

Description

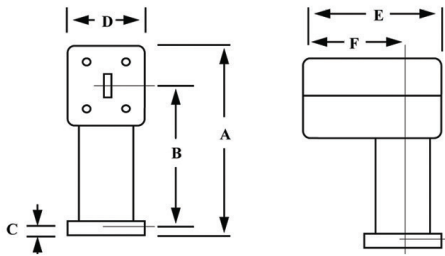
Mi-Wave's 330 Series TE01 mode transitions are available for operation from 18.0 to 140.0 GHz. These reciprocal devices have a standard rectangular TE10 mode waveguide input and a circular TE01 mode output. Due to the different frequency ranges of circular TE01 mode waveguide, it is possible for a standard sized rectangular waveguide input to have one of several different circular waveguide size outputs.

- *Minimum VSWR*
- *Minimum Insertion Loss*
- *Optional Pressurized Models Available*
- *Efficient Conversion from TE10 Mode Rectangular Waveguide to TE01 Mode Circular Waveguide*

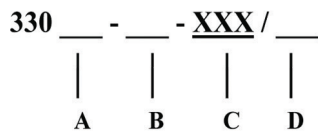
The 330 Series circular mode waveguide features low VSWR and insertion loss. The flanges used for circular waveguide output are Mi-Wave's standard male/female type. For maximum mode purity, filtering is recommended for all TE01 propagation (please refer to Appendix L).

Applications

The 330 Series rectangular-to-circular waveguide transitions are useful in millimeter wave radar systems or laboratory setups where long transmission lines are required. These transitions will provide efficient conversion from the TE10 rectangular waveguide mode to the TE01 circular waveguide mode for high-power, low-loss transmission.



Ordering Information



- A. RF Band Designator
- B. Three Digit Pipe inside diameter (See Appendix L)
- C. Circular Waveguide Flange: Male (M) or Female (F)
- D. Rectangular Waveguide Flange (See Appendix A)

EXAMPLE ORDER: 330A-M-688/599 is a mode transition in A-band with a UG/599/U Flange and a 0.688 inside diameter circular waveguide with male circular flange.

Please note: due to the non-standardization of this product line, we recommend that you contact Mi-Wave for more specific information about your requirements.

Dimensional Specifications

Model No.	A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
330KU	5.17	131.3	4.46	113.3	.267	6.78	2.00	50.80	5.14	130.6	2.57	130.6
330K	3.50	88.9	2.56	65.02	.267	6.78	1.25	31.75	*		*	
330A, B, U	3.62	91.95	2.79	70.87	.267	6.78	1.12	28.45	2.25	57.15	1.30	33.02
330V	2.00	50.80	1.41	35.81	.211	5.36	.75	19.05	1.16	29.46	.59	14.99
330E, W	1.98	50.29	1.39	35.31	.211	5.36	.75	19.05	1.16	29.46	.59	14.99
330F	1.98	50.29	1.30	35.31	.211	5.36	.75	19.05	1.16	29.46	.59	14.99

- * Varies per frequency range
- * Dimension varies

Consult Miwave for current dimensions

Technical Specifications (typical)

Model No.	330KU	330K	330A	330B	330U	330V	330E	330W	330F
Frequency Band (GHz)	12.4–18.0	18.0–26.5	26.5–40.0	33.0–50.0	40.0–60.0	50.0–75.0	60.0–90.0	75.0–110	90.0–140
Insertion TE Loss (dB) max ¹	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.8
VSWR Max.	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.50	1.60
Bandwidth	6%	6%	6%	6%	5%	5%	4%	4%	3%
Average Power (watts) ²	4000	2000	1000	1000	600	400	200	100	50
Peak Power (kW) ²	20	10	5	4	3	2	1	0.5	0.2
Weight (oz) ³	40	30	25	25	25	10	5	5	4

1. Loss measured using two 330 series and 340 series mode filters.
2. Estimated
3. Average weight varies with circular waveguide size and flange configuration.