



**PLANAR
MONOLITHICS
INDUSTRIES, INC.**

10 MHz to 1.0 GHz, 40dB, 50 Watt Dual Directional Coupler

PMI MODEL No:

PDDC-10M1-40-SK

KEY FEATURES:

- **100 : 1 BANDWIDTH**
- **40dB COUPLING**
- **15dB DIRECTIVITY**



ELECTRICAL SPECIFICATIONS:

- | | |
|-------------------------------------|-------------------------------------|
| • FREQUENCY RANGE | : 10 MHz to 1.0 GHz |
| • INSERTION LOSS | : 0.25dB Typical, 0.3dB Max. |
| • DIRECTIVITY | : 15dB MIN. |
| • RETURN LOSS | : ≥20dB (1.2:1) |
| • COUPLING | : 40dB (Nominal) |
| • FLATNESS | : ±0.75 dB |
| • RF INPUT (FORWARD POWER) | : 50 WATTS INTO 50 Ohm Load |
| • RF INPUT (REFLECTED POWER) | : 20 WATTS Max. |
| • SIZE | : 3.0" X 2.5" X 1.0" |

PLANAR MONOLITHICS INDUSTRIES, INC., 7311-G Grove Road, Frederick, MD 21704

Tel: 301-662-4700 • Fax: 301-662-4938 • Email: sales@planarmonolithics.com

Website: <http://www.planarmonolithics.com>

ISO9001 : 2000 CERTIFIED

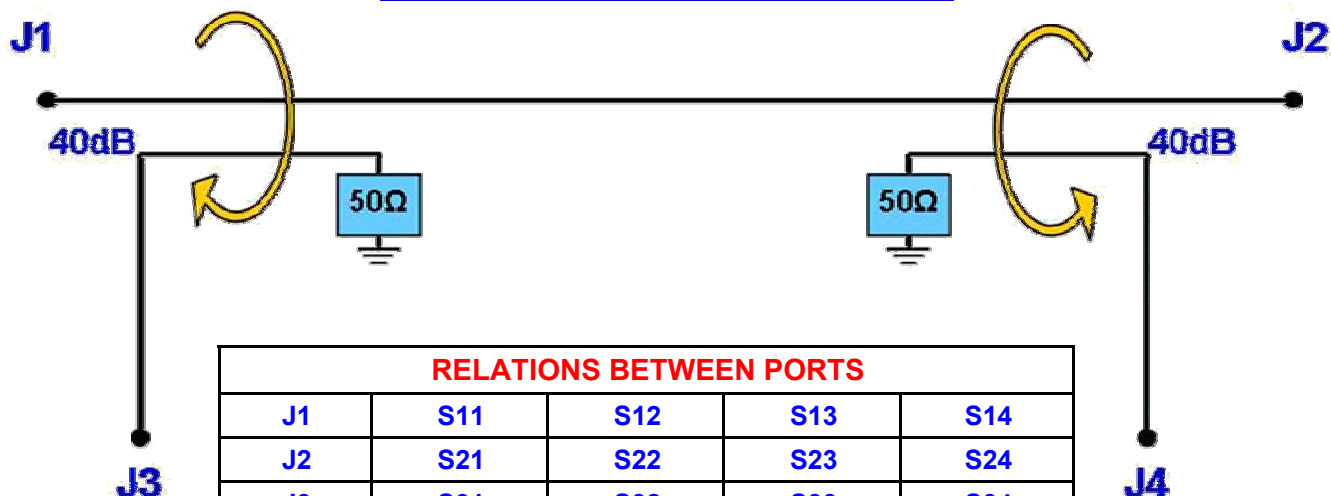


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FUNCTIONAL BLOCK DIAGRAM



RELATIONS BETWEEN PORTS				
J1	S11	S12	S13	S14
J2	S21	S22	S23	S24
J3	S31	S32	S33	S34
J4	S41	S42	S43	S44
S11	RETURN LOSS (to J1 from J1)			
S12	INSERTION LOSS (to J1 from J2)			
S13	COUPLING (to J1 from J3)			
S14	ISOLATION (to J1 from J4)			
S21	INSERTION LOSS (to J2 from J1)			
S22	RETURN LOSS (to J2 from J2)			
S23	ISOLATION (to J2 from J3)			
S24	COUPLING (to J2 from J4)			
S31	COUPLING (to J3 from J1)			
S32	ISOLATION (to J3 from J2)			
S33	RETURN LOSS (to J3 from J3)			
S34	RELATION BETWEEN COUPLED PORTS (to J3 from J4)			
S41	ISOLATION (to J4 from J1)			
S42	COUPLING (to J4 from J2)			
S43	RELATION BETWEEN COUPLED PORTS (to J4 from J3)			
S44	RETURN LOSS (to J4 from J4)			

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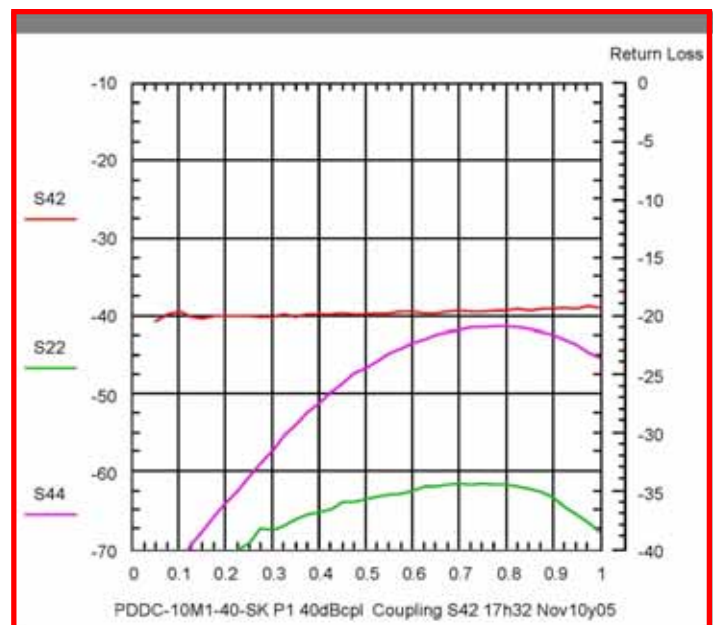
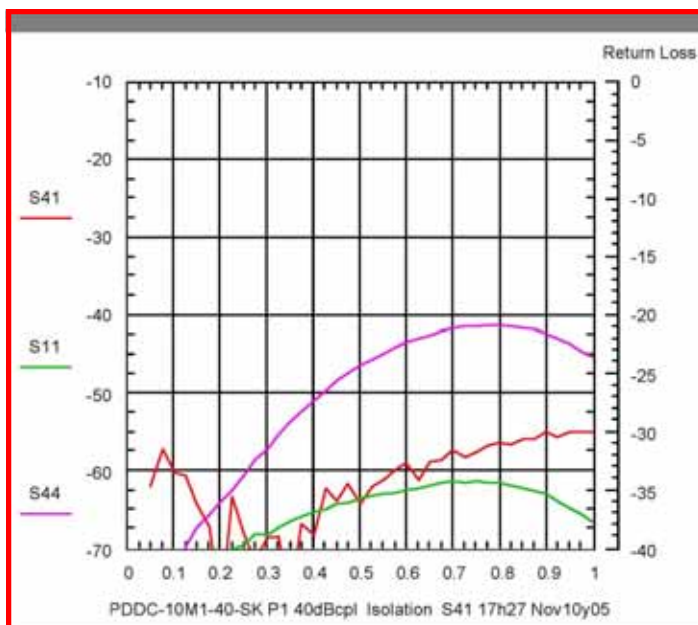
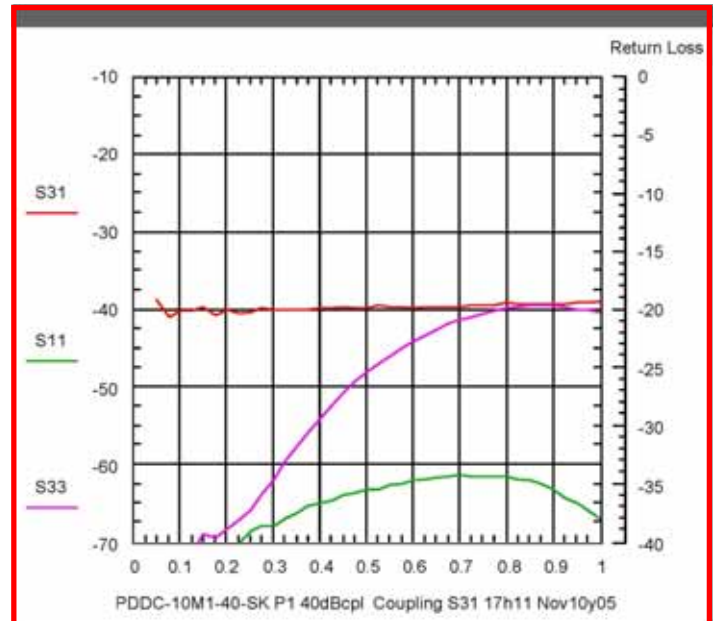
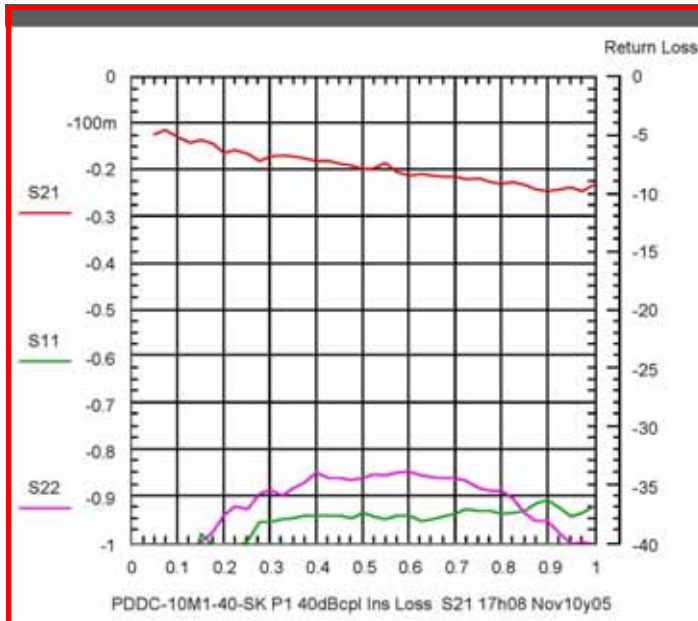


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INSERTION LOSS, RETURN LOSS, ISOLATION & COUPLING



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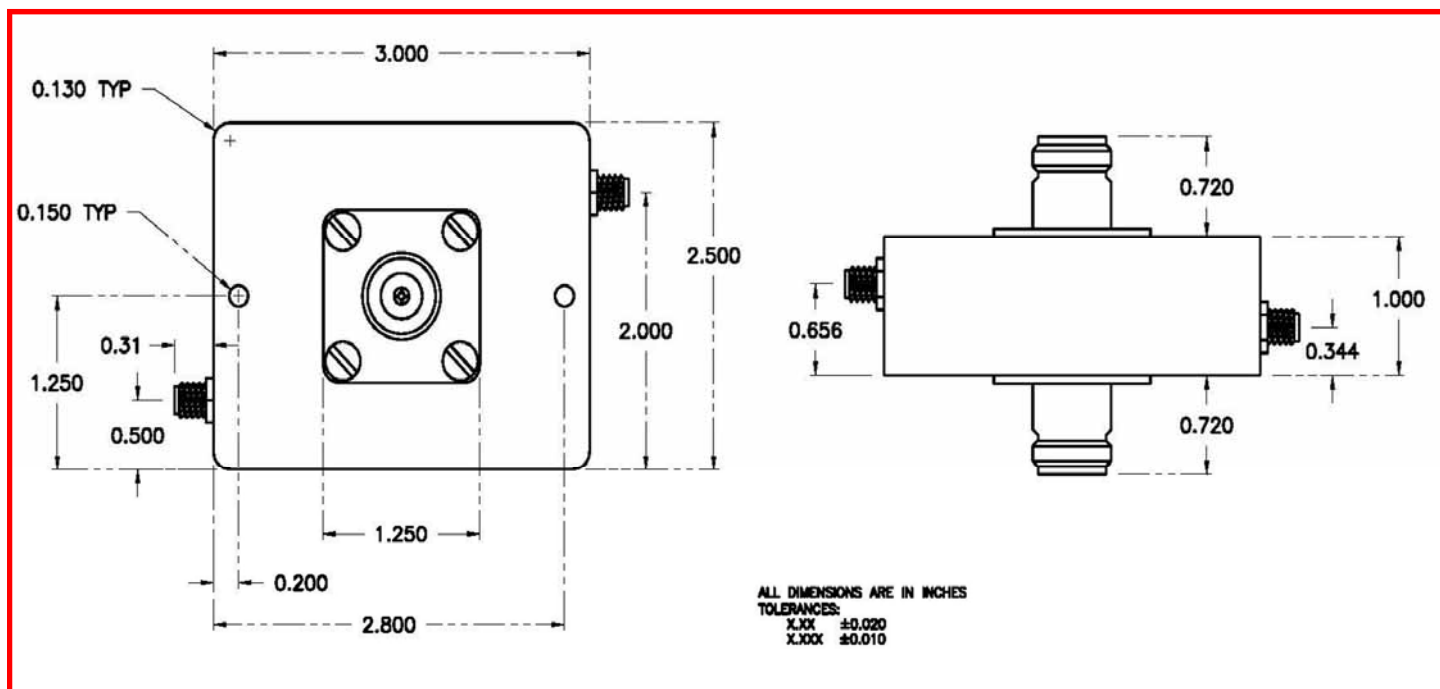


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MECHANICAL OUTLINE



ENVIRONMENTAL SPECIFICATIONS

• OPERATING TEMPERATURE	-55°C TO +85°C
• STORAGE TEMPERATURE	-65°C TO +125°C
• HUMIDITY	MIL-STD-202F, METHOD 103B, COND. B
• SHOCK	MIL-STD-202F, METHOD 213B, COND. B
• VIBRATION	MIL-STD-202F, METHOD 204B, COND. B
• ALTITUDE	MIL-STD-202F, METHOD 105C, COND. B
• TEMPERATURE CYCLE	MIL-STD-202F, METHOD 107D, COND. A

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