

# DIRECTIONAL COUPLER

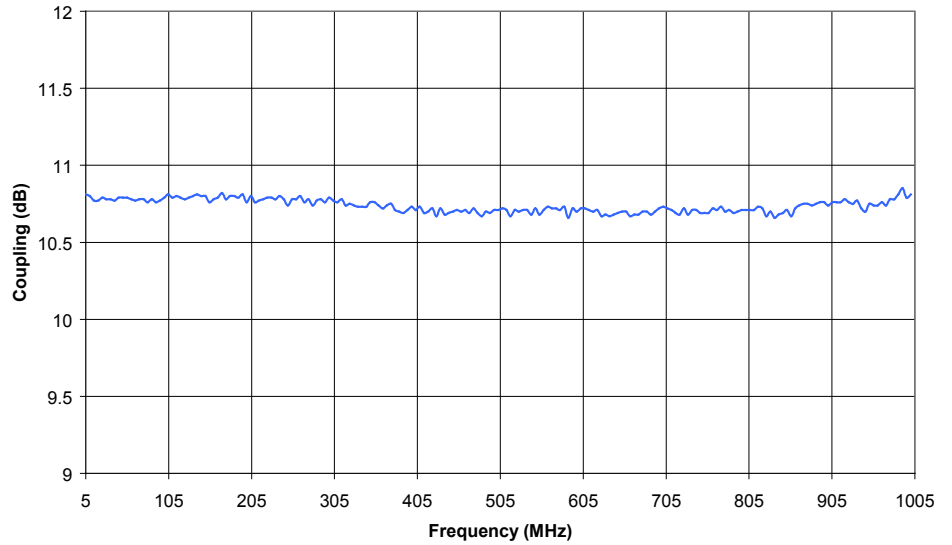
## SURFACE MOUNT MODEL: SC-4B

**WIDE BANDWIDTH**

**5 - 1000 MHz**

**FEATURES:**

- ▶ Low Insertion Loss
- ▶ Excellent Coupling Flatness
- ▶ High Directivity
- ▶ Lead Free - RoHS Compliant
- ▶ Small Size, Surface Mount



**SPECIFICATIONS (Rev. B 12/18/06)**

<b>Frequency</b>	5 - 1000 MHz		
<b>Coupling</b>	10.7 dB ±0.5 dB (Nom.)		
<b>Coupling Flatness</b>	± 0.5 dB		
<b>Mainline Loss</b>	Freq. (MHz)	dB (Typ.)	dB (Max.)
	5-50	0.7	1.0
	50-500	0.8	1.2
	500-1000	0.9	1.6
<b>Directivity</b>	Freq. (MHz)	dB (Typ.)	dB (Min.)
	5-50	35	28
	50-500	35	25
	500-1000	20	15
<b>Impedance</b>	50 Ohms (Nom.)		
<b>VSWR:</b>	1.3:1 (Typ.)		
<b>Operating Temperature Range</b>	-40 to +85 °C		

**Package # 134**

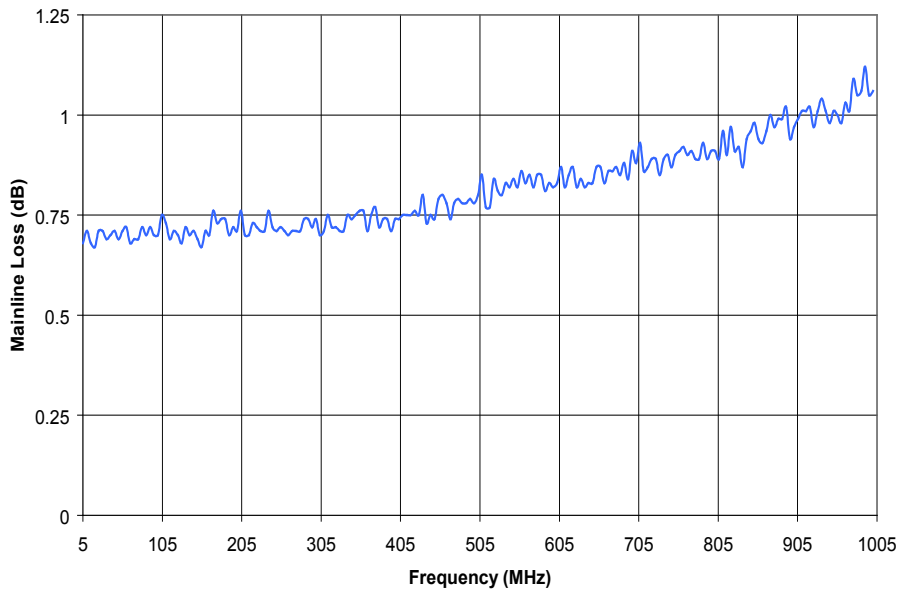
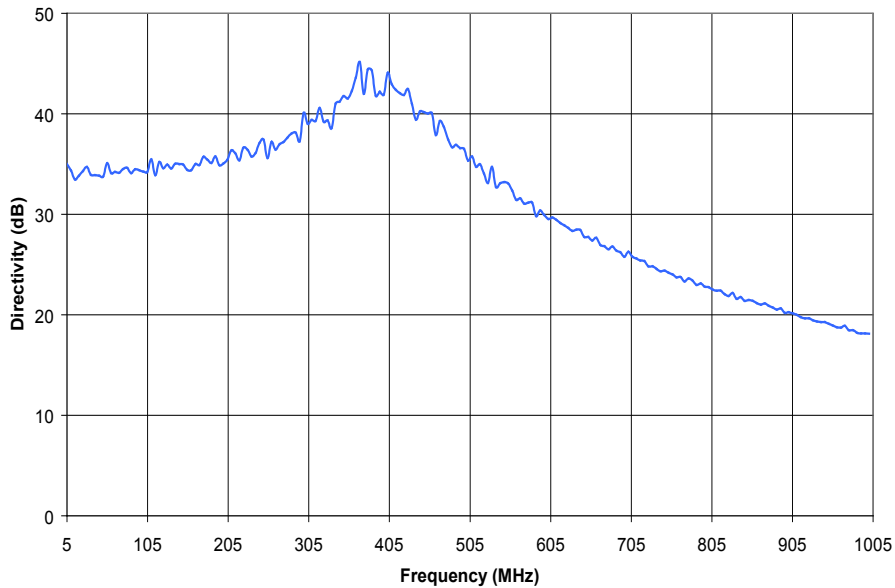
PORT CONFIGURATION				
Input	Output	Coupled	Gnd.	No. Conn.
6	1	4	2,5	3

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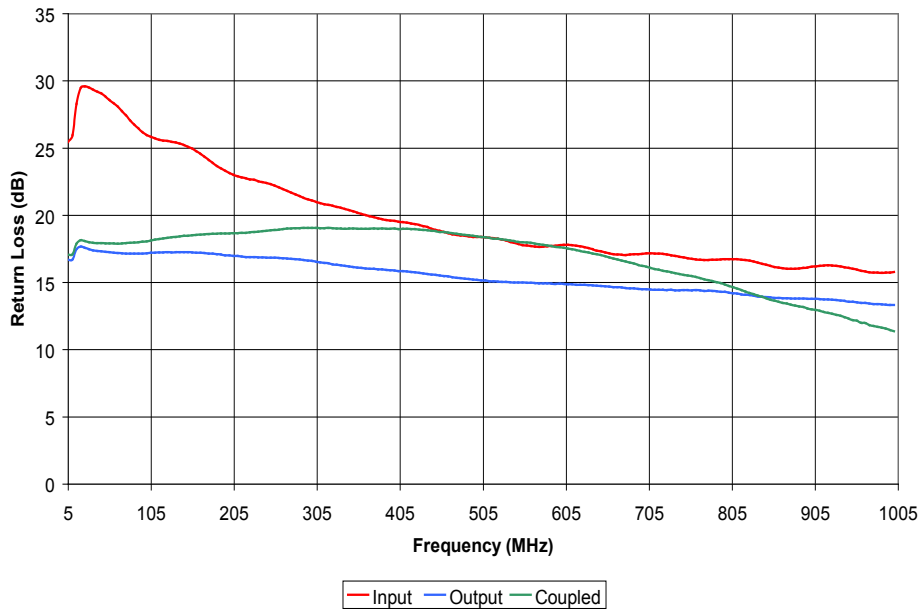
PERFORMANCE PLOTS

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### SPECIFICATION SHEET REVISION RECORD

REV	COMMENT	BY	DATE																																																															
---	Initial Release	DPL	07/14/05																																																															
A	Changed page layout.	TA	11/21/06																																																															
B	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th colspan="3" style="text-align: center;">Old</th> <th colspan="3" style="text-align: center;">New</th> </tr> <tr> <th style="text-align: center;">Mainline Loss</th> <th style="text-align: center;">Freq. (MHz)</th> <th style="text-align: center;">dB(Typ.)</th> <th style="text-align: center;">dB(Max.)</th> <th style="text-align: center;">Freq. (MHz)</th> <th style="text-align: center;">dB(Typ.)</th> <th style="text-align: center;">dB(Max.)</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">5-50</td> <td style="text-align: center;">0.6</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">5-50</td> <td style="text-align: center;">0.7</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td></td> <td style="text-align: center;">50-500</td> <td style="text-align: center;">0.8</td> <td style="text-align: center;">1.2</td> <td style="text-align: center;">50-50</td> <td style="text-align: center;">0.8</td> <td style="text-align: center;">1.2</td> </tr> <tr> <td></td> <td style="text-align: center;">500-1000</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">1.8</td> <td style="text-align: center;">500-1000</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">1.6</td> </tr> <tr> <th style="text-align: center;">Directivity</th> <th style="text-align: center;">Freq. (MHz)</th> <th style="text-align: center;">dB(Typ.)</th> <th style="text-align: center;">dB(Max.)</th> <th style="text-align: center;">Freq. (MHz)</th> <th style="text-align: center;">dB(Typ.)</th> <th style="text-align: center;">dB(Max.)</th> </tr> <tr> <td></td> <td style="text-align: center;">5-50</td> <td style="text-align: center;">35</td> <td style="text-align: center;">28</td> <td style="text-align: center;">5-50</td> <td style="text-align: center;">35</td> <td style="text-align: center;">28</td> </tr> <tr> <td></td> <td style="text-align: center;">50-500</td> <td style="text-align: center;">35</td> <td style="text-align: center;">25</td> <td style="text-align: center;">50-50</td> <td style="text-align: center;">35</td> <td style="text-align: center;">25</td> </tr> <tr> <td></td> <td style="text-align: center;">500-1000</td> <td style="text-align: center;">18</td> <td style="text-align: center;">15</td> <td style="text-align: center;">500-1000</td> <td style="text-align: center;">20</td> <td style="text-align: center;">15</td> </tr> </tbody> </table> <p>Plots Updated.</p>		Old			New			Mainline Loss	Freq. (MHz)	dB(Typ.)	dB(Max.)	Freq. (MHz)	dB(Typ.)	dB(Max.)		5-50	0.6	1.0	5-50	0.7	1.0		50-500	0.8	1.2	50-50	0.8	1.2		500-1000	1.0	1.8	500-1000	0.9	1.6	Directivity	Freq. (MHz)	dB(Typ.)	dB(Max.)	Freq. (MHz)	dB(Typ.)	dB(Max.)		5-50	35	28	5-50	35	28		50-500	35	25	50-50	35	25		500-1000	18	15	500-1000	20	15	TA	12/18/06
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