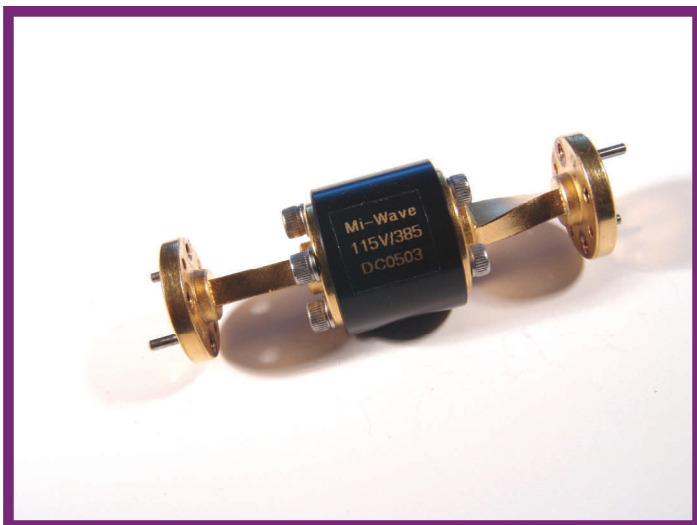


115 Series Full Waveguide Band Isolators



Features

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

Description 115 Series Isolators

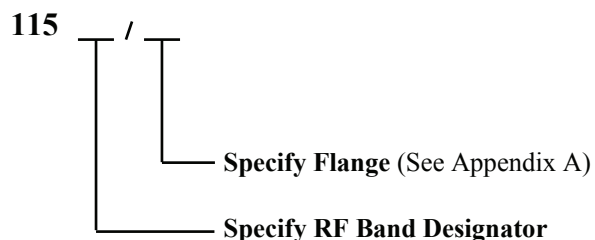
Mi-Wave's 115 series isolators use the Faraday principle of rotation in a broadband dielectric waveguide design to achieve high isolation across full waveguide bands. These isolators are available in standard waveguide sizes from 18.0 to 110 GHz.

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.

Applications

Designed for full waveguide band operation, the 115 series isolator is used in swept frequency applications. These components provide a high degree of isolation between signal sources and mismatched loads by attenuating the reflected signals. The insertion loss in the forward direction is minimized to allow for the full available power from the signal source-isolator combination. Typical applications for these broadband isolators include laboratory setups as well as millimeter wave test sets and automotive radar.

Ordering Information



WARNING

Sensitive ferromagnetic devices are susceptible to the effects of stray magnetic fields and the presence of other ferrous components. These isolators should be kept at least two inches from all possible sources of interference.

Mi-Wave

Millimeter Wave Products Inc.

www.miwv.com

2200 Tall Pines Drive, Suite 100

Largo, FL 33771

Tel. (727) 536-0033 Fax. (727) 536-0012

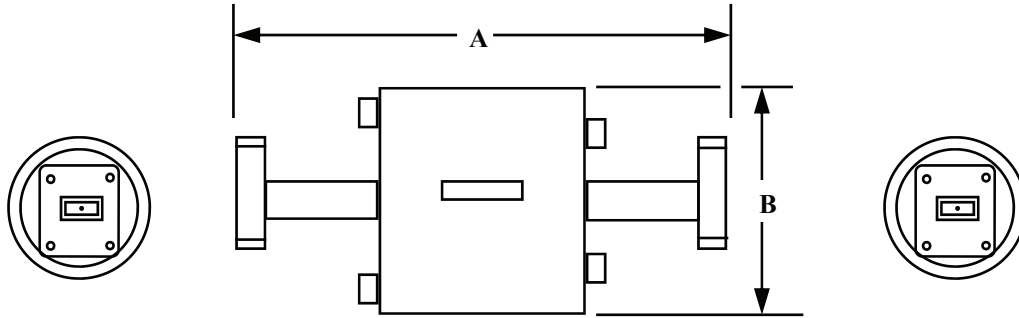
E: sales@miwv.com

115 Series Full Waveguide Band Isolators

Technical Specifications

Model Number	115K	115A	115B	115U	115V	115E	115W
Frequency Band (GHz)	18.0-26.5	26.5-40.0	33.0-50.0	40.0-60.0	50.0-75.0	60.0-90.0	75.0-110.0
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 Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Waveguide Flange ¹	UG-595/U (54-4-001)	UG-599/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)

1. Optional flanges are available: UG-381/U (67B-005), **Mi-Wave** 719, and **Mi-Wave** 720.
Please consult **Mi-Wave** for further information.



Dimensional Specifications

Model No.	A		B	
	in	mm	in	mm
115K	4.34	110.2	1.25	31.8
115A	3.38	85.9	1.25	31.8
115B	2.69	68.3	1.25	31.8
115U	2.56	65.2	1.25	31.8
115V	2.56	65.2	0.88	22.2
115E	2.56	64.9	0.88	22.2
115W	2.44	61.9	0.88	22.2

Mi-Wave

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