

Crossguide Couplers

FEATURES:

- ❖ Rugged low cost construction
- ❖ Moderate performance
- ❖ Low insertion loss
- ❖ 2-110GHz

APPLICATIONS:

- ❖ Test equipment
- ❖ Subsystems
- ❖ Power sampling



CCC Series

DESCRIPTION:

CCC Series crossguide couplers are offered for the frequency range of 2 to 110 GHz in seven waveguide bands. The standard coupling level is 20 dB with moderate operation bandwidth and directivity. The couplers are typically used for power sampling or frequency monitoring with minimum signal loss on the main transmitting path. The crossguide couplers have a similar system function while delivering a much shorter insertion length and lower insertion loss compared to their counterpart, multi-hole directional couplers. Because of its unique features, these crossguide couplers are ideal candidates for system integration.

SPECIFICATIONS:

Waveguide Band	X	Xs	Ku	Kb	K	Kb	Ka	Q
Frequency Range (GHz)	8.20 to 12.40	10.0 to 15.0	12.4 to 18.0	15.0 to 22.0	18 to 26.5	22 to 33	26.5 to 40	33.0 to 50
Waveguide Size	WR-90	WR-75	WR-62	WR-51	WR-42	WR-34	WR-28	WR-22
Bandwidth (Typical)	-	-	-	-	6	7	8	10
Coupling Level (dB @ Fo, Typical)	15 to 30	15 to 30	15 to 30	15 to 30	15 to 30	15 to 30	15 to 30	15 to 30
Coupling Flatness (dB, Maximum)	± 1.5	± 1.5	± 1.5	± 1.5	± 1.5	± 1.5	± 1.5	± 1.6
Insertion Loss (dB, Maximum)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7
Directivity (dB, Typical)	15	15	15	15	15	15	15	15
Main Line VSWR (Maximum)	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1
Secondary Line VSWR (Maximum)	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1	1.2:1

REMARKS: LOWER FREQUENCY BANDS ARE ALSO AVAILABLE

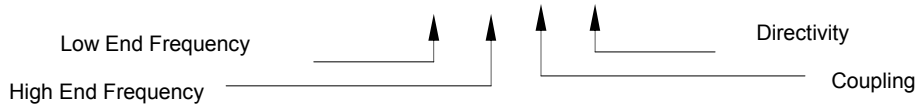
Waveguide Band	U	V	E	W	G
Frequency Range (GHz)	40 to 60	50 to 75	60 to 90	75 to 110	90.0 to 140.0
Waveguide Size	WR-19	WR-15	WR-12	WR-10	WR-8
Bandwidth (Typical)	12	15	18	20	-
Coupling Level (dB @ Fo, Typical)	15 to 30	15 to 30	15 to 30	15 to 30	15 to 30
Coupling Flatness (dB, Maximum)	± 1.6	± 1.6	± 1.8	± 1.8	± 1.6
Insertion Loss (dB, Maximum)	0.7	0.8	1.0	1.0	0.7
Directivity (dB, Typical)	15	15	15	15	10
Main Line VSWR (Maximum)	1.2:1	1.2:1	1.25:1	1.25:1	1.2:1
Secondary Line VSWR (Maximum)	1.2:1	1.2:1	1.25:1	1.3:1	1.2:1



Contact factory for other frequency bands,

HOW TO ORDER:

Specify Model Number CCC-LF HF CC DD -XX ← To be determined by the factory



Example: To order a WR42 crossguide coupler with a frequency band of 18-26.5Ghz, 20 dB coupling level, a 15 dB minimum directivity, specify CCC-18262015-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE