

Resistive Divider, DC-7.2GHz, 16-way, SMA-Female

WMRD16-7.2-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 1-16)	9.5	14		dB
Insertion Loss (Total Measured Loss)		24.1	26.2	dB
Isolation (Within Groups: 1-4 : 5-8 : 9-12 : 13-16)		12.0		dB
(Between Groups: 1-4 : 5-8 : 9-12 : 13-16)		36.1		dB
Input Power (CW) ¹ up to +30°C; derate linearly to +25dBm at +85°C.			+30	dBm

Connector Interface SMA-Female

Operating Temperature² -40 to +85 °C

Storage Temperature -55 to +100 °C

Nominal Weight 105 g (3.70 oz)

Operating Humidity 10-90% (non-condensing)

Operating Environment Indoor Use Only

CAGE Code 78YZ0

RoHS Status³

REACH Status³

Enclosure Material

Connectors Material

Contacts Material

Insulators Material

Finish

RoHS3 Compliant

REACH Unaffected

Aluminum

Brass, Gold Plated

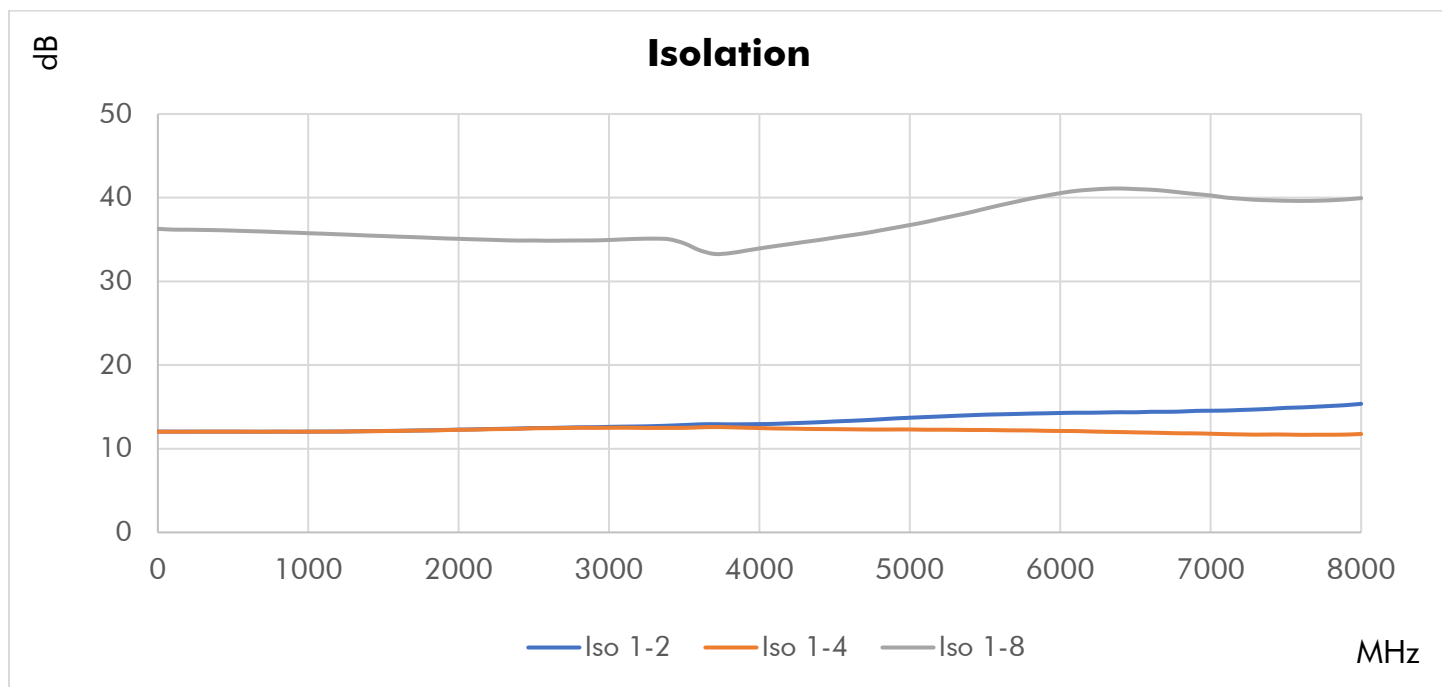
Beryllium Copper, Gold Plated

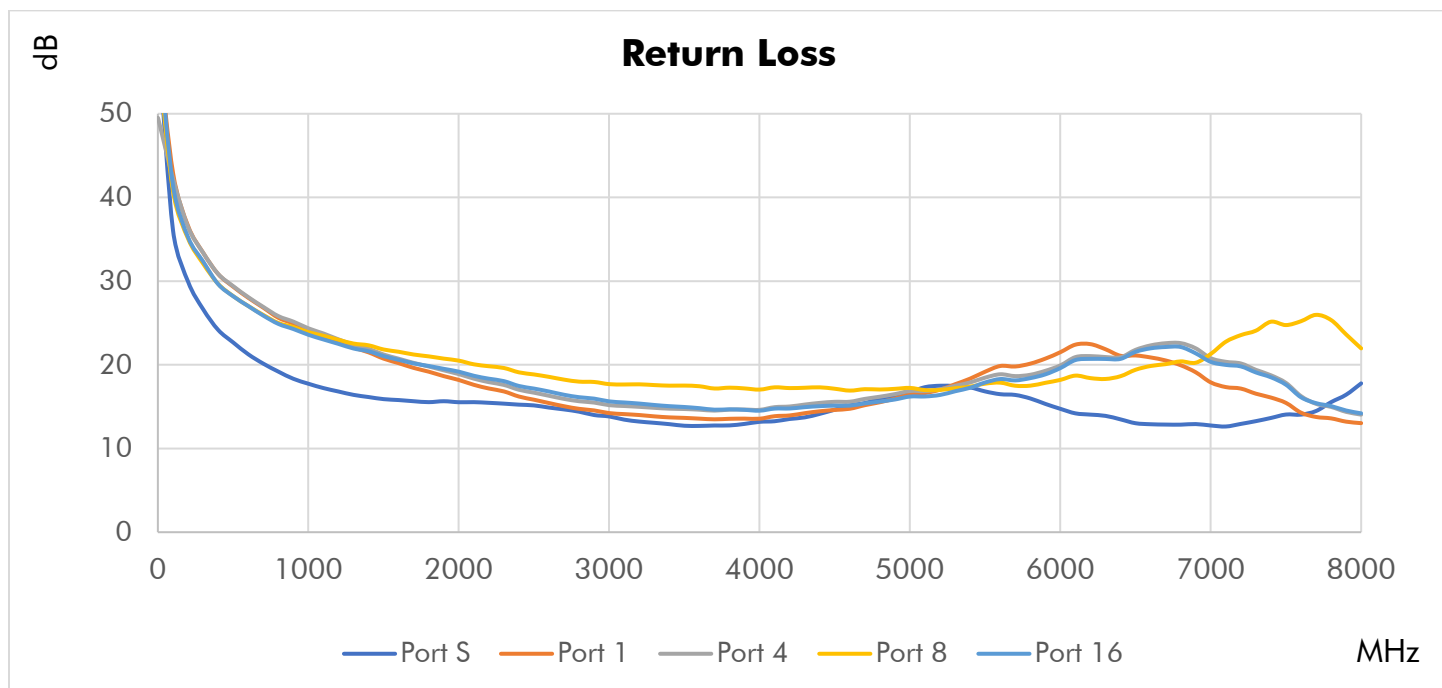
Virgin PTFE

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





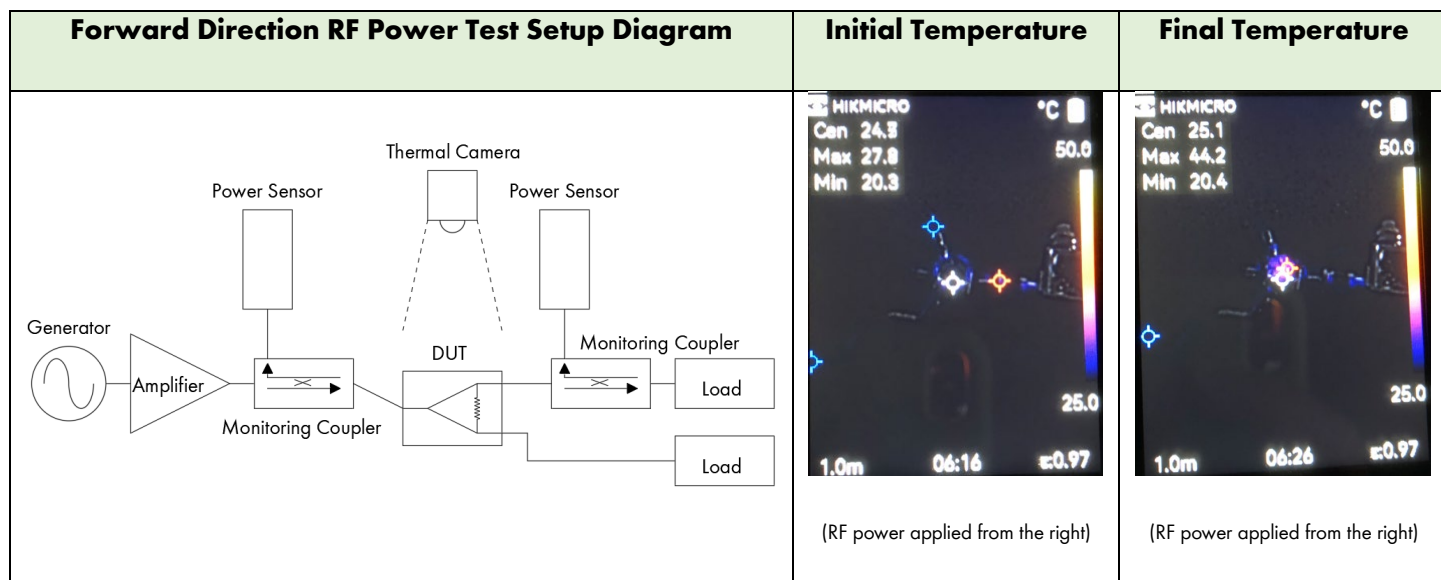
Repeatability in Production



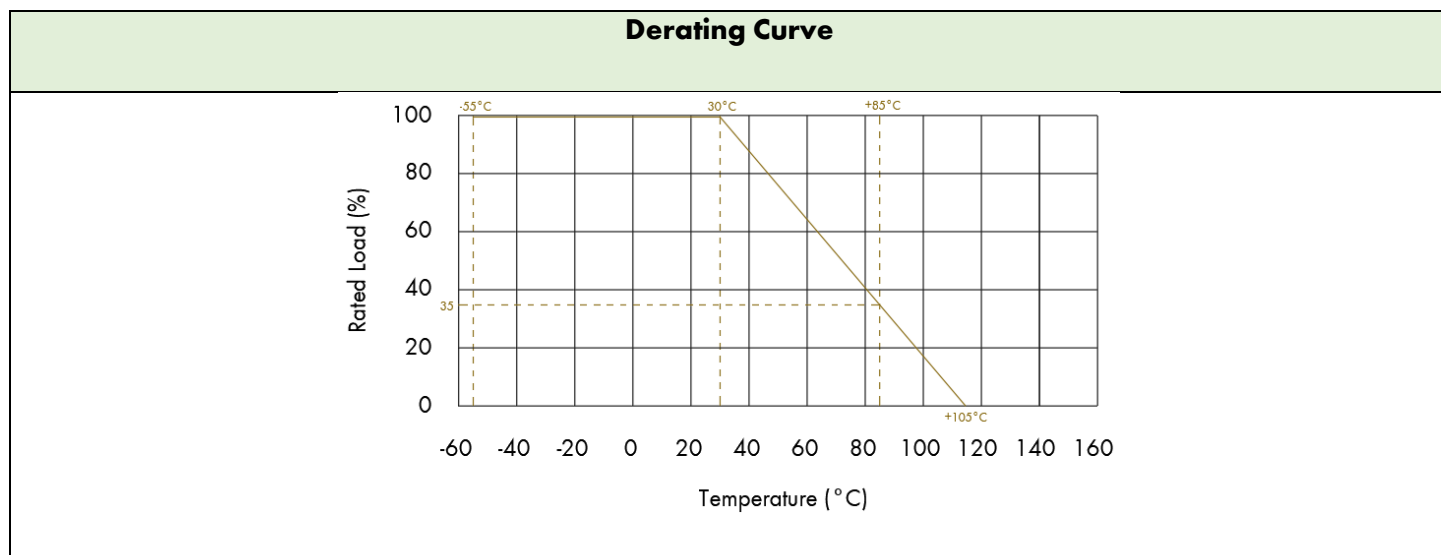
Reliability Testing

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.



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)			Isolation (dB)		
	Port S	Port 1	Port 16	S-1	S-8	S-16	1-2	1-4	1-8
1	58.90	58.43	59.18	24.12	24.13	24.11	12.05	12.03	36.27
100	36.03	42.91	41.39	24.10	24.13	24.11	12.04	12.03	36.18
200	29.93	36.59	35.25	24.10	24.12	24.09	12.04	12.03	36.17
300	26.64	33.40	32.35	24.07	24.10	24.06	12.04	12.04	36.14
400	24.17	30.84	29.64	24.04	24.07	24.04	12.04	12.04	36.11
500	22.67	29.33	28.19	24.02	24.03	24.00	12.04	12.04	36.06
600	21.26	28.01	27.02	23.97	23.98	23.96	12.03	12.04	36.00
700	20.14	26.83	25.88	23.93	23.92	23.91	12.03	12.03	35.95
800	19.19	25.62	24.89	23.89	23.86	23.86	12.04	12.04	35.88
900	18.33	24.93	24.28	23.82	23.79	23.81	12.03	12.04	35.82
1000	17.74	24.10	23.59	23.77	23.72	23.73	12.04	12.04	35.75
1500	15.90	20.74	21.04	23.43	23.35	23.40	12.12	12.11	35.41
2000	15.53	18.19	19.18	23.09	23.02	23.08	12.28	12.26	35.08
2500	15.15	15.83	17.16	23.01	22.81	23.01	12.47	12.44	34.88
3000	13.83	14.23	15.63	23.26	22.71	23.23	12.61	12.50	34.94
3500	12.72	13.66	14.96	23.77	22.54	23.71	12.83	12.49	34.53
4000	13.19	13.56	14.52	24.53	23.10	24.47	12.94	12.47	33.93
4500	14.64	14.61	15.12	24.38	23.11	24.40	13.26	12.34	35.23
5000	16.72	16.46	16.21	24.03	23.21	24.03	13.70	12.30	36.73
5500	16.82	19.18	17.89	23.44	23.48	23.45	14.07	12.24	38.68
6000	14.74	21.51	19.61	22.83	23.69	22.87	14.27	12.12	40.54
6500	13.02	21.12	21.55	22.62	24.06	22.60	14.35	11.95	41.02
7000	12.75	17.90	20.35	22.85	24.36	22.78	14.54	11.79	40.26
7500	14.06	15.45	17.62	23.49	24.41	23.40	14.88	11.69	39.63
8000	17.78	13.03	14.20	24.21	24.40	24.16	15.36	11.76	39.94

Simplified Electrical Schematic

