Directional Couplers, Wideband

Models: CK-E36, -E37, -E38, -E43, -E45 & -E68
698 - 2700 MHz, N connectors

Telefonica Proposal

- 6 to 30 dB Coupling Values
- High Directivity VSWR & Loss
- Bands from GSM to 2700 MHz
- 50 Watt Average Power
- RoHS Compliant
- Effective as Tappers for DAS In-Building Systems

These couplers are based on Microlab CK-50N series of N type Directional Couplers Each is a multi section, quarter wave, microstrip design for indoor applications covering all wireless bands from 698 to 2,700 MHz. Units couple off a defined fraction of signal from 6 to 30 dB with minimal reflections or loss.

The wide frequency range allows use with multiband antennas and leaky cable systems and in DAS wireless base stations. With minimal solder joints and an air dielectric, the dissipative loss has been minimized and reliability enhanced.

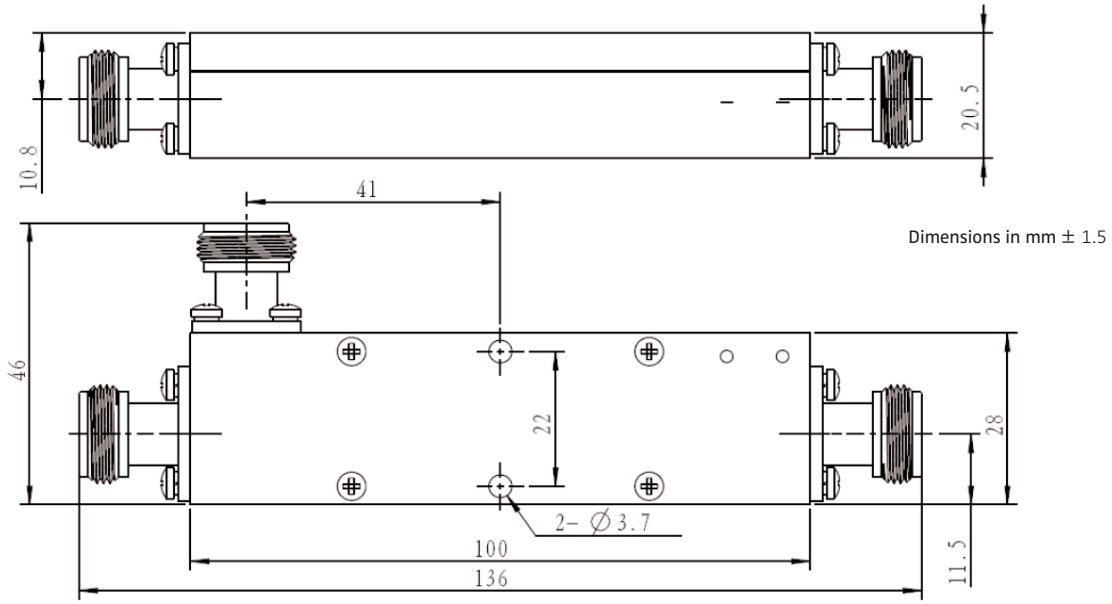
These Directional Couplers may also be used as Unequal Dividers or Tappers, which are usually specified by the power ratio between outputs. For convenience these are shown in the table. (06/11)

Model Number	Coupling dB nom.	Flatness dB	Coupled Loss, dB	Dissipative Loss, dB	*Power Ratio/dB between Outputs	
CK-E36	6 ± 0.6	± 0.3	1.25	<0.6	3:1	4.75 dB
CK-E37	10 ± 0.8	± 0.5	0.45	<0.6	9:1	9.55 dB
CK-E43	13 ± 0.9	± 0.6	0.21	<0.6	20:1	12.8 dB
CK-E45	15 ± 0.9	± 0.6	0.140	<0.6	30:1	14.7 dB
CK-E38	20 ± 0.9	± 0.6	0.045	<0.6	100:1	19.9 dB
CK-E68	30 ± 1.0	± 0.6	0.004	<0.6	1000:1	30.0 dB

*Power Ratio/dB between outputs is approximate
Typical main line PIM is -120 dBc using 2 x +43 dBm tones

Frequency Range:	698 to 2,700 MHz
Directivity:	19 dB minimum
Input VSWR:	<1.25:1
Power Handling:	50W avg.*
Impedance:	50Ω nominal
Environment:	-20° - +70°C, Indoor
Finish:	Passivated aluminum
Weight:	7.5 oz., 210 g nom.
Connectors:	N (f), triplate

*Power may also be limited by feeding into poorly matched loads overloading the internal 1W termination.



Dimensions in mm ± 1.5

Microlab, A Wireless Telecom Group Company, 25 Eastmans Road, Parsippany, NJ 07054
Tel: (973) 386-9696 • sales@microlab.fxr.com • www.microlab.fxr.com • Fax: (973) 386-9191