

Resistive Divider, DC-7.2GHz, 2-way, SMA-Female

WMRD02-7.2-S



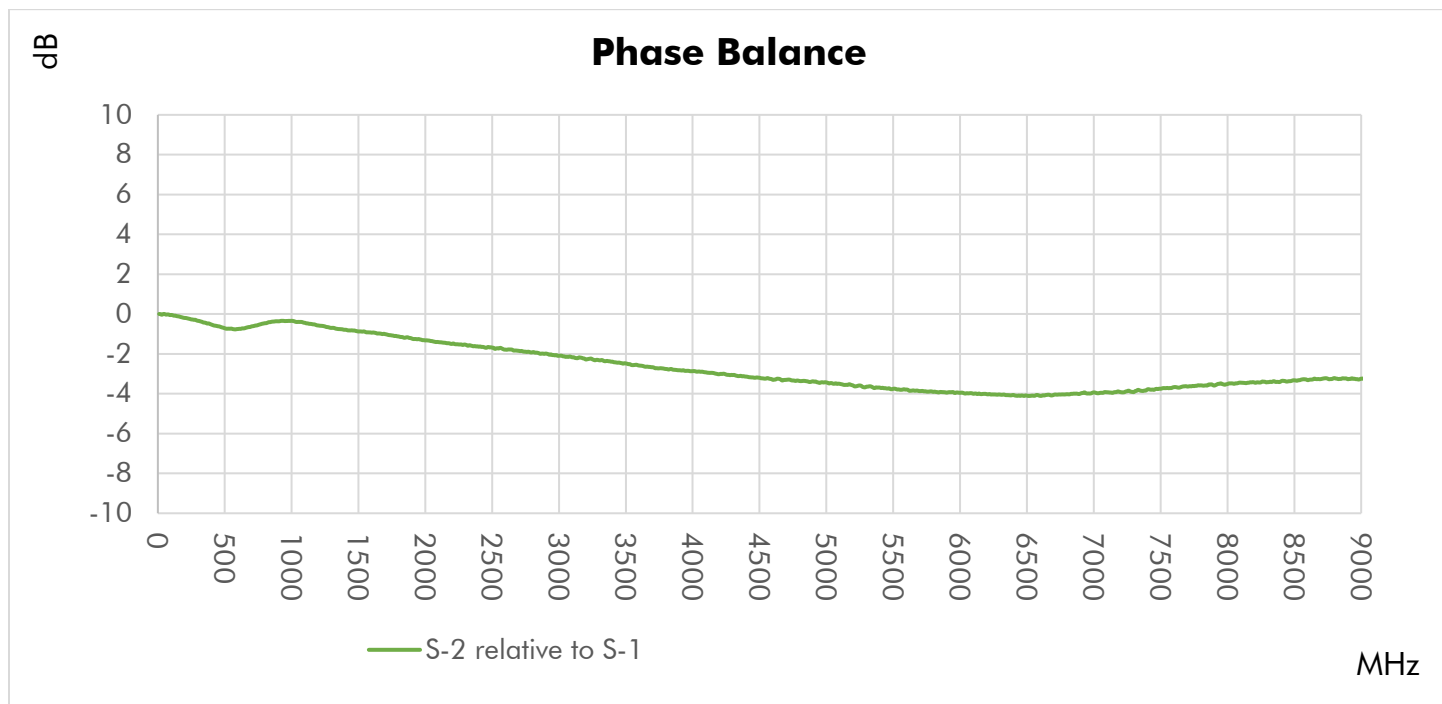
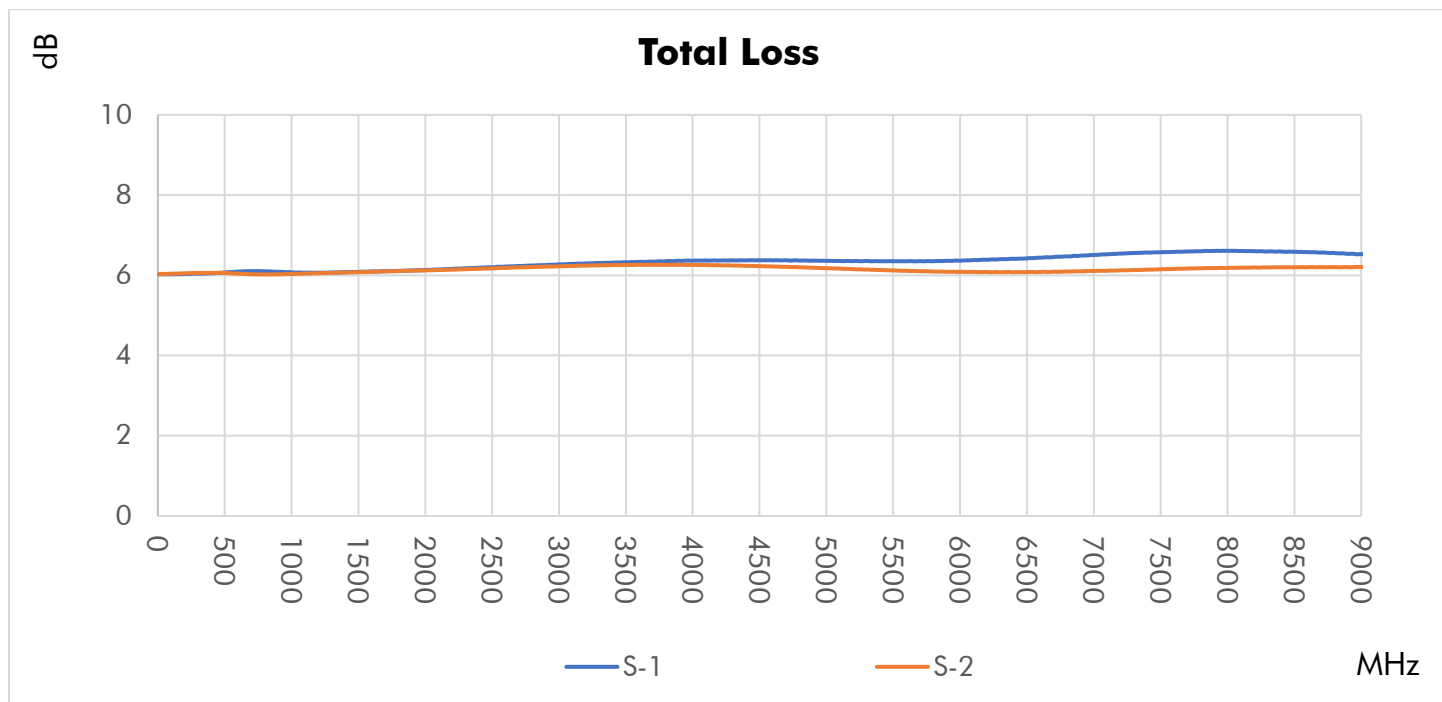
Specifications	Min.	Typ.	Max.	Units
Frequency	DC		7.2	GHz
Impedance		50		Ohm
Return Loss (Port S)	9.5	12		dB
Return Loss (Port 1-2)	9.5	14		dB
Insertion Loss (Total Measured Loss)		6.0	7.0	dB
Isolation		6.0		dB
Input Power (CW) ¹ up to +30°C; derate linearly to +25dBm at +85°C.			+30	dBm

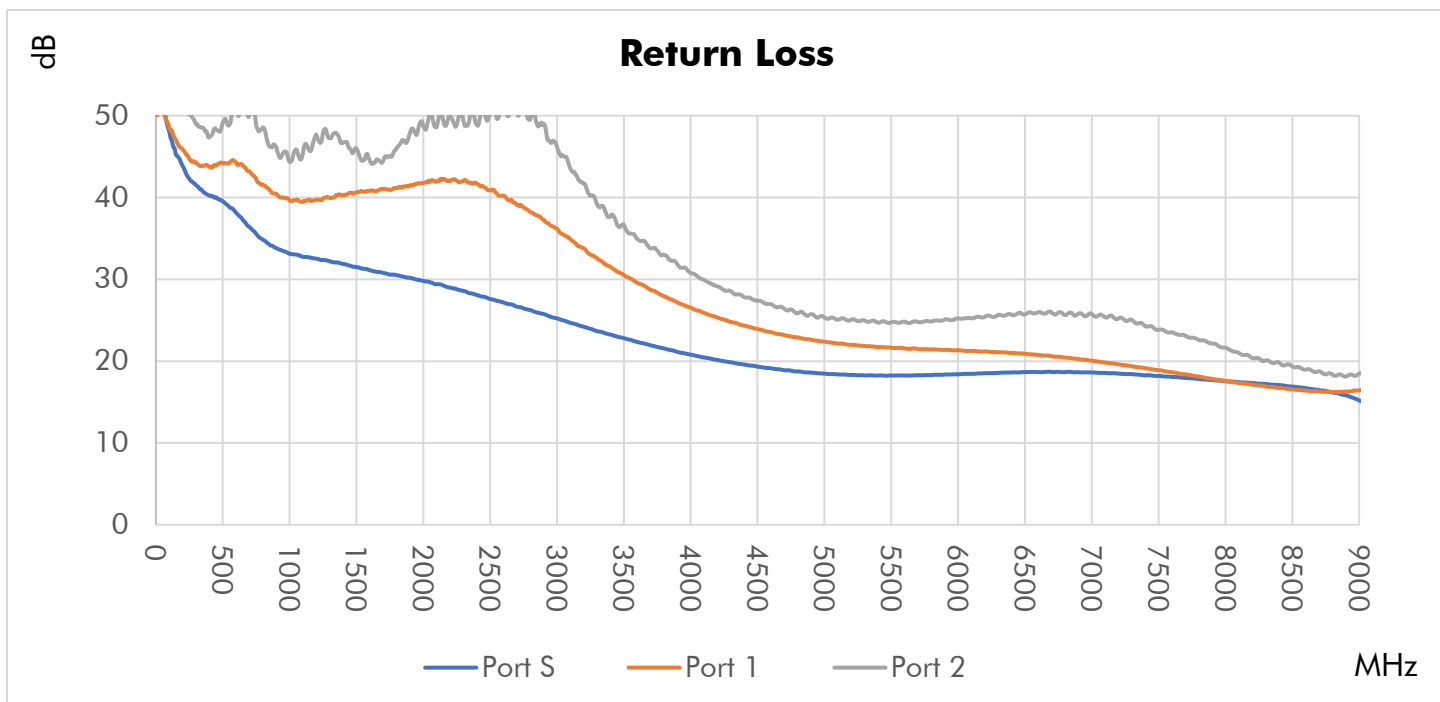
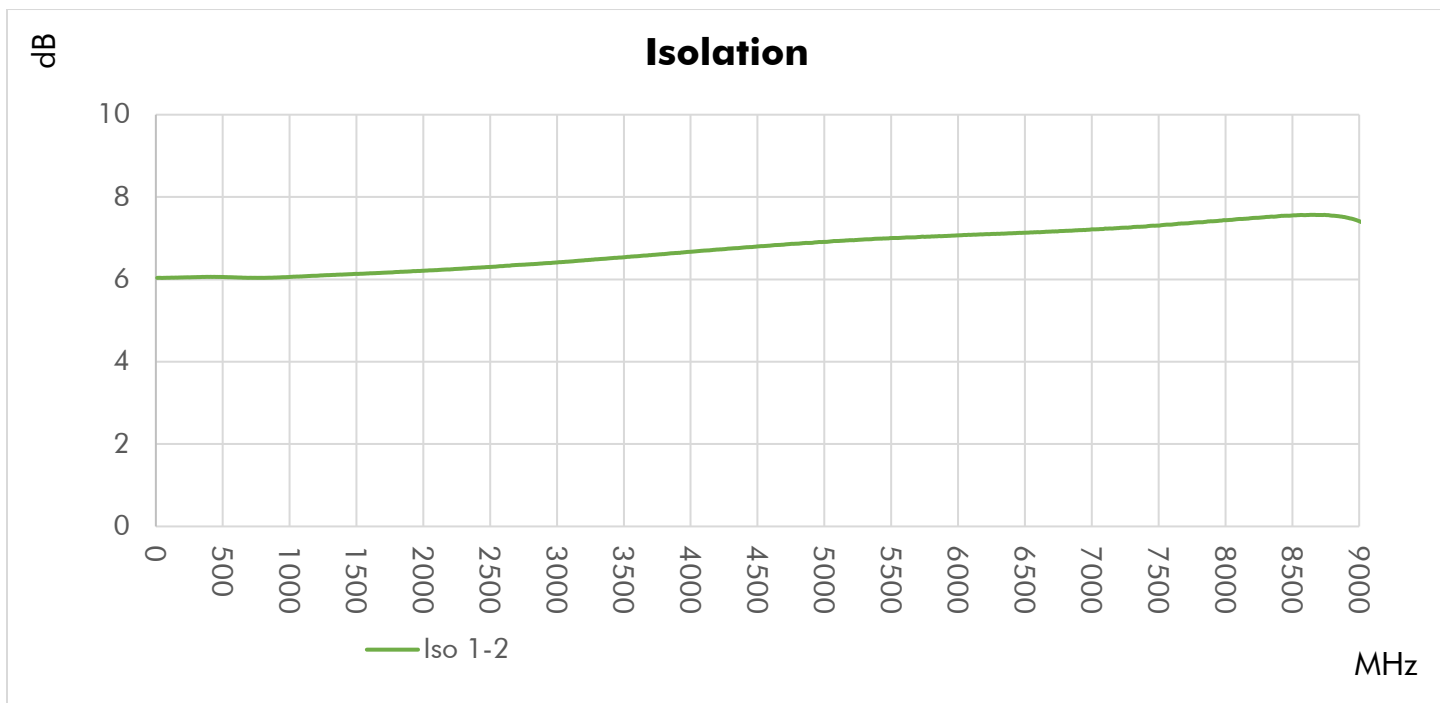
Connector Interface	SMA-Female
Operating Temperature ²	-40 to +85 °C
Storage Temperature	-55 to +100 °C
Nominal Weight	20.6 g (0.73 oz)
Operating Humidity	10-90% (non-condensing)
Operating Environment	Indoor Use Only
CAGE Code	78YZ0

RoHS Status ³	RoHS3 Compliant
REACH Status ³	REACH Unaffected
Enclosure Material	Aluminum
Connectors Material	Brass, Gold Plated
Contacts Material	Beryllium Copper, Gold Plated
Insulators Material	Virgin PTFE
Finish	Green Paint

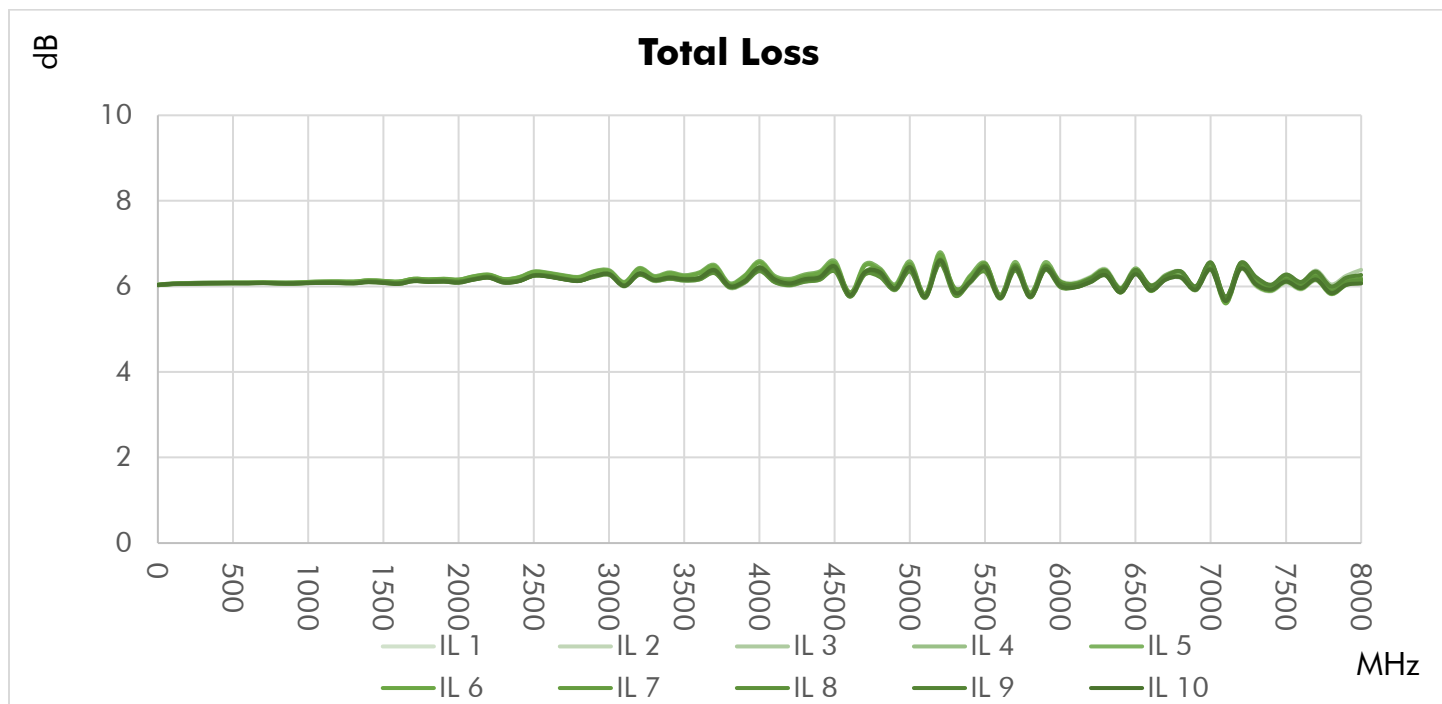
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specifications are tested at +25 °C.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C

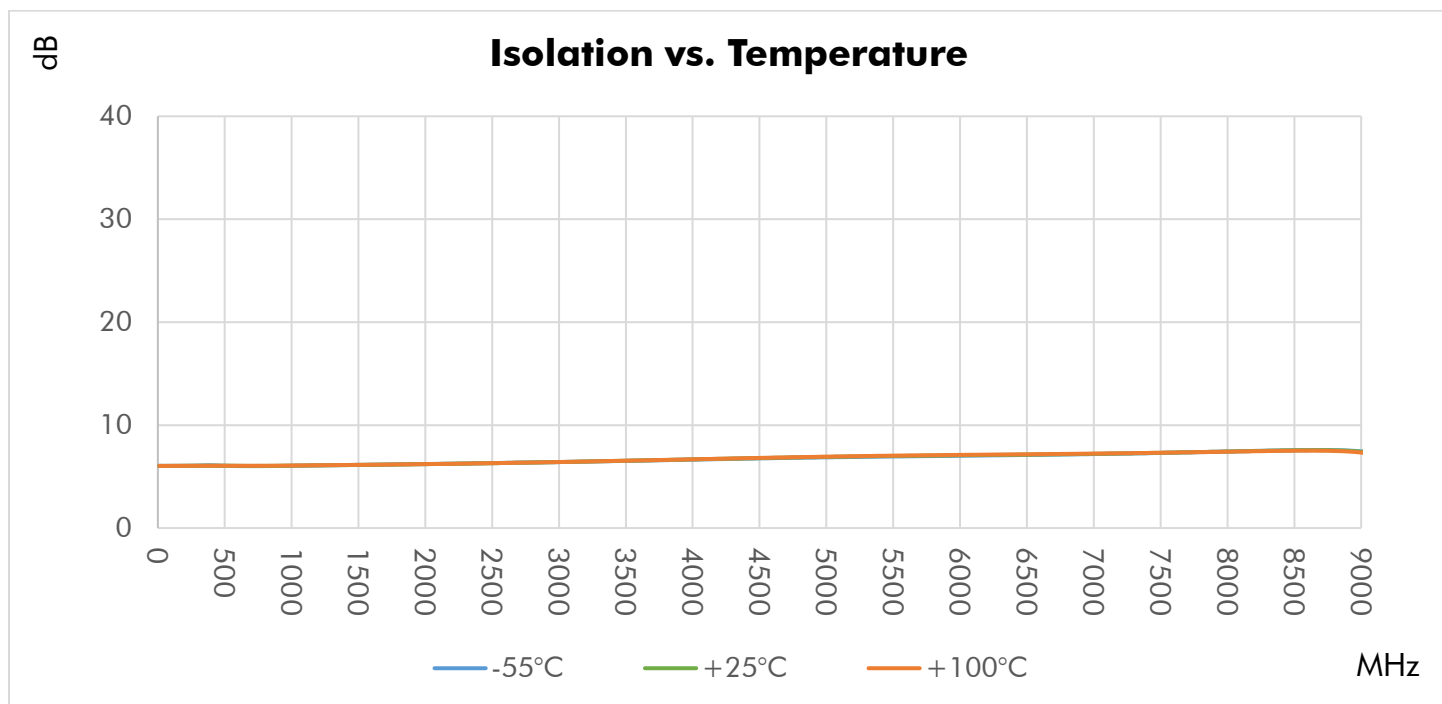
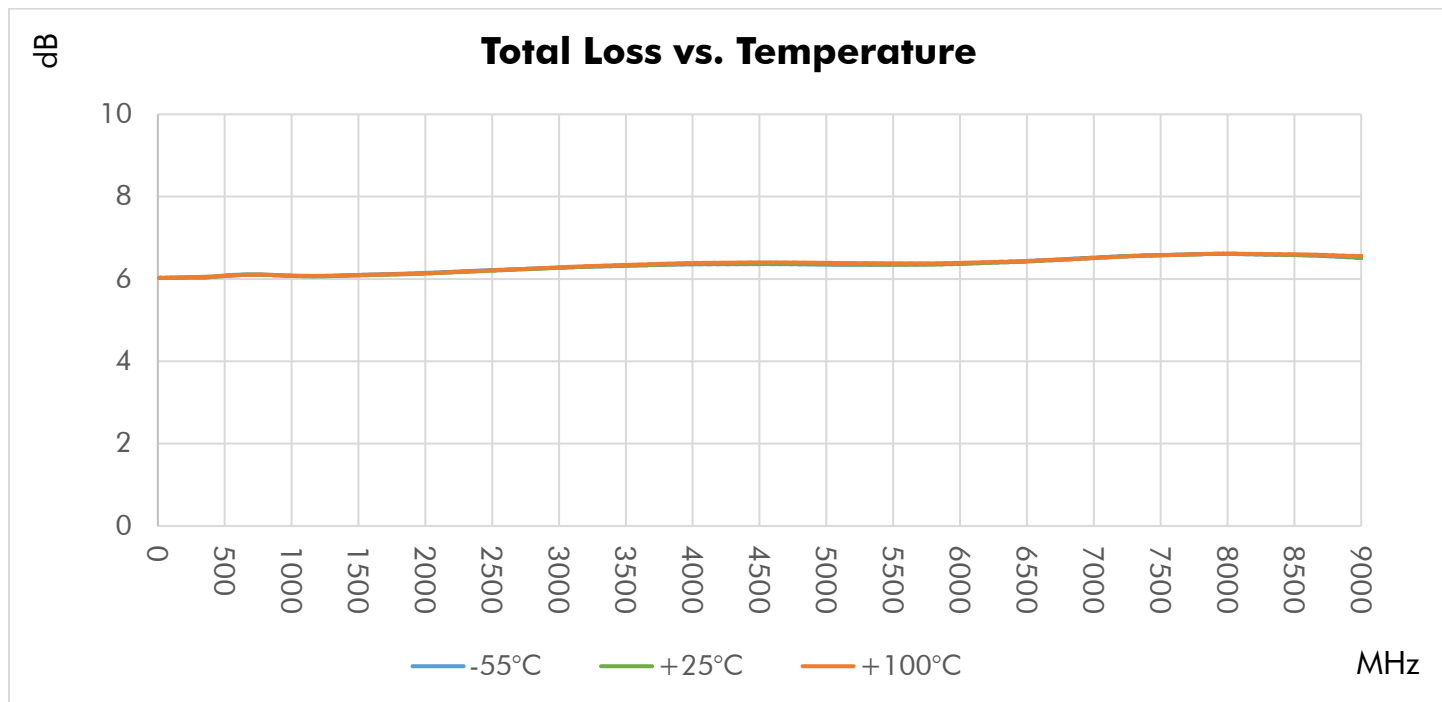


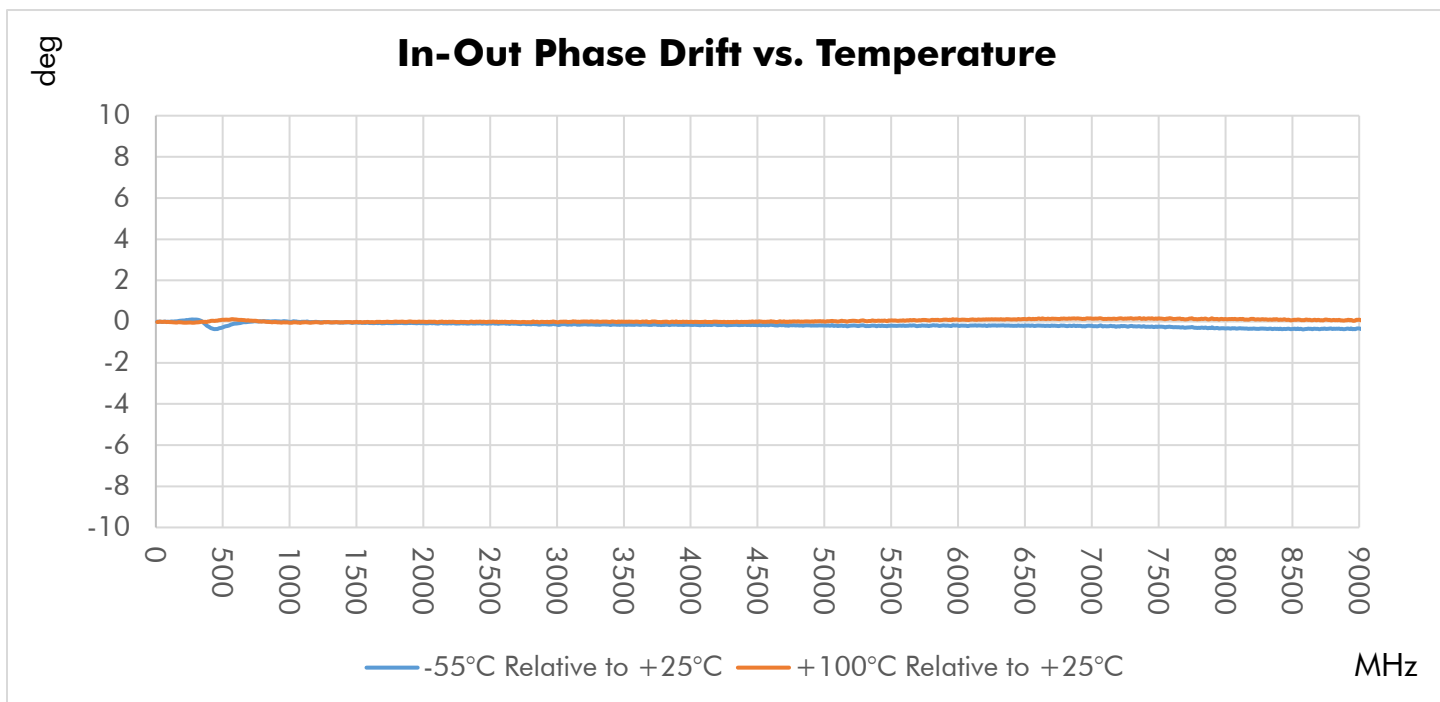
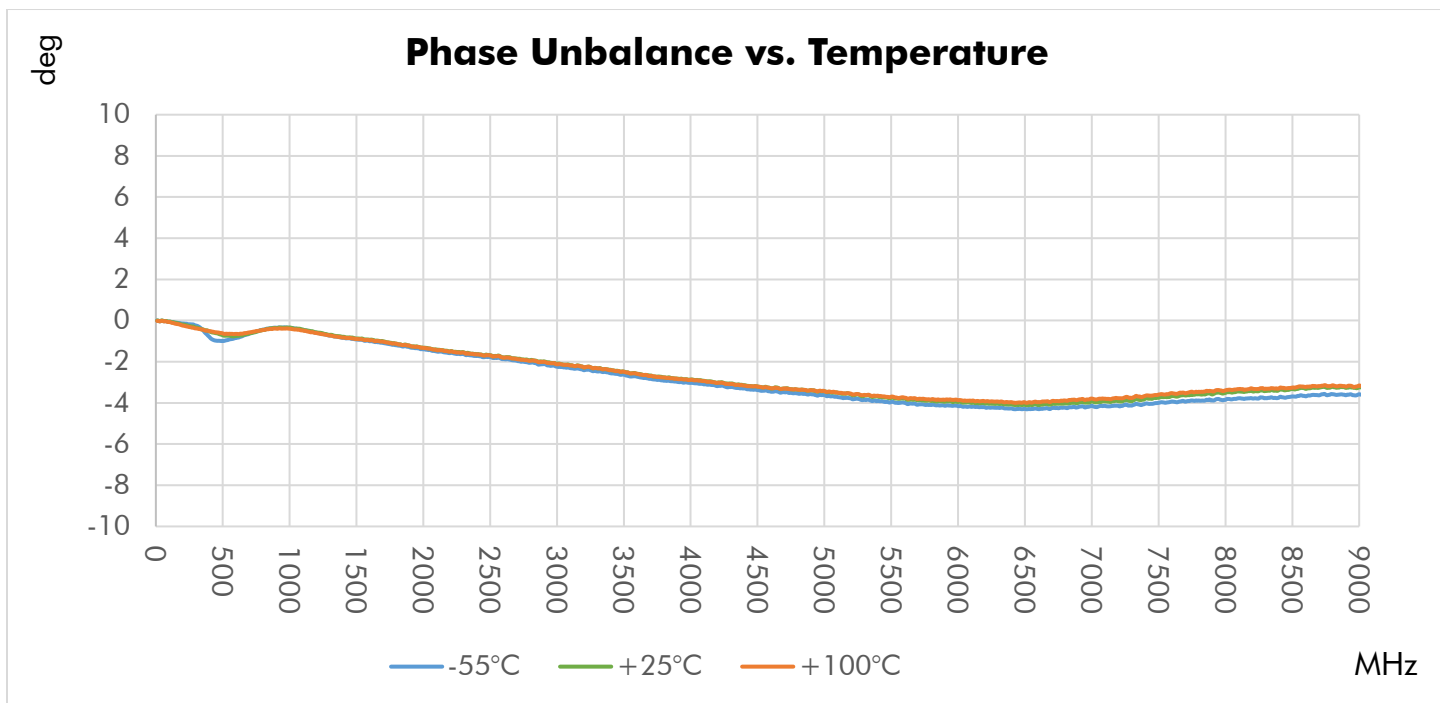


Repeatability in Production



Typical Performance Over Temperature



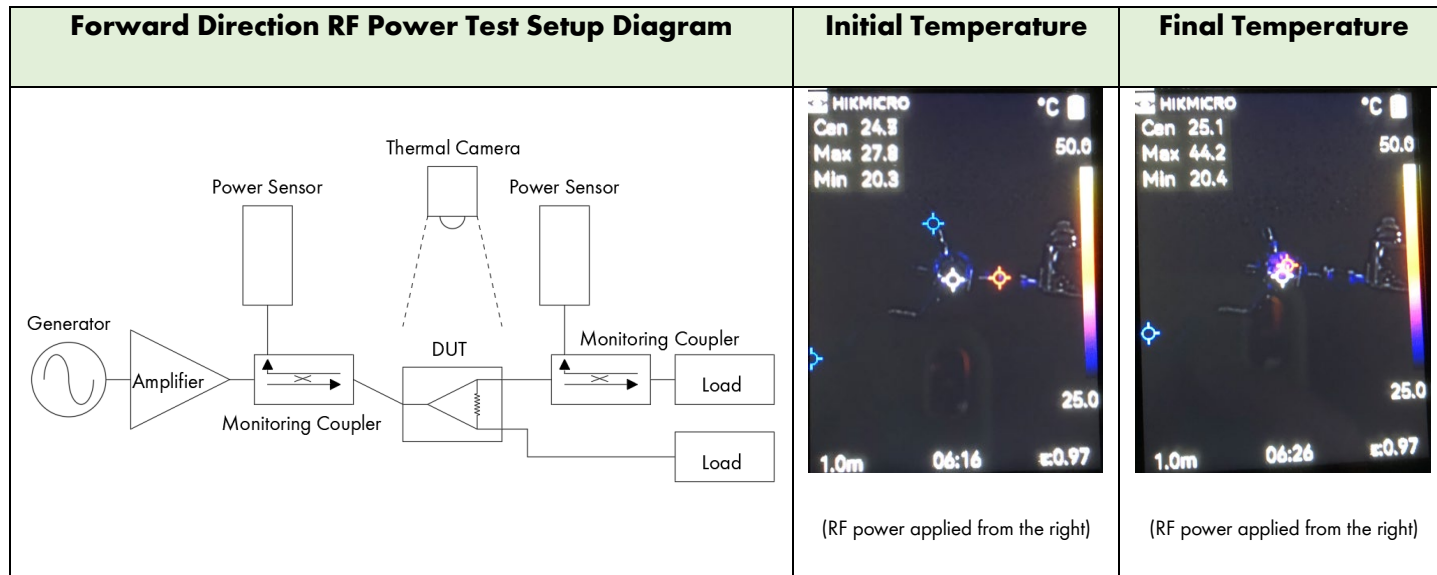


Reliability Testing

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.

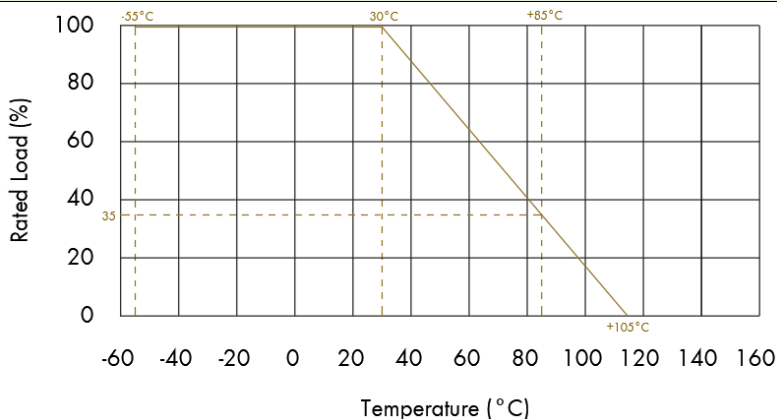
Model WMRD03-7.2-S is shown. Derivative models are arrived at by similarity until they are individually tested.

The test was performed at room temperature without forced air. A heatsink was not used unless it came standard with the product.



- 0.6 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 44.2°C (final, max marker), resulting in a 19.9°C rise.
- 1.0 watt CW at 500MHz produced a rise temperature of 35°C after 10 minutes.

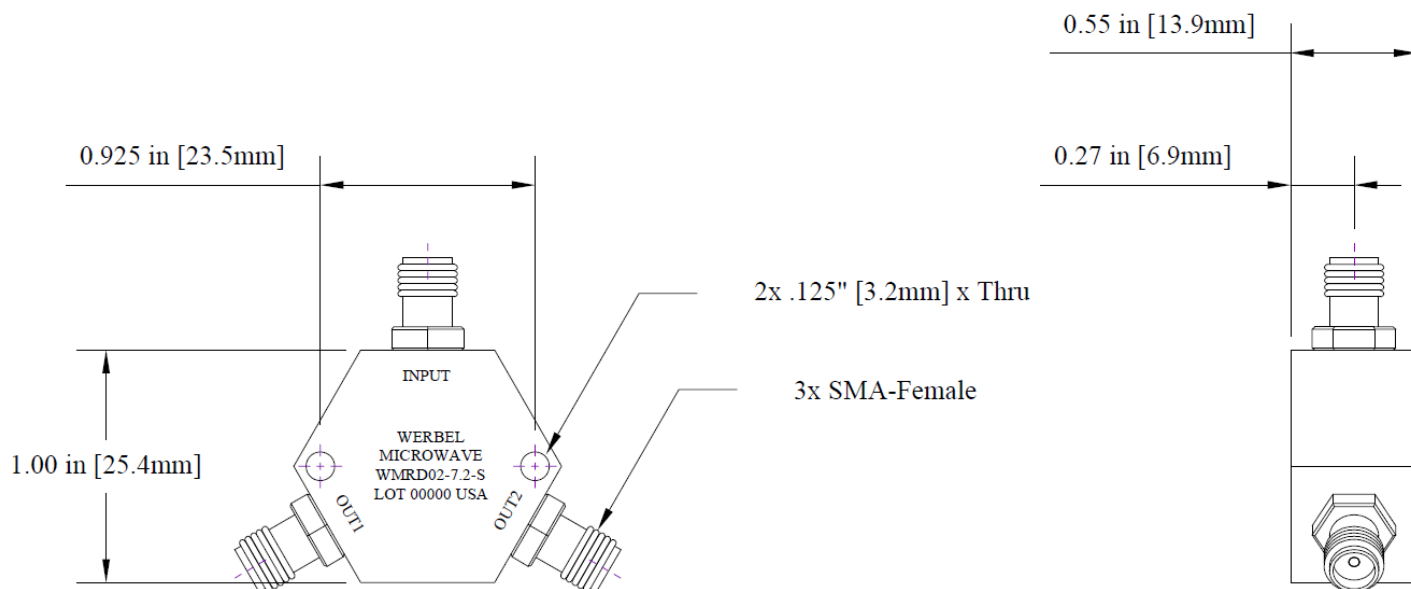
Derating Curve



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)
	Port S	Port 1	Port 2	S-1	S-2	
1	53.20	51.75	52.25	6.04	6.04	6.04
100	41.65	43.31	43.37	6.07	6.07	6.07
200	37.22	39.60	39.51	6.08	6.08	6.08
300	34.48	37.09	36.95	6.08	6.09	6.09
400	32.50	35.43	35.31	6.08	6.09	6.09
500	30.91	33.92	33.79	6.08	6.09	6.10
600	29.51	32.76	32.58	6.08	6.09	6.10
700	28.42	31.89	31.71	6.09	6.09	6.10
800	27.41	30.90	30.70	6.08	6.08	6.09
900	26.55	30.21	29.99	6.07	6.08	6.09
1000	25.74	29.54	29.30	6.08	6.09	6.10
1500	22.63	26.84	26.52	6.10	6.10	6.13
2000	20.21	24.61	24.30	6.12	6.12	6.16
2500	18.15	22.39	22.25	6.31	6.30	6.37
3000	16.50	20.47	20.57	6.35	6.34	6.47
3500	15.10	18.88	19.23	6.19	6.18	6.38
4000	14.08	17.41	17.95	6.46	6.40	6.69
4500	13.36	16.22	16.90	6.47	6.40	6.76
5000	12.82	15.47	16.16	6.48	6.40	6.82
5500	12.42	14.74	15.38	6.53	6.42	6.93
6000	12.14	14.19	14.76	6.13	6.03	6.69
6500	12.07	13.85	14.37	6.42	6.30	7.15
7000	12.10	13.48	14.00	6.55	6.38	7.39
7500	12.49	13.50	14.09	6.23	6.08	7.16
8000	12.59	13.62	14.36	6.23	6.08	7.04

Outline Dimensions

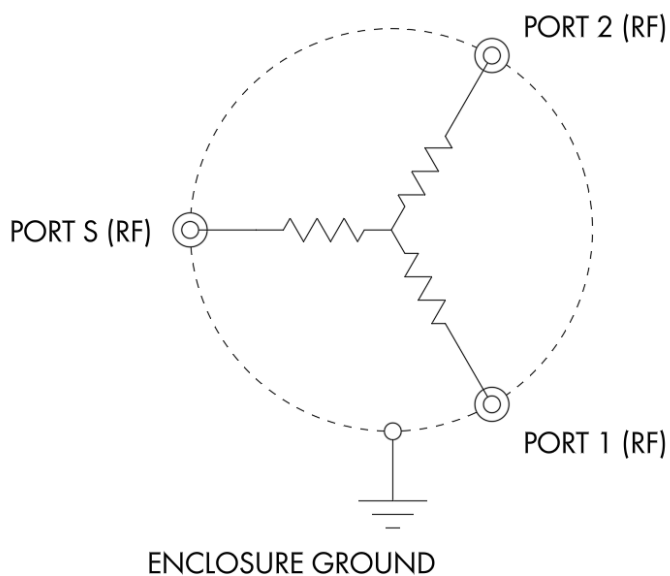


Outline drawing: OL-R06-02

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

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

Simplified Electrical Schematic



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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.