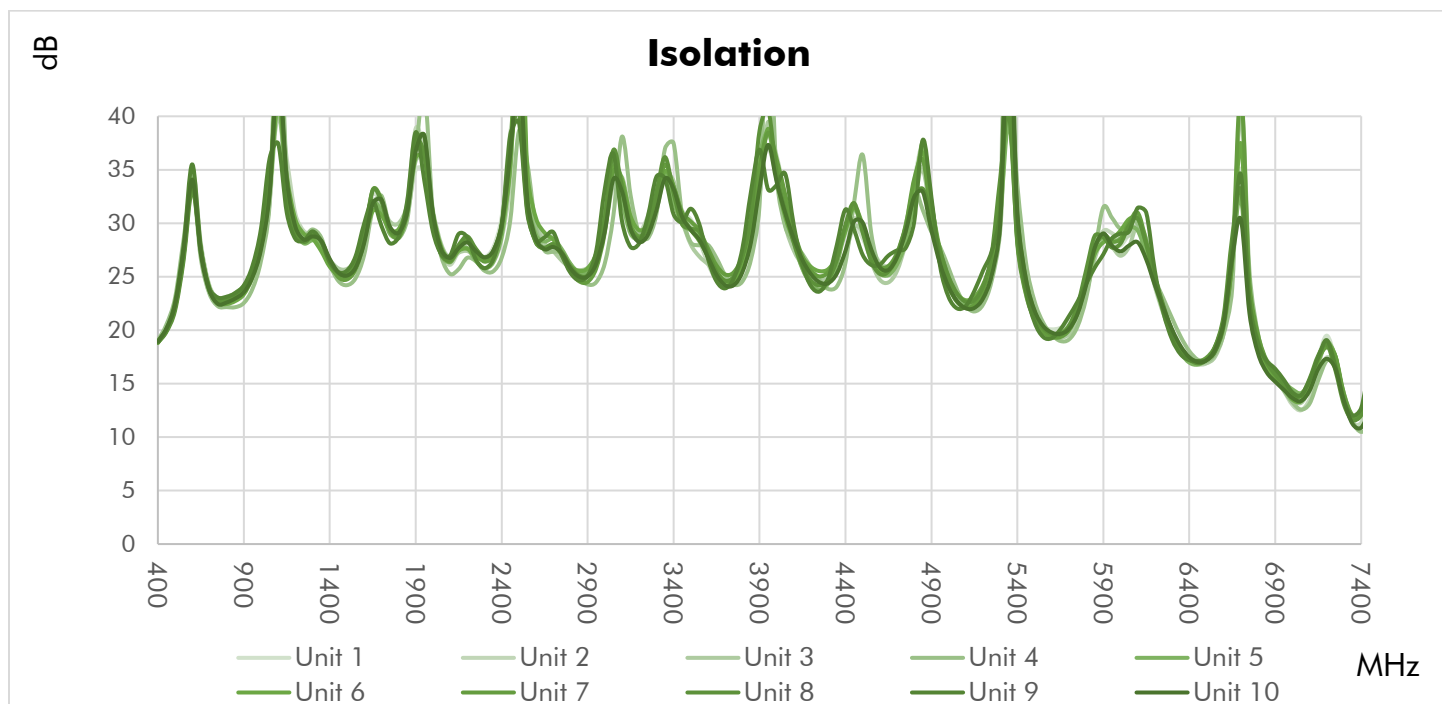
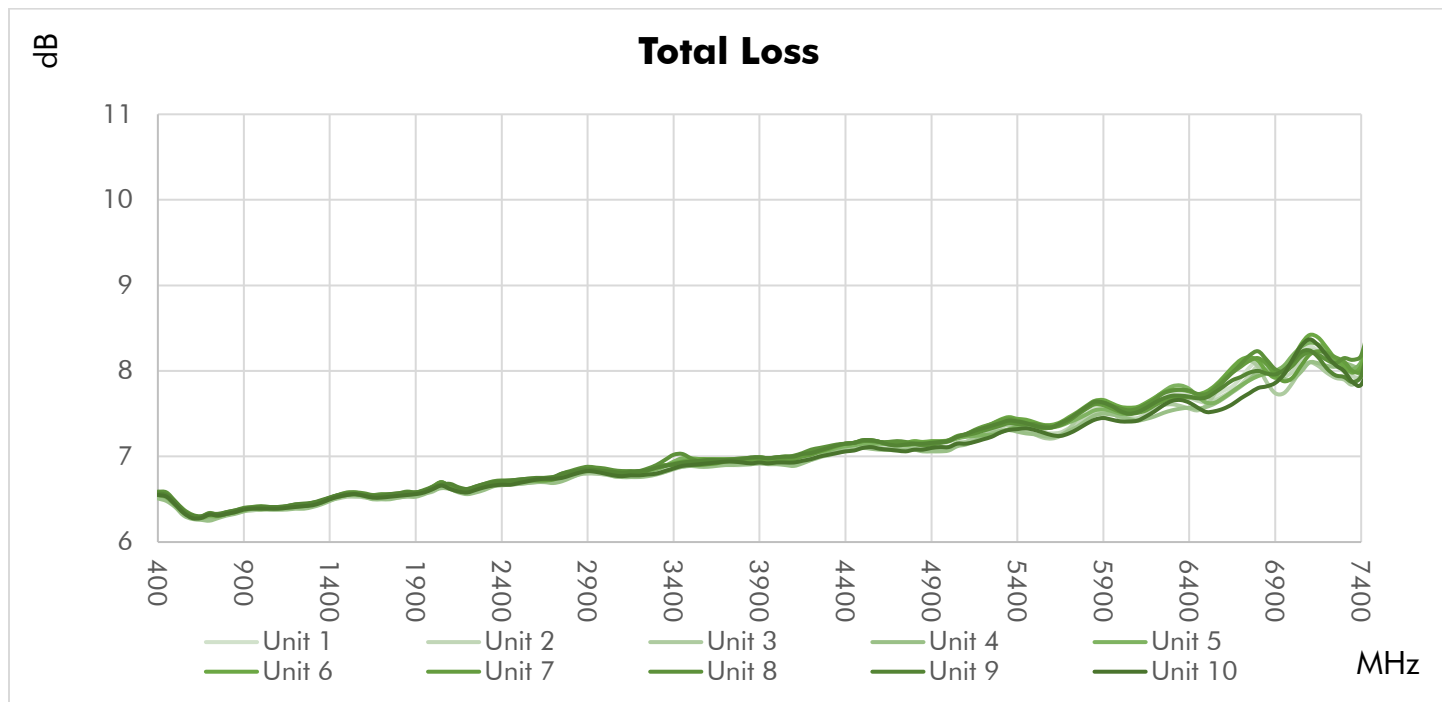


- 60 watts CW at 500MHz was applied to the DUT input for a duration of 10 minutes.
- The DUT temperature increased from 24.3°C (initial, center marker) to 47.0°C (final, max marker), resulting in a 22.7°C rise.



- 2.5 watts CW at 500MHz was applied to the DUT output for a duration of 10 minutes.
- The DUT temperature increased from 25.3°C (initial, center marker) to 45.1°C (final, max marker), resulting in a 19.8°C rise.

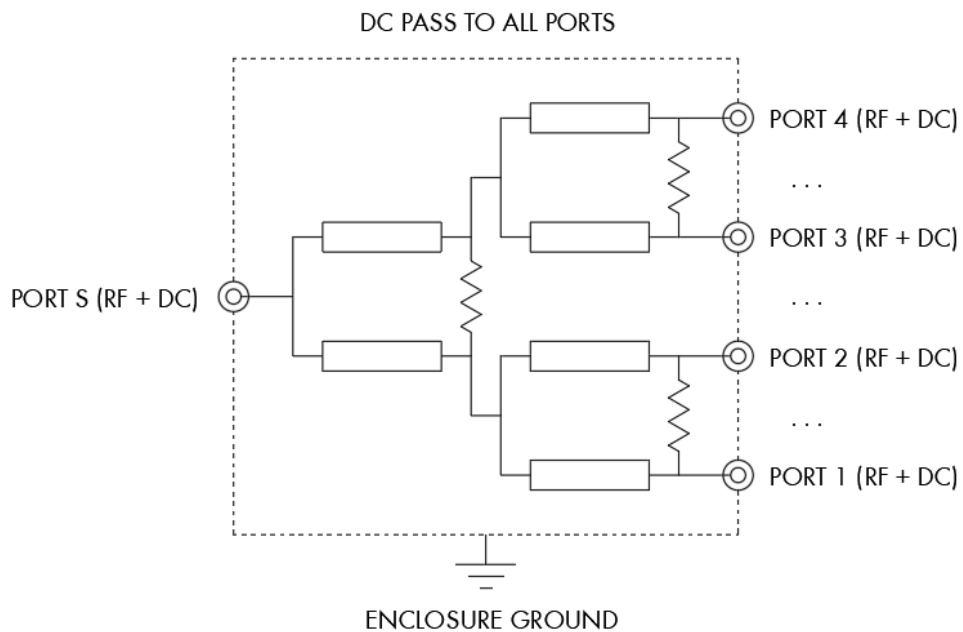
Repeatability in Production



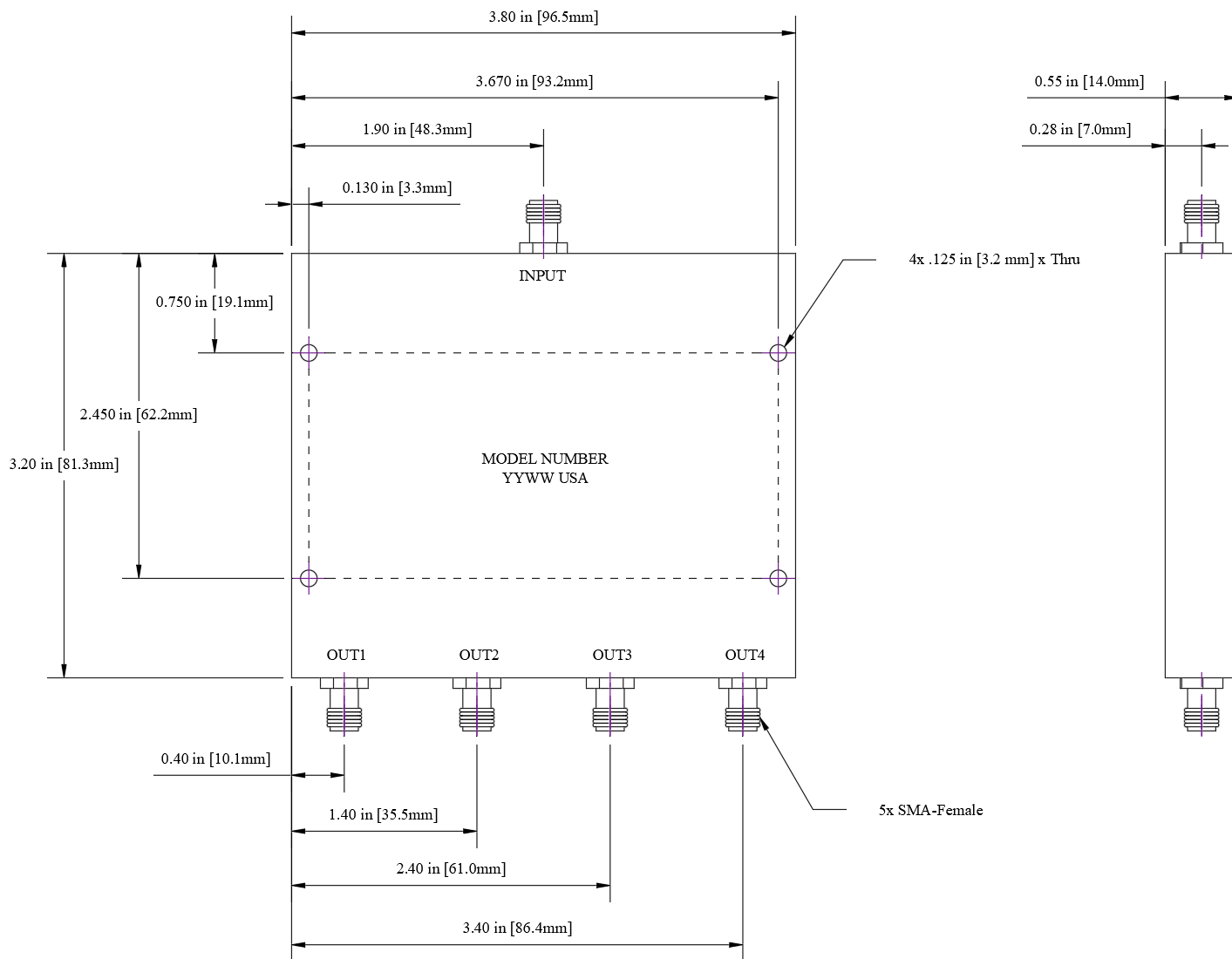
Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)	
	Port S	Port 1	Port 4	S-1	S-4	1-2	1-4
400	11.5	19.7	19.6	6.56	6.59	16.6	26.2
600	21.0	27.6	28.1	6.31	6.34	25.1	53.0
800	31.0	37.9	30.5	6.32	6.36	24.5	29.8
1000	16.0	29.9	25.6	6.49	6.53	22.6	31.8
1200	29.8	37.6	35.0	6.42	6.44	37.4	48.3
1400	21.1	30.1	33.8	6.49	6.51	38.0	32.1
1600	16.0	25.5	24.2	6.63	6.65	25.9	30.5
1800	25.3	24.8	24.7	6.58	6.57	27.0	34.3
2000	21.2	25.3	26.9	6.63	6.64	25.2	43.9
2200	30.2	32.8	30.6	6.61	6.62	32.0	32.8
2400	18.8	25.3	24.1	6.72	6.73	27.7	33.3
2600	22.4	27.2	27.6	6.74	6.75	28.0	43.2
2800	25.9	34.2	35.1	6.80	6.82	34.4	36.2
3000	19.6	31.0	29.0	6.86	6.86	33.3	33.2
3200	35.4	29.5	26.8	6.79	6.80	36.1	37.0
3400	24.8	27.2	27.9	6.83	6.85	28.3	42.1
3600	25.0	25.3	25.4	6.94	6.94	26.4	35.2
3800	19.4	24.5	22.4	7.05	7.05	27.5	33.7
4000	22.4	29.2	32.8	6.99	7.01	28.0	38.1
4200	22.8	28.9	24.7	6.98	7.00	27.4	42.0
4400	18.1	27.3	20.8	7.10	7.12	27.8	35.6
4600	22.8	32.6	23.9	7.13	7.16	31.6	33.7
4800	31.1	31.4	33.4	7.19	7.17	32.2	35.3
5000	20.2	20.9	21.7	7.20	7.18	26.6	38.2
5200	21.4	24.4	20.0	7.20	7.22	22.8	34.1
5400	20.9	40.9	27.9	7.30	7.29	29.1	33.1
5600	24.8	29.9	27.7	7.37	7.38	29.4	32.9
5800	23.7	39.8	30.0	7.37	7.36	26.8	32.2
6000	32.9	35.7	27.7	7.30	7.30	27.9	32.6
6200	24.0	25.9	34.3	7.38	7.34	24.6	37.8
6200	24.0	25.9	34.3	7.38	7.34	24.6	37.8
6400	21.9	28.6	24.4	7.52	7.53	28.3	32.9
6600	25.3	24.3	23.4	7.65	7.67	20.4	32.3
6800	18.3	19.7	22.6	7.69	7.62	22.2	32.7
7000	24.1	25.4	28.9	7.55	7.51	21.3	29.1
7200	19.1	24.8	32.0	7.83	7.73	19.8	28.1

Simplified Electrical Schematic



Outline Dimensions



Outline drawing: OL-4724

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

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

The information contained in this document is accurate to the best of our knowledge and representative of the product described herein at the date of publication. It may be necessary to make modifications to the product and/or documentation of the product. Werbel Microwave LLC reserves the right to make such changes as required without notice. Unless otherwise stated, all specifications and dimensions are nominal. Werbel Microwave LLC does not make any representation or warranty regarding the suitability of the product described herein for any particular purpose or application, and Werbel Microwave LLC does not assume any liability arising out of the use of any part of documentation. This document gives only a description of the product(s) and shall not form part of any contract. Please contact a Werbel Microwave LLC Applications Engineer for the most current specification drawing.

Reliability testing was performed as an internal requalification of the product to substantiate the published specifications, which were previously arrived at by calculation and/or similarity to existing products. The results of these tests are provided as a courtesy and shall not form part of a contract or warranty. While reliability tests may depict the product being tested beyond the published specification ratings for the purpose of stress testing the product, this does not imply that the product should be operating above the rated limits for any length of time. Specifications related to reliability (e.g., performance over temperature, power handling, DC current, HI-POT) are "designed to meet" and are not individually tested in production of commercially available products. Please contact a Werbel Microwave LLC Applications Engineer if specific reliability testing is needed on a particular product.