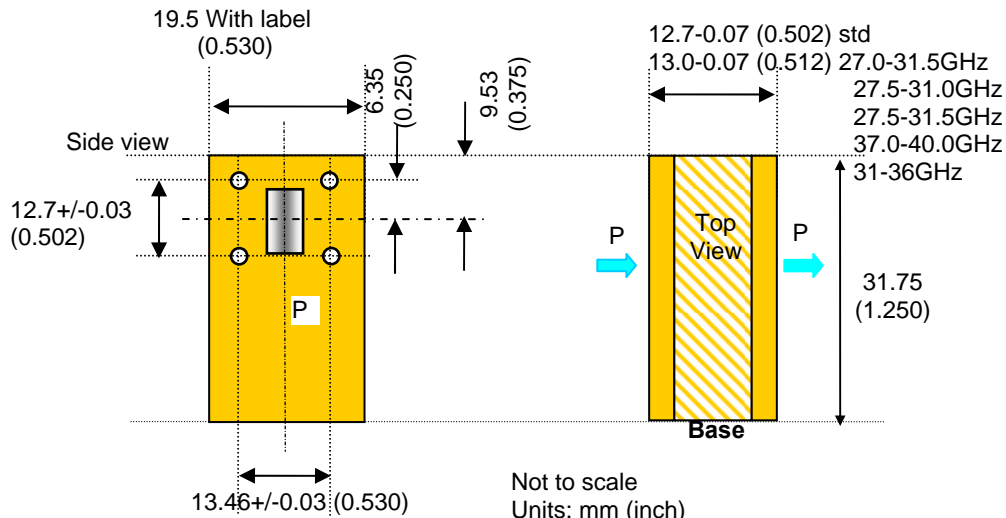


## Isolator, Waveguide, WR28, WG22, R320, 26.5-40 GHz Flange UG599/U RADI-26.5-40.0-WR28-2WR-X (10% or Full band)



**WR28**  
7.11 x 3.56mm ± 0.02  
(0.28 x 0.14)

Not to scale  
Units: mm (inch)  
Tolerance:  
XX ±0.03  
XXX ±0.002  
Material: Aluminum 6061-T6 or  
equivalent. (Chem. Film / alodyne)

- Flange Hole Options-X**
- 1 8 off 4-40 UNC 2B  
0.17"(4.32) deep
  - 2 4 Thru holes  
0.116/.110 dia +/-0.01;  
(2.95+/-0.07mm)
  - 3 8 off M3 x 5-6H  
(5 pitch,6H thread class)  
x 0.280"(7.1) deep
  - 4 4 x M3 0.5-6H,  
tapped thru
  - 5 4 x M3 0.5-6H,  
tapped thru x2 M3 mounting  
holes in base
  - 6 4 x M2.6 0.5-6H,  
tapped thru x2
  - 7 4 x M 2.6 Thru
  - 8 4 Thru holes 3.06mm dia  
+/-0.025mm (0.120 dia +/-  
0.001) default

**Units: mm(Inch)  
Not to scale**

Direction of RF:	
<b>R</b>	Default ▶
<b>L</b>	◀

**Order Examples: RADI-26.5-40-WR28-2WR-1**  
**I=ISOLATOR / C=CIRCULATOR**

Specifications	Full Band	Any 10% bandwidth					Units
Frequency	26.5-40.0	26.5-40.0	27.4-29.6	37-40	37-40	29-31	GHz
Insertion loss	0.5	0.25	0.25	0.25	0.3	0.25	dB max
Isolation	16	21	20	19	18/20	20	dB min/typ
VSWR	1.35	1.22Typ, 1.33 Max	1.22	1.3	1.27/1.22	1.25:1	:1 min/typ
Rated power Forward	20	20	20	5/10	1	5 or 10	Watt
Rated power Reverse	0.5, 1, 1.5 or 2	2	1	1	0.5	1or 2	Watt
Operating Temp	-15 ~ +35	-40 ~ +85	-30 ~ +65	-20 ~ +70	-35 ~ +75	-20 ~ +70	°C
Storage Temp	-50 ~ 105	-50 ~ 105	tba	-50 ~ 105		-50 ~ 105	°C
Specification Temp				-30 ~ 65			

*Note Full band model uses special ferrite and requires extensive tuning,  
10-15% bandwidth models are significantly cheaper*

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RADI-26.5-40.0-WR28-2WR-X (10% or Full band)

Specifications	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e	Full Band	Units
Frequency	26.5-40.0	26.5-40.0	26.5-40.0	26.5-40.0	26.5-40.0	27-31	GHz
Insertion loss	0.5	0.6	0.5	0.5	0.6	0.5	dB max
Isolation	17	16	17	16	16	19	dB min
VSWR	1.35	1.4	1.35	1.4	1.37	1.30	:1
Rated power Forward	1	2	2W	2W	10	1	Watt
Rated power Reverse	0.5	1.5	1 or 2	0.5, 1 or 2W	4	0.5	Watt
Operating Temp	+15 ~ +35	+15 ~ +35	+15 ~ +35	-40 ~ +85	-10 ~ +45	-30 ~ +65	°C
Storage temperature	-50 ~ 105		-50 ~ 105	-50 ~ 105			°C

Specifications		Full Band e	Full Band e	Full Band e/b	Full Band e	Full Band	Units
Frequency	27.0-31.5	27.0-32.0	27.0-32.0	27.0-32.0	27.35-29	27.5-31.0	GHz
Insertion loss	0.5	0.3	0.3	0.3	0.25	0.3	dB max
Isolation	20	20	18	20	21	18	dB min
VSWR	1.30	1.3	1.3	1.3	1.25	1.35 max 1.22 typ	:1
Rated power Forward	2	2W	4W	10W	1	4W	Watt
Rated power Reverse	2	1W	2W	2W	0.5	2W	Watt
Operating Temp	-30 ~ +70	-30 ~ +70	-30 ~ +50	-30 ~ +50	-30 ~ +80	-20 ~ +70	°C
Storage Temp		-50 ~ 105	-50 ~ 105	-50 ~ 105			°C
Altitude		to 15,000	to 15,000	to 15,000			
Humidity		to 95				up to 95	%

Specifications	Full Band	Full Band e					Units
Frequency	27.5-31.5	28.5-31.5	29.4-31.5				GHz
Insertion loss	0.3	0.25	0.4				dB max
Isolation	18	20	20				dB min
VSWR	1.35 max 1.22 typ	1.3	1.25				:1
Rated power Forward	2W	2W	5W				Watt
Rated power Reverse	1W	2W	2W				Watt
Operating Temp	-35 ~ +70	-40 ~ +80	-40 ~ +85				°C
Storage Temp			-50 ~ 120				°C
Humidity	up to 95						%

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RADI-26.5-40.0-WR28-2WR-X (10% or Full band)

Specifications	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e/b	Units
Frequency	30-31	30-31	31-36	32.5-37.5	32.5-37.5	33-35	GHz
Insertion loss	0.25	0.3	0.5	0.3	0.5	0.3	dB max
Isolation	21	20	20	20	17	20	dB min
VSWR	1.20 <sup>1</sup>	1.25	1.22	1.25	1.35	1.25	:1
Rated power Forward	20	2W	1	4	4	2	Watt
Rated power Reverse	2W	2W	1	4	4	2	Watt
Peak power						5W/100ns /1kHz	Watt
Operating Temp	-40 ~ +85	-35 ~ +70	+15 ~ +35	+15 ~ +35	-20 ~ +70	-30 ~ +70	°C
Storage Temp	-50 ~ +105					-50 ~ 105	°C

Specifications	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e/b	Units
Frequency	33-37	33.25-36.75	33.5-36.0	33.5-36.0	34.0-35.0	34.9-35.6	GHz
Insertion loss	0.25	0.3	0.25	0.3	0.25	0.25	dB max
Isolation	21	20	21	20	21	21	dB min
VSWR	1.20	1.25	1.22	1.25	1.2	1.23	:1
Rated power Forward	2W	2W	20W	2	1	2W	Watt
Rated power Reverse		2W	2W	2	1	2W	Watt
Operating Temp	-40 ~ +85	-30 ~ +65	-40 ~ +85	-30 ~ +70	-35 ~ +70	-40 to+85	°C
Storage Temp	-50 ~ 105	-50 ~ 105	-50 ~ 105			-50 ~ 105	°C

Specifications	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e	Full Band e/b	Units
Frequency	34-36	36-38	37.5-39.0	38-40			GHz
Insertion loss	0.3	0.4	0.4	0.4			dB max
Isolation	20	20	20	20			dB min
VSWR	1.25	1.3	1.3	1.3			:1
Rated power Forward	2	1	2	1			Watt
Rated power Reverse	1	1	2	1			Watt
Peak power	-30 to +75	-30 to +65	-30 to +65	-30 to +65			Watt
Operating Temp	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85			°C
Storage Temp	-50 ~ 105	-50 ~ 105	-50 ~ 105	-50 ~ 105			°C

<sup>1</sup> VSWR 1:1.20 (-30 to 65C), 1.22 (-40 to 85C)

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**WR28 WG22 R320**

**Flange connection UG-599/U**

**Dimensional Specify**

A = 19,05 mm

E = 6,73 mm

F = 6,35 mm

Holes = 3.00 +0.02 mm

