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Pick Off Tee, DC-8GHz, 30dB, SMA-Female

WMPT-8-30dB-S

Description

WMPT-8-30dB-S is a special type of resistive coupler that operates from DC-8GHz with 30dB coupling factor. Typical insertion loss is 0.8dB at 8GHz, typical return loss is 21dB. Pick Off Tees, also called Resistive Taps, are unique devices that provide a very flat coupled response over a wide band, from very ow frequency to the GHz range. They are not directional devices meaning the input and output may be reversed. Assembled and tested in USA using RoHS compliant materials, although lead solder may be used on special order to support military applications.

Photo is representative.

Specifications	Min.	Typ.	Max.	Units
Frequency	DC	--	8	GHz
Impedance	--	50	--	Ohm
Coupling	--	30±2.0	--	dB
Frequency Sensitivity (Flatness)	--	±2.0	--	dB
Mainline Loss[1]	--	0.8 @ 8GHz	1.2	dB
Return Loss (In and Out)	14	22	--	dB
Input Power (CW)[2]	--	--	0.5	Watts

Mechanical

Connector Interface	SMA-Female
Operating Temperature[3]	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight	0.8 oz (22.7 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

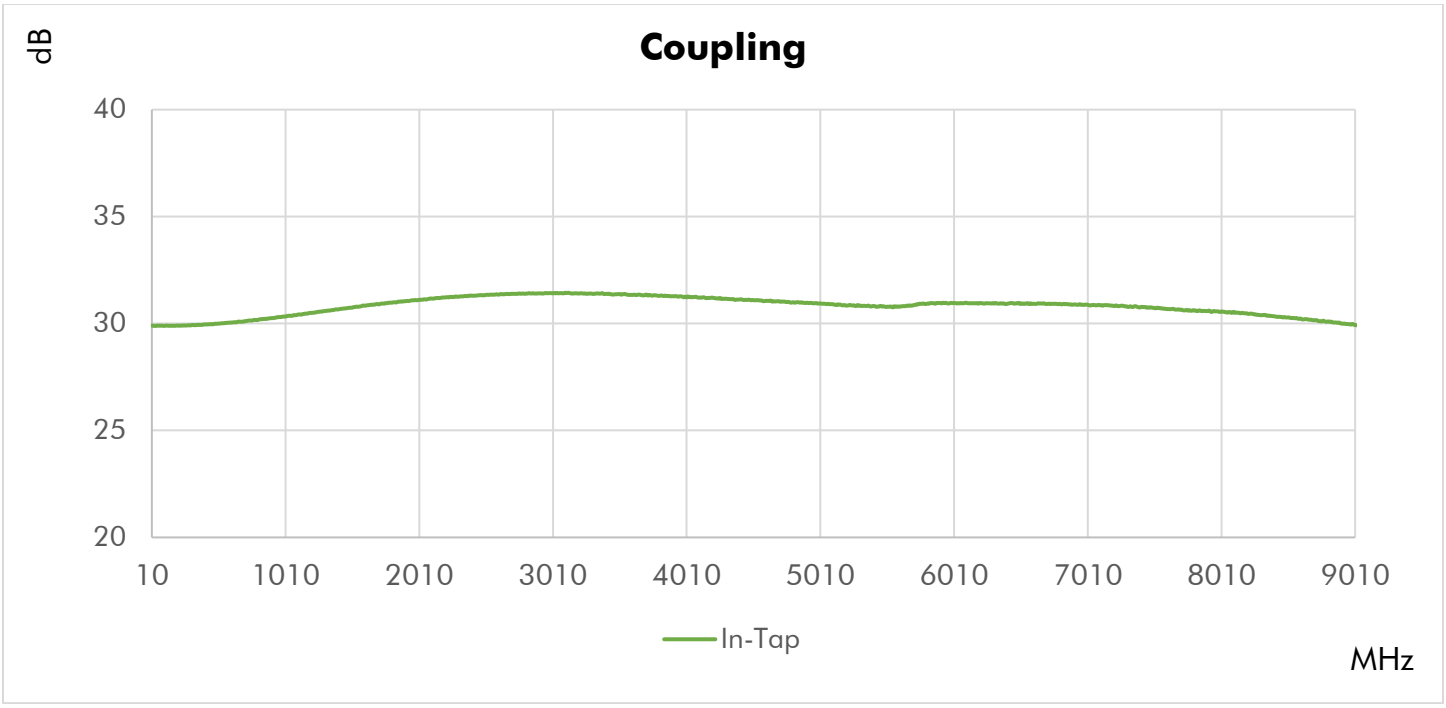
Materials

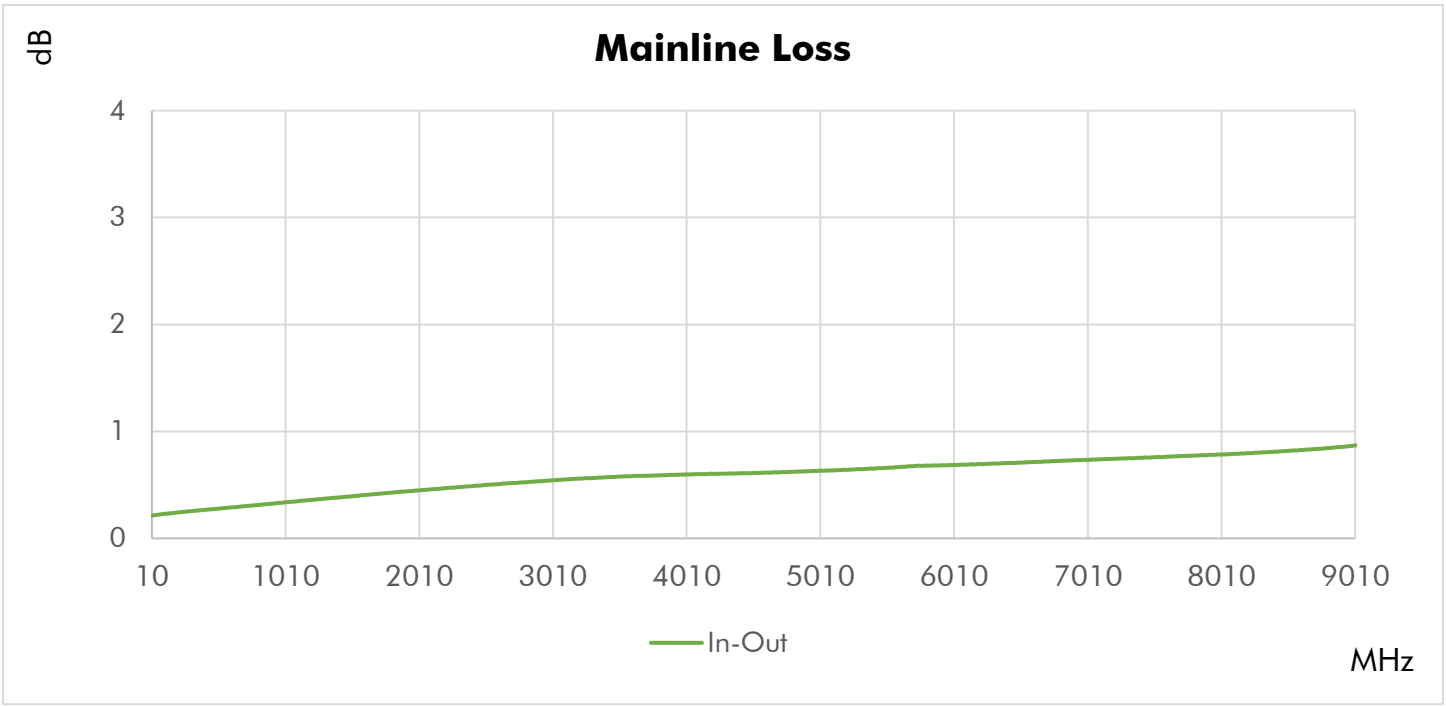
RoHS and REACH Compliant[4]

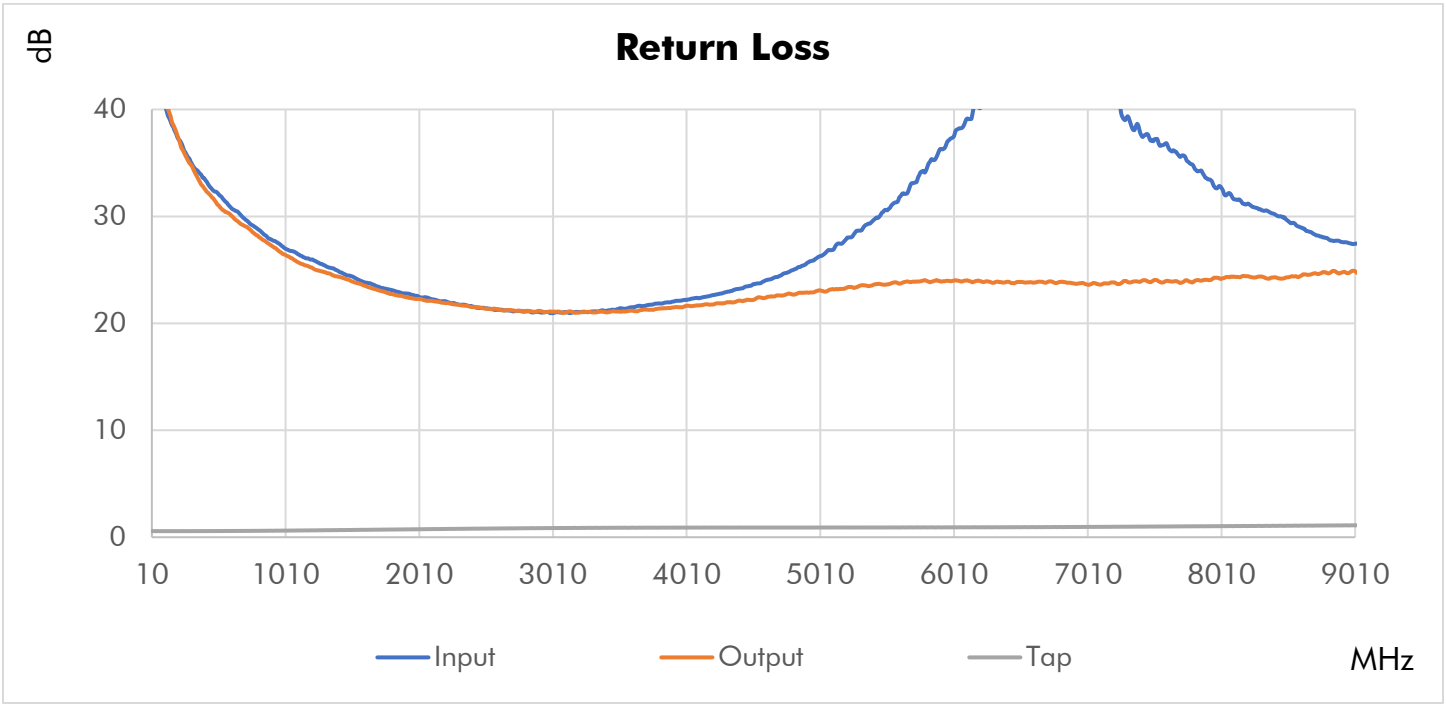
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Green Paint

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

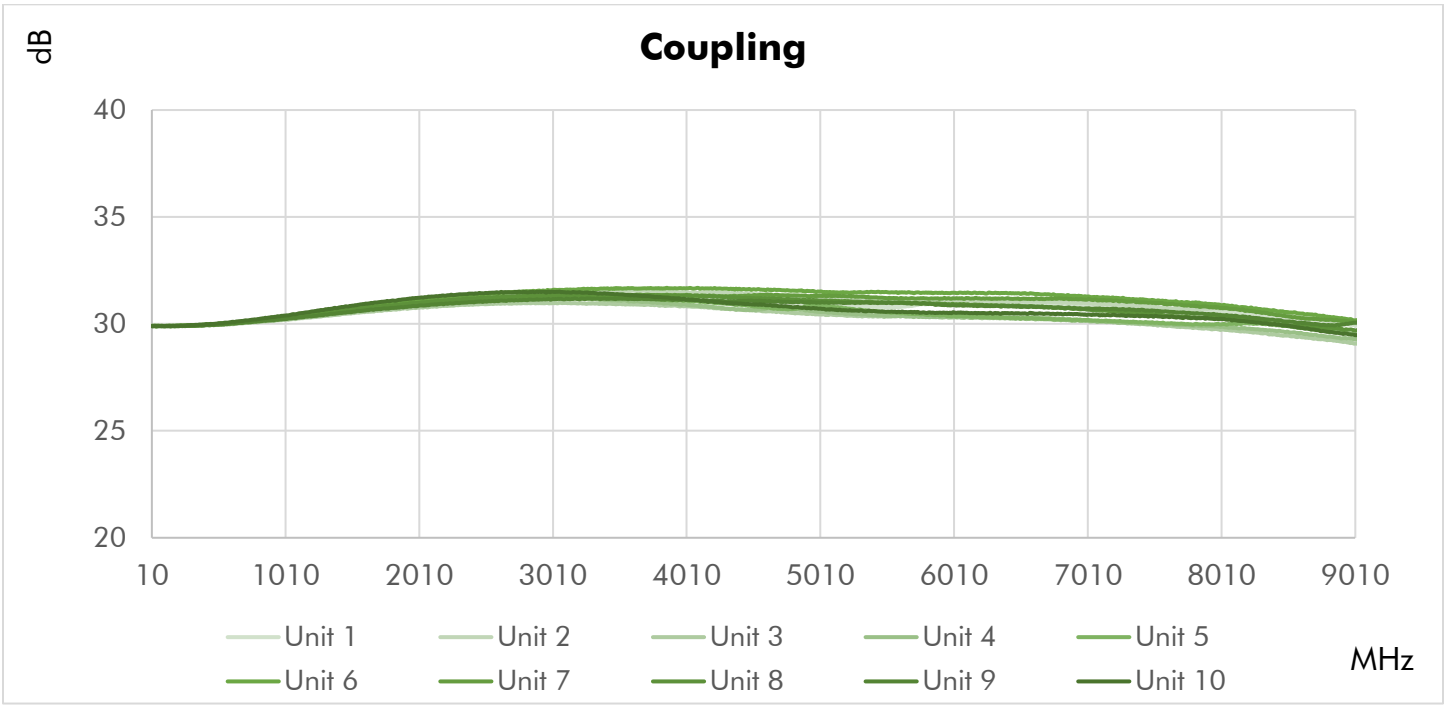
Typical Performance at +25 °C







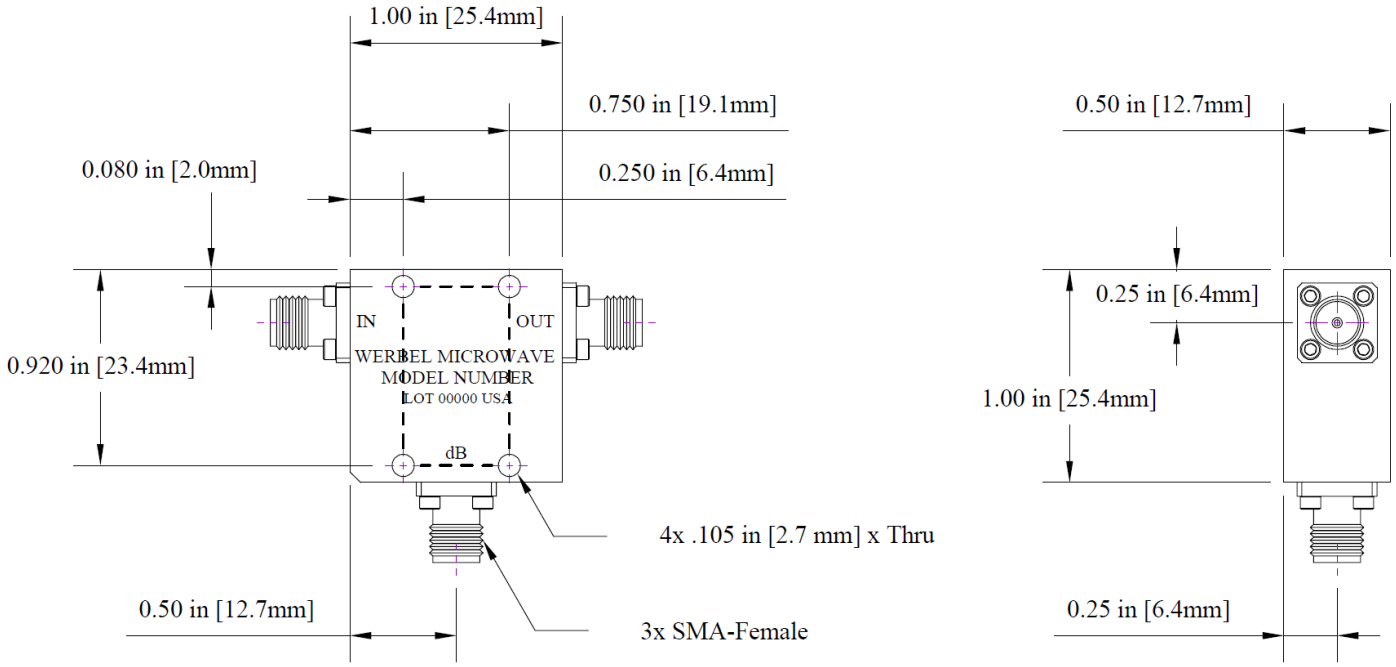
Repeatability in Production



Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Mainline Loss (dB)	Coupling (dB)
	In	Out	Tap	In-Out	In-Tap
10	42.01	43.15	0.57	0.21	29.91
20	42.00	42.90	0.57	0.21	29.89
30	42.04	42.59	0.57	0.22	29.89
40	41.45	42.59	0.57	0.22	29.89
50	41.21	42.46	0.57	0.22	29.90
60	40.90	42.17	0.57	0.22	29.90
70	40.95	41.83	0.57	0.22	29.90
80	40.70	41.41	0.57	0.22	29.90
90	40.75	40.88	0.57	0.23	29.90
100	40.62	40.61	0.57	0.23	29.89
200	37.44	37.61	0.57	0.24	29.91
300	35.12	34.86	0.57	0.25	29.91
400	33.59	32.66	0.58	0.27	29.96
500	32.21	31.11	0.58	0.28	29.99
600	30.84	30.12	0.58	0.29	30.04
700	29.82	29.13	0.59	0.30	30.10
800	28.84	28.22	0.60	0.31	30.17
900	27.86	27.31	0.61	0.32	30.25
1000	27.06	26.45	0.62	0.34	30.33
1500	24.42	23.96	0.68	0.39	30.74
2000	22.54	22.29	0.75	0.45	31.10
2500	21.43	21.38	0.81	0.50	31.32
3000	20.96	21.08	0.86	0.54	31.42
3500	21.36	21.11	0.89	0.58	31.37
4000	22.20	21.61	0.90	0.60	31.26
4500	23.59	22.17	0.90	0.61	31.10
5000	26.24	23.09	0.91	0.63	30.94
5500	30.61	23.62	0.91	0.66	30.77
6000	37.38	23.98	0.93	0.69	30.95
6500	45.59	23.87	0.94	0.71	30.92
7000	43.32	23.64	0.96	0.73	30.88
7500	37.03	24.00	1.00	0.76	30.73
8000	32.81	24.16	1.03	0.78	30.54
8500	29.66	24.30	1.08	0.82	30.28
9000	27.43	24.91	1.11	0.87	29.95

Outline Dimensions



Outline # OL-1030
Dimensions are in inches, [mm] shown for convenience.
Tolerances on 2-pl decimals: ±.03. 3-pl decimals: ± .015.