



MegaPhase®



Directional Couplers

The Coupling Precision You Need For Any Environment

MegaPhase offers a range of coupling values and bandwidths to suit various applications and system needs. These can be designed for the most benign laboratory environment to the rigorous demands of Military Airborne and Space systems. Tight tolerances on coupling value, directivity and insertion loss can be achieved in various packages and connector combinations.

Narrow Band Dual Direction Couplers

Octave and Multi-octave Bands to 12 GHz
6, 10, 20 and 30dB Coupling
Type N, SMA, and 2.92mm Connectors Available
High Power, Low Insertion Loss
Designed to meet MIL-DTL-15370
Environmental Screening Available

Narrow Band Directional Couplers

Wide Bandwidth to 26.5 GHz
10, 16, 20dB Coupling
25 W Power Handling
SMA, and 2.92mm Connectors Available
Designed to meet MIL-DTL-15370 Environmental
Screening Available



Wide Band Directional Couplers

Multi-Octave Bands to 18 GHz
T6, 10, 20 and 30dB Coupling
50 W Power Handling
Type N, SMA, and 2.92mm Connectors Available
Designed to meet MIL-DTL-15370
Environmental Screening Available

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Directional Couplers (continued)

Narrow Band Dual Direction Couplers

MegaPhase Model No.	Type	Frequency Range (GHz)	Connectors	Coupling (dB, Nom.)	Frequency Sensitivity (dB, Max.)	Directivity (dB, Min.)	Insertion Loss (dB, Max)	Main Line VSWR	Coupled Line VSWR	Size
DDC-40N-.17G	Dual 40 dB	.1 to .25	N-F	40	1	20	0.55	1.25	1.35	5.00 x 2.00 x 1.25 750 745 740
DDC-40NS-.17G	Dual 40 dB		N/SMA-F							
DDC-40NB-.17G	Dual 40 dB		N/BNC-F							

Wide Band Directional Couplers

MegaPhase Model No.	Type	Frequency Range (GHz)	Connectors	Coupling (dB, Nom.)	Frequency Sensitivity (dB, Max.)	Directivity (dB, Min.)	Insertion Loss (dB, Max)	Main Line VSWR	Coupled Line VSWR	Size
DC27-10S-4G	10 dB	0.3 – 8.0	SMA -F	10, 20	1.2	15	1	1.5	1.5	6.00 x .73 x .50
DC27-20S-4G	20 dB									
DC36-10S-9.2G	10 dB	0.5 – 18.5	SMA -F	10, 20	1.2	12	1.6	1.8	1.8	4.40 x .73 x .50
DC36-20S-9.2G	20 dB									
DC9-10S-10G	10 dB	2.0-18.0	SMA-F	6, 10, 15 20, 30 dB	1.2	12 10 (30 dB)	1	1.8	1.8	2.25 x .73 x .50
DC9-15S-10G	15 dB									
DC9-20S-10G	20 dB									
DC9-30S-10G	30 dB									



Directional Couplers (continued)

Narrow Band Directional Couplers

MegaPhase Model No.	Type	Frequency Range (GHz)	Connectors	Coupling (dB, Nom.)	Frequency Sensitivity (dB, Max.)	Directivity (dB, Min.)	Insertion Loss (dB, Max)	Main Line VSWR	Coupled Line VSWR	Size
DC3-3N-.32	3 dB	.13-.520	NF (C-5352-dB will be dual directional)	3 to 40* (40 dB is 30 w/ internal pad)	1 to 2	18 (3-7 dB) 20 (10+ dB)	0.3 dB above theoretical coupling loss	1.3	1.3	5.80 x 2.00 x 1.00
DC3-4N-.32	4 dB									
DC3-5N-.32	5 dB									
DC3-6N-.32	6 dB									
DC3-7N-.32	7 dB									
DC3-10N-.32	10 dB									
DC3-15N-.32	15 dB									
DC3-20N-.32	20 dB									
DC3-30N-.32	30 dB									
DC7-5N-1.5G	5 dB	.38-2.7	N-F	5 to 30 dB	1	20	0.7	1.35	1.35	6.46 x 1.21 x .72 343 312 283
DC7-6N-1.5G	6 dB									
DC7-7N-1.5G	7 dB									
DC7-10N-1.5G	10 dB									
DC7-15N-1.5G	15 dB									
DC7-20N-1.5G	20 dB									
DC7-30N-1.5G	30 dB									
DC2-XS-.75G*	6, 10, 15, 20, 30 dB	0.5 – 1.0	SMA -F	6, 10, 15, 20, 30 Db*	1	20 dB (up to 4GHz)	0.6	1.3 (up to 4GHz)	1.3 (up to 4GHz)	4.40 x .73 x .50
DC4-XS-1.25G*		0.5 – 2.0								4.40 x .73 x .50
DC4-XS-1.7G*		0.7 – 2.7								4.40 x .73 x .50
DC2-XS-1.5G*		1.0 – 2.0								3.50 x .73 x .50
DC4-XS-2.5G*		1.0 – 4.0				3.50 x .73 x .50				
DC2-XS-3G*		2.0 – 4.0				2.25 x .73 x .50				
DC2-XS-3.9G*		2.6 – 5.2				2.25 x .73 x .50				
DC2-XS-6G*		4.0 – 8.0				1.10 x .65 x .50				
DC2-XS-9.5G*		7.0 – 12.4				1.10 x .65 x .50				
DC2-XS-15G*		12.0 – 18.0				1.10 x .65 x .50				

*NOTE: Customer to designate the coupling value needed by replacing the "X" i.e. 6 DB coupler would be DC2-6S-.75G