

# COUPLERS, DIRECTIONAL

## TYPE N 0.25-12.4 GHz

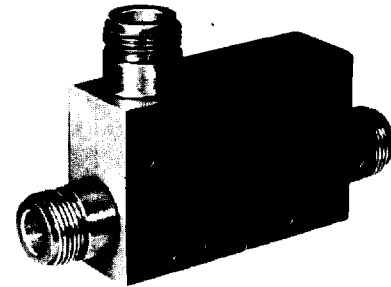
# SERIES CA-N

## SERIES C500N

### HIGH POWER COAXIAL

#### GENERAL INFORMATION:

KDI/Triangle's Miniature Stripline Couplers, Series CA-N, are available in 6 dB, 10 dB, 20 dB, and 30 dB coupling values. These units feature high directivity and low VSWR and are conservatively rated to ensure the most reliable service and performance under severe environmental conditions.

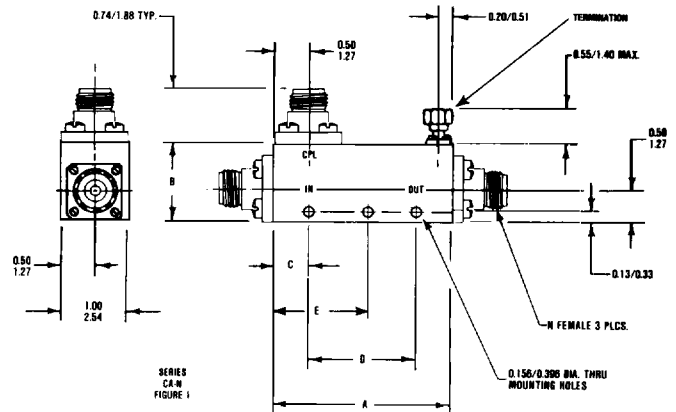


#### GENERAL SPECIFICATIONS: CA SERIES

**Frequency Range:** 0.5 to 12.4 GHz  
**RF Impedance:** 50 Ohms  
**RF Power:** The peak and average power handling capability of the couplers apply if the main line is terminated in a 1.25 max. VSWR for the 6 and 10 dB couplers, and in a 1.75 max. VSWR for the 20 and 30 dB couplers.  
**Operating Temperature:** -55°C to +85°C  
**Environment:** MIL-E-5400  
**Connectors:** N female

#### Notes:

1. If the frequency band of interest is narrower than that listed, it should be indicated when ordering. Performance will be optimized over the band of interest and improved delivery may be provided. A special part number may be assigned.
2. Rugged 4 hole connector construction insures mechanical superiority.
3. A 50 ohm termination is supplied on each unit delivered. Power rating is 1.0 watts at +25°C.

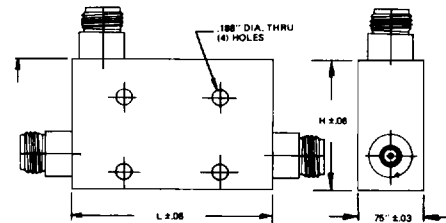


### C500N, High Power

#### 1/4 WAVE COAXIAL COUPLERS (AIR-DIELECTRIC)

##### 0.25-8 GHz

**Frequency Range:** 0.25-8 GHz  
**Insertion Loss:** 0.25 dB Max.  
**Power:** 500 WCW, 3 KW peak  
**Impedance:** 50 Ohms Nominal  
**Temperature Range:** -55°C to +85°C  
**Connectors:** N (see chart) Female  
**Coupling Accuracy:** ± 1.0 dB, Including Variation and Deviation from Nominal  
**Finish:** Epoxy paint per MIL-E-15090 Type II CL2  
**Construction:** Coaxial, Air Dielectric



Consult factory for mounting dimensions

Freq. Range (GHz)	Max. VSWR	Model Type Coupling (dB)				Min. Directivity (dB)
		6	10	20	30	
0.25-0.5	1.20	C511	C521	C531	C541	25
0.5-1.0	1.20	C512	C522	C532	C542	25
1.0-2.0	1.20	C513	C523	C533	C543	20
1.5-3.0	1.25	C514	C524	C534	C544	20
2.0-4.0	1.25	C515	C525	C535	C545	20
4.0-8.0	1.35	C516	C526	C536	C546	17

Freq.	L	H	Freq.	L	H
0.25-0.5	7.5	1.9	1.5-3.0	3.8	1.9
0.5-1.0	6.3	1.9	2.0-4.0	3.4	1.9
1.0-2.0	4.4	1.9	4.0-8.0	2.3	1.4

**KDI/triangle**  
**ELECTRONICS**

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# COUPLERS, DIRECTIONAL

TYPE N 0.25-12.4 GHz

# SERIES CA-N SERIES C500N HIGH POWER COAXIAL

## ELECTRICAL PERFORMANCE

Model No.	Frequency Range GHz	Coupling (Note 1) dB	Frequency Flatness (Note 1) dB	Minimum Directivity dB	Max. Directivity VSWR	Max. Ins. Loss Above Coupling Loss dB	Max. Peak Power kW	Max. Avg. Power Watts	Outline N
CA-516-N	.5-1.0	6 ± 1.0	± 0.5	20	1.15	0.15	10	50	1
CA-511-N	.5-1.0	10 ± 1.0	± 0.6	20	1.15	0.15	10	50	1
CA-512-N	.5-1.0	20 ± 1.2	± 0.7	20	1.15	0.15	10	50	1
CA-513-N	.5-1.0	30 ± 1.25	± 0.7	20	1.15	0.15	10	50	1
CA-526-N	.5-2.0	6 ± 1.0	± 0.6	18	1.25	0.2	10	50	2
CA-521-N	.5-2.0	10 ± 1.0	± 0.6	18	1.25	0.2	10	50	2
CA-522-N	.5-2.0	20 ± 1.2	± 0.7	18	1.25	0.2	10	50	2
CA-523-N	.5-2.0	30 ± 1.25	± 0.7	18	1.25	0.2	10	5	2
CA-556-N	.75-1.5	6 ± 1.0	± 0.5	20	1.20	0.2	8	50	3
CA-551-N	.75-1.5	10 ± 1.0	± 0.6	20	1.20	0.2	8	50	3
CA-552-N	.75-1.5	20 ± 1.2	± 0.7	20	1.20	0.2	8	50	3
CA-553-N	.75-1.5	30 ± 1.25	± 0.7	20	1.20	0.2	8	50	3
CA-596-N	1.0-2.0	6 ± 1.0	± 0.5	20	1.25	0.2	8	50	4
CA-591-N	1.0-2.0	10 ± 1.0	± 0.6	20	1.25	0.2	8	50	4
CA-592-N	1.0-2.0	20 ± 1.2	± 0.7	20	1.25	0.2	8	50	4
CA-593-N	1.0-2.0	30 ± 1.25	± 0.7	20	1.25	0.2	8	50	4
CA-636-N	1.5-3.0	6 ± 1.0	± 0.5	18	1.25	0.2	7	50	5
CA-631-N	1.5-3.0	10 ± 1.0	± 0.6	18	1.25	0.2	7	50	5
CA-632-N	1.5-3.0	20 ± 1.2	± 0.7	18	1.25	0.2	7	50	5
CA-633-N	1.5-3.0	30 ± 1.25	± 0.7	18	1.25	0.2	7	50	5
CA-676-N	2.0-4.0	6 ± 1.0	± 0.5	18	1.25	0.2	5	40	6
CA-671-N	2.0-4.0	10 ± 1.0	± 0.6	18	1.25	0.2	5	40	6
CA-672-N	2.0-4.0	20 ± 1.2	± 0.7	18	1.25	0.2	5	40	6
CA-673-N	2.0-4.0	30 ± 1.25	± 0.7	18	1.25	0.2	5	40	6
CA-696-N	2.0-8.0	6 ± 1.0	± 0.6	14	1.40	0.3	2	20	7
CA-691-N	2.0-8.0	10 ± 1.0	± 0.6	14	1.40	0.3	2	20	7
CA-692-N	2.0-8.0	20 ± 1.2	± 0.7	14	1.40	0.3	2	20	7
CA-693-N	2.0-8.0	30 ± 1.25	± 0.7	14	1.40	0.3	2	20	7
CA-716-N	2.6-5.2	6 ± 1.0	± 0.5	17	1.35	0.25	4	40	8
CA-711-N	2.6-5.2	10 ± 1.0	± 0.6	17	1.35	0.25	4	40	8
CA-712-N	2.6-5.2	20 ± 1.2	± 0.7	17	1.35	0.25	4	40	8
CA-713-N	2.6-5.2	30 ± 1.25	± 0.7	17	1.35	0.25	4	40	8
CA-756-N	4.0-8.0	6 ± 1.0	± 0.5	15	1.40	0.3	4	40	8
CA-751-N	4.0-8.0	10 ± 1.0	± 0.6	15	1.40	0.3	4	40	8
CA-752-N	4.0-8.0	20 ± 1.2	± 0.7	15	1.40	0.3	4	40	8
CA-753-N	4.0-8.0	30 ± 1.25	± 0.7	15	1.40	0.3	4	40	8
CA-796-N	7.0-12.4	6 ± 1.0	± 0.4	14	1.50	0.45	2	30	8
CA-791-N	7.0-12.4	10 ± 1.0	± 0.5	14	1.50	0.45	2	30	8
CA-792-N	7.0-12.4	20 ± 1.2	± 0.6	14	1.50	0.45	2	30	8
CA-793-N	7.0-12.4	30 ± 1.25	± 0.6	14	1.50	0.45	2	30	8

**Notes:**

1. Coupling includes Frequency Flatness. Coupling measurement is referenced to Input Port.

### MECHANICAL OUTLINES—FIG. 1 N CONNECTOR SERIES CA-N

OUTLINE	A Inches cm.	B Inches cm.	C Inches cm.	D Inches cm.	E Inches cm.
1	3.25 8.26	1.14 2.89	0.50 1.27	2.250 5.715	—
2	3.50 8.89	1.14 2.89	0.50 1.27	2.800 6.350	—
3	2.65 6.73	1.14 2.89	0.50 1.27	1.630 4.191	—
4	1.95 4.95	1.14 2.89	0.50 1.27	0.950 2.413	—

OUTLINE	A Inches cm.	B Inches cm.	C Inches cm.	D Inches cm.	E Inches cm.
5	1.40 3.56	1.14 2.89	—	—	0.78 1.98
6	1.40 3.56	1.14 2.89	—	—	0.58 1.47
7	1.65 4.19	1.14 2.89	—	—	—
8	1.40 3.56	1.14 2.89	—	—	0.73 1.85

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