

Thin-Film Directional Couplers

DB0603N 3dB 90° Couplers



GENERAL DESCRIPTION RFAP TECHNOLOGY

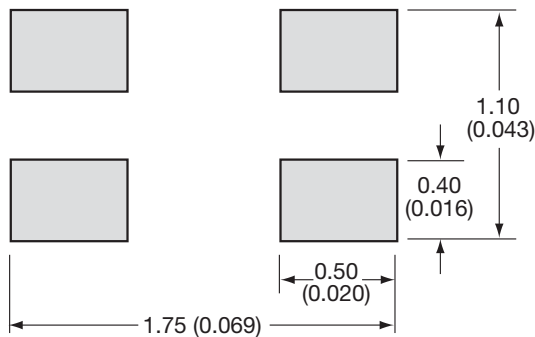
The DB0603N 3dB 90° Coupler is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The RFAP LGA 3dB 90° Coupler will be offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

APPLICATIONS

- Balanced Amplifiers and Signal Distribution in Wireless Communications

Recommended Pad Layout Dimensions mm (inches)



FEATURES

- Miniature 0603 size
- Low I. Loss
- High Isolation
- Surface Mountable
- RoHS Compliant
- Supplied on T&R

LAND GRID ARRAY ADVANTAGES:

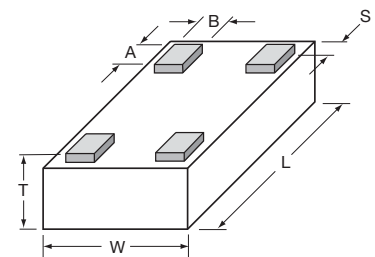
- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- Better Heat Dissipation

DIMENSIONS:

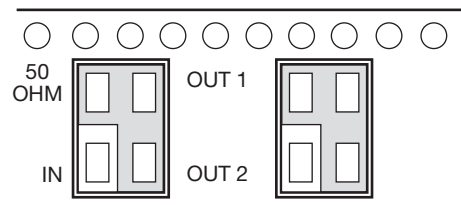
millimeters (inches)

L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
S	0.05±0.05 (0.002±0.002)

Bottom View



ORIENTATION IN TAPE



ELECTRICAL PARAMETERS

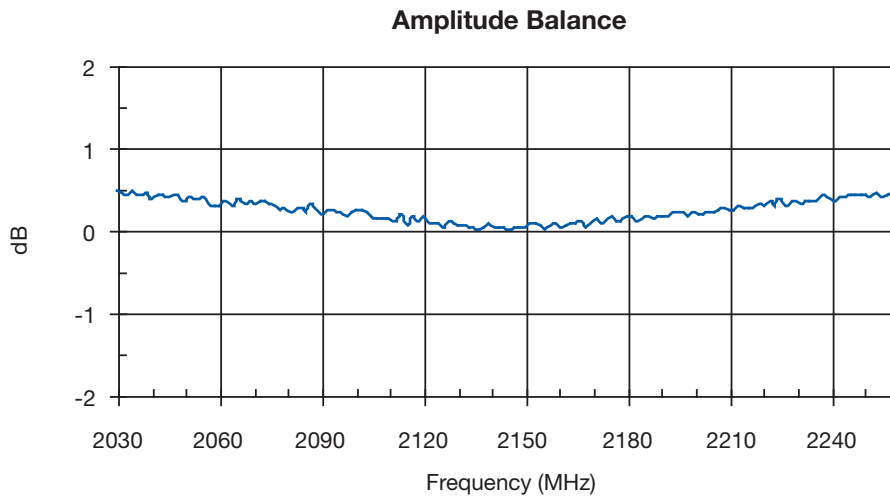
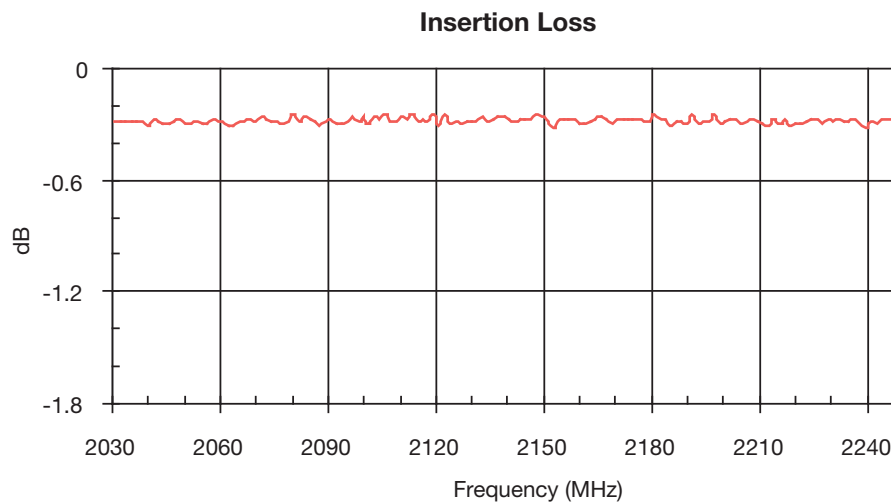
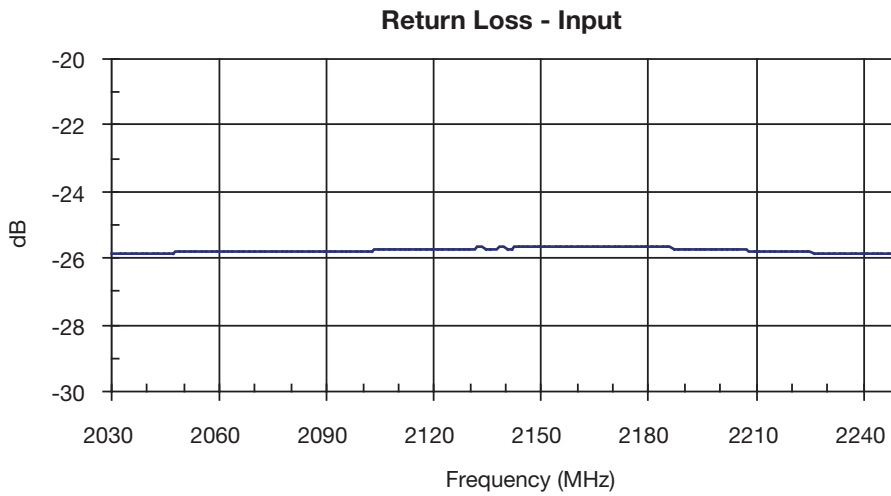
Part Number	Frequency MHz		Port Impedance Ω	Return Loss [dB]		Isolation [dB]		Insertion Loss [dB]		Amplitude Balance [dB]		Phase Balance (Relative to 90°) Deg		Power Handling Watts
	Min.	Max.		Min.	Typ.	Min.	Typ.	Typ.	Max.	Typ.	Max.	Typ.	Max.	
DB0603N2140ANTR	2040	2240	50	15	26	15	23	0.30	0.40	0.50	0.80	2	3	3
DB0603N2400ANTR	2300	2500	50	12	17	15	23	0.25	0.35	0.30	0.80	2	3	3
DB0603N3000ANTR	2850	3150	50	12	15	15	26	0.20	0.30	0.30	0.80	2	3	3
DB0603N3500ANTR	3300	3700	50	12	15	15	26	0.20	0.30	0.30	0.80	2	3	3

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2040MHz to 2240MHz DB0603N2140ANTR



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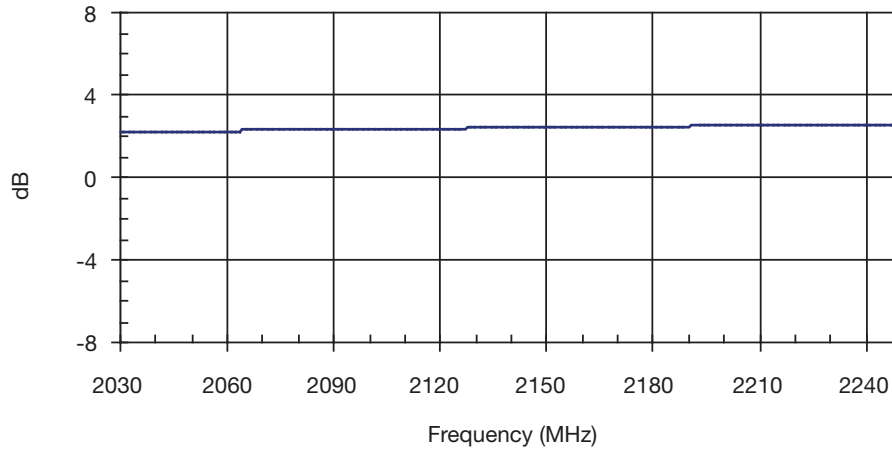
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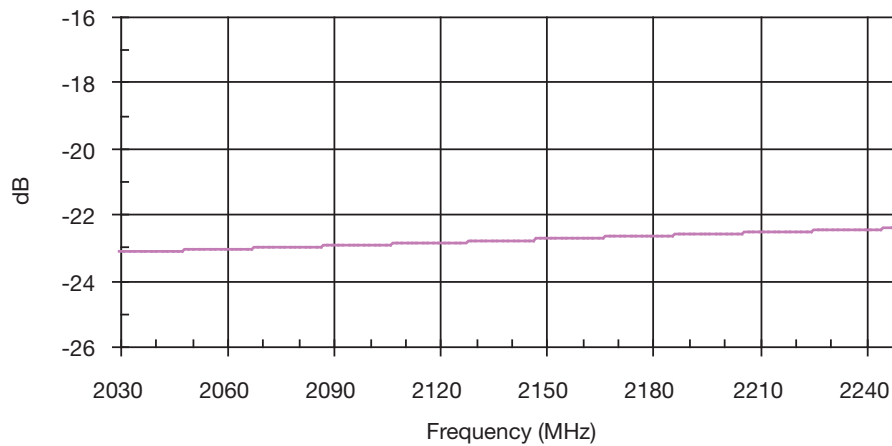


2040MHz to 2240MHz DB0603N2140ANTR

Phase Balance



Isolation



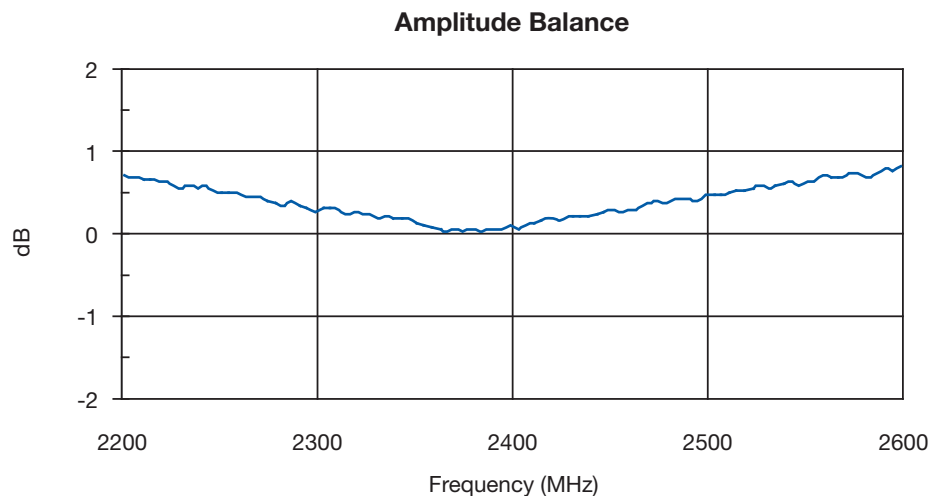
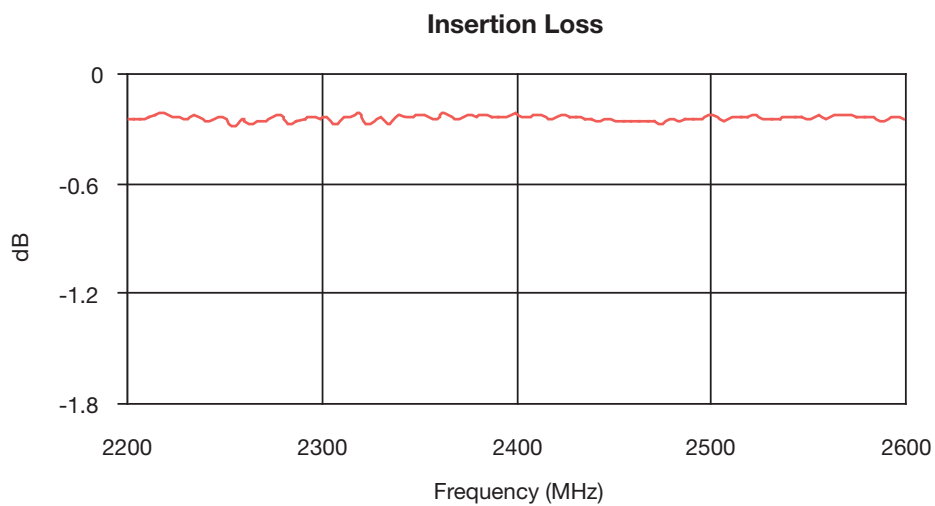
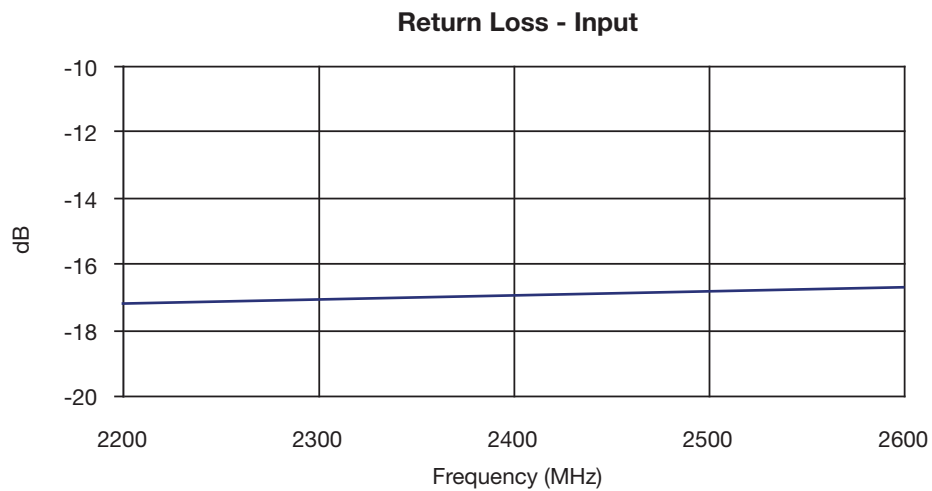
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Thin-Film Directional Couplers

DB0603N 3dB 90° Couplers



2200MHz to 2600MHz DB0603N2400ANTR



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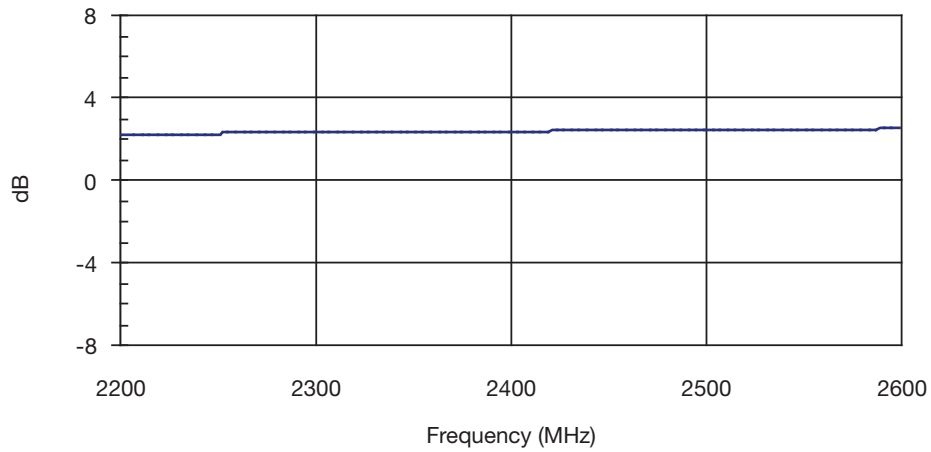
Thin-Film Directional Couplers

DB0603N 3dB 90° Couplers

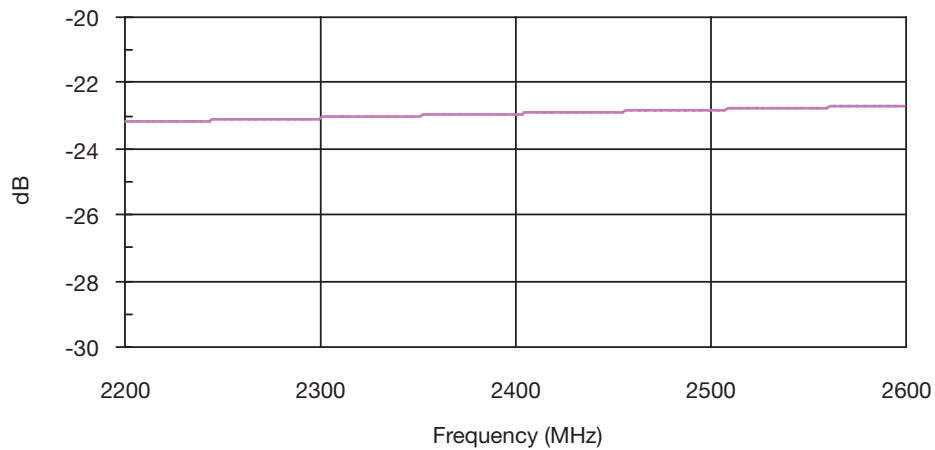


2200MHz to 2600MHz DB0603N2400ANTR

Phase Balance



Isolation



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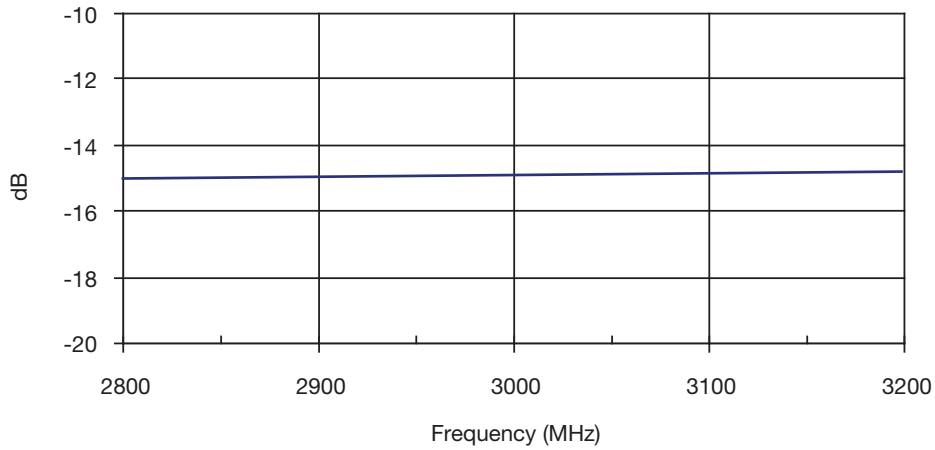
DB0603N 3dB 90° Couplers



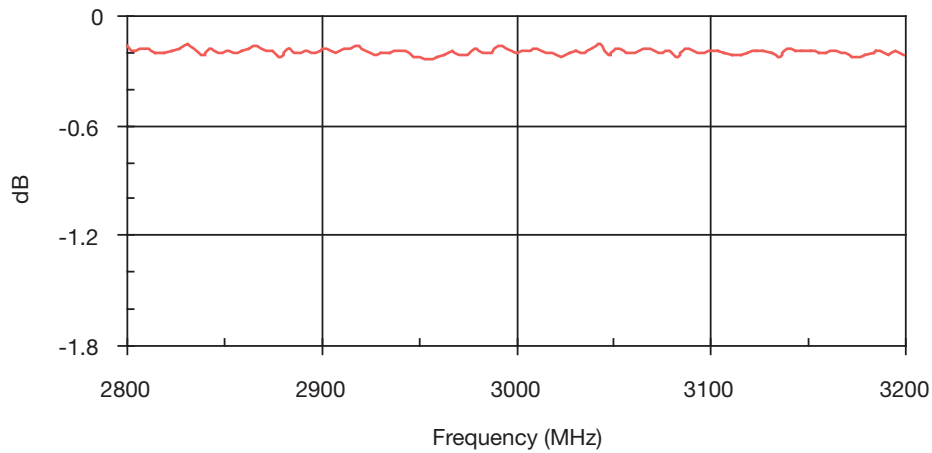
2850MHz to 3150MHz DB0603N3000ANTR

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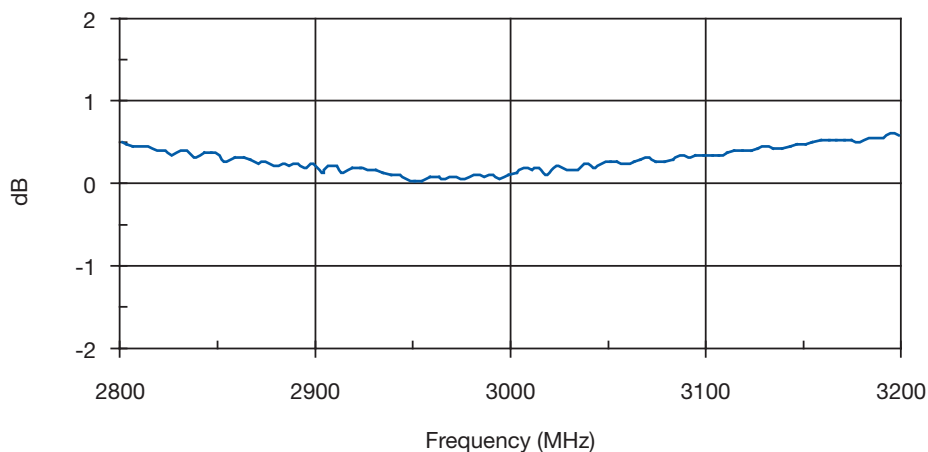
Return Loss - Input



Insertion Loss



Amplitude Balance



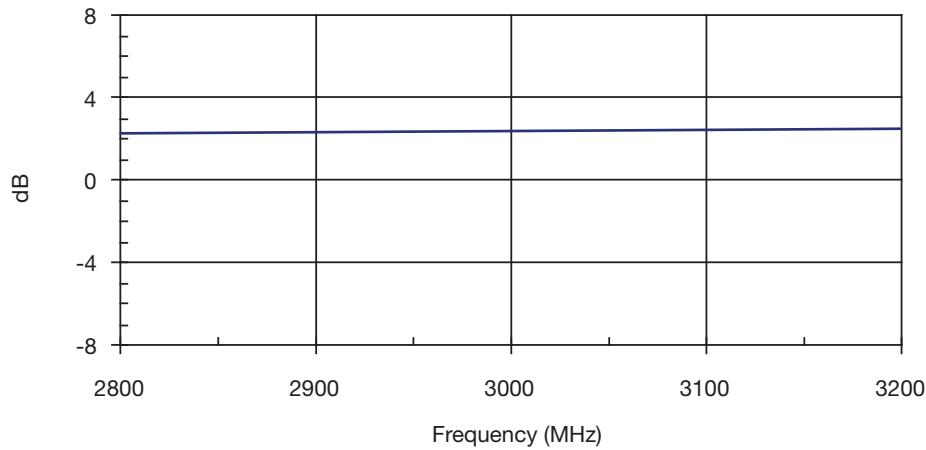
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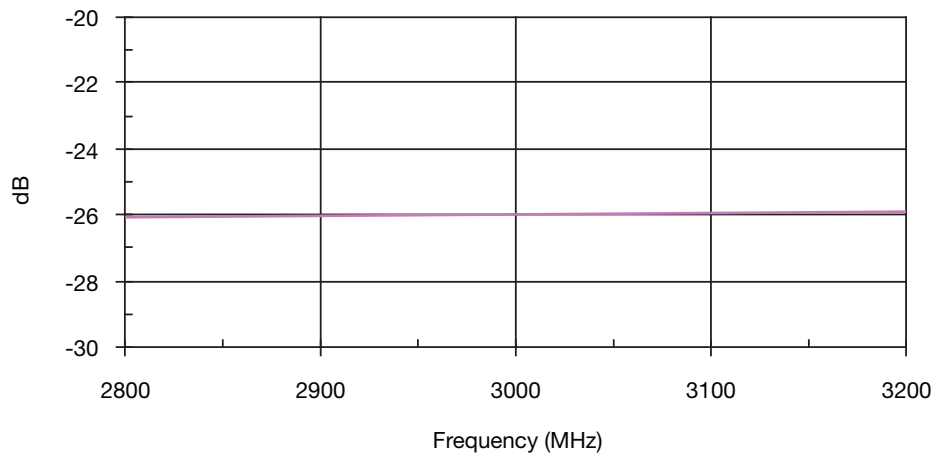


2850MHz to 3150MHz DB0603N3000ANTR

Phase Balance



Isolation



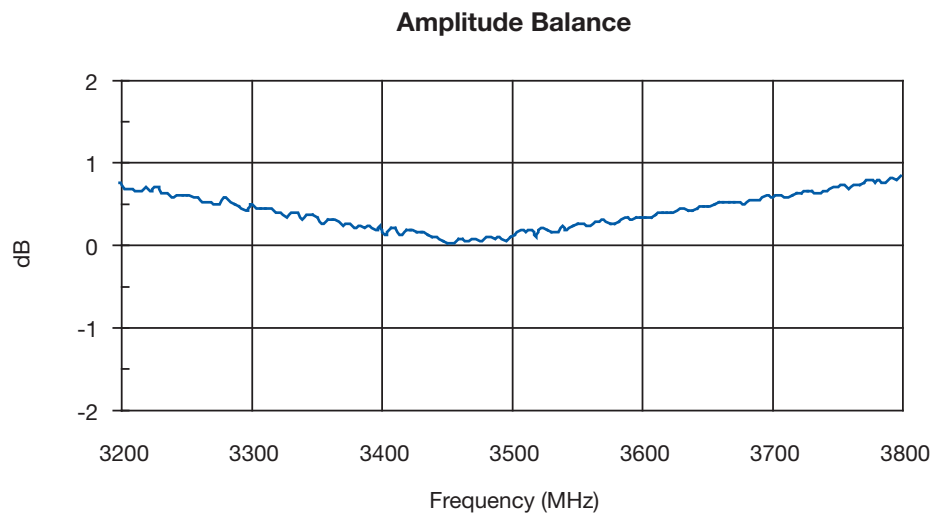
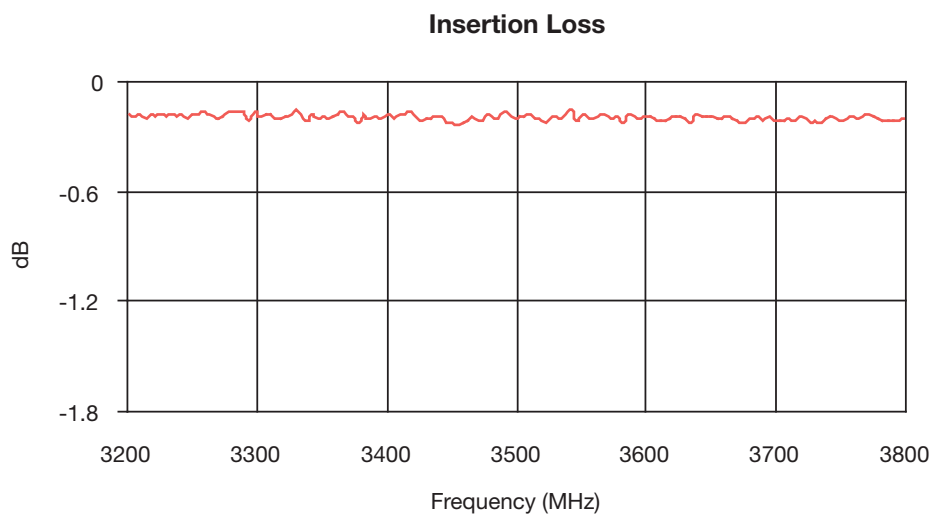
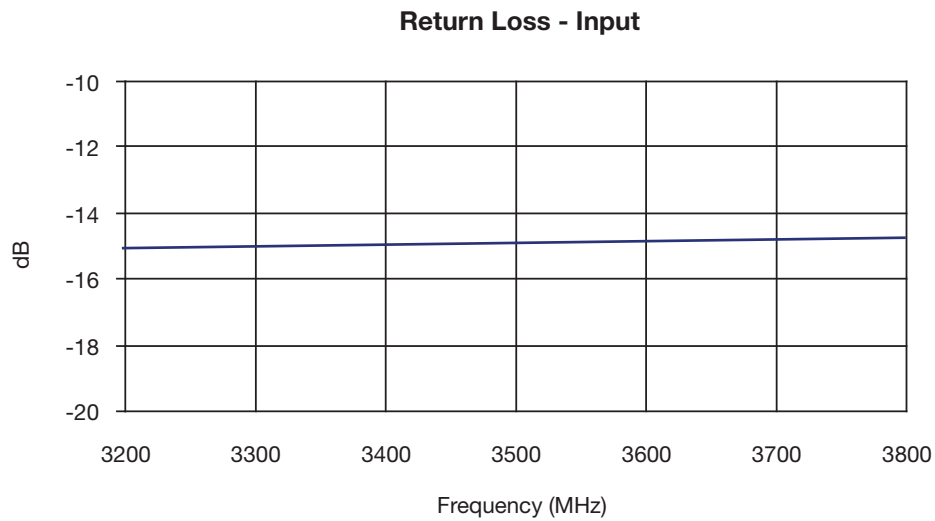
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Thin-Film Directional Couplers

DB0603N 3dB 90° Couplers



3200MHz to 3800MHz DB0603N3500ANTR



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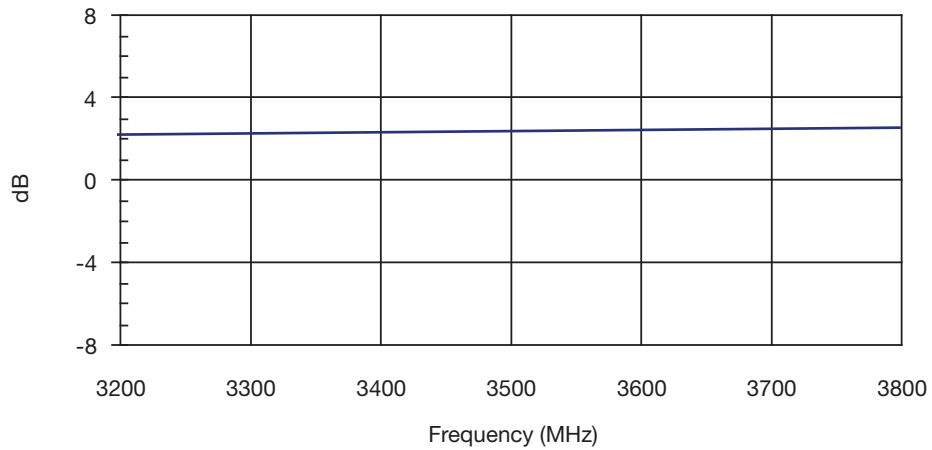
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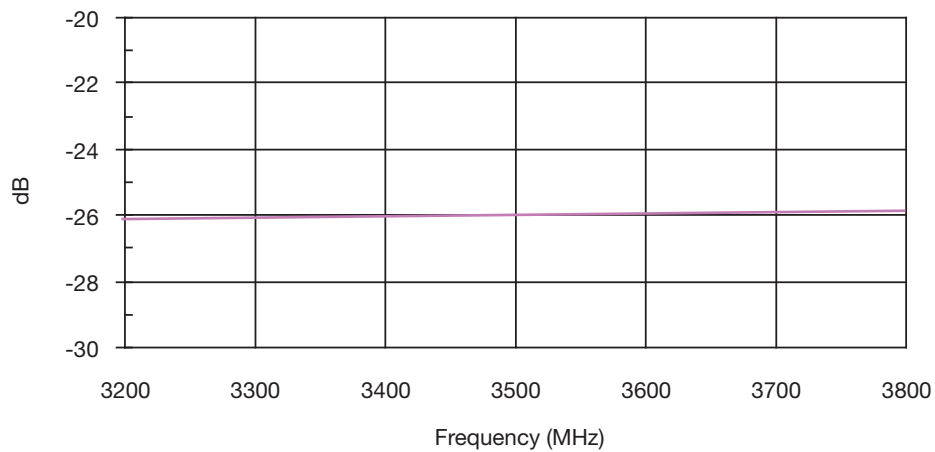


3200MHz to 3800MHz DB0603N3500ANTR

Phase Balance



Isolation



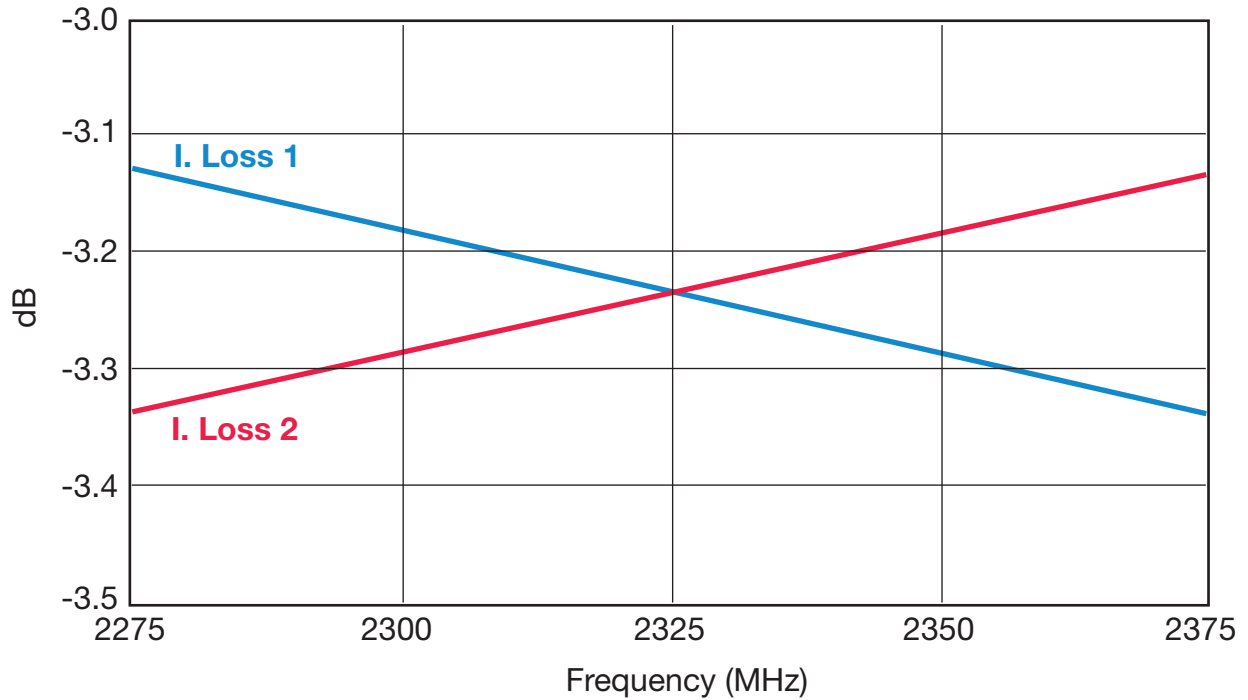
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Thin-Film Directional Couplers

DB0805 3dB 90° Couplers



2325 ± 50MHz DB0805A2325AWTR



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