FLEXIBLE AND TWISTABLE WAVEGUIDE

MATERIAL:

Waveguide: Brass BS EN 1652 CuZn30
Flanges: Brass 58

MANUFACTURING PROCESS:

The above-mentioned components are assembled together through the operations of soldering/brazing (according to specifications Castolin 157).

SURFACE TREATMENTS:

Internal protection:
Waveguide: silverplating
Flanges: brightening passivation according to European Directives 2002/95/EC ("RoHS") and 2003/11/EC.

External protection:
Waveguide: silicone rubber covering according to MIL-S23586
Flanges: catalytic epoxy painting (colour RAL 9005)

SUPPLIED MATERIAL:

The product (waveguide + flanges) will be supplied together with:
- flange mounting kit, composed of: AISI 303 stainless steel screws (all thread) + elastic washers + hexagonal nuts and gasket (if necessary);
- label on the waveguide with: our logo + our product code + frequency of use.

The product and the mounting kit will be delivered in a single anti-collision box together with our certificate of compliance.

PRODUCTION CONTROL:

MICROWAVEFILTERS' quality control guarantees that components are compliant with the electrical and mechanical characteristics reported below. This is possible thanks to strict tests carried out in all the manufacturing steps up to the final acceptance control, which is performed on each product using our Vector Network Analyzers.

All products are supplied with the technical documentation enclosed about the electrical and mechanical tests performed.

MICROWAVEFILTERS & TVC S.r.l.
Via G. Cavalcanti, 10 - 20063 Cernusco sul Naviglio (MI) ITALY - Tel.+39.02.92162703 - +39.02.92729987 - Fax +39.02.92162705 - info@microwavefilters.it - www.microwavefilters .it

Standard lengths (mm): 300 – 600 – 900/1000
Other lengths are available upon request
Length tolerance: 3%
Material: silverplated brass

Electrical Characteristics

IEC R	EIA WR	Frequency Range (GHz)	Return Loss (dB)			Att.	CW Power	Peak Power
			300 mm	600 mm	1000 mm	dB/m	Watt	kW
32	284	2.6 – 3.95	30.7	29.4	28.3	0.12	4000	2000
40	229	3.22 – 4.90	30.7	29.4	28.3	0.14	4000	1550
48	187	3.94 – 5.99	29.4	27.3	26.4	0.17	3000	1250
58	159	4.64 – 7.05	29.4	27.3	26.4	0.22	2500	1100
70	137	5.38 – 8.18	29.4	27.3	26.4	0.30	2000	500
84	112	6.58 – 10.0	28.3	26.4	25.7	0.36	1500	315
100	90	8.20 – 12.5	28.3	26.4	25.7	0.42	1000	180
120	75	9.84 – 15.0	27.3	25.7	24.9	0.55	750	140
140	62	11.9 – 18.0	27.3	25.7	24.3	0.90	400	100
180	51	14.5 – 22.0	24.9	23.7	23.1	1.45	200	70
220	42	17.6 – 26.7	23.0	22.1	20.1	2.00	100	39
260	34	21.7 – 33.0	21.7	20.8	19.4	2.40	100	30
320	28	26.4 – 40.1	21.0	19.7	18.8	2.70	75	20
400	22	33.0 – 50.1	18.0	16.5	16.0	2.80	25	12

MICROWAVEFILTERS & TVC S.r.l.
Via G. Cavalcanti, 10 - 20063 Cernusco sul Naviglio (MI) ITALY - Tel.+39.02.92162703 - +39.02.92729987 - Fax +39.02.92162705 - info@microwavefilters.it - www.microwavefilters .it

Mechanical Characteristics

IEC R	EIA WR	Minimum Bend Radius				
		Static E Plane (mm)	Static H Plane (mm)	Static Twist Maximum Degree (deg/m)	Repeated Twist Maximum Degree (deg/m)	Pressure (mbar)
32	284	177	241	105	25	≥ 400
40	229	165	203	130	35	≥ 400
48	187	111	165	155	40	≥ 400
58	159	101	152	185	45	≥ 400
70	137	60	85	210	52	≥ 400
84	112	57	82	260	68	≥ 400
100	90	44	63	315	76	≥ 400
120	75	28	57	365	92	≥ 400
140	62	25	47	445	112	≥ 400
180	51	22	31	445	112	≥ 400
220	42	22	31	630	157	≥ 400
260	34	19	28	630	157	≥ 400
320	28	19	28	920	230	≥ 400
400	22	19	28	920	230	≥ 400

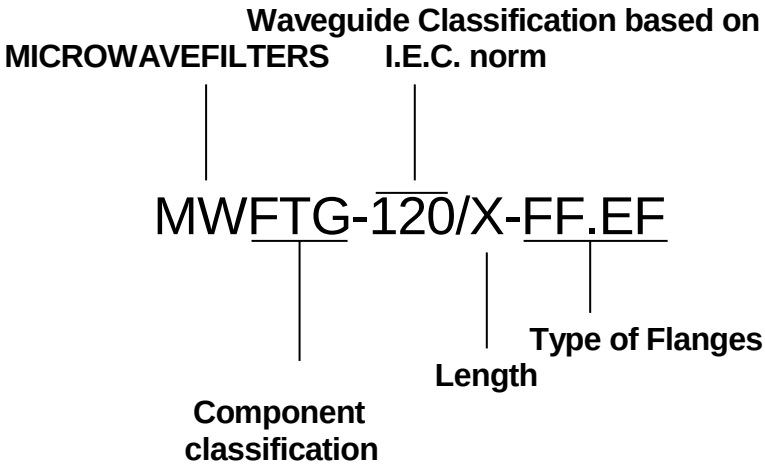
MICROWAVEFILTERS & TVC S.r.l.
Via G. Cavalcanti, 10 - 20063 Cernusco sul Naviglio (MI) ITALY - Tel.+39.02.92162703 - +39.02.92729987 - Fax +39.02.92162705 - info@microwavefilters.it - www.microwavefilters .it

CONNECTION FLANGES FOR THE TWISTABLE AND FLEXIBLE WAVEGUIDE

IEC	EIA	RSC	Flange Types	Description of use
R 40	WR 229	WG 11A	**UERF-UDRF PDRF**	**UERF**= rectangular section for flexible waveguide (for indoor) **UDRF**= rectangular section for flexible waveguide (for outdoor) **PDRF**= rectangular section for flexible waveguide (for outdoor with gasket) **UBRF**= square section for flexible waveguide (for indoor and outdoor) **PBRF**= square section for flexible waveguide (for indoor and outdoor with gasket) MICROWAVEFILTERS CLASSIFICATION: **AF = UERF** **BF = UARF** **CF = PARF** **DF = UDRF** **EF = PDRF** **FF = UBRF** **GF = PBRF**
R 48	WR 187	WG 12	**UERF-UDRF PDRF**	
R 70	WR 137	WG 14	**UERF-UDRF PDRF**	
R 84	WR 112	WG 15	**UDRF-PDRF UBRF-PBRF**	
R 100	WR 90	WG 16	**UDRF-PDRF UBRF-PBRF**	
R 120	WR 75	WG 17	**UDRF-PDRF UBRF-PBRF**	
R 140	WR 62	WG 18	**UDRF-PDRF UBRF-PBRF**	
R 180	WR 51	WG 19	**UDRF-PDRF UBRF-PBRF**	
R 220	WR 42	WG 20	**UBRF-PBRF**	
R 320	WR 28	WG 22	**UBRF-PBRF**	

MICROWAVEFILTERS & TVC S.r.l.
Via G. Cavalcanti, 10 - 20063 Cernusco sul Naviglio (MI) ITALY - Tel.+39.02.92162703 - +39.02.92729987 - Fax +39.02.92162705 - info@microwavefilters.it - www.microwavefilters .it

HOW TO CREATE THE CODE FOR THE FLEXIBLE AND TWISTABLE WAVEGUIDE COMPONENTS



Example:
The MWFTG-120/X-FF.EF code is for a flexible and twistable straight R120 waveguide adapter, rubber-coated, with flanges UBRF - PDRF and length X.

Document Revision: **03** dated 11/01/13

MICROWAVEFILTERS & TVC S.r.l.
Via G. Cavalcanti, 10 - 20063 Cernusco sul Naviglio (MI) ITALY - Tel.+39.02.92162703 - +39.02.92729987 - Fax +39.02.92162705 - info@microwavefilters.it - www.microwavefilters .it