



# MICROLAB/FXR Directional Coupler

CK-30 series

Quarter Wave Air-line Coupler

806-960/1710-2200 MHz

- ◆ 6, 10, 15, 20 & 30 dB Coupling Values
- ◆ High Directivity/Isolation
- ◆ Low VSWR and Loss
- ◆ Dual Band Cellular and PCS/UMTS
- ◆ 200 Watt Average Power Rating
- ◆ High Reliability, Low PIM
- ◆ RoHS compliant
- ◆ N connectors



Microlab/FXR CK-30N series, Directional Couplers, is a quarter wave, air-line design for indoor applications covering all cellular bands to 2200 MHz. Units couple off a defined fraction of signal with minimal reflections or loss.

The wide frequency range allows use with multiband antennas and leaky cable systems and in wireless base stations. With minimal solder joints and an air dielectric, the dissipative loss has been minimized and reliability enhanced. Units also available with 7-16 mm DIN as CK-30D and in 4 port configuration to IP65 as CK-10 series.

See also DK series, Unequal Power Splitters, for different benefits. (12/06)

Frequency Ranges: 806 to 960 MHz and 1710 to 2200 MHz  
 VSWR: 1.20:1 max., all ports  
 Dissipative Loss: 0.1 dB max. (Main Line)  
 Power Handling: 200 W avg., 3 kW peak\*  
 Directivity: 25 dB min., < 1990 MHz  
 23 dB min., > 1990 MHz  
 Impedance: 50Ω nominal  
 Intermodulation, PIM: < -140 dBc max. with 2 tones of +43 dBm  
 Environment: IP64, -35°C to +75°C  
 Finish/Connectors: Passivated/Silver or triplate

\*Power may also be limited by feeding into poorly matched loads overloading the internal 2W termination.

Model Number 3 port	4 port	Coupling Value nom.	Coupled Loss	Coupling, (ref. Input)			Weight oz (g)	Dimensions in inches (mm)			
				Actual Coupling, dB, in range				A	B	C	D
				806 - 960	1710 - 1990	1990 - 2200					
CK-36N	CK-36LN	6 dB	1.26 dB	6.8 ± 0.8	5.4 ± 0.6	6.4 ± 0.8	12	3.57	3.87	5.62	0.85
CK-37N	CK-37LN	10 dB	0.454 dB	10.8 ± 0.8	9.4 ± 0.7	10.4 ± 0.8	(330)	(90.7)	(98.3)	(143)	(21.6)
CK-35N	CK-35LN	15 dB	0.140 dB	15.5 ± 0.9	14.0 ± 0.8	15.1 ± 1.0	12	3.79	4.09	5.83	0.73
CK-38N	CK-38LN	20 dB	0.045 dB	20.8 ± 0.9	19.4 ± 0.8	20.4 ± 1.0	(330)	(96.3)	(104)	(148)	(18.5)
CK-39N	CK-39LN	30 dB	0.004 dB	30.8 ± 1.0	29.4 ± 1.0	30.4 ± 1.3					

