

Resistive Divider, DC-7.2GHz, 10-way, SMA-Female

WMRD10-7.2-S

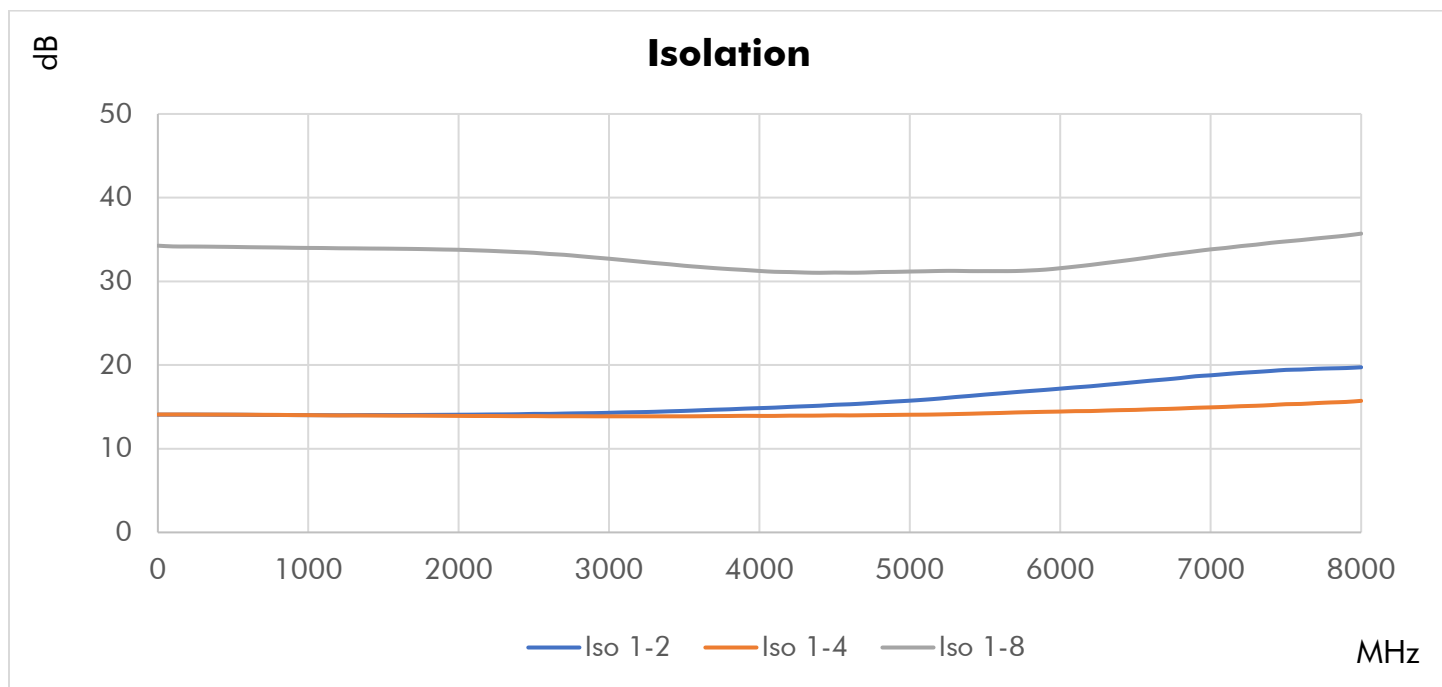
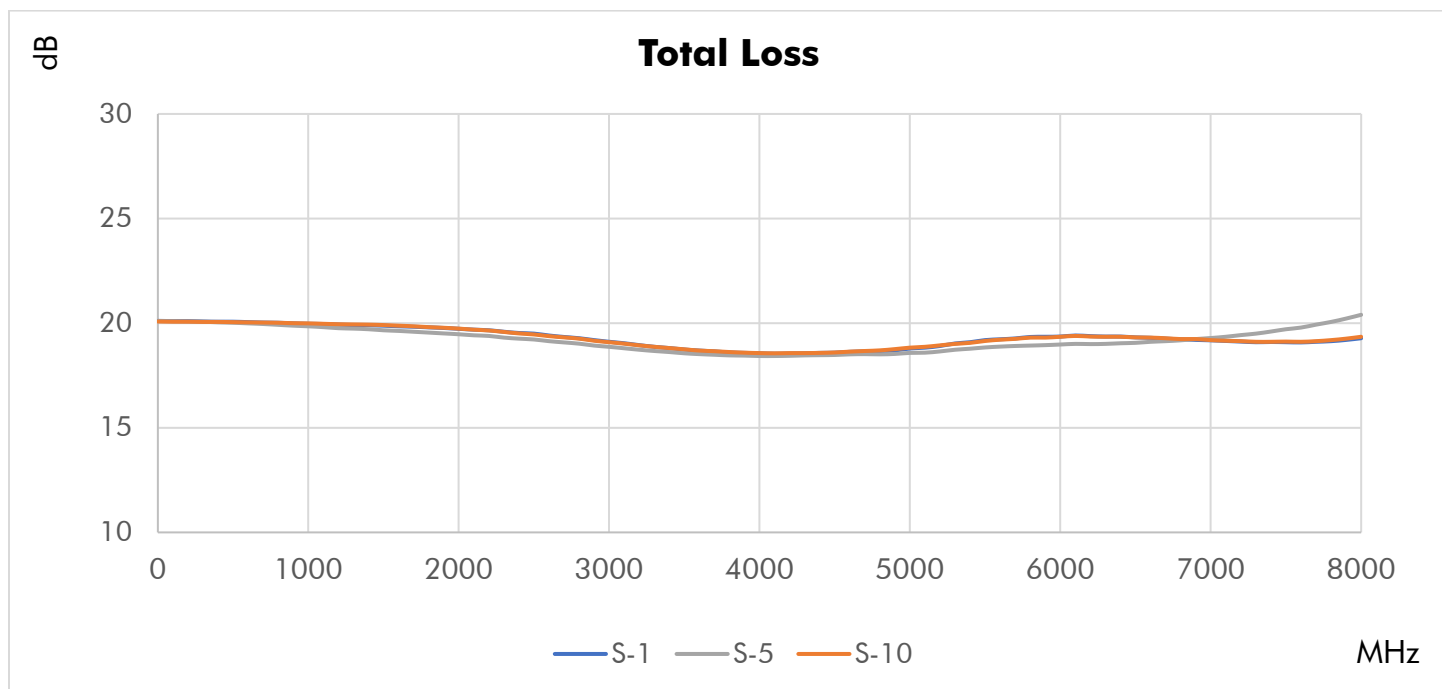


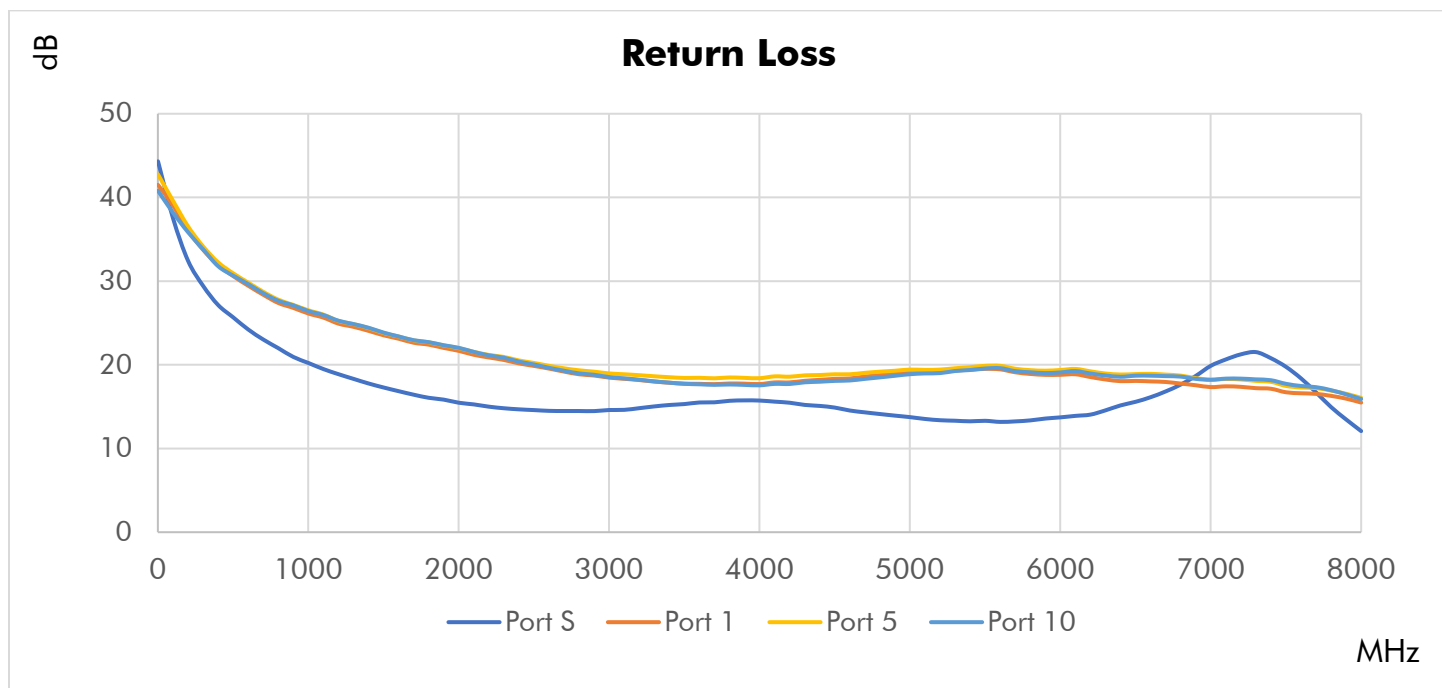
Specifications	Min.	Typ.	Max.	Units
Frequency	DC		7.2	GHz
Impedance		50		Ohm
Return Loss (Port S)	9.5	12		dB
Return Loss (Port 1-10)	9.5	14		dB
Insertion Loss (Total Measured Loss)		20.0	21.9	dB
Isolation (Within Groups: 1-2-3-4-5 : 6-7-8-9-10)		14.1		dB
(Between Groups: 1-2-3-4-5 : 6-7-8-9-10)		34.1		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	63.9 g (2.25 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





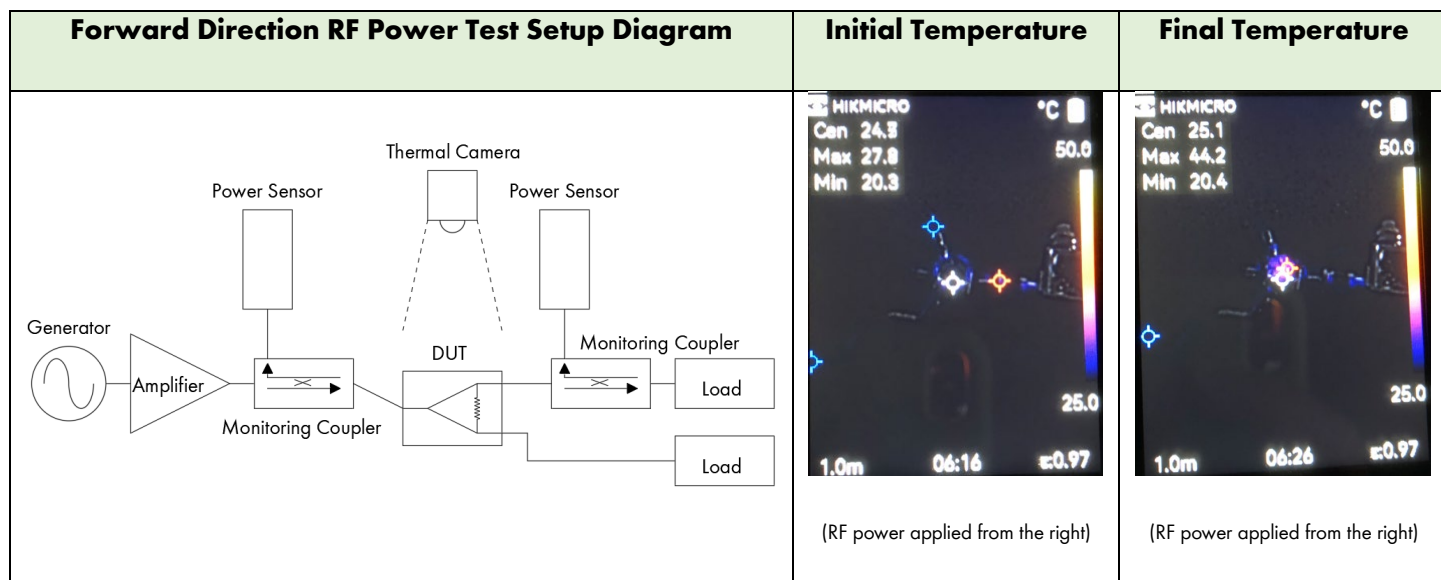
Repeatability in Production



Reliability Testing

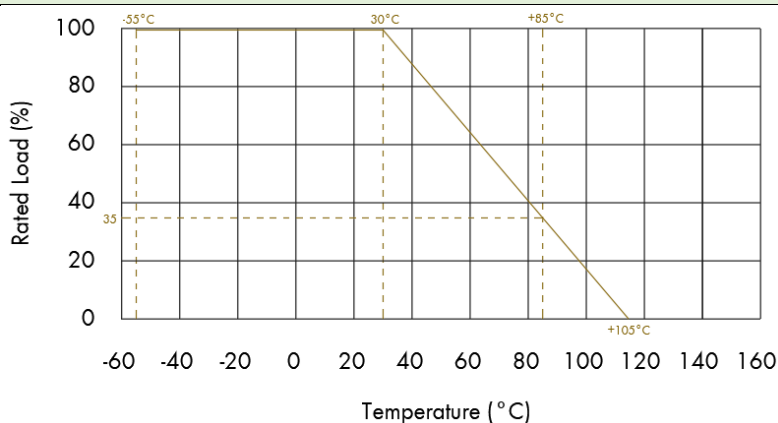
RF power test was performed to determine the input power required to produce a nominal temperature rise of 20°C at the hottest point. The test was performed at room temperature without forced air. A heatsink was not used unless it came standard with the product.

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.

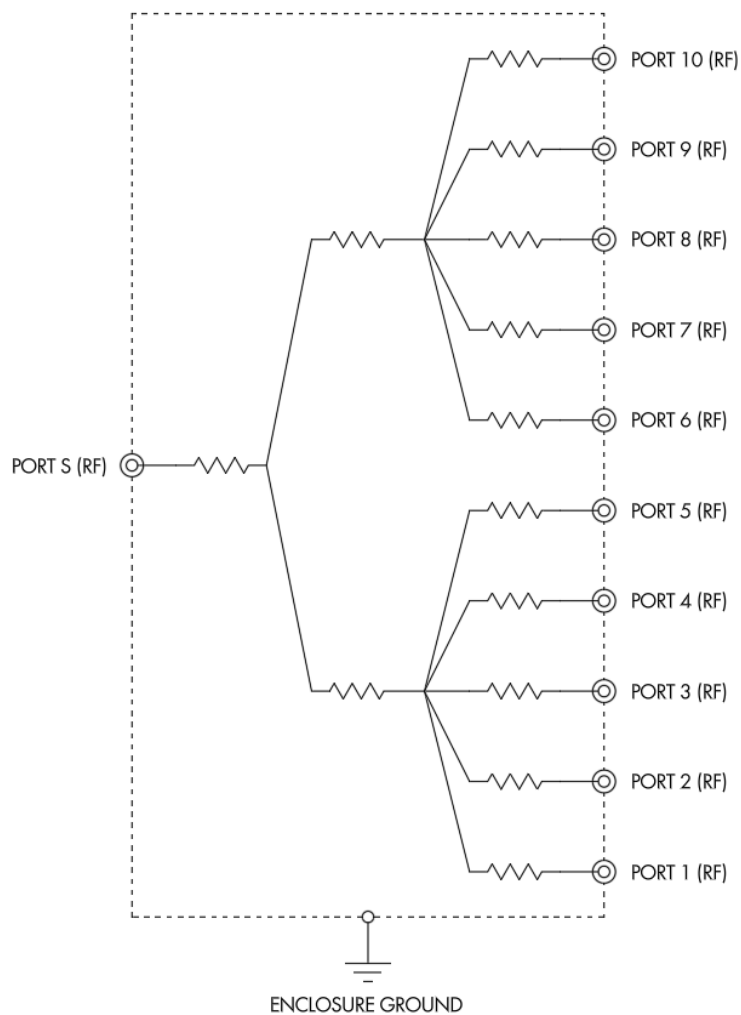
Derating Curve



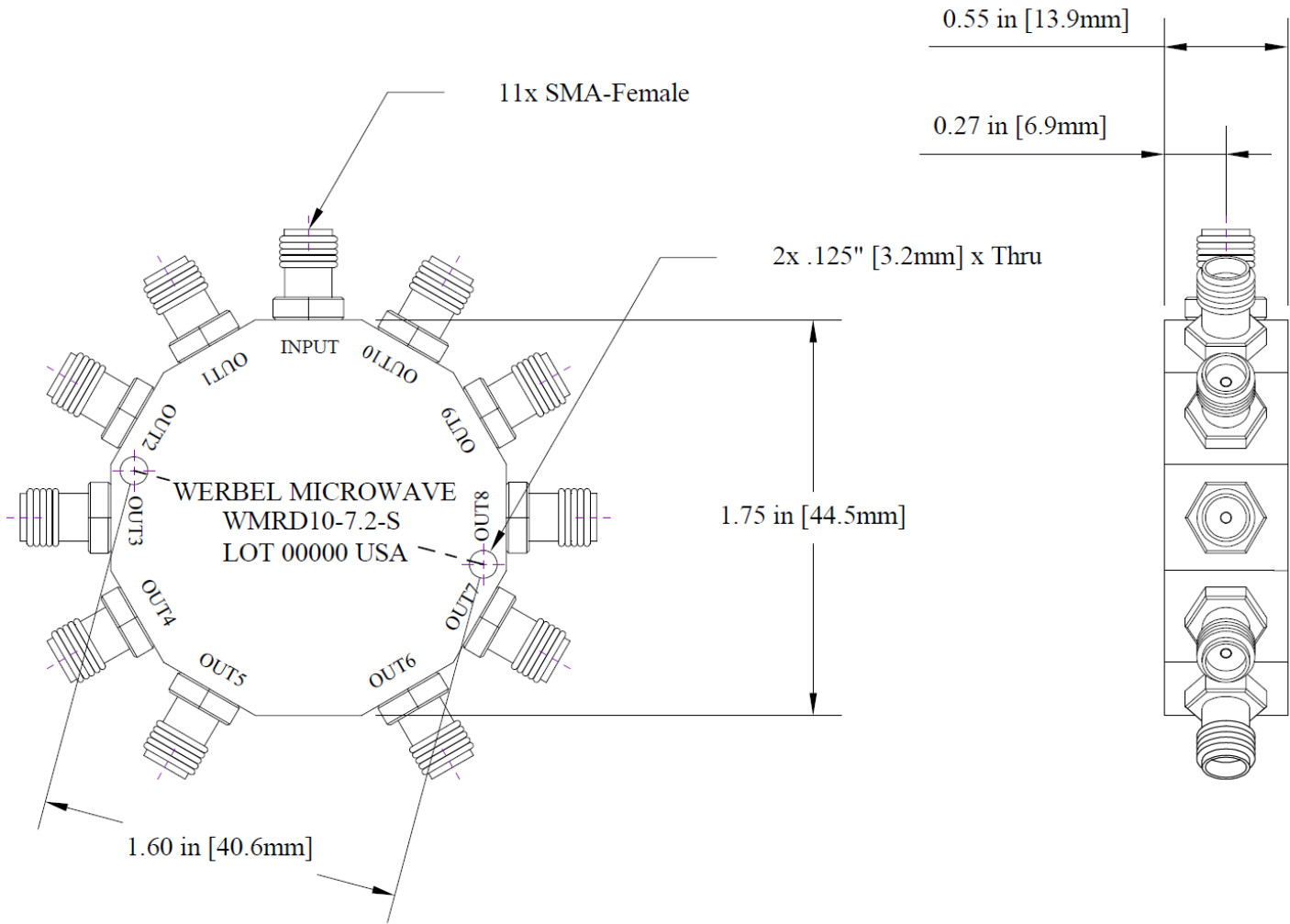
Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Total Loss (dB)			Isolation (dB)		
	Port S	Port 1	Port 10	S-1	S-5	S-10	1-2	1-4	1-8
1	44.31	41.50	40.80	20.11	20.10	20.08	14.07	14.09	34.26
100	37.50	39.03	38.17	20.10	20.09	20.07	14.07	14.09	34.17
200	32.42	36.04	35.84	20.10	20.08	20.07	14.07	14.09	34.16
300	29.43	33.74	33.80	20.08	20.07	20.06	14.07	14.08	34.15
400	27.14	31.91	31.78	20.07	20.04	20.06	14.06	14.08	34.13
500	25.67	30.60	30.65	20.07	20.02	20.05	14.06	14.07	34.11
600	24.22	29.45	29.64	20.05	19.99	20.04	14.05	14.06	34.08
700	23.02	28.37	28.55	20.03	19.96	20.03	14.03	14.05	34.06
800	21.99	27.39	27.65	20.02	19.92	20.02	14.03	14.04	34.04
900	20.94	26.80	27.10	19.99	19.88	20.00	14.02	14.02	34.01
1000	20.22	26.13	26.42	19.97	19.85	19.99	14.01	14.01	33.99
1500	17.29	23.53	23.85	19.88	19.66	19.91	14.02	13.96	33.91
2000	15.47	21.67	22.03	19.73	19.47	19.74	14.06	13.92	33.77
2500	14.59	19.87	20.04	19.50	19.22	19.46	14.16	13.90	33.41
3000	14.60	18.47	18.53	19.11	18.87	19.09	14.29	13.87	32.70
3500	15.31	17.75	17.73	18.74	18.56	18.75	14.52	13.87	31.86
4000	15.73	17.70	17.55	18.56	18.43	18.57	14.85	13.92	31.24
4500	14.89	18.32	18.08	18.59	18.48	18.60	15.25	13.99	31.05
5000	13.75	19.10	18.88	18.79	18.58	18.83	15.74	14.06	31.17
5500	13.31	19.52	19.56	19.19	18.84	19.15	16.47	14.23	31.22
6000	13.72	18.81	19.09	19.36	18.98	19.35	17.18	14.44	31.57
6500	15.58	18.08	18.70	19.32	19.06	19.32	17.96	14.64	32.64
7000	19.88	17.34	18.21	19.18	19.29	19.19	18.77	14.94	33.82
7500	19.76	16.72	17.73	19.09	19.71	19.12	19.42	15.32	34.77
8000	12.08	15.49	15.91	19.28	20.40	19.35	19.73	15.72	35.70

Simplified Electrical Schematic



Outline Dimensions



Outline drawing: OL-R12-10

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

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

Group	A					B				
Port	1	2	3	4	5	6	7	8	9	10

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