

MEGAPHASE DIRECTIONAL COUPLERS



The Coupling Precision You Need for Any Environment

- Coupling values and bandwidths engineered for applications ranging from benign lab environments to rigorous Military Airborne and Space systems
- Tight tolerances on coupling value, directivity, and insertion loss across a range of packages and connector combinations
- Designed to meet MIL-DTL-15370, with environmental screening available

Product Comparison

Product Family	Frequency Range	Coupling	Power Handling	Connectors
Narrow Band Dual Direction Couplers	Octave and multi-octave bands to 12 GHz	6, 10, 20, 30 dB	High power, low insertion loss	Type N, SMA, 2.92mm
Narrow Band Directional Couplers	Wide bandwidth to 26.5 GHz	10, 16, 20 dB	25 W	SMA, 2.92mm
Wide Band Directional Couplers	Multi-octave bands to 18 GHz	T6, 10, 20, 30 dB	50 W	Type N, SMA, 2.92mm
Designed to meet MIL-DTL-15370 · Environmental Screening Available				

Narrow Band Dual Direction Couplers

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



MEGAPHASE DIRECTIONAL COUPLERS

Wide Band Directional Couplers

MegaPhase Model No.	Type	Frequency Range (GHz)	Connectors	Coupling (dB, Nom.)	Frequency Sensitivity (dB, Max.)
DC27-10S-4G	10 dB	0.3 – 8.0	SMA -F	10, 20	1.2
DC27-20S-4G	20 dB				
DC36-10S-9.2G	10 dB	0.5 – 18.5	SMA -F	10, 20	1.2
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	1.2
DC9-15S-10G	15 dB				
DC9-20S-10G	20 dB				
DC9-30S-10G	30 dB				

MegaPhase Model No.	Directivity (dB, Min.)	Insertion Loss (dB, Max.)	Main Line VSWR	Coupled Line VSWR	Size
DC27-10S-4G	15	1	1.5	1.5	6.00 x .73 x .50
DC27-20S-4G					
DC36-10S-9.2G	12	1.6	1.8	1.8	4.40 x .73 x .50
DC36-20S-9.2G					
DC9-10S-10G	12 10 (30 dB)	1	1.8	1.8	2.25 x .73 x .50
DC9-15S-10G					
DC9-20S-10G					
DC9-30S-10G					



MEGAPHASE DIRECTIONAL COUPLERS

Narrow Band Directional Couplers

MegaPhase Model No.	Type	Frequency Range (GHz)	Connectors	Coupling (dB, Nom.)	Frequency Sensitivity (dB, Max.)
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
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
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
DC4-XS-1.25G*		0.5 – 2.0			
DC4-XS-1.7G*		0.7 – 2.7			
DC2-XS-1.5G*		1.0 – 2.0			
DC4-XS-2.5G*		1.0 – 4.0			
DC2-XS-3G*		2.0 – 4.0			
DC2-XS-3.9G*		2.6 – 5.2			
DC2-XS-6G*		4.0 – 8.0			
DC2-XS-9.5G*		7.0 – 12.4			
DC2-XS-15G*		12.0 – 18.0			

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



MEGAPHASE DIRECTIONAL COUPLERS

Narrow Band Directional Couplers (continued)

MegaPhase Model No.	Directivity (dB, Min.)	Insertion Loss (dB, Max.)	Main Line VSWR	Coupled Line VSWR	Size
DC3-3N-.32	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					
DC3-5N-.32					
DC3-6N-.32					
DC3-7N-.32					
DC3-10N-.32					
DC3-15N-.32					
DC3-20N-.32					
DC3-30N-.32					
DC7-5N-1.5G	20	0.7	1.35	1.35	6.46 x 1.21 x .72 343 312 283
DC7-6N-1.5G					
DC7-7N-1.5G					
DC7-10N-1.5G					
DC7-15N-1.5G					
DC7-20N-1.5G					
DC7-30N-1.5G					
DC2-XS-.75G*	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*					4.40 x .73 x .50
DC4-XS-1.7G*					4.40 x .73 x .50
DC2-XS-1.5G*			1.5 (up to 12GHz)	1.5 (up to 12GHz)	3.50 x .73 x .50
DC4-XS-2.5G*					3.50 x .73 x .50
DC2-XS-3G*					2.25 x .73 x .50
DC2-XS-3.9G*			1.7 (up to 18GHz)	1.7 (up to 18GHz)	2.25 x .73 x .50
DC2-XS-6G*					1.10 x .65 x .50
DC2-XS-9.5G*					1.10 x .65 x .50
DC2-XS-15G*					1.10 x .65 x .50

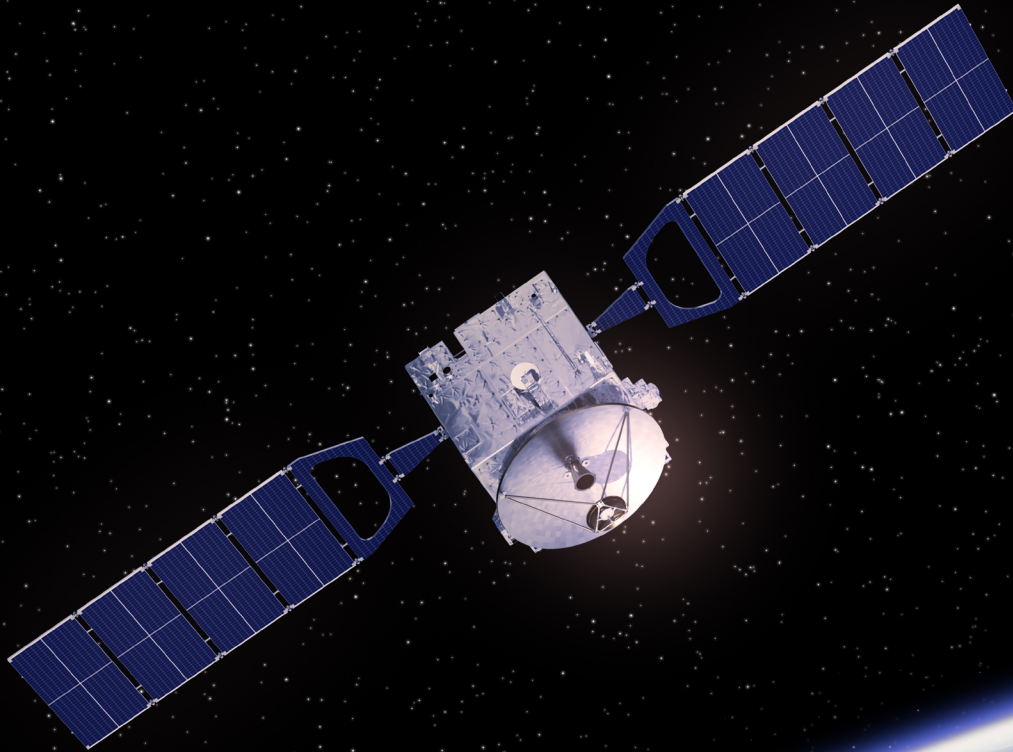
*NOTE: Customer to designate the coupling value needed by replacing the "X" i.e. 6 DB coupler would be DC2-6S-.75G





MegaPhase®

With the right connection anything is possible



Visit us at megaphase.com

About us

Founded in 1998 and headquartered in Stroudsburg, Pennsylvania, MegaPhase designs and manufactures high-performance RF coaxial cables and connectors for OEMs in critical markets including test instrumentation, defense, aerospace, telecommunications, and satellite systems. Serving more than 500 customers in 30 countries—including major technology leaders and the U.S. government—MegaPhase is best known for its industry-leading GrooveTube® technology, a breakthrough flexible cable design used in high-reliability, high-power, and phase-defined applications across ground, sea, air, and space platforms. All products are manufactured in-house, tested 100% in a state-of-the-art RF lab up to 110 GHz, and engineered to deliver exceptional phase stability, low loss, and long-term measurement repeatability, helping customers achieve more reliable results at a lower cost per measurement.

MegaPhase

122 Banner Road, Stroudsburg, PA 18360-6433 | Tel: 570-424-8400 | Solutions@MegaPhase.com