

FEATURES

- Low Profile Surface Mount Package
- High Power
- Low Insertion Loss
- High Isolation
- RoHS Compliant
- Tape and Reel available for High Volume Production
- 100% RF Tested

APPLICATIONS

- Power Amplifiers
- Power Monitors
- Reflectometers
- Signal Distribution Networks
- Antenna Feeds
- Switch Networks
- Phase Shifters

GENERAL DESCRIPTION

The D3PL05F is a high performance directional coupler in a surface mount package. This low profile coupler handles up to 200 watts of CW power. The D3PL05F is designed for those demanding applications where high power, low loss and excellent directivity are required.

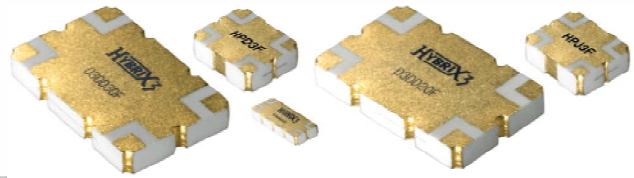
The D3PL05F is manufactured with materials that have thermal expansion characteristics compatible with industry standard board materials like RO3003, RO4350, FR4 and others. The couplers are available in a RoHS compliant finish and packaged in tape and reel.

ELECTRICAL SPECIFICATIONS*

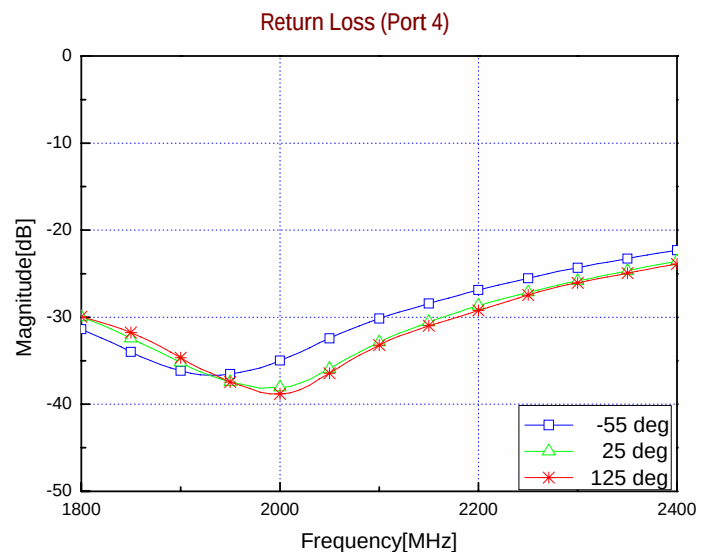
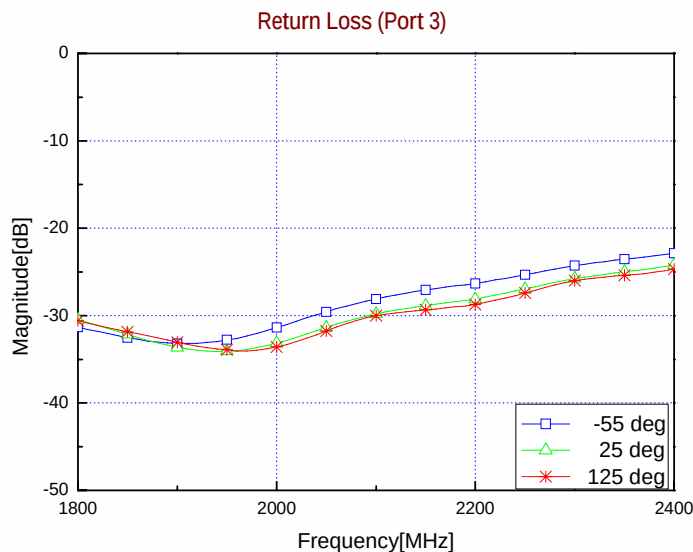
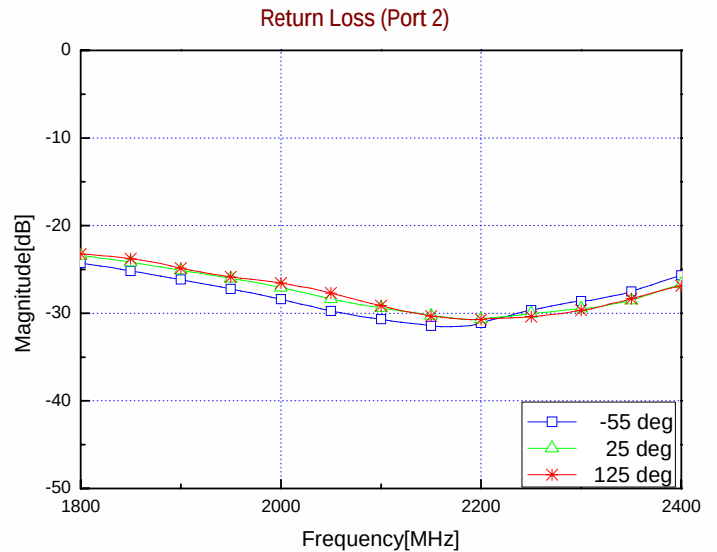
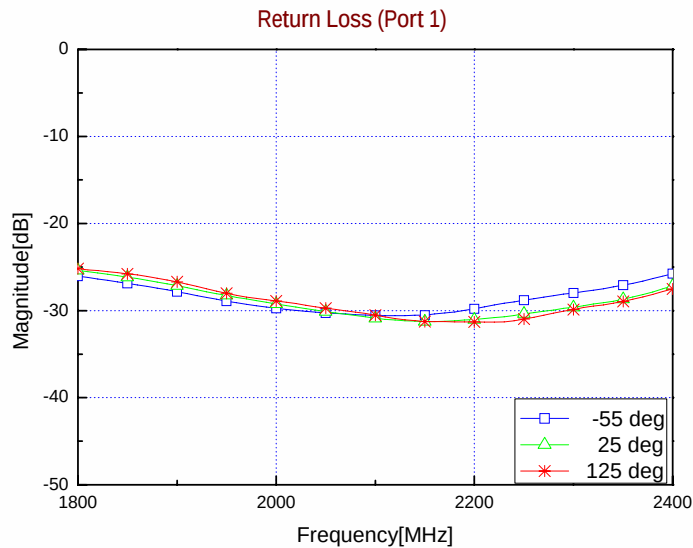
Frequency MHz	Coupling (dB)	Directivity dB (min)	Insertion Loss dB (max)	VSWR (max)	Power Handling Watts CW	Phase Balance (degrees)	Frequency Sensitivity (dB)	Operating Temperature °C
2000-2300	5 ± 0.3	21	0.15	1.22	200	90 ± 3	± 0.2	-55 to +125
2100-2170	5 ± 0.2	25	0.12	1.12	200	90 ± 2	± 0.05	-55 to +125

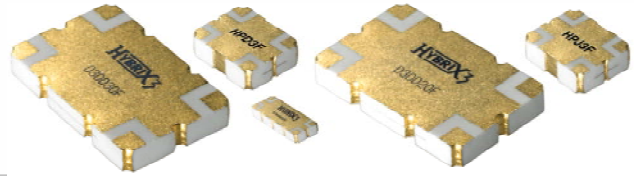
Specification Notes:

* Measured on Florida RF Labs test fixture. Specifications are subject to change without notice.

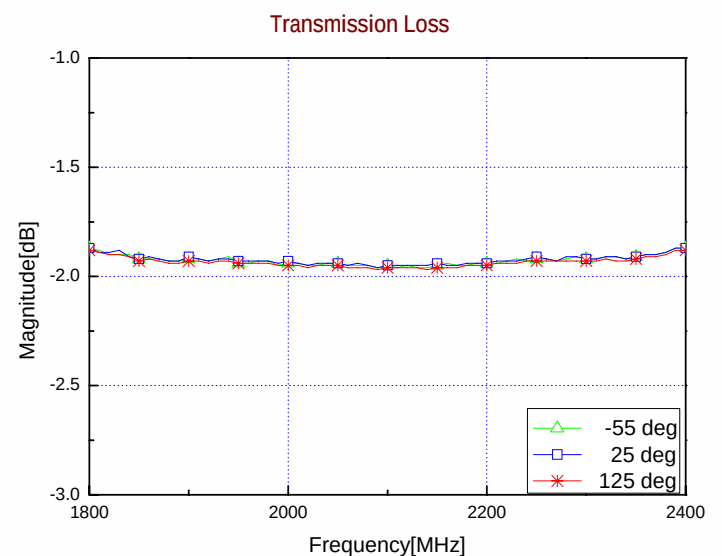
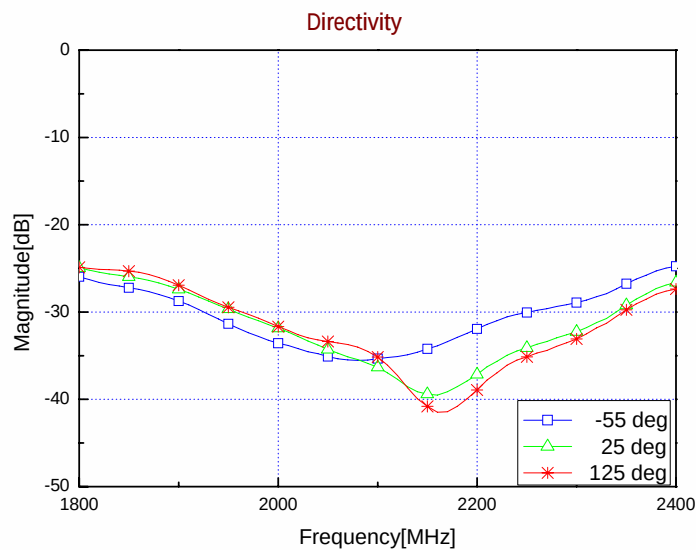
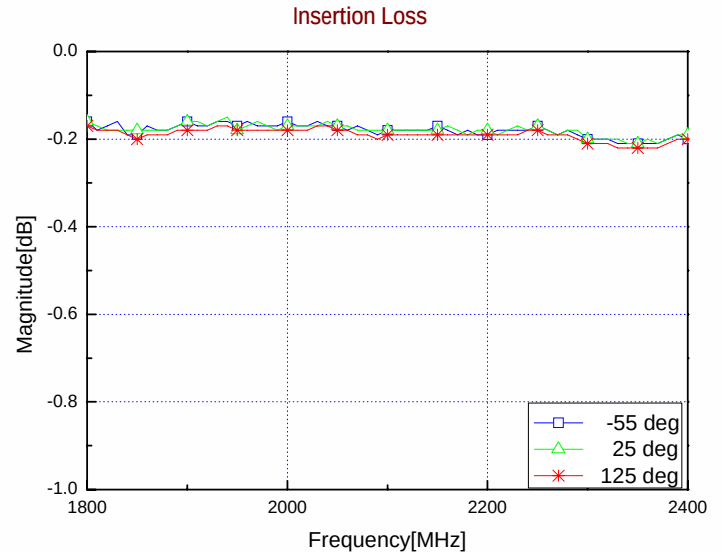
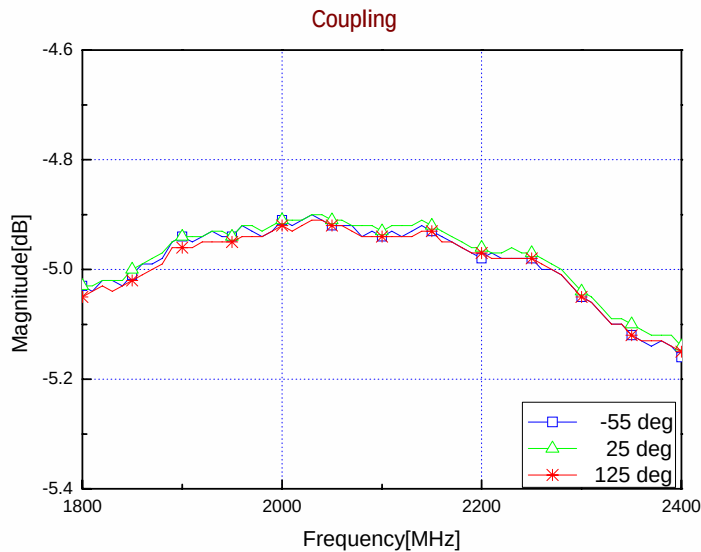


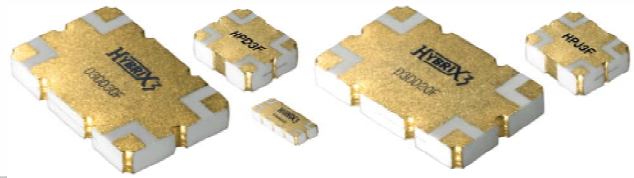
TYPICAL PERFORMANCE





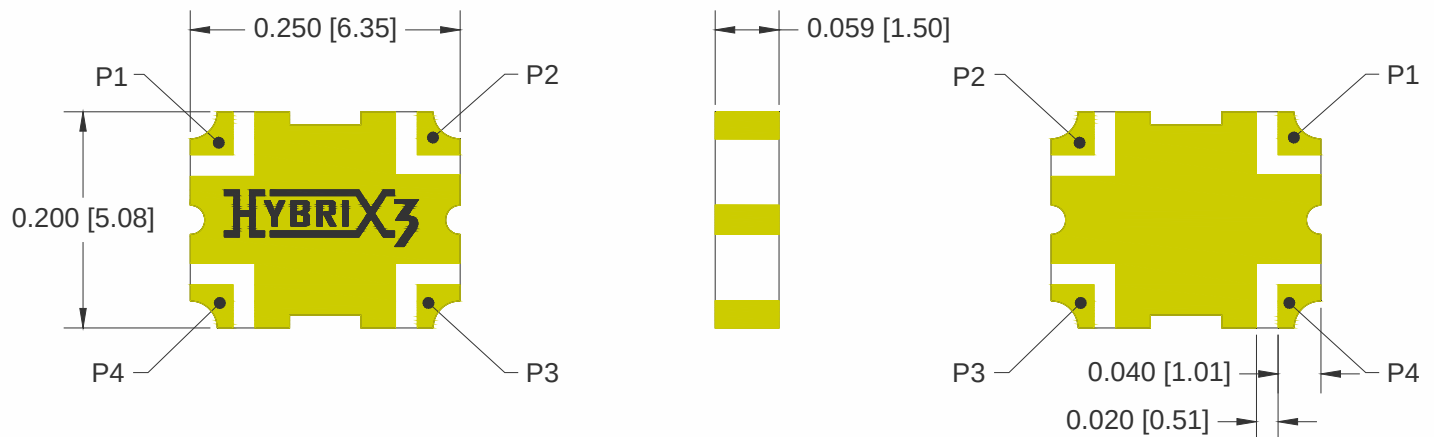
TYPICAL PERFORMANCE (CONTINUED)





COUPLER PIN CONFIGURATION AND MECHANICAL OUTLINE

PORTS	P1	P2	P3	P4
P1	-	ISO	OUT	COUP
P2	ISO	-	COUP	OUT
P3	OUT	COUP	-	ISO
P4	COUP	OUT	ISO	-



COMMONLY USED ATTACHMENT MATERIALS

Material	Composition	Thermal Conductivity (Watts/cm/°C)	Melting Temperature (°C)
Gold-Tin Solder	80% Gold / 20% Tin	0.58	280
Lead-Free Solder	99.3% Tin – 0.7% Copper	N/A	227
Lead-Free Solder	96.5% Tin / 3.5% Silver	0.33	221
Lead-Free Solder	96.5% Tin / 3% Silver / 0.5% Copper	N/A	217 - 220
Sn63 Solder	63% Tin / 37% Lead	0.49	183
Conductive Epoxy	Silver Filled	0.01 to 0.29	N/A