

Directional Coupler, 2-8GHz, 6dB, SMA Female

WMC-2-8-6dB-S



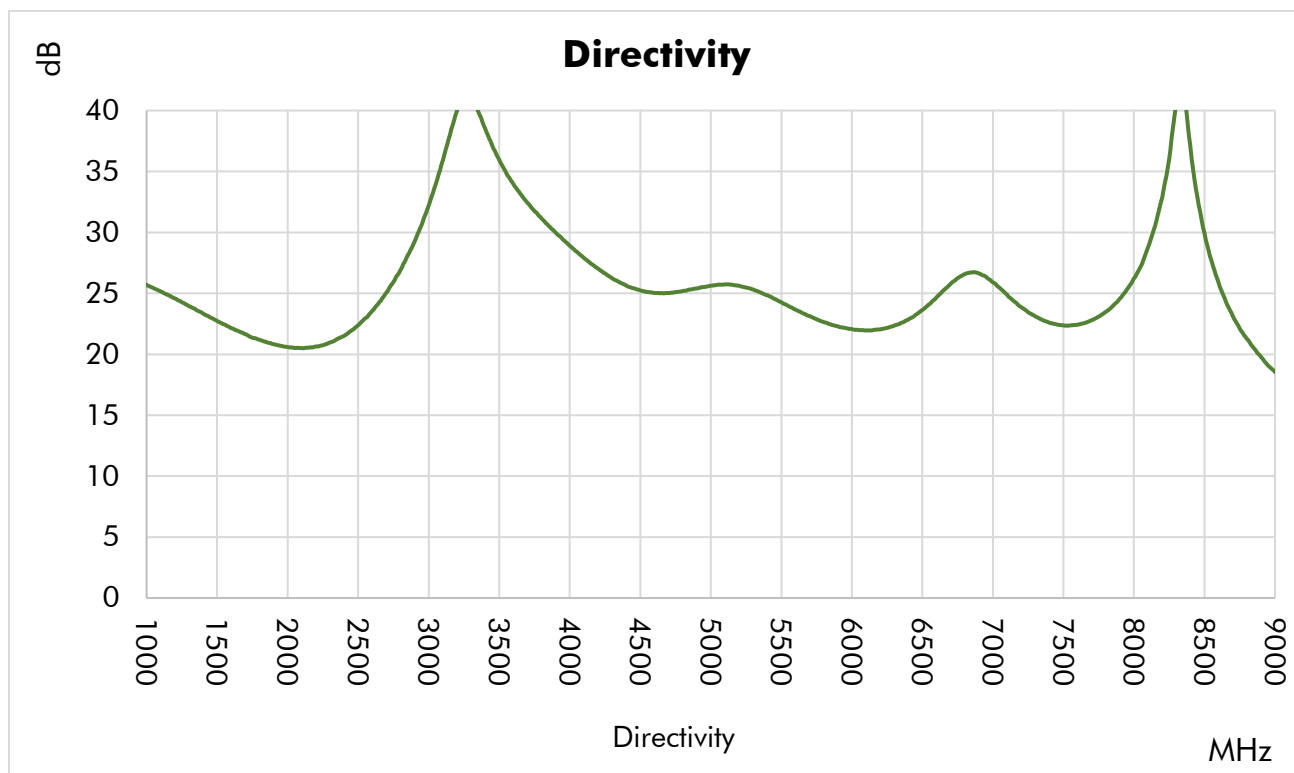
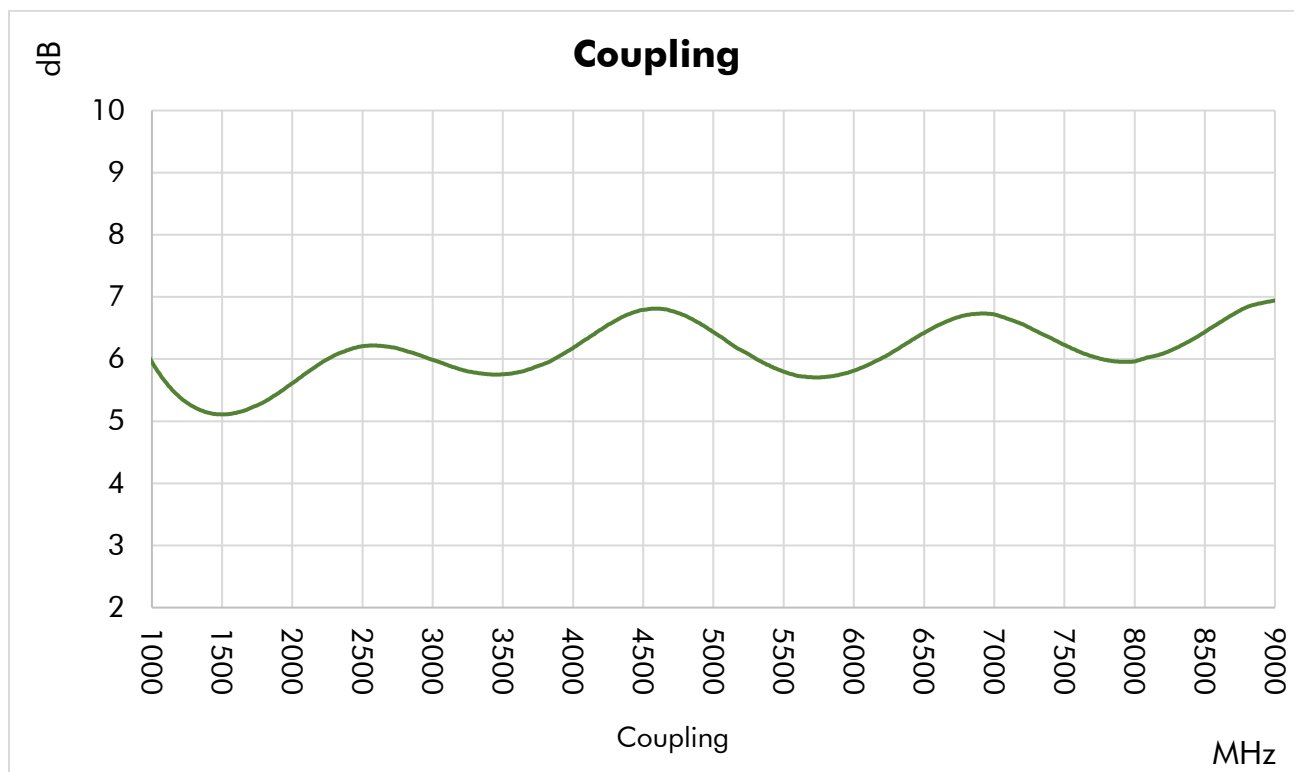
Parameter	Min.	Typ.	Max.	Unit
Frequency Range	2000		8000	MHz
Impedance		50		Ω
Coupling		6.5 ± 1.0		dB
Frequency Sensitivity (Flatness)		± 0.50	± 1.25	dB, typ.
Mainline Loss ¹		1.4	2.2	dB, max.
Directivity	18	22		dB, min.
Mainline Return Loss	19	24		dB, min.
Secondary Line Return Loss	19	22		dB, min.
Isolation		28.5		dB, typ.
Forward Power (CW) ²			50	W, max.
Reverse Power (CW) ²			3	W, max.
Termination Power ⁵		1		W, max.
DC Current (Input-Output)		1		A, max.

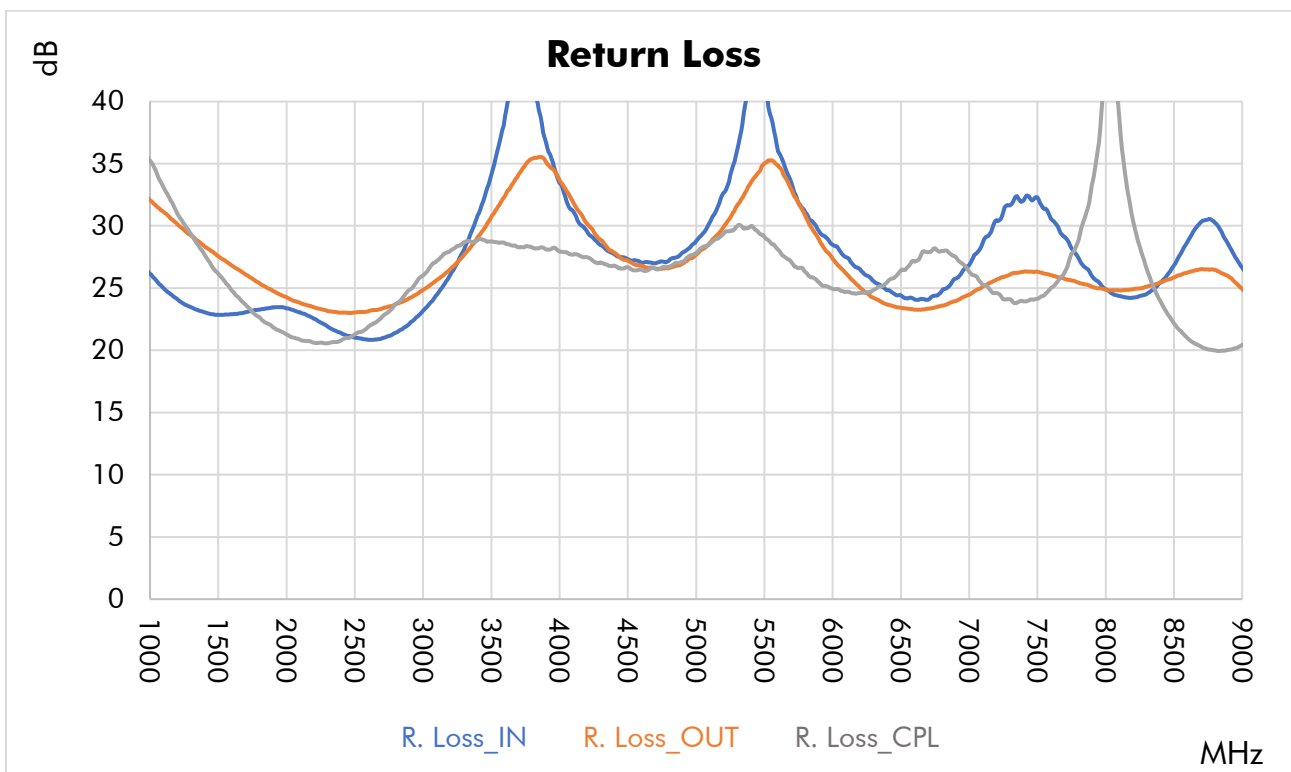
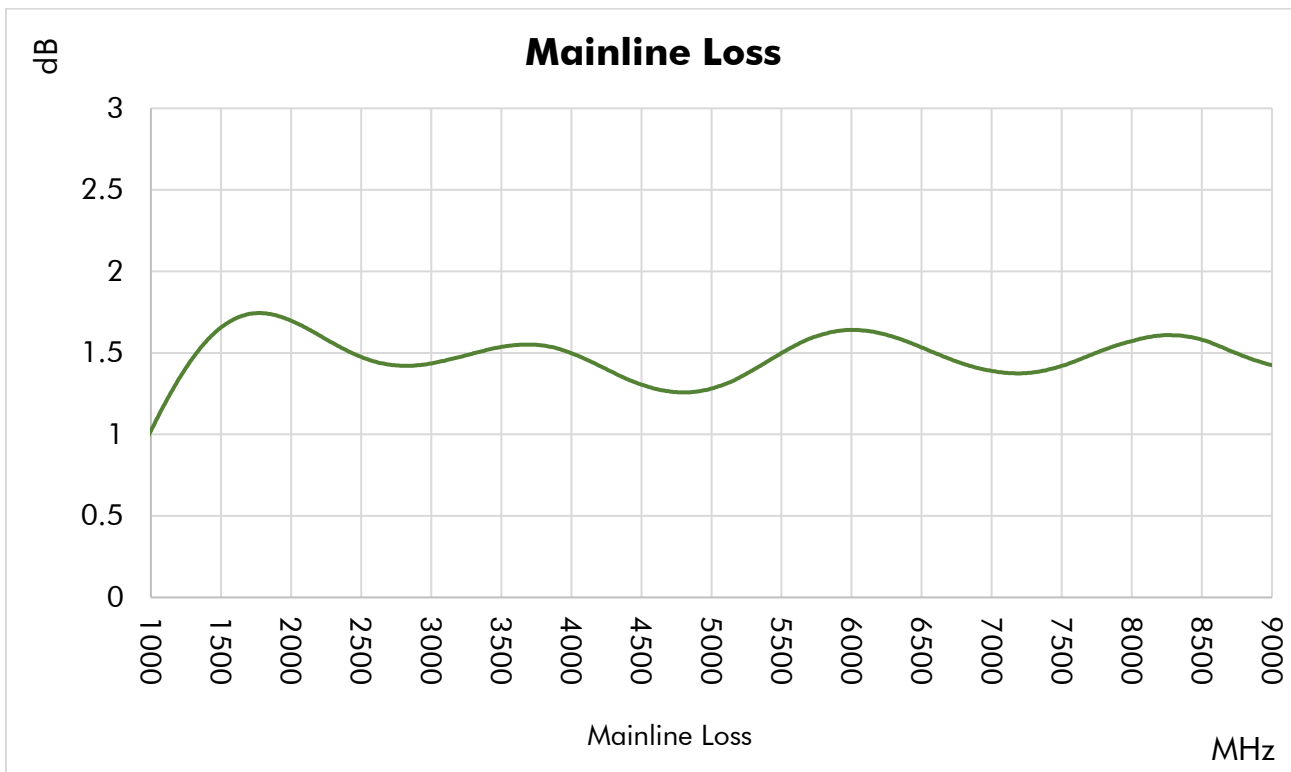
Connector Interface	SMA Female
Operating Temperature ³	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Nominal Weight	28 g (1.0 oz)
Operating Humidity	10-90% (non-condensing)
Operating Environment	Indoor Use Only
HTSUS Code	8525.50.3035
ECCN	EAR99

RoHS Status ⁴	RoHS3 Compliant
REACH Status ⁴	REACH Unaffected
Enclosure Material	Aluminum
Connectors Material	Stainless Steel
Contacts Material	Beryllium Copper, Gold Plated
Insulators Material	Virgin PTFE
Finish	Green Paint

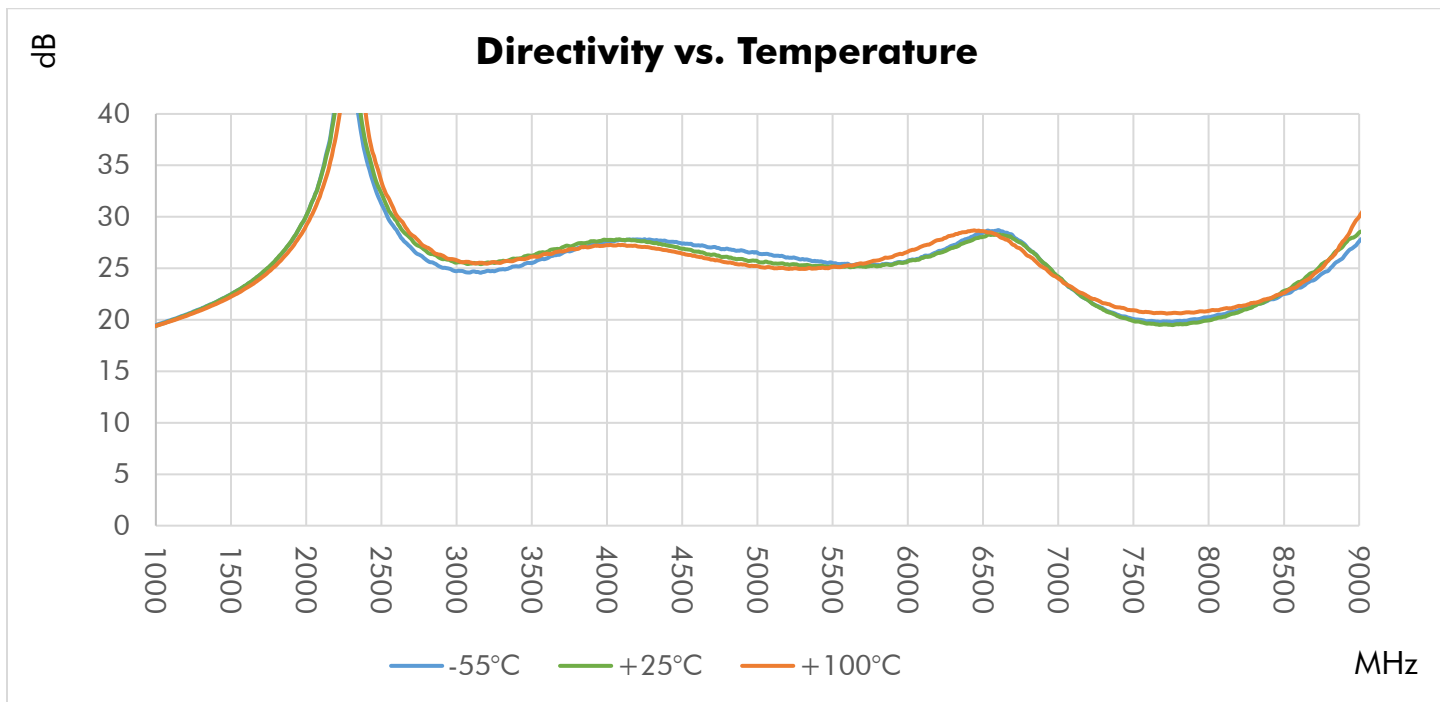
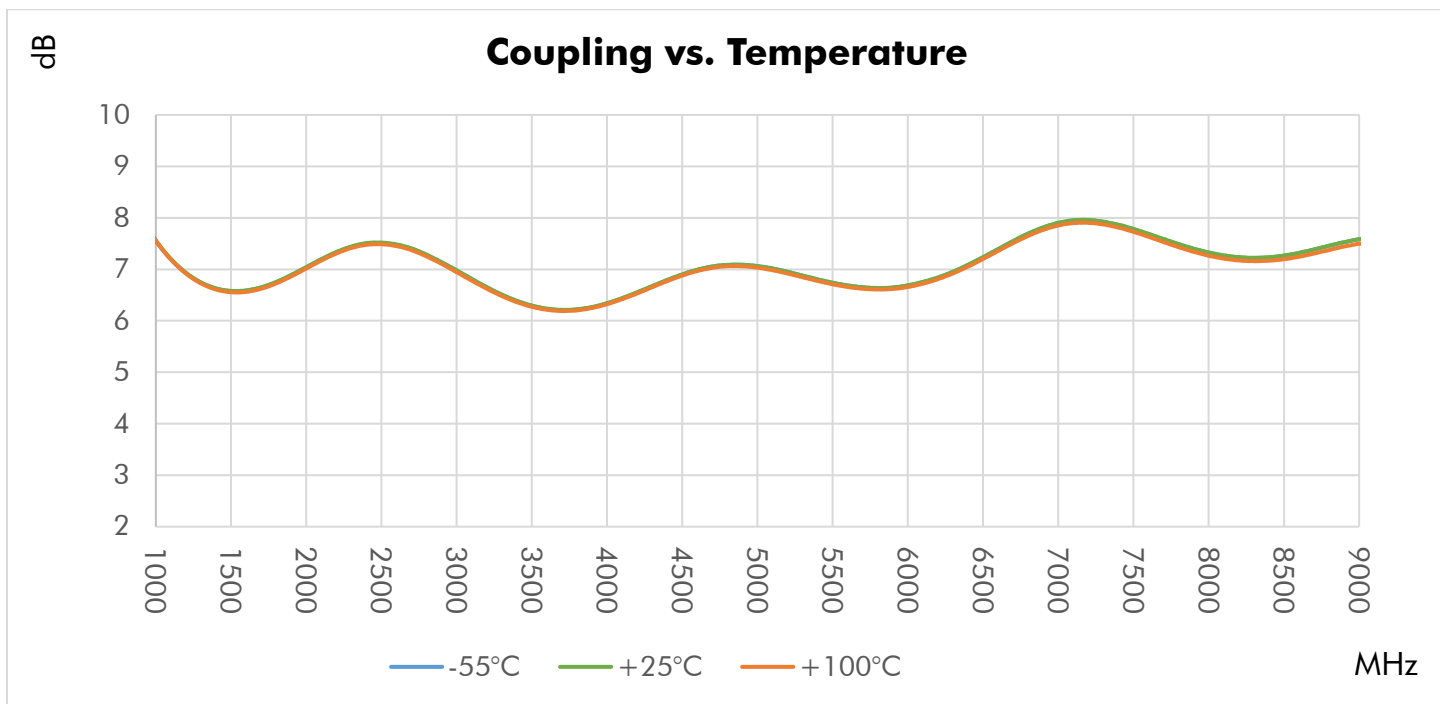
1. Mainline loss includes coupling loss.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
3. Electrical specifications are tested at +25 °C.
4. To the best of our knowledge at the time of publication.
5. Up to +50 °C; derate linearly to 350mW at 100 °C.

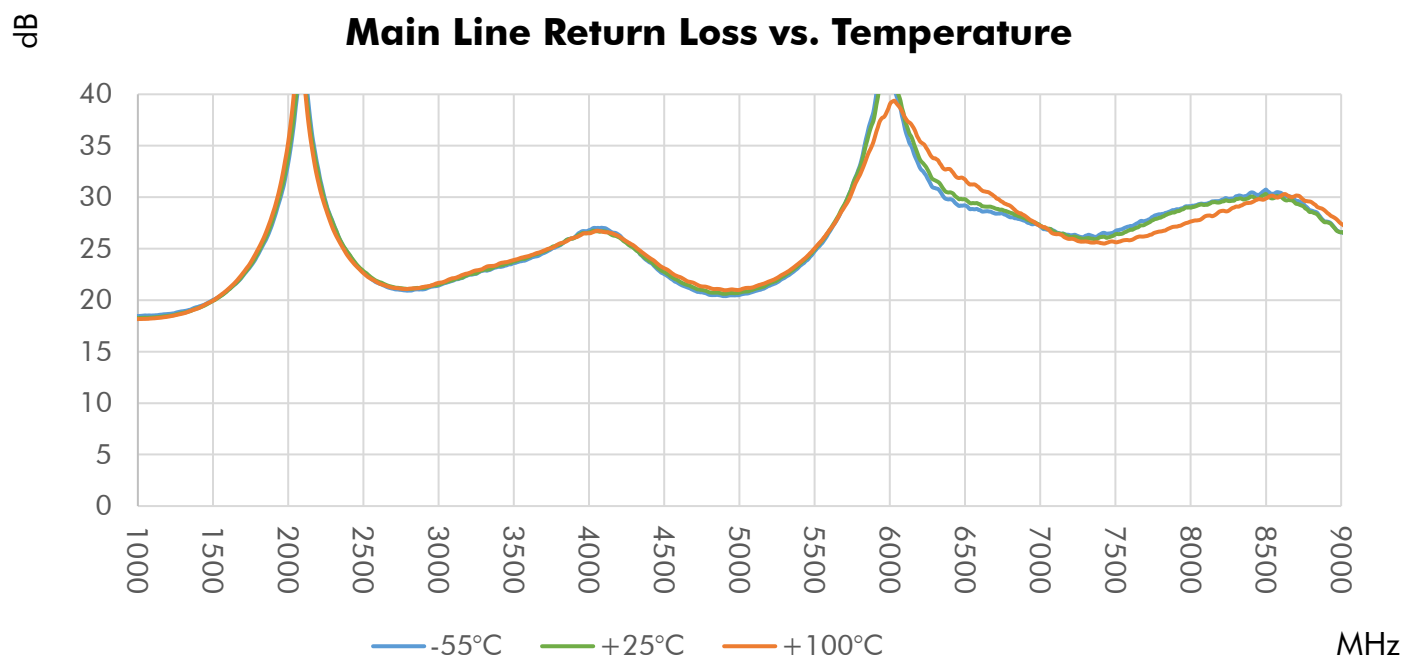
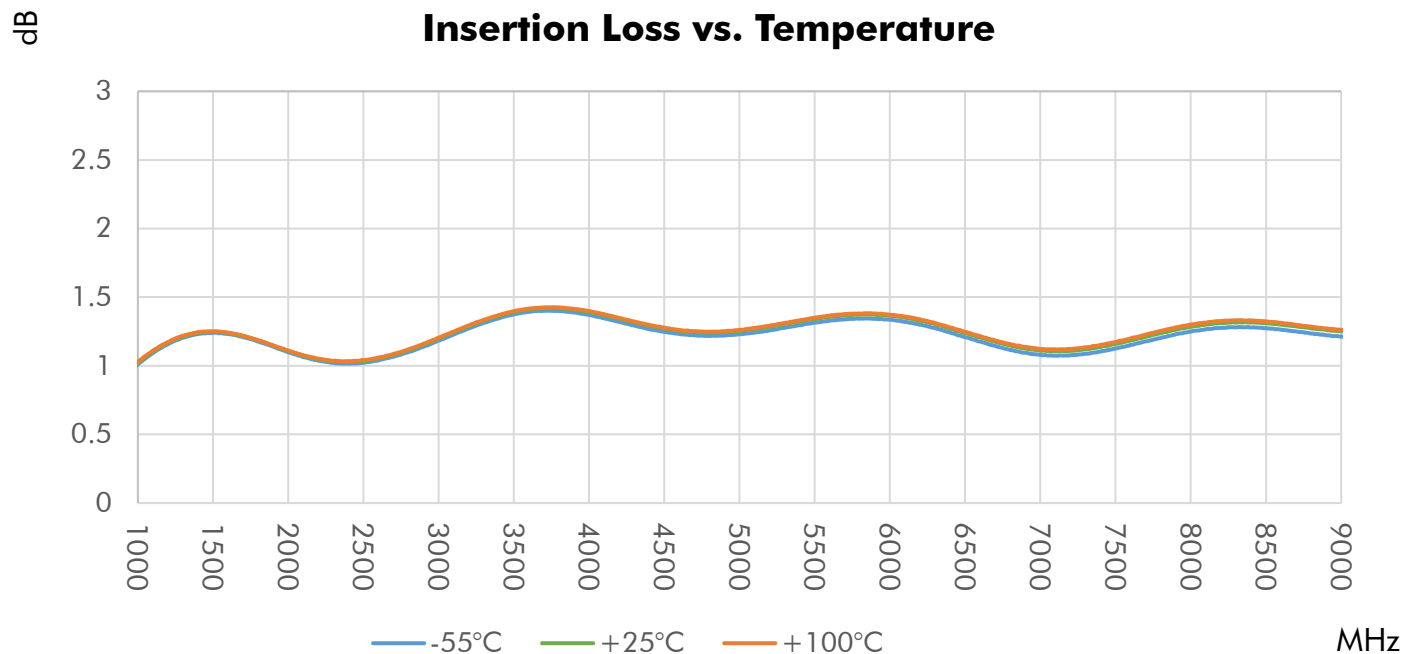
Typical Performance at +25 °C





Typical Performance Over Temperature

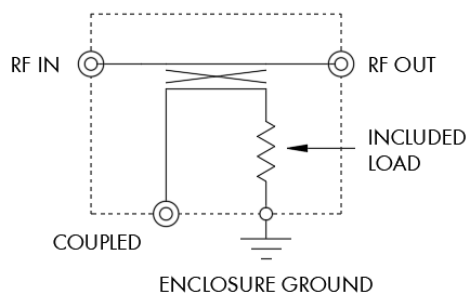




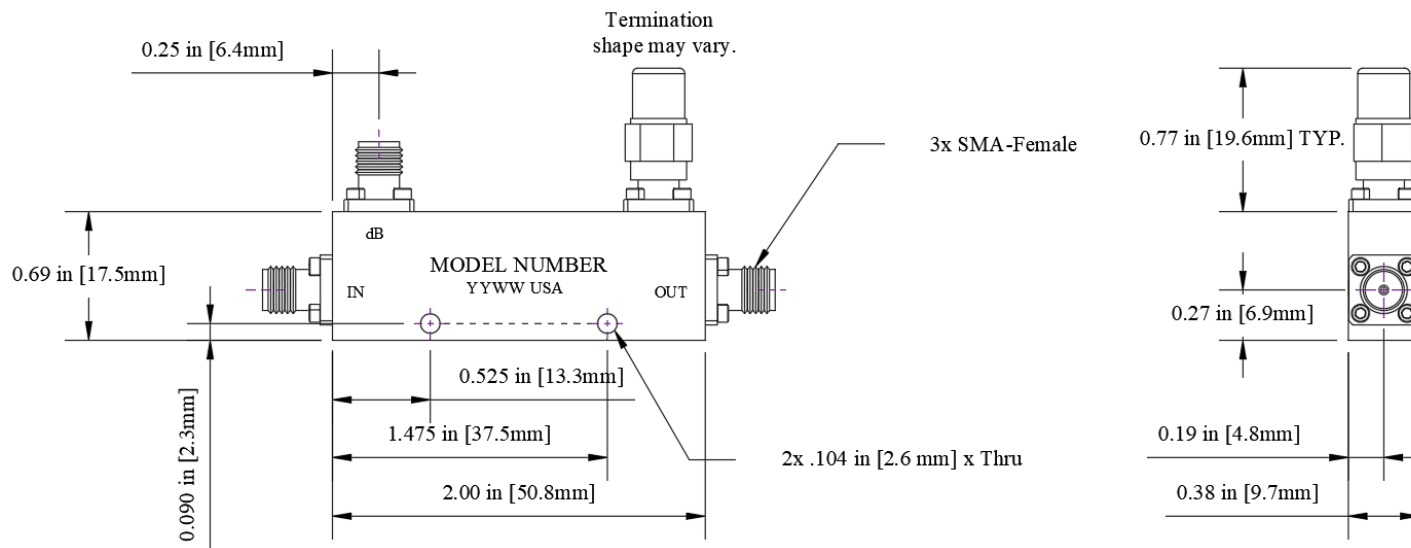
Typical Performance Data

Frequency (MHz)	Return Loss (dB)			Mainline Loss (dB)	Coupling (dB)	Directivity (dB)
	In	Out	Cpl.	In-Out	In-Cpl.	
2000	23.2	23.9	21.2	1.6	5.7	20.6
2250	22.0	23.1	20.6	1.5	6.1	20.8
2500	20.9	23.3	21.4	1.4	6.2	22.4
2750	21.5	23.8	23.3	1.4	6.1	26.0
3000	23.8	25.3	26.3	1.5	6.0	32.4
3250	27.8	27.8	28.6	1.5	5.8	41.2
3500	35.8	32.3	28.8	1.6	5.8	35.8
3750	43.0	35.8	28.6	1.5	5.9	31.7
4000	31.8	32.0	28.1	1.4	6.3	28.9
4250	28.2	28.2	27.1	1.3	6.6	26.6
4500	27.2	26.6	26.6	1.2	6.8	25.2
4750	27.4	26.6	26.7	1.3	6.7	25.1
5000	29.6	28.4	28.1	1.4	6.4	25.6
5250	36.8	31.9	29.6	1.5	6.0	25.5
5500	40.5	35.3	28.9	1.6	5.8	24.2
5750	30.6	30.4	26.6	1.7	5.7	22.9
6000	27.7	26.0	25.0	1.6	5.8	22.1
6250	25.6	24.1	24.7	1.5	6.1	22.2
6500	24.5	23.4	26.6	1.4	6.5	23.7
6750	24.5	23.5	28.1	1.4	6.7	26.3
7000	27.3	24.8	26.0	1.4	6.7	25.9
7250	32.8	25.9	24.0	1.4	6.5	23.4
7500	31.7	26.1	24.3	1.5	6.2	22.4
7750	26.9	25.6	28.0	1.6	6.0	23.1
8000	24.6	24.8	52.1	1.6	6.0	26.3

Simplified Electrical Schematic



Outline Dimensions



Outline # OL-1305

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

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

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