

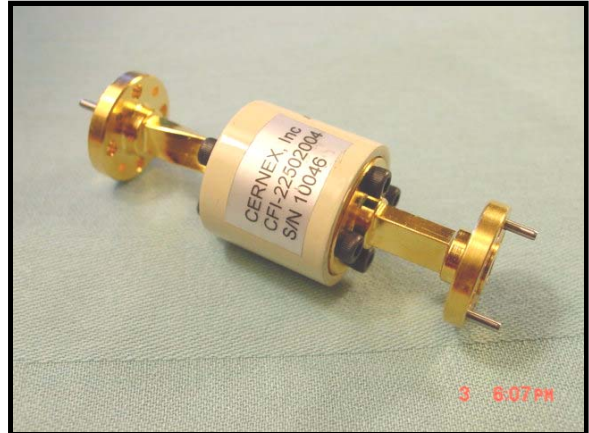
Full Waveguide Band Isolators (Faraday)

FEATURES:

- ❖ Low Insertion Loss
- ❖ Full Waveguide Band
- ❖ Lightweight and Compact Design
- ❖ Excellent Isolation Across the Band
- ❖ Faraday Rotation Principle of Operation

APPLICATIONS:

- ❖ Test Setup
- ❖ Instrumentation
- ❖ Subsystems
- ❖ Transceivers



DESCRIPTION:

CFF Series

Cernex's CFF series isolators use the Faraday principle of rotation in a broadband dielectric waveguide design to achieve high isolation across full waveguide bands. These isolators are available in standard waveguide sizes from 18.0 to 110 GHz. High-quality ferrite material is used in these isolators, and the magnetic field is produced by an integral Alnico V permanent magnet. To ensure maximum reproducibility and performance, a combination of precise machining operations and refined assembly techniques is used.

SPECIFICATIONS:

Waveguide Band	K	Ka	Q	U	V	E	W
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Frequency Range (GHz)	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Isolation (dB) Typ.	25	25	25	25	25	25	25
Insertion Loss (dB) Typ.	1.0	1.0	1.3	1.5	1.6	1.9	2.2
VSWR Max.	1.30	1.30	1.30	1.30	1.35	1.35	1.40
Power Handling (Watts Max.)	2.0	2.0	1.5	1.5	1.0	1.0	1.0
Waveguide Flange ¹	UG-595/U (54-4-001)	UG-595/U (54-4-003)	UG-383/U (67-2-006)	UG-383/U (67-2-008)	UG-385/U (67-2-008)	UG-387/U (67-2-009)	UG387/U-M (67-2-010)

Notes: 1. Optional flanges are also available UG-381/U (67B-005). Please consult Cernex for further information.



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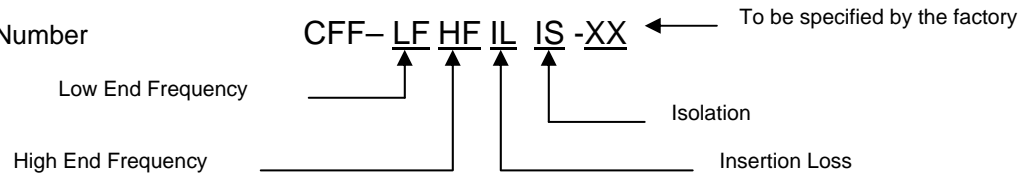
Waveguide Band	F	D	G
Waveguide Size	WR-8	WR-6	WR-5
Frequency Range (GHz)	90 to 140	110 to 170	140 to 220*
Isolation (dB) Typ.	25	22	22
Insertion Loss (dB) Typ.	2.8	3.5	4.5
VSWR Typ.	1.5	1.5	1.5
Power Handling (Watts Max.)	0.4	0.2	0.2
Waveguide Flange ¹	UG-387	UG-387	UG-387

Notes: 1. Optional flanges are also available UG-381/U (67B-005). Please consult Cernex for further information.

*SPECIFICATIONS ABOVE 190GHz ARE NOT GUARANTEED DUE TO TEST EQUIPMENT LIMITATIONS.

HOW TO ORDER:

Specify Model Number



Example: To order WR-15 waveguide Faraday Isolator with a frequency of 50-75Ghz, an I.L. of 1.8db, an Isolation of 25db,specify CFF-50751825-XX.

CERNEX RESERVE THE RIGTH TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE