

## Flexible Waveguides

### FEATURES:

- ❖ Available from 1.14 GHz to 110 GHz
- ❖ Low VSWR
- ❖ Low Insertion Loss
- ❖ Rugged Construction & Flexibility

### APPLICATION:

- ❖ Communications
- ❖ Radar



**CFT, CFW & CFWS Series**

### SPECIFICATIONS:

#### TWISTABLE:CFT series

Waveguide Size	WR 650	WR 430	WR 340	WR 284	WR 229	WR 187	WR 159
Frequency Range (GHz)	1.12 - 1.70	1.70 - 2.60	2.20 - 3.30	2.60 - 3.95	3.30 - 4.90	3.95 - 5.85	4.90 - 7.05
VSWR Typ.	N/A	*1.07	*1.07	*1.07	*1.07	*1.09	*1.09
Insertion Loss (dB/f) Max.	N/A	**0.01	**0.01	**0.02	**0.02	**0.05	**0.06
CW Power in Watts	N/A	10,000	8,000	4,000	4,000	3,000	2,500

Waveguide Size	WR 137	WR 112	WR 102	WR 90	WR 75	WR 62	WR 51	WR 42
Frequency Range (GHz)	5.85 - 8.20	7.05 - 10.00	7.00 - 11.00	8.20 - 12.40	10.00 - 15.00	12.40 - 18.00	15.00 - 22.00	18.00 - 26.50
VSWR Typ.	*1.09	*1.10	*1.10	*1.10	*1.12	*1.12	*1.20	*1.20
Insertion Loss (dB/f) Max.	**0.07	**0.08	**0.09	**0.10	**0.15	**0.20	**0.35	**0.35



## Flexible Waveguides

Waveguide Size	WR 137	WR 112	WR 102	WR 90	WR 75	WR 62	WR 51	WR 42
CW Power in Watts	2,000	1,500	1,500	1,000	750	400	200	100

### TWISTABLE:CFT series

Waveguide Size	WR 34	WR 28	WR 22
Frequency Range (GHz)	22.00 - 33.00	26.50 - 40.00	33.00 - 50.00
VSWR Typ.	*1.30	*1.30	*1.35
Insertion Loss (dB/f) Max.	**0.50	**0.60	**1.20
CW Power in Watts	100	75	25

\* VSWR is per 2 Foot Section.

\*\*Insertion Loss is in dB Per Foot with silver plated waveguide

### NON-TWISTABLE:CFW series

Waveguide Size	WR 650	WR 430	WR 340	WR 284	WR 229	WR 187	WR 159
Frequency Range (GHz)	1.12 - 1.70	1.70 - 2.60	2.20 - 3.30	2.60 - 3.95	3.30 - 4.90	3.95 - 5.85	4.90 - 7.05
VSWR Typ.	*1.06	*1.07	*1.07	*1.07	*1.07	*1.08	*1.08
Insertion Loss (dB/f) Max.	**0.01	**0.01	**0.01	**0.02	**0.02	**0.03	**0.04
CW Power in Watts	20,000	20,000	16,000	10,000	8,000	6,500	6,000



## Flexible Waveguides

Waveguide Size	WR 137	WR 112	WR 102	WR 90	WR 75	WR 62	WR 51	WR 42
Frequency Range (GHz)	5.85 -	7.05 -	7.00 -	8.20 -	10.00 -	12.40 -	15.00 -	18.00 -
	8.20	10.00	11.00	12.40	15.00	18.00	22.00	26.50
VSWR Typ.	*1.09	*1.09	*1.10	*1.10	*1.12	*1.12	*1.20	*1.20
Insertion Loss (dB/f) Max.	**0.05	**0.06	**0.08	**0.09	**0.13	**0.15	**0.32	**0.32
CW Power in Watts	5,000	4,000	4,000	3,000	1,500	1,000	500	300

### NON-TWISTABLE:CFW series

Waveguide Size	WR 34	WR 28	WR 22
Frequency Range (GHz)	22.00 -	26.50 -	33.00 -
	33.00	40.00	50.00
VSWR Typ.	*1.20	*1.30	*1.35
Insertion Loss (dB/f) Max.	**0.35	**0.50	**1.00
CW Power in Watts	200	150	75

\* VSWR is per 2 Foot Section.

\*\*Insertion Loss is in dB Per Foot with silver plated waveguide

### SEAMLESS:CFWS series

Waveguide Size	WR 650	WR 430	WR 340	WR 284	WR 229	WR 187	WR 159
Frequency Range (GHz)	1.12 -	1.70 -	2.20 -	2.60 -	3.30 -	3.95 -	4.90 -
	1.70	2.60	3.30	3.95	4.90	5.85	7.05
VSWR Typ.	N/A	N/A	N/A	*1.08	*1.08	*1.09	*1.10



## Flexible Waveguides

Waveguide Size	WR 650	WR 430	WR 340	WR 284	WR 229	WR 187	WR 159
Insertion Loss (dB/f) Max.	N/A	N/A	N/A	**0.02	**0.02	**0.03	**0.04
CW Power in Watts	20,000	20,000	16,000	10,000	8,000	6,500	6,000

### SEAMLESS:CFWS series

Waveguide Size	WR 137	WR 112	WR 102	WR 90	WR 75	WR 62	WR 51	WR 42
Frequency Range (GHz)	5.85 - 8.20	7.05 - 10.00	7.00 - 11.00	8.20 - 12.40	10.00 - 15.00	12.40 - 18.00	15.00 - 22.00	18.00 - 26.50
VSWR Typ.	*1.10	*1.10	*1.10	*1.10	*1.10	*1.12	*1.20	*1.30
Insertion Loss (dB/f) Max.	**0.05	**0.06	**0.06	**0.09	**0.12	**0.15	**0.30	**0.35
CW Power in Watts	5,000	4,000	4,000	3,000	1,500	1,000	500	300

### SEAMLESS:CFWS series

Waveguide Size	WR 34	WR 28	WR 22	WR 19	WR 15	WR 12	WR 10
Frequency Range (GHz)	22.00 - 33.00	26.50 - 40.00	33.00 - 50.00	40.00 - 60.00	50.00 - 75.00	60.00 - 90.00	75.00 - 110.00
VSWR Typ.	*1.30	*1.10	*1.10	*1.10	*1.10	*1.12	*1.15
Insertion Loss (dB/f) Max.	**0.35	**0.04	**0.05	**0.08	**0.11	**0.20	**0.25
CW Power in Watts	200	150	75	60	50	40	30

\* VSWR is per 2 Foot Section.

\*\*Insertion Loss is in dB Per Foot with silver plated waveguide

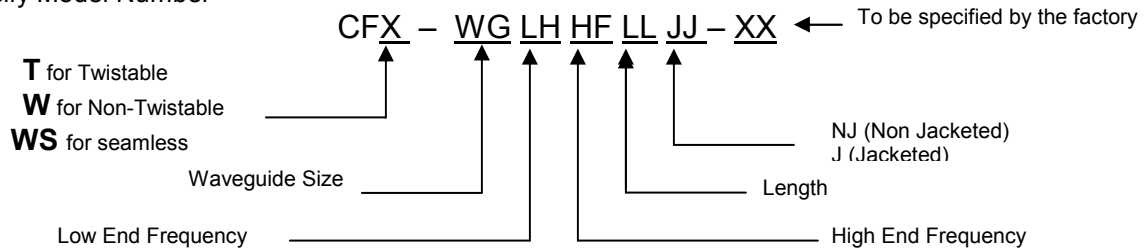


## Flexible Waveguides

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### HOW TO ORDER:

Specify Model Number



**Example:** To order CFT Flexible Twistable Waveguide with Waveguide 340, 2.20 to 3.30 GHz, length= 2 inches, Jacketed, specify CFT-340020302J-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE