

Narrowband Ferrite Junction Isolators and Circulators

FEATURES:

- ❖ Low Cost, High Quality
- ❖ Compact Size, Light Weight
- ❖ High Performance
- ❖ Wide Operation Temperature Range
- ❖ Common Wireless Communication Frequency Bands in 2 to 110 GHz range

APPLICATIONS:

- ❖ Load isolation
- ❖ Receiver input VSWR
- ❖ Transmitter output VSWR
- ❖ Transceiver Diplexers



CJI & CJC Series

SPECIFICATIONS:

Waveguide Band	K	WR-34	Ka	Q	U	V	E	W
Frequency Range (GHz)	18.0-26.5	22-33	26.5-40	33-50	40-60	50-75	60-90	75-110
Bandwidth (GHz min)	3.0	2.0	3.0	2.0	1.8	1.5	1.5	1.5
Waveguide Size	WR-42	WR-34	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Isolation (dB min)	20.0	20.0	20.0	20.0	15.0	15.0	15.0	15.0
Insertion Loss (dB max)	0.3	0.4	0.4	0.5	0.7	1.0	1.0	1.0
CW Power (W) F/B*	30/1.5	25/1.0	25/1.0	25/0.8	15/0.4	10/0.3	10/0.2	10/0.2
VSWR (max)	1.3:1	1.3:1	1.3:1	1.3:1	1.35:1	1.4:1	1.4:1	1.4:1

ISOLATORS:

Model No.	Frequency Range (GHz)	Band Width (MHz)	Insertion Loss (dB Max)	Isolation (dB Min)	VSWR (Max)	Operating Temp. Range (°C)	Size LXWXH (mm)	Waveguide Type
*CJI04060323S-XX	4.0-6.0	300	0.3	23	1.15	-20-+60	60X110X64	WR187
*CJI05070323S-XX	5.0-7.0	300	0.3	23	1.15	-20-+60	50X100X62	WR159
*CJI05080325G-XX	5.38-8.17	500	0.3	25	1.20	-40-+80	45*95*49	WR137
*CJI05080420G-XX	5.38-8.17	1000	0.4	20	1.25	-40-+80	45*95*49	WR137
*CJI05080325S-XX	5.9-8.5	400	0.3	25	1.15	-20-+60	42X80X49	WR137
*CJI06090323G-XX	6.57-9.99	500	0.3	23	1.20	-40-+80	36X75.5X48	WR112
*CJI06090420G-XX	6.57-9.99	1000	0.4	20	1.25	-40-+80	36X75.5X48	WR112
*CJI07100325S-XX	7.1-10.0	600	0.3	25	1.15	-20-+60	36X65X48	WR112



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Model No.	Frequency Range (GHz)	Band Width (MHz)	Insertion Loss (dB Max)	Isolation (dB Min)	VSWR (Max)	Operating Temp. Range (°C)	Size LXWXH (mm)	Waveguide Type
*CJI08120423S-XX	8.2-12.0	400	0.4	23	1.20	-20-+60	12.7X48.5X42	WR90
*CJI08120325G-XX	8.2-12.5	300	0.3	25	1.20	-40-+80	12.7X48.5X42	WR90
*CJI08120420G-XX	8.2-12.5	500	0.4	20	1.25	-40-+80	12.7X48.5X42	WR90
*CJI08120323G-XX	8.2-12.5	1000	0.3	23	1.20	-40-+80	28X56X42	WR90
*CJI08120420G-XX	8.2-12.5	2000	0.4	20	1.25	-40-+80	28X56X42	WR90
*CJI08090323G	8.6-9.6	-	0.3	23	1.20	-40-+85	CE01	WR90
*CJI09150320G-XX	9.84-15.0	300	0.3	20	1.20	-40-+80	12.7X43X38	WR75
*CJI09150320G1-XX	9.84-15.0	600	0.3	20	1.20	-40-+80	12.7X43X38	WR75
*CJI09150323G-XX	9.84-15.0	1000	0.3	23	1.20	-40-+80	25X52X38	WR75
*CJI09150420G-XX	9.84-15.0	2000	0.4	20	1.25	-40-+80	25X52X38	WR75
*CJI10100228G	10.0-10.3	-	0.25	28	1.15	-40-+85	CH25	WR90
*CJI10140423S-XX	10.0-14.0	400	0.4	23	1.20	-20-+60	12.7X48X38	WR75
*CJI10100320G	10.1-10.7	-	0.3	20	1.20	-40-+85	CE11	WR75
*CJI10110320G	10.7-11.2	-	0.3	20	1.20	-40-+85	CE11	WR75
*CJI10120420G	10.7-12.7	-	0.4	20	1.22	-40-+85	CE02	WR75
*CJI11110320G	11.2-11.7	-	0.3	20	1.20	-40-+85	CE11	WR75
*CJI11180323G-XX	11.9-18.0	500	0.3	23	1.15	-40-+80	12.7X38.2X33.3	WR62
*CJI11180420G-XX	11.9-18.0	1000	0.4	20	1.20	-40-+80	12.7X38.2X33.3	WR62
*CJI11180323G1-XX	11.9-18.0	1000	0.3	23	1.20	-40-+80	21X52X33.3	WR62
*CJI11180420G1-XX	11.9-18.0	2000	0.4	20	1.25	-40-+80	21X52X33.3	WR62
*CJI12120225G	12.0-12.5	-	0.25	25	1.15	-40-+85	CH26	WR75
*CJI12170423S-XX	12.0-17.0	400	0.4	23	1.20	-20-+60	9.5X38X33	WR62
*CJI12130320G	12.7-13.3	-	0.3	20	1.20	-40-+85	CE11	WR75
*CJI14150420G	14.3-15.45	-	0.4	20	1.20	-40-+85	CE03	WR62
*CJI14220323G-XX	14.5-22.0	1000	0.3	23	1.20	-40-+80	15X40X30.2	WR51
*CJI14220420G-XX	14.5-22.0	2000	0.4	20	1.25	-40-+80	15X40X30.2	WR51
*CJI16170423G	16.0-17.0	-	0.4	23	1.20	-40-+85	CE03	WR62
*CJI17180323G	17.0-18.0	-	0.3	23	1.20	-40-+85	CE04	WR51
*CJI17260323G-XX	17.6-26.7	1000	0.3	23	1.20	-40-+80	9.52X31.75X22.35	WR51
*CJI17260323G1-XX	17.6-26.7	1000	0.3	23	1.20	-40-+80	12.7X32X22.4	WR42
*CJI17260323G2-XX	17.6-26.7	1000	0.3	23	1.20	-40-+80	12.7X38.1X22.3	WR42
*CJI17260420G-XX	17.6-26.7	2000	0.4	20	1.25	-40-+80	9.52X31.75X22.35	WR42
*CJI17260420G1-XX	17.6-26.7	2000	0.4	20	1.22	-40-+80	12.7X32X22.4	WR42
*CJI17260420G2-XX	17.6-26.7	2000	0.4	20	1.22	-40-+80	12.7X38X22.3	WR42
*CJI17190420G	17.7-19.7	-	0.4	20	1.20	-40-+85	CE12	WR42



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*CJI18260423S-XX	18.0-26.0	1000	0.4	23	1.20	-20-+60	12.7X29X22	WR42
*CJI19210320G	19.6-21.2	-	0.3	20	1.20	-10-+90	CH32	WR51
*CJI21210328G	21.0-21.5	-	0.3	28	1.15	-40-+85	CH27	WR42
*CJI21230420G	21.2-23.6	-	0.4	20	1.20	-40-+85	CE12	WR42
*CJI21330323G1-XX	21.2-33.0	1000	0.3	23	1.20	-40-+80	9.525X31.75X22.35	WR34
*CJI21330420G1-XX	21.2-33.0	2000	0.4	20	1.25	-40-+80	9.525X31.75X22.35	WR34
*CJI21330323G-XX	21.7-33.0	1000	0.3	23	1.20	-40-+80	12.7X32X21.1	WR34
*CJI21330420G-XX	21.7-33.0	2000	0.4	20	1.20	-40-+80	12.7X32X21.1	WR34
*CJI24260420G	24.5-26.5	-	0.4	20	1.20	-40-+85	CE05	WR42
*CJI24260420G1	24.5-26.7	-	0.4	20	1.20	-40-+85	CE12	WR42
*CJI26400325G-XX	26.3-40.0	1000	0.3	25	1.20	-40-+80	10X28X19.1	WR28
*CJI26400322G-XX	26.3-40.0	2000	0.35	22	1.22	-40-+80	10X28X19.1	WR28
*CJI26400420G-XX	26.3-40.0	3000	0.4	20	1.22	-40-+80	12.7X32X19.56	WR28
*CJI27290420G1	27.0-29.5	-	0.4	20	1.22	-40-+85	CE13	WR28
*CJI27290420G	27.5-29.5	-	0.4	20	1.20	-40-+85	CE06	WR34
*CJI31330420G	31.8-33.4	-	0.4	20	1.22	-40-+85	CE13	WR28
*CJI32500525G-XX	32.9-50.1	1000	0.5	25	1.20	-40-+80	10X26X19.1	WR22
*CJI32500623G-XX	32.9-50.1	2000	0.6	23	1.25	-40-+80	10X26X19.1	WR22
*CJI33330328G	33-33.5	-	0.3	28	1.15	-40-+85	CH28	WR28
*CJI35360325G	35.0-36.0	-	0.3	25	1.20	-40-+85	CE07	WR28
*CJI35360323G	35.5-36.5	-	0.3	23	1.20	-40-+85	CH33	WR28
*CJI37400420G	37.0-40.0	-	0.4	20	1.22	-40-+85	CE13	WR28
*CJI39590525G-XX	39.2-59.6	1000	0.5	25	1.20	-40-+80	10X25.5X19.1	WR18
*CJI39590623G-XX	39.2-59.6	2000	0.6	23	1.25	-40-+80	10X25.5X19.1	WR18
*CJI45460525G	45.0-46.0	-	0.5	25	1.20	-40-+85	CE08	WR22
*CJI55560525G	55.0-56.0	-	0.5	25	1.20	-40-+85	CE09	WR18
*CJI87960625G-XX	87.0-96.0	1000	0.6	25	1.25	-40-+80	10X22X19.1	WR10
*CJI87960820G-XX	87.0-96.0	2000	0.8	20	1.30	-40-+80	10X22X19.1	WR10
*CJI92930625G	92.0-93.0	-	0.6	25	1.25	-40-+85	CE010	WR10

OTHER FREQUENCY BANDS ARE ALSO AVAILABLE.

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Y-JUNCTION CIRCULATORS:

Model No.	Frequency Range (GHz)	Band Width (MHz)	Insertion Loss (dB Max)	Isolation (dB Min)	VSWR (Max)	Operating Temp. Range (°C)	Size LXWXH (mm)	Waveguide Type
*CJC04060323S-XX	4.0-6.0	300	0.3	23	1.15	-20-+60	100X108X64	WR187
*CJC05070323S-XX	5.0-7.0	300	0.3	23	1.15	-20-+60	90X91X62	WR159
*CJC05080325S-XX	5.9-8.5	400	0.3	25	1.15	-20-+60	70X70X49	WR137
*CJC06090323G-XX	6.57-9.99	500	0.3	23	1.15	-40-+80	60X65X47.8	WR112
*CJC06090320G-XX	6.57-9.99	1000	0.3	20	1.25	-40-+80	60X65X47.8	WR112
*CJC07100325S-XX	7.1-10.0	600	0.3	25	1.15	-20-+60	60X59X48	WR112
*CJC08120325S-XX	8.2-12.0	1000	0.3	25	1.15	-20-+60	46X53X42	WR90
*CJC08120323G-XX	8.2-12.5	1000	0.3	23	1.15	-40-+80	48X53X42	WR90
*CJC08120420G-XX	8.2-12.5	2000	0.4	20	1.25	-40-+80	48X53X42	WR90
*CJC09150325G-XX	9.84-15.0	1000	0.3	25	1.15	-40-+80	42X48X38	WR75
*CJC09150420G-XX	9.84-15.0	2000	0.4	20	1.25	-40-+80	42X48X38	WR75
*CJC10140323S-XX	10.0-14.0	1000	0.3	25	1.15	-20-+60	44X52X38	WR75
*CJC11180323G-XX	11.9-18.0	1000	0.3	23	1.15	-40-+80	40X40X33.3	WR62
*CJC11180420G-XX	11.9-18.0	2000	0.4	20	1.25	-40-+80	40X40X33.3	WR62
*CJC12170325S-XX	12.0-17.0	1000	0.3	25	1.15	-20-+60	38X38X33	WR62
*CJC14220323G-XX	14.5-22.0	1000	0.3	23	1.15	-40-+80	32X35X30.2	WR51
*CJC14220420G-XX	14.5-22.0	2000	0.4	20	1.25	-40-+80	32X35X30.2	WR51
*CJC17260323G-XX	17.6-26.7	1000	0.3	23	1.15	-40-+80	24X27X22.4	WR42
*CJC17260420G2-XX	17.6-26.7	2000	0.4	20	1.25	-40-+80	24X27X22.4	WR42
*CJC18260423S-XX	18.0-26.0	1000	0.4	23	1.20	-20-+60	25X28X22	WR42
*CJC21330323G-XX	21.7-33.0	1000	0.3	23	1.15	-40-+80	22.3X27X21.2	WR34
*CJC21330420G-XX	21.7-33.0	2000	0.4	20	1.25	-40-+80	22.3X27X21.2	WR34
*CJC26400323G-XX	26.3-40.0	500	0.3	23	1.20	-40-+80	21X24X19.1	WR28
*CJC26400323G1-XX	26.3-40.0	1000	0.3	23	1.20	-40-+80	21X24X19.1	WR28
*CJC26400325G2-XX	26.3-40.0	500	0.3	25	1.15	-40-+80	10X24.5X19.1	WR28
*CJC26400320G4-XX	26.3-40.0	1000	0.3	20	1.25	-40-+80	10X24.5X19.1	WR28
*CJC26400325G3-XX	26.3-40.0	500	0.3	25	1.15	-40-+80	10X24.5X32	WR28
*CJC26400320G5-XX	26.3-40.0	1000	0.3	20	1.25	-40-+80	10X24.5X32	WR28
*CJC26400423S-XX	26.5-40.0	2000	0.4	23	1.20	-20-+60	20X25X20	WR28
*CJC27290420G	27.0-29.5	-	0.4	20	1.25	-40-+85	CF11	WR28
*CJC31330420G	31.8-33.4	-	0.4	20	1.25	-40-+85	CF11	WR28
*CJC32500523G-XX	32.9-50.1	1000	0.5	23	1.20	-40-+85	19.1X20X19.1	WR22
*CJC32500620G-XX	32.9-50.1	2000	0.6	20	1.25	-40-+80	19.1X20X19.1	WR22
CJC33340650G	33.75-34.75	Full	0.6	50	1.20	-60-+80	30X62X20	WR28



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*CJC37400418G	37.0-40.0	-	0.4	18	1.30	-40-+85	CF11	WR28
*CJC39590523G-XX	39.2-59.6	1000	0.5	23	1.20	-40-+80	10X24.5X19.1	WR18
*CJC39590620G1-XX	39.2-59.6	2000	0.6	20	1.25	-40-+80	10X24.5X19.1	WR18
*CJC39590523G2-XX	39.2-59.6	1000	0.5	23	1.20	-40-+80	19X19.1X19.1	WR18
*CJC39590620G2-XX	39.2-59.6	2000	0.6	20	1.25	-40-+80	19X19.1X19.1	WR18
*CJC55560523G	55.0-56.0	-	0.5	23	1.20	-40-+85	CF09	WR18
*CJC87960623G-XX	87.0-96.0	1000	0.6	23	1.20	-40-+80	10X25X19.1	WR10
*CJC87960818G-XX	87.0-96.0	2000	0.8	18	1.30	-40-+80	10X25X19.1	WR10
*CJC92930623G	92.0-93.0	-	0.6	23	1.20	-40-+85	CF10	WR10

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UNI JUNCTION CIRCULATORS:

Model No.	Frequency Range (GHz)	Band Width (MHz)	Insertion Loss (dB Max)	Isolation (dB Min)	VSWR (Max)	Operating Temp. Range (°C)	Size LXWXH (mm)	Waveguide Type
*CJC05060320G	5.8-6.4	-	0.3	20	1.20	-40-+85	CH34	WR137
*CJC07080423G	7.7-8.4	-	0.4	23	1.15	-40-+85	CF01	WR112
*CJC07080423G1	7.8-8.4	-	0.4	23	1.25	-40-+85	CH35	WR112
*CJC08090323G	8.6-9.6	-	0.3	23	1.15	-40-+85	CF02	WR90
*CJC10100228G	10.0-10.3	-	0.25	28	1.15	-40-+85	CH29	WR90
*CJC10120420G	10.7-12.7	-	0.4	20	1.25	-40-+85	CF03	WR75
*CJC12120228G	12.0-12.3	-	0.25	28	1.15	-40-+85	CH30	WR75
*CJC16170323G	16.0-17.0	-	0.3	23	1.15	-40-+85	CF04	WR62
*CJC17180323G	17.0-18.0	-	0.3	23	1.15	-40-+85	CF05	WR51
*CJC24260420G	24.5-26.5	-	0.4	20	1.25	-40-+85	CF06	WR42
*CJC33350328G	33.0-33.5	-	0.3	28	1.15	-40-+85	CH31	WR28
*CJC35360323G	35.0-36.0	-	0.3	23	1.20	-40-+85	CF07	WR28
*CJC45460523G	45.0-46.0	-	0.5	23	1.20	-40-+85	CF08	WR22

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HOW TO ORDER:

Specify Model Number

CJX - LF HF IL IS - XX ← To be specified by the factory

I for Isolator

C for Circulator

Isolation

Insertion Loss

Low End Frequency

High End Frequency

Example: To order a 1.8-2.0 GHz isolator with 0.3 dB maximum insertion loss and 20 dB minimum isolation and, specify CJI-01020320-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT

NOTICE



