

Resistive Divider, DC-7.2GHz, 3-way, SMA-Female

WMRD03-7.2-S

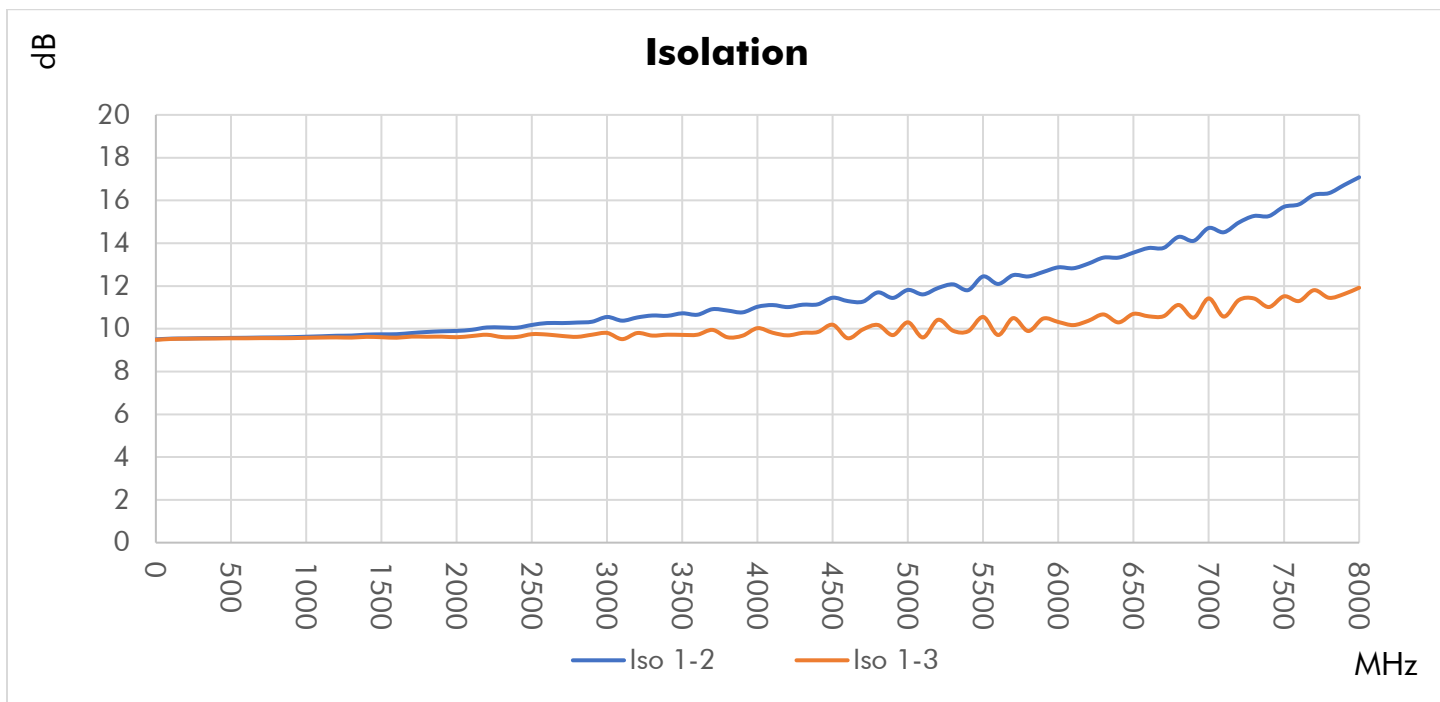


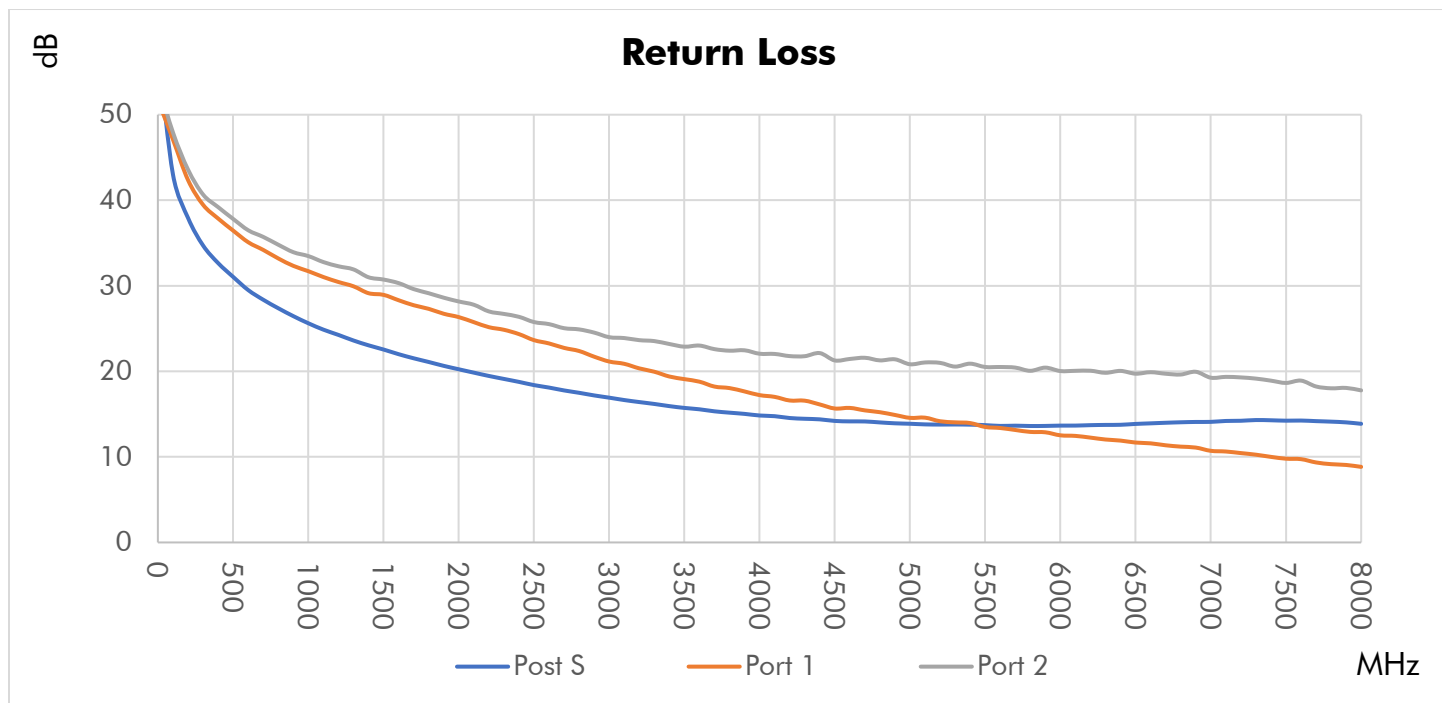
Specifications	Min.	Typ.	Max.	Units
Frequency	DC		7.2	GHz
Impedance		50		Ohm
Return Loss (Port S)	9.5	12		dB
Return Loss (Port 1-2)	9.5	14		dB
Insertion Loss (Total Measured Loss)		9.5	10.7	dB
Isolation		9.5		dB
Input Power (CW) ¹ up to +30 °C; derate linearly to +25dBm at +85 °C.			+30	dBm

Connector Interface	SMA-Female	RoHS Status ³	RoHS3 Compliant
Operating Temperature ²	-40 to +85 °C	REACH Status ³	REACH Unaffected
Storage Temperature	-55 to +100 °C	Enclosure Material	Aluminum
Nominal Weight	23 g (0.81 oz)	Connectors Material	Brass, Gold Plated
Operating Humidity	10-90% (non-condensing)	Contacts Material	Beryllium Copper, Gold Plated
Operating Environment	Indoor Use Only	Insulators Material	Virgin PTFE
CAGE Code	78YZ0	Finish	Green Paint

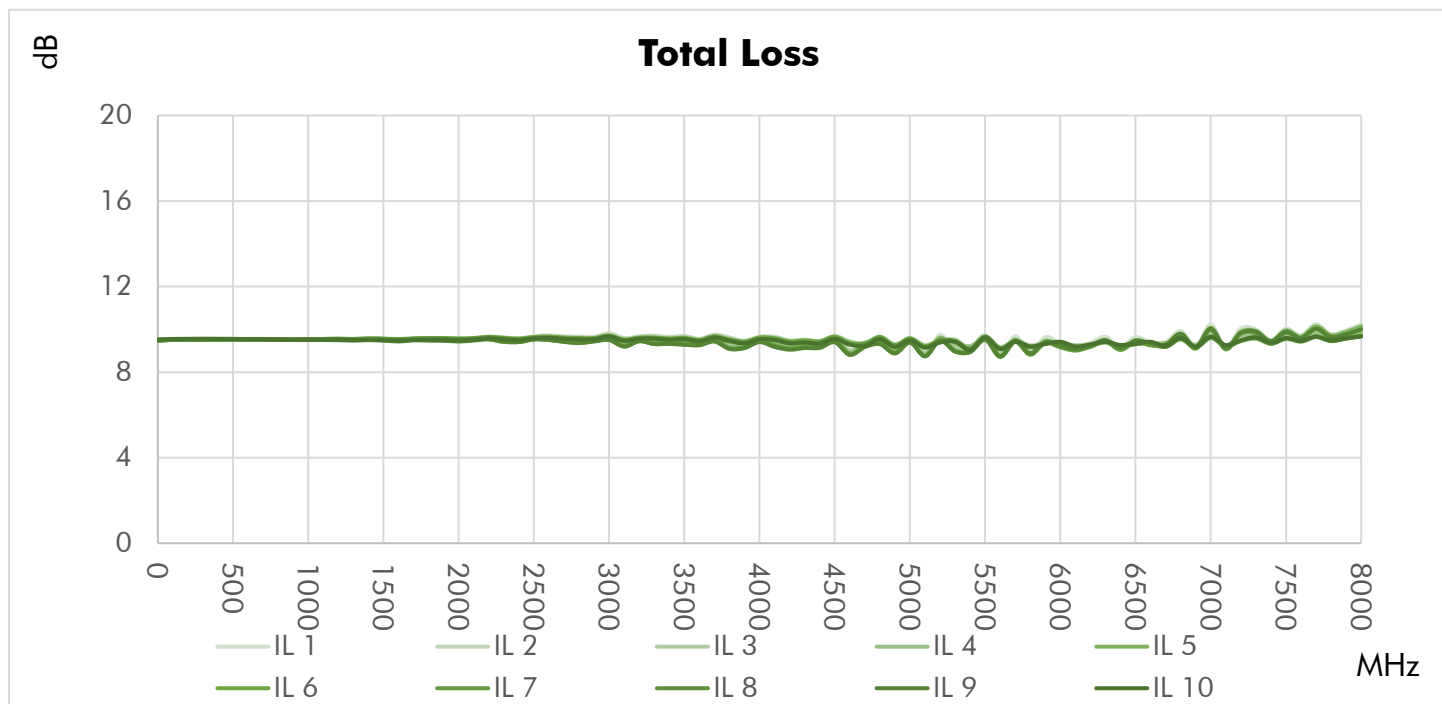
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specifications are tested at +25 °C.
3. To the best of our knowledge at the time of publication.

Typical Performance at +25 °C

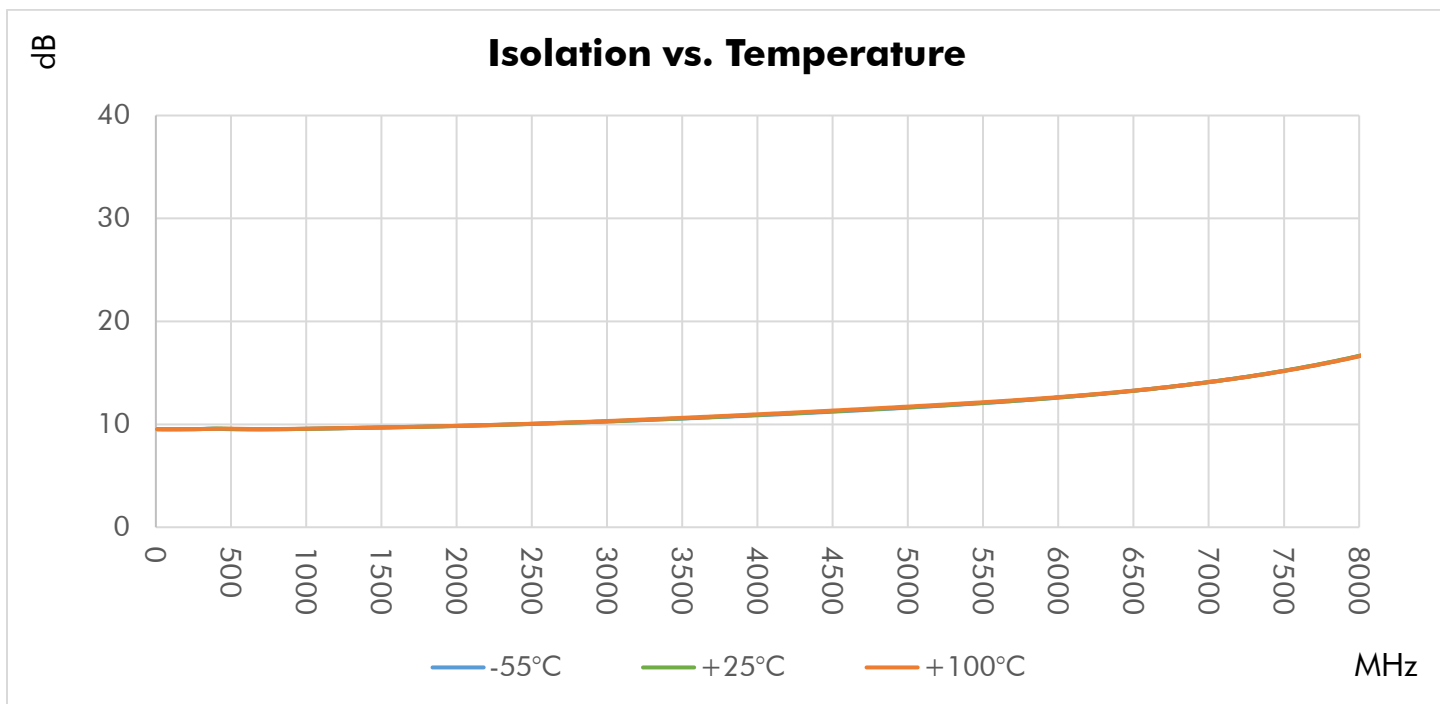
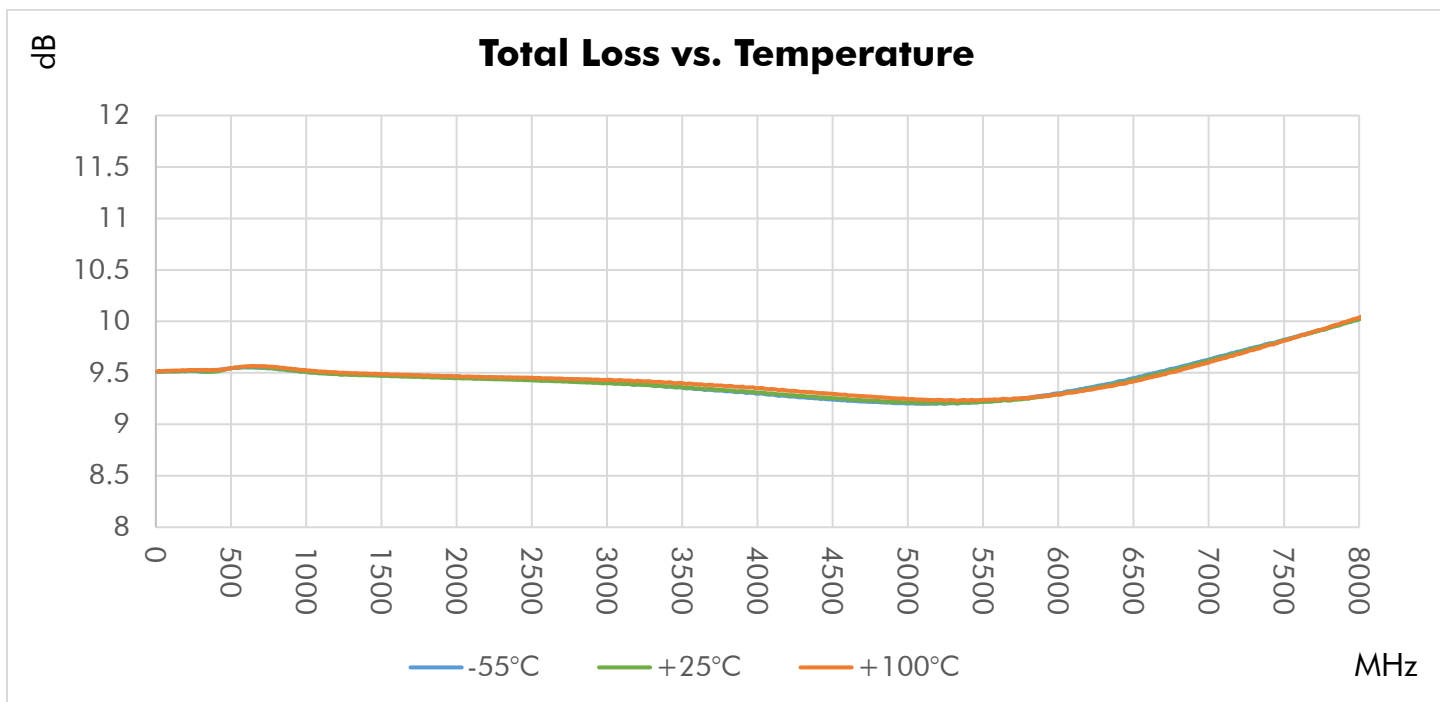


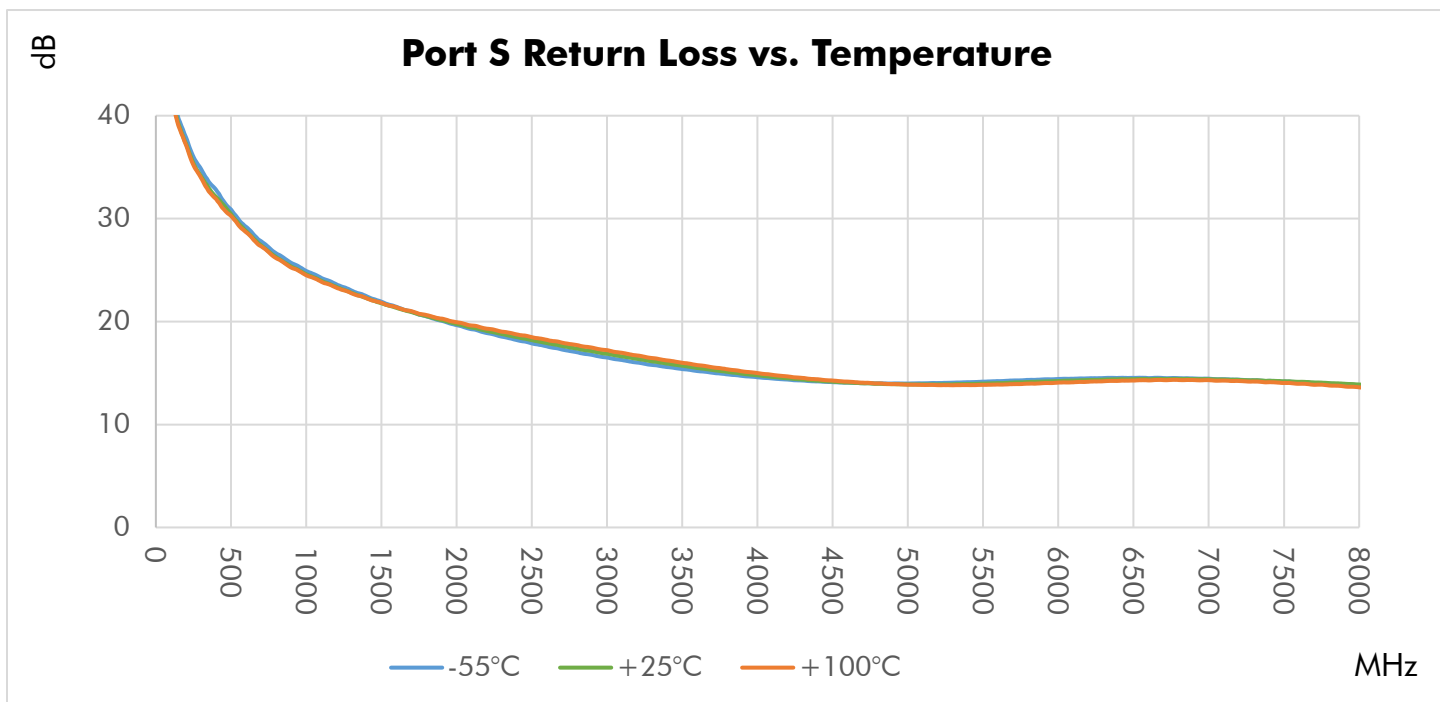
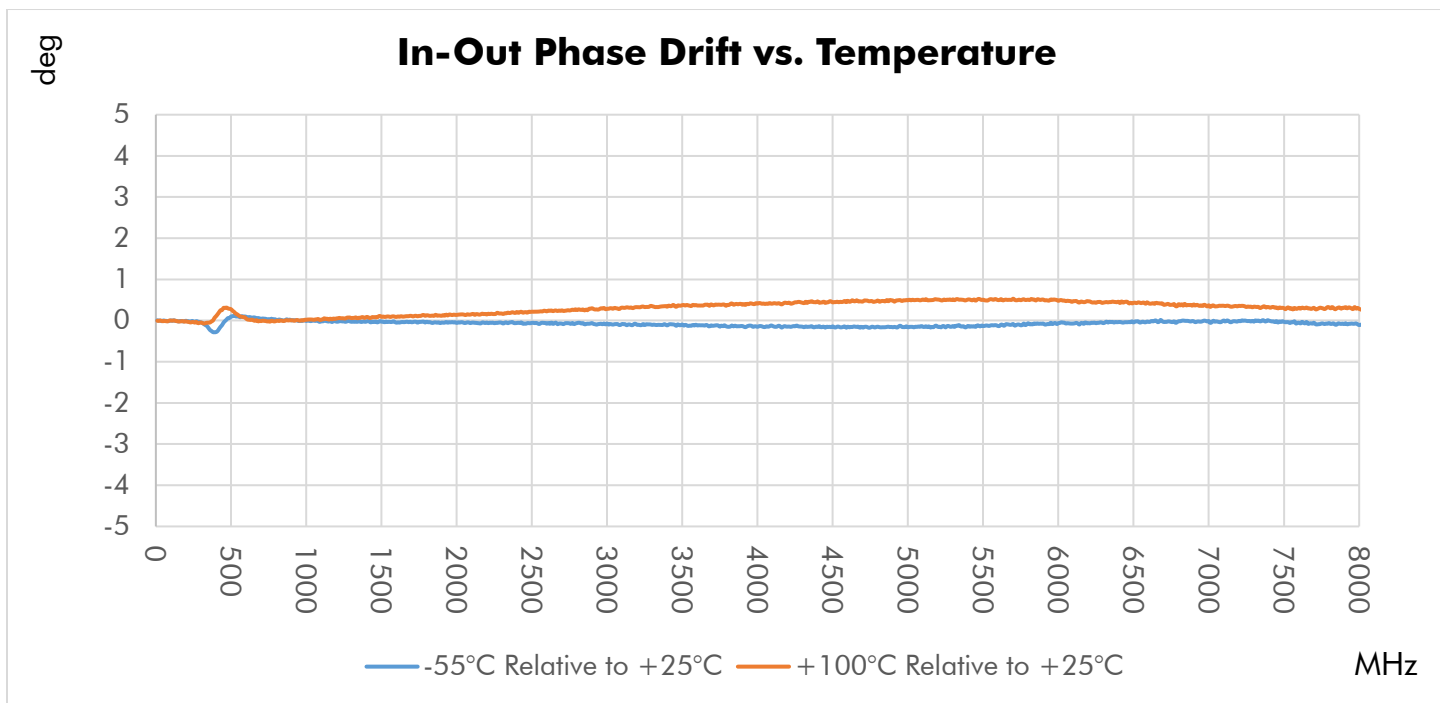


Repeatability in Production



Typical Performance Over Temperature

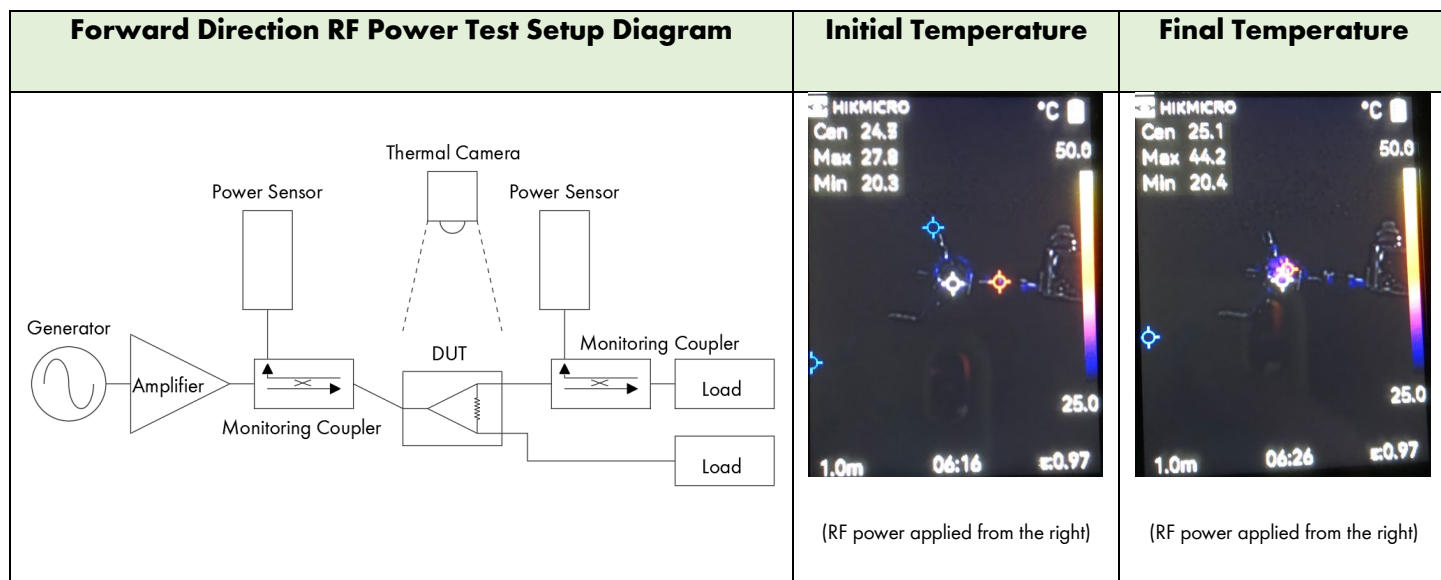




Reliability Testing

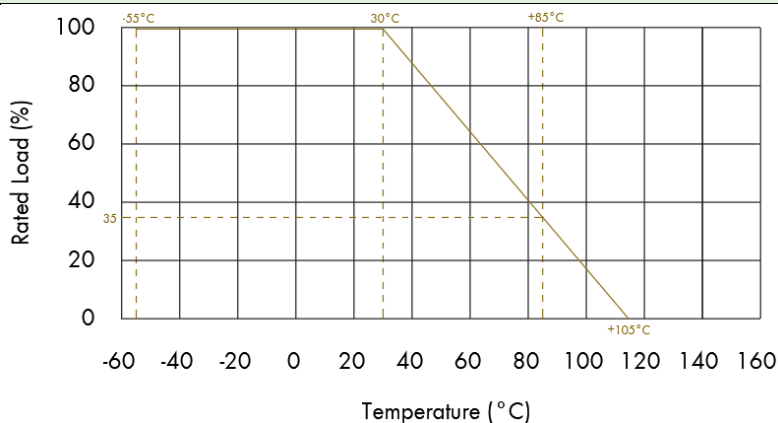
RF power test was performed to determine the input power required to produce a nominal temperature rise of 20°C at the hottest point. The test was performed at room temperature without forced air. A heatsink was not used unless it came standard with the product.

Model WMRD03-7.2-S is shown. Derivative models' details arrived at by similarity until they are individually tested and datasheets updated.



- 0.6 watts CW (shown above) 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 watt CW at 500MHz produced a rise temperature of 35°C after 10 minutes.

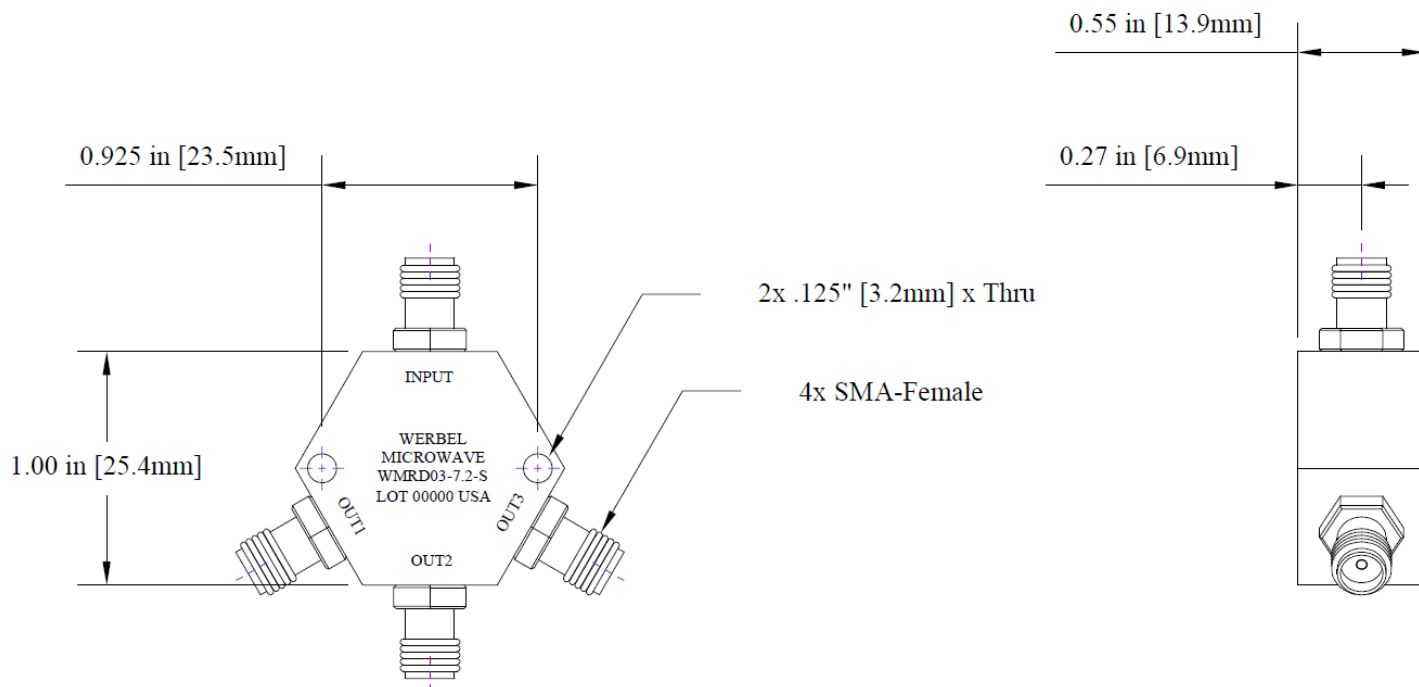
Derating Curve



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)		Isolation (dB)	
	Port S	Port 1	Port 2	S-1	S-3	1-2	1-3
1	57.51	51.67	53.71	9.52	9.54	9.50	9.48
100	42.96	47.07	47.89	9.55	9.58	9.54	9.52
200	37.92	42.34	43.56	9.56	9.58	9.55	9.53
300	34.70	39.46	40.66	9.56	9.59	9.56	9.54
400	32.65	37.86	39.19	9.56	9.58	9.56	9.55
500	31.03	36.45	37.81	9.55	9.58	9.57	9.55
600	29.50	35.09	36.49	9.54	9.57	9.58	9.55
700	28.36	34.19	35.71	9.54	9.56	9.59	9.56
800	27.37	33.19	34.80	9.52	9.55	9.60	9.56
900	26.45	32.33	33.93	9.51	9.54	9.61	9.56
1000	25.62	31.70	33.47	9.51	9.55	9.63	9.58
1500	22.55	28.94	30.73	9.47	9.53	9.74	9.60
2000	20.24	26.34	28.16	9.45	9.52	9.90	9.61
2500	18.39	23.65	25.76	9.56	9.65	10.18	9.75
3000	16.92	21.15	23.99	9.49	9.66	10.55	9.80
3500	15.72	19.09	22.88	9.30	9.45	10.72	9.71
4000	14.84	17.22	22.06	9.53	9.62	11.03	10.03
4500	14.20	15.66	21.27	9.52	9.62	11.45	10.19
5000	13.87	14.56	20.83	9.56	9.60	11.82	10.30
5500	13.71	13.50	20.51	9.73	9.73	12.45	10.55
6000	13.66	12.52	20.03	9.33	9.32	12.87	10.32
6500	13.85	11.68	19.73	9.64	9.47	13.56	10.70
7000	14.09	10.71	19.26	10.22	9.96	14.71	11.42
7500	14.23	9.79	18.65	10.03	9.81	15.70	11.52
8000	13.87	8.83	17.77	10.23	9.99	17.08	11.92

Outline Dimensions

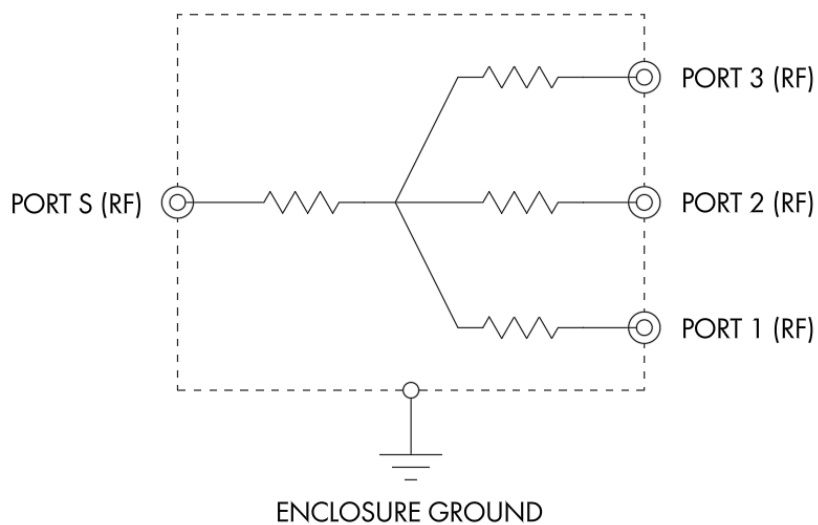


Outline drawing: OL-R06-03

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

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

Simplified Electrical Schematic



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.