

Full Band Faraday Isolators

Bulletin No. FFF

FEATURES

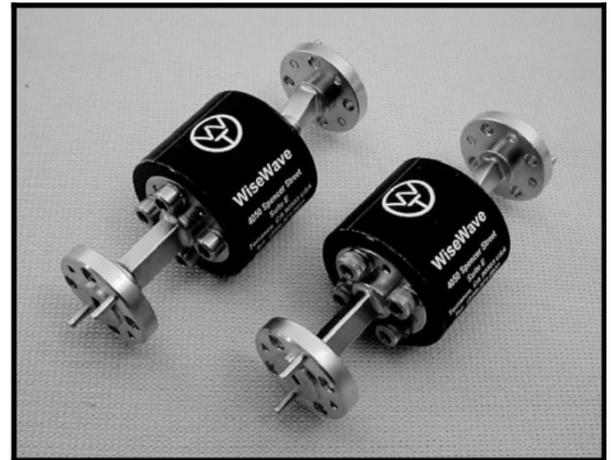
- ❖ Full waveguide band operation
- ❖ Faraday rotation type
- ❖ 18 to 110 GHz frequency range
- ❖ High Isolation

APPLICATIONS

- ❖ Test setup
- ❖ Instrumentation
- ❖ Subsystems
- ❖ Transceivers

DESCRIPTION

FFF series full band Faraday waveguide are available from 18 to 110 GHz frequency range in seven waveguide bands. The isolators feature moderate insertion loss and high isolation up to 30 dB for full waveguide bands operation. These devices are ideally suited for broadband communication systems or test instrument applications.

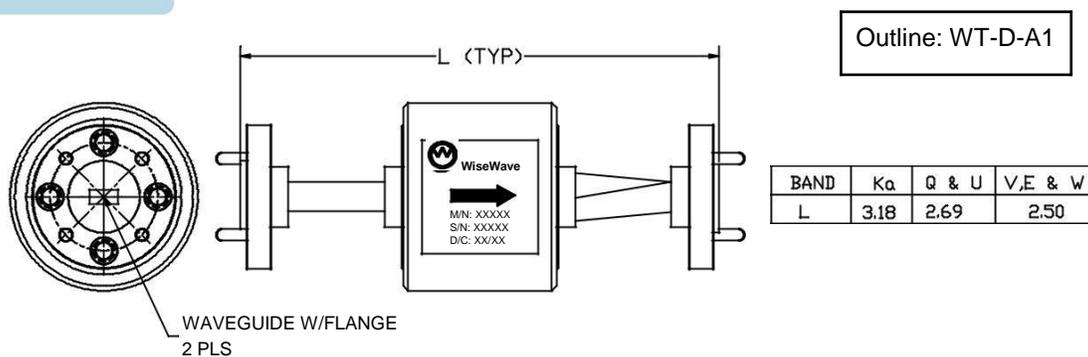


FFF Series

SPECIFICATIONS

Frequency Band	K	Ka	Q	U	V	E	W
Model Number	FFF-42-01	FFF-28-01	FFF-22-01	FFF-19-01	FFF-15-01	FFF-12-01	FFF-10-01
Freq. Range (GHz)	18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Insertion Loss (dB max)	1.0	1.2	1.5	1.6	1.8	2.0	2.3
Isolation (dB typ)	30	30	30	30	30	30	30
VSWR (max)	1.4:1	1.4:1	1.4:1	1.4:1	1.4:1	1.5:1	1.5:1
Power Handling (W)	2.0	2.0	1.5	1.5	1.0	1.0	1.0
Flange Type	UG595/U	UG599/U	UG383/U	UG383/U Mod	UG385/U	UG387/U	UG387/U Mod
Temperature Range	0 to +50°C						

OUTLINE DRAWING



Note: The outline is subject to change without notice. Please confirm with factory if the outline is a critical issue to your design.

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.