

## FEATURES

- ❖ Low cost, high quality
- ❖ Compact size, light weight
- ❖ High performance
- ❖ Wide operation temperature range
- ❖ Common Radar and wireless bands

## APPLICATIONS

- ❖ Ports isolation
- ❖ Module integration
- ❖ Transceiver subsystems



**FII & FCI Series**

## DESCRIPTION

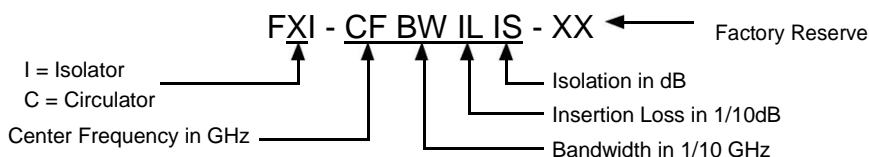
**FII** and **FCI** series narrow band iso-adapters provide isolation and circulation functions between waveguide and coaxial interface. These iso-adapters cover common Radar and wireless communication frequency bands up to 65 GHz. The iso-adapters are ideal device where the port isolation and duplexing are required. The iso-adapters can be configured with standard waveguide interface with N-type, SMA, K, 2.4 mm and V coax interface. The low cost **FII** and **FCI** series iso-adapters offer very compact sizes that can be easily inserted into the sub-assembly with minimum size increase. While the standard specifications are shown below, the custom ones with up to full waveguide bandwidth and higher isolation are available.

## SPECIFICATIONS

Frequency Band	X	WR-75	KU	K	KA	Q	U	V
Frequency Range (GHz)	8.2 to 12.4	10 to 15	12.4 to 18	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 70
Bandwidth (GHz)	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
Insertion Loss (dB max)	0.4	0.4	0.5	0.5	0.6	0.7	0.8	1.0
Isolation (dB min)	20	20	20	19	18	18	18	18
VSWR (max)	1.25:1	1.25:1	1.25:1	1.25:1	1.25:1	1.3:1	1.3:1	1.4:1
Waveguide Size	WR-90	WR-75	WR-62	WR-42	WR-28	WR-22	WR-19	WR-15
Coax Connector	N, SMA	SMA	SMA	K	K	2.4	V	V
Temperature Range	0 to +50°C							

## HOW TO ORDER

Specify Model Number



Example: To order a center frequency 18 GHz circulator/iso-adpater with 1.0 GHz bandwidth, 0.5 dB maximum insertion loss and 20 dB minimum isolation, specify FCI-18100520-XX.

# Ferrite Device Outline Drawings

### WT-D-1 Drop-in Isolator

Freq. Range	Dwg	W	L	H	H1	H2	H3	H4	V1	V2
0.8~1.2 GHz	A	1.00	1.25	0.27	0.09	0.82	NA	NA	0.09	0.82
1.2~2.4 GHz	B	1.00	1.00	0.47	0.09	0.82	0.09	0.82	0.09	0.82
2.0~3.5 GHz	B	0.71	0.98	0.39	0.16	0.39	0.10	NA	0.08	0.83
3.5~5.0 GHz	B	0.63	1.02	0.41	0.31	NA	0.08	0.47	0.09	0.54
5.0~8.0 GHz	B	0.47	0.79	0.37	0.08	0.31	0.08	0.31	0.08	0.63
8.0~18.0 GHz	A	0.35	0.59	0.31	0.06	0.24	NA	NA	0.06	0.47

Dimensions are in inches

### WT-D-2 Drop-in Circulator

Freq. Range	Dwg	W	L	H	H1	H2	H3	H4	V1	V2
0.8~1.2 GHz	A	1.00	1.00	0.27	0.09	0.82	NA	NA	0.09	0.82
1.2~2.4 GHz	B	1.00	1.00	0.47	0.09	0.82	0.09	0.82	0.09	0.82
2.0~3.5 GHz	B	0.79	0.98	0.45	0.39	NA	0.14	0.51	0.06	0.83
3.5~5.0 GHz	B	0.63	0.87	0.41	0.31	NA	0.08	0.47	0.09	0.54
5.0~8.0 GHz	B	0.50	0.67	0.24	0.06	0.38	0.06	0.38	0.06	0.55
8.0~18.0 GHz	A	0.35	0.49	0.31	0.06	0.24	NA	NA	0.06	0.37

Dimensions are in inches

### WT-D-3 Coaxial Isolator

Freq. Range	W	L	H	V0	H01	H02	H1	H2	V1	V2
0.9~2.0 GHz	0.98	1.16	0.59	0.71	0.12	0.75	NA	NA	NA	NA
2.0~3.5 GHz	0.98	1.16	0.59	0.71	0.12	0.75	NA	NA	NA	NA
3.5~6.5 GHz	0.63	1.02	0.55	0.63	0.10	0.43	0.10	0.43	0.09	0.78
6.5~18.0 GHz	0.47	0.79	0.51	0.55	0.08	0.31	NA	NA	NA	NA

\*SMA(M) is available per request

Dimensions are in inches

### WT-D-4 Coaxial Circulator

Freq. Range	W	L	H	H1	H2	H3	H4	V1	V2
0.9~2.0 GHz	0.98	0.98	0.59	0.18	0.63	0.12	0.75	0.12	0.75
2.0~3.5 GHz	0.98	0.98	0.59	0.12	0.75	NA	NA	0.71	NA
3.5~6.5 GHz	0.63	0.83	0.55	NA	NA	NA	NA	NA	NA
6.5~18.0 GHz	0.59	0.75	0.51	0.16	0.28	0.12	0.35	0.12	0.47

\*SMA(M) is available per request

Dimensions are in inches

### WT-D-5 Junction Isolator

BAND	H	L	W
K	0.88	1.26	0.50
Ka	0.75	1.10	0.39
Q & U	1.18	1.26	0.59
V,E & W	0.85	1.00	0.75

Dimensions are in inches

### WT-D-6 Junction Circulator

BAND	H	L	W
K	0.88	1.06	0.94
Ka	0.75	0.94	0.83
Q	1.22	1.34	1.22
U	1.22	1.34	1.34
V,E & W	0.85	1.00	1.00

Dimensions are in inches

The flange pattern shown is for illustration purpose. Refer to Technical Reference Section for flange pattern details. The outline drawings shown are standard versions. Contact factory for your specific package requirements.