WERBEL MICROWAVE LLC
628 State Route 10, Unit 14
Whippany, N.J. 07981
www.WerbelMicrowave.com

Power Divider, 8-way, 20-3000MHz, N Female

WM8PD-20-3000-N

The WM8PD-20-3000M-N is a broadband 8-way power splitter covering 20 MHz to 3000 MHz, designed for commercial, industrial, wireless infrastructure, and test applications requiring wideband signal distribution. Featuring rugged Type N female connectors and a durable construction, this splitter provides reliable performance across a broad frequency range while maintaining excellent amplitude and phase balance between output ports.

Designed for use in RF communication systems, DAS networks, EMC testing, and laboratory environments, the splitter offers low insertion loss, high isolation, and excellent VSWR characteristics to support demanding system requirements. Its wide operating bandwidth makes it suitable for VHF, UHF, L-Band, cellular, LTE, and other broadband RF applications.

The compact and robust design allows for easy integration into both fixed installations and portable test setups. All ports are 50-ohm matched and engineered to deliver consistent RF performance over the full operating frequency range.

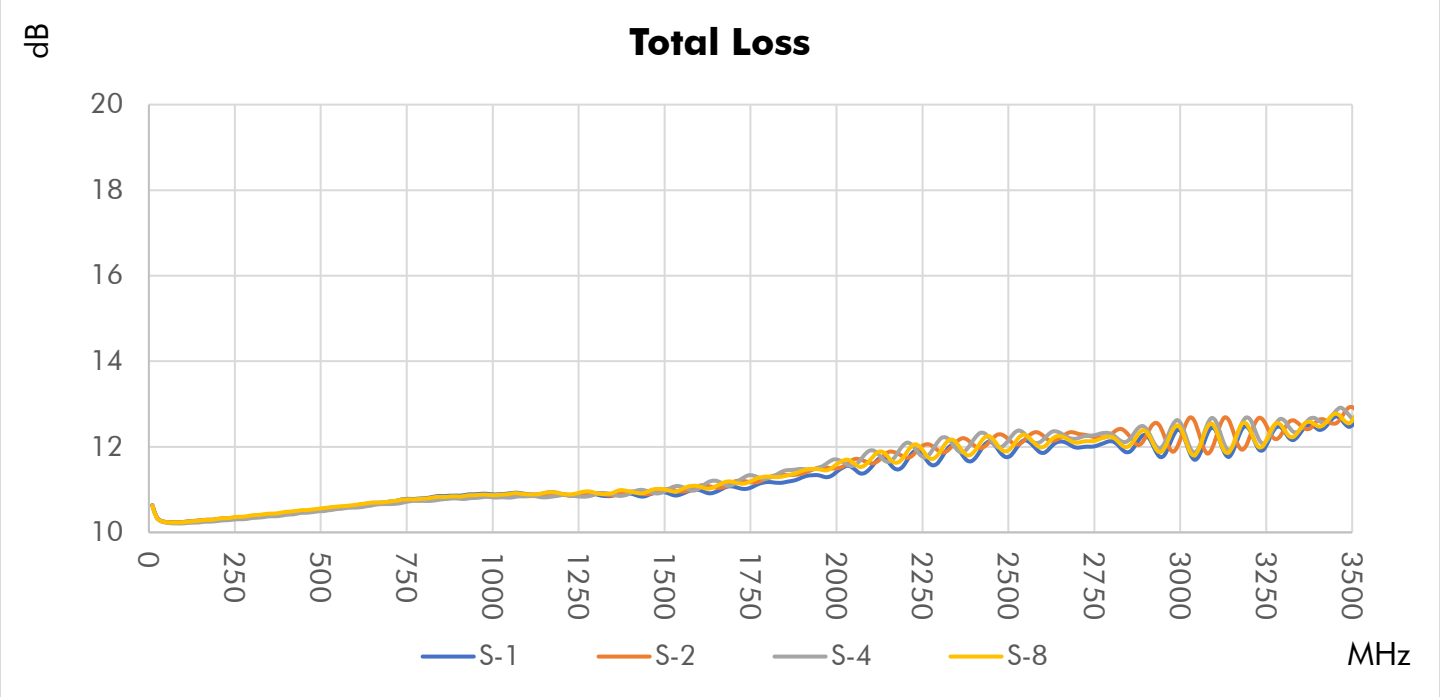
Parameter	Min.	Typ.	Max.	Unit
Frequency Range	20		3000	MHz
Impedance		50		Ω
Return Loss (Port S)	9.5	13.4		dB
Return Loss (Port 1-8)	9.5	13.7		dB
Insertion Loss above 9dB		4.1	5.7	dB
Isolation	14	19.3		dB
Amplitude Unbalance (±)[1]		0.45	0.80	dB
Phase Unbalance (±)[1]		8		deg.
Input Power (CW)[2]			1	W, max.

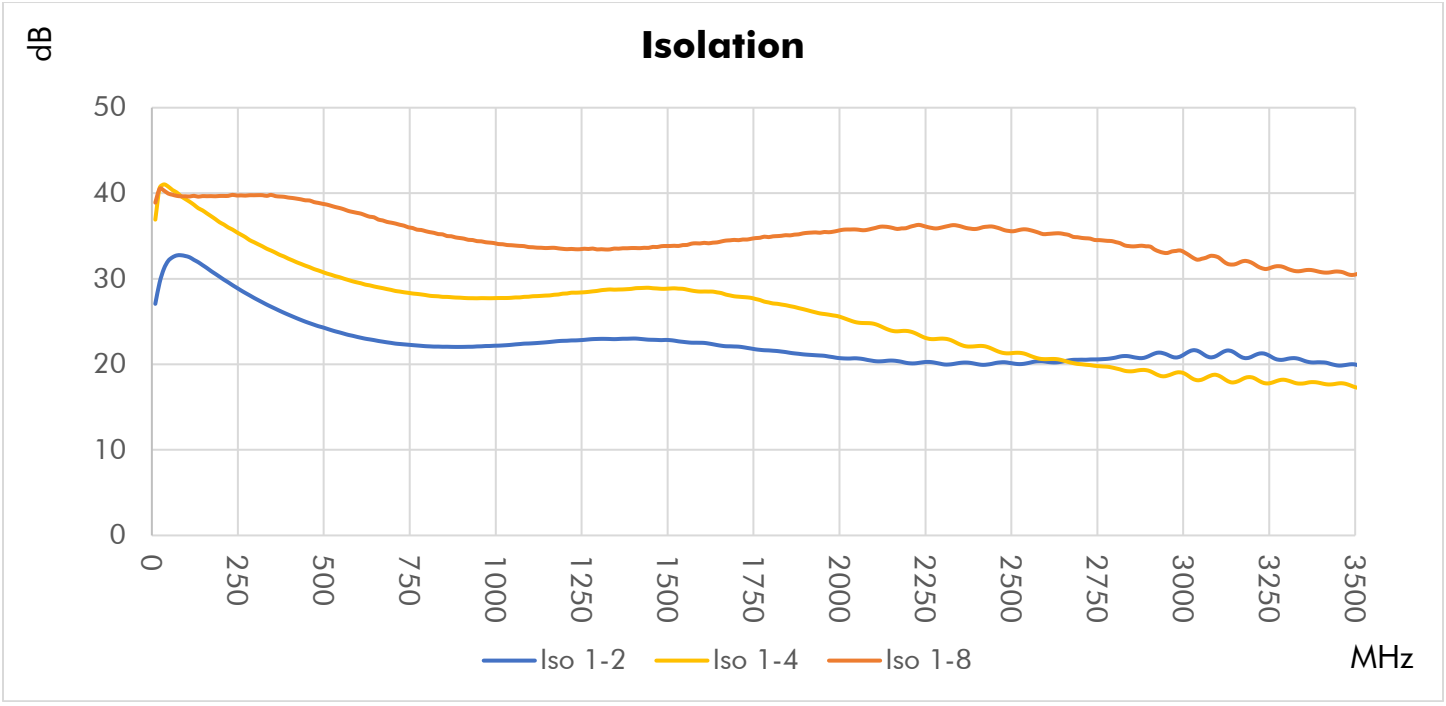
Mechanical and Environmental Specifications

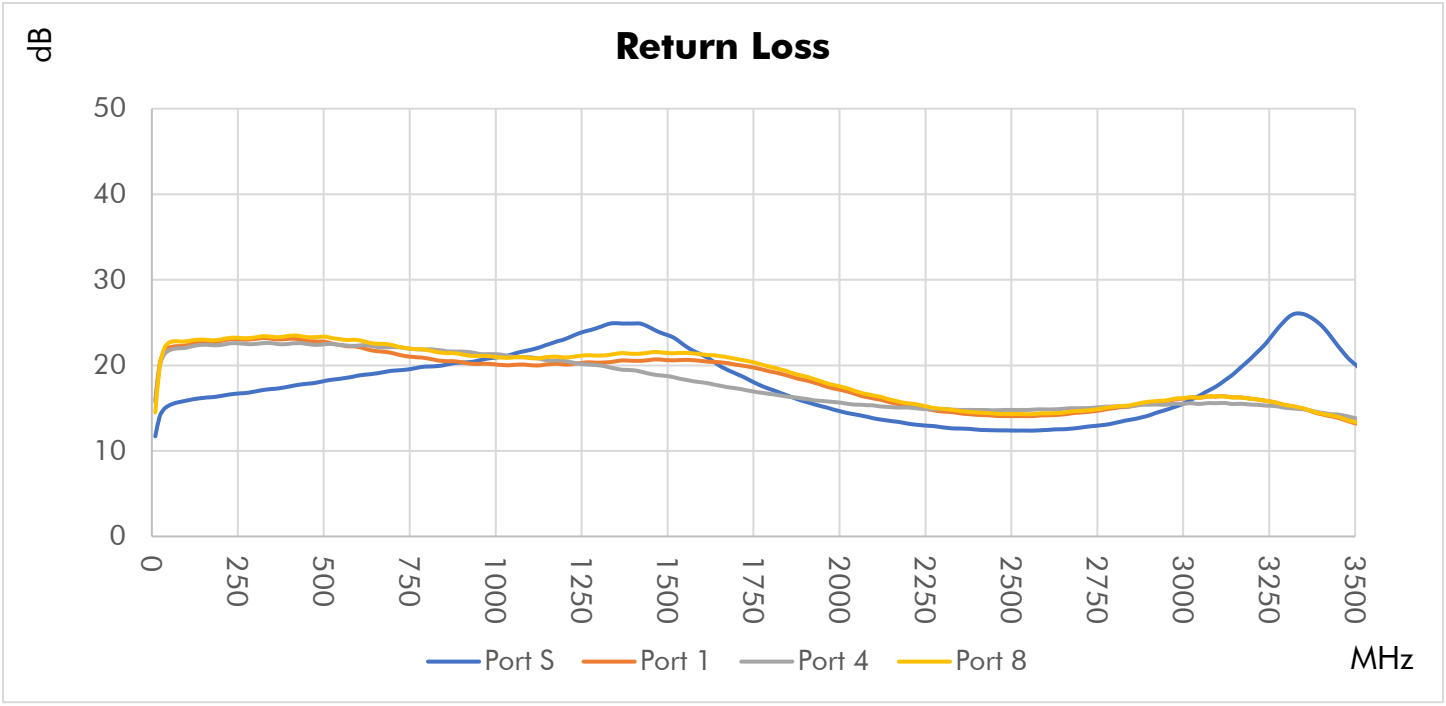
Connector Interface	N Female	RoHS Status[4]	RoHS3 Compliant
Operating Temperature[3]	-40 to +85 °C	REACH Status[4]	REACH Unaffected
Storage Temperature	-55 to +100 °C	Enclosure Material	Aluminum
Nominal Weight	400 g (14 oz)	Connectors Material	Stainless Steel
Operating Humidity	10-90% (non-condensing)	Contacts Material	Beryllium Copper, Gold Plated
Operating Environment	Indoor Use Only	Insulators Material	Virgin PTFE
HTSUS Code	8548.00.0000	Finish	Green Paint
ECCN	EAR99	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



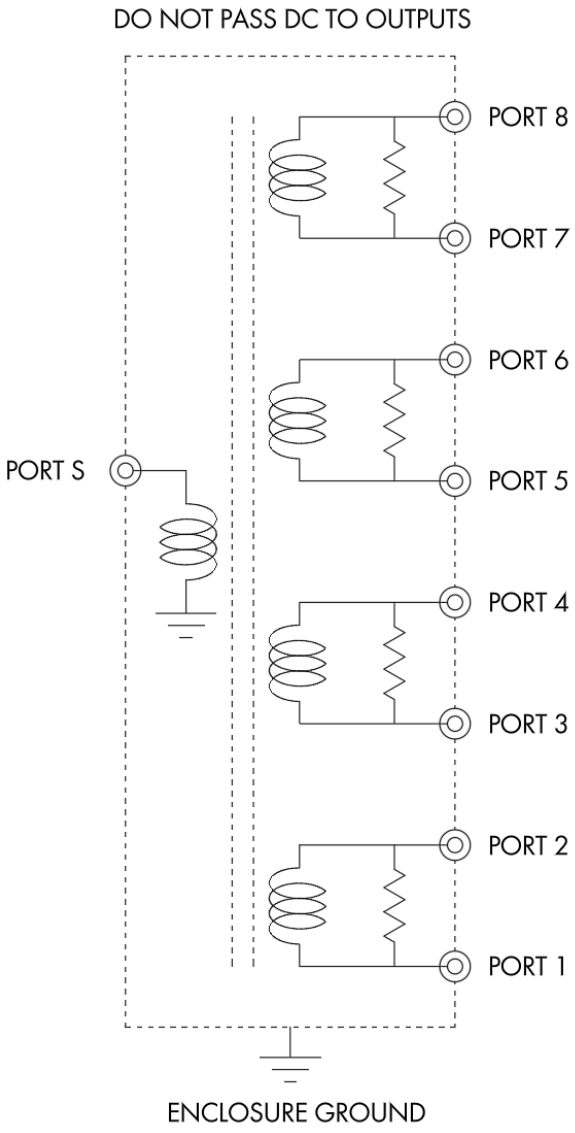

Isolation
dB
50
40
30
20
10
0
0
250
500
750
1000
1250
1500
1750
2000
2250
2500
2750
3000
3250
3500
MHz
Iso 1-2
Iso 1-4
Iso 1-8


Return Loss
dB
50
40
30
20
10
0
0
250
500
750
1000
1250
1500
1750
2000
2250
2500
2750
3000
3250
3500
MHz
Port S
Port 1
Port 4
Port 8

Typical Performance Data

Frequency (MHz)	Return Loss (dB)				Total Loss (dB)			Isolation (dB)		
	Port S	Port 1	Port 4	Port 8	S-1	S-4	S-8	1-2	1-4	1-8
10.0	11.69	15.94	15.66	14.49	10.64	10.64	10.62	27.07	36.91	38.90
22.5	13.99	20.14	19.81	19.76	10.36	10.35	10.35	29.54	40.60	40.51
35.0	14.86	21.55	21.21	21.88	10.27	10.26	10.27	31.16	41.03	40.32
47.4	15.26	22.01	21.68	22.57	10.25	10.23	10.24	32.09	40.78	39.97
59.9	15.48	22.18	21.89	22.79	10.24	10.22	10.23	32.51	40.38	39.83
72.4	15.64	22.24	21.98	22.82	10.24	10.21	10.23	32.73	40.09	39.70
84.9	15.75	22.25	22.00	22.77	10.23	10.21	10.23	32.75	39.66	39.64
97.3	15.85	22.31	22.04	22.79	10.24	10.21	10.23	32.66	39.32	39.64
110	15.96	22.43	22.16	22.87	10.25	10.22	10.25	32.51	39.01	39.62
210	16.48	22.93	22.44	23.11	10.32	10.28	10.33	29.89	36.34	39.68
309	17.01	23.12	22.53	23.32	10.38	10.34	10.41	27.51	34.03	39.78
409	17.60	23.12	22.57	23.49	10.46	10.42	10.48	25.60	32.15	39.44
509	18.23	22.72	22.50	23.33	10.55	10.50	10.57	24.17	30.61	38.67
609	18.85	22.08	22.35	22.89	10.64	10.58	10.65	23.10	29.47	37.61
709	19.39	21.34	22.13	22.27	10.73	10.66	10.73	22.42	28.57	36.45
808	19.86	20.76	21.88	21.73	10.80	10.73	10.79	22.10	28.01	35.45
908	20.34	20.32	21.60	21.22	10.86	10.78	10.84	22.04	27.76	34.69
1008	20.95	20.07	21.28	20.93	10.89	10.81	10.87	22.18	27.75	34.06
1507	23.44	20.59	18.70	21.42	10.92	10.99	10.99	22.83	28.86	33.83
2006	14.59	17.11	15.62	17.49	11.45	11.69	11.62	20.71	25.49	35.71
2505	12.38	14.07	14.79	14.32	11.78	12.20	11.95	20.10	21.33	35.55
3004	15.60	16.13	15.52	16.18	12.34	12.51	12.39	21.20	18.92	33.07
3503	20.01	13.21	13.80	13.33	12.53	12.64	12.64	19.96	17.30	30.53

Simplified Electrical Schematic



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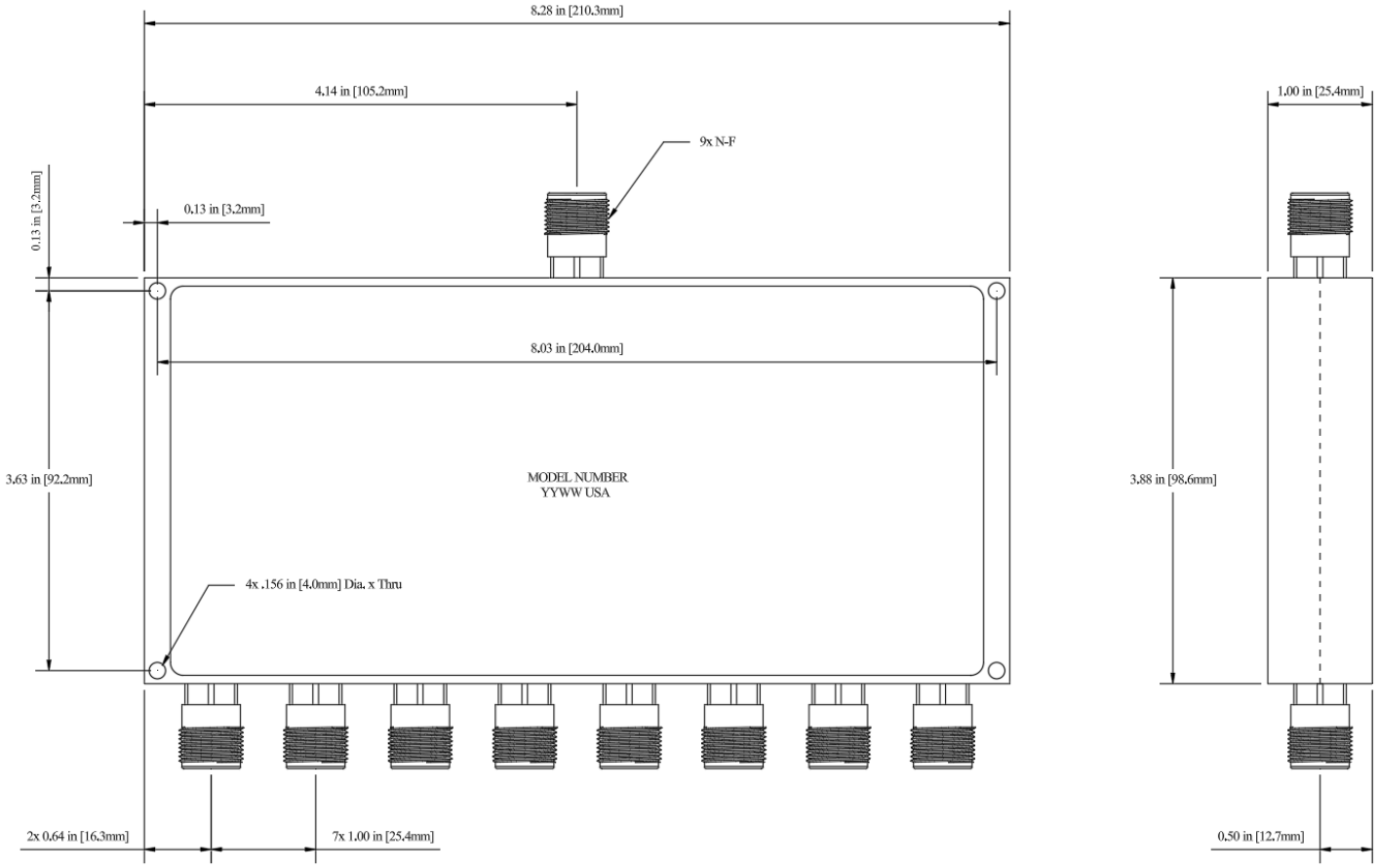
Outline Dimensions



Outline drawing: OL-8004-N
Dimensions are in inches, [mm] shown for convenience.
Tolerances on 2-pl decimals: ±.03. 3-pl decimals: ± .015.