



**Applications:**

- Diplexer
- Power Amplifier Output Protection
- Cascade Impedance matching

**Features:**

- Low Insertion Loss
- Various Bandwidth Coverage
- High Isolation

**Descriptions:**

3J Microwave, Inc. offers a complete line of junction circulators and isolators in 8 waveguide bands from K to W. The series circulators and isolators feature low insertion loss and high isolation in narrow, wide and full waveguide bandwidth. They are designed with compact size and light weigh. The circulators are excellent choices for the diplexers in the applications of transceivers. The



isolators are suitable for power amplifier's output reflection protection and/or cascade isolations and matching in the multiple-stage subsystems. The waveguide junction circulators and isolators are sorted in two categories: 1) **JI** and **JC** series junction circulators and isolators. 2) **FJI** and **FJC** series Full band junction circulators and isolators.

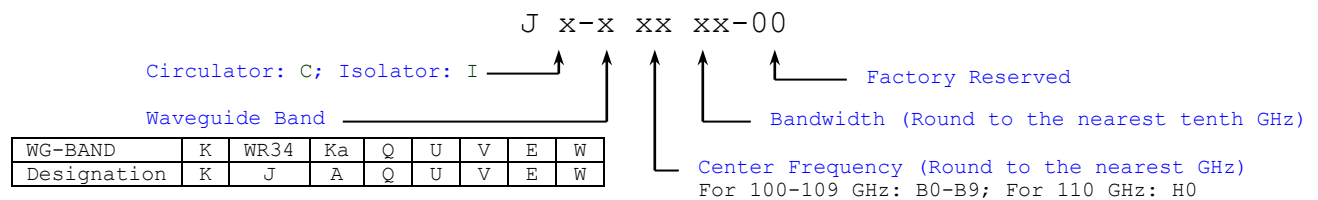
**JI and JC Junction Circulator/Isolator Specifications:**

Model Number**	*Center Freq (GHz)	WG Band	BW (GHz)	I. L. (dB)	Isolation (dB)	I/O Return Loss (dB)	RF/LO Connector
JI-xxxxx-00	18-27	WR-42	1.0 to 3.0	0.2	-20	-18	UG595-U
JC-xxxxx-00	22-33	WR-34		0.2			UG595-UM
	26-40	WR-28		0.3			UG599-U
	33-50	WR-22		0.3			UG383-U
	40-60	WR-19		0.3			UG383-UM
	50-75	WR-15		0.4			UG385-U
	60-90	WR-12		0.5			UG387-U
	75-110	WR-10		0.6			UG387-UM

\* Center Frequency can be chosen in the specified waveguide bands

\*\* Please see "how to order" for the model number details

**How to Order:**



**Model No. Example:**

Model Number of a W-Band Narrow Band Circulator at Center Frequency of 109 GHz with 1 GHz Band Width: **JC-WB910-00**



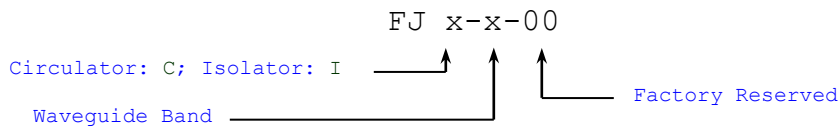
**FJI and FJC Full Band Junction Circulator/Isolator Specifications:**

Model Number**	WG Band	Freq (GHz)	BW (GHz)	I. L. (dB)	Isolation (dB)	I/O Return Loss (dB)	RF/LO Connector	Outline
FJx-x-00	WR-42	18-27	Full Band	0.8	-16	-16	UG595-U	
	WR-34	22-33		0.9	-16		UG595-UM	
	WR-28	26-40		1.0	-16		UG599-U	

\* Center Frequency can be chosen in the specified waveguide bands

\*\* Please see "how to order" for the model number details

**How to Order:**



WG-BAND	K	WR34	Ka
Designation	K	J	A

**Model No. Example:**

Model Number of a Ka-Band Full Band Junction Circulator:

**FJC-A-00**

**Outlines:**

Please see Section 5-3, Page 5-4 for the outline details