

Low Loss Cosine Tapered Mode Transitions

FEATURES:

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

APPLICATIONS:

- ❖ Radar Systems
- ❖ Test Setup
- ❖ Power Loads
- ❖ Frequency converters



CTM Series

DESCRIPTION:

Cernex's CTM series TE₀₁ mode transitions are available for operation from 10.0 to 325.0 GHz. These tapered transitions are short sections of tapered waveguide with a cosine-squared distribution of reflections. They are made by using special electroforming techniques for precise dimensions resulting in a high degree of mode purity in the transfer process along with minimum VSWR and insertion loss. These reciprocal devices have a standard rectangular TE₁₀ mode waveguide input and a circular TE₀₁ mode output. Because of 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.

SPECIFICATIONS:

Model	Frequency GHz (Input)	Waveguide (input)	Flange (Input)	Frequency GHz (Output)	Waveguide (output)	Flange (Output)	VSWR	Insertion Loss dB
CTM907502	8.2-12.4	WR-90	UBR120	10.0 –15.0	WR-75	UG39/U	1.05	≤0.2
CTM906202	8.2-12.4	WR-90	UG419/U	12.4-18.0	WR-62	UG39/U	1.05	≤0.2
CTM904202	8.2-12.4	WR-90	UG595/U	18.0-26.5	WR-42	UG39/U	1.05	≤0.2
CTM902802	8.2-12.4	WR-90	UG599/U	26.5-40.0	WR-28	UG39/U	1.05	≤0.2
CTM901002	8.2-12.4	WR-90	UG387/UM	75.0-110.0	WR-10	UG39/U	1.05	≤0.2
CTM622802	12.4-18.0	WR-62	UG599/U	26.5-40.0	WR-28	UG419/U	1.05	≤0.2
CTM621002	12.4-18.0	WR-62	UG387/U	75.0-110.0	WR-10	UG419/U	1.05	≤0.2
CTM422801	18.0-26.5	WR-42	UG599/U	26.5-40.0	WR-28	UG595/U	1.05	≤0.1
CTM282201	26.5-40.00	WR-28	UG383/U	33.0-50.0	WR-22	UG599/U	1.05	≤0.1
CTM281901	26.5-40.00	WR-28	UG383/U	40.0-60.0	WR-19	UG599/U	1.05	≤0.1
CTM281501	26.5-40.00	WR-28	UG385/U	50.0-75.0	WR-15	UG599/U	1.05	≤0.1
CTM281201	26.5-40.00	WR-28	UG385/U	60.0-80.0	WR-12	UG599/U	1.05	≤0.1
CTM281001	26.5-40.00	WR-28	UG387/UM	75-110.0	WR-10	UG599/U	1.05	≤0.1

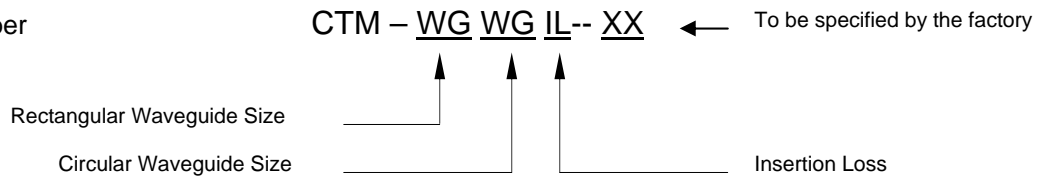
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Model	Frequency GHz (Input)	Waveguide (input)	Flange (Input)	Frequency GHz (Output)	Waveguide (output)	Flange (Output)	VSWR	Insertion Loss dB
CTM280802	26.5-40.00	WR-28	UG387/UM	90.0-140.0	WR-8	UG599/U	1.05	≤0.2
CTM280602	26.5-40.00	WR-28	UG387/UM	110.0-170.0	WR-6	UG599/U	1.10	≤0.2
CTM280502	26.5-40.00	WR-28	UG387/UM	140.0-220.0	WR-5	UG599/U	1.10	≤0.2
CTM280402	26.5-40.00	WR-28	UG387/UM	170.260.0	WR-4	UG599/U	1.10	≤0.2
CTM280302	26.5-40.00	WR-28	UG387/UM	220.0-325.0	WR-3	UG599/U	1.10	≤0.2
CTM221901	33.0-50.0	WR-22	UG383/U	40.0-60.0	WR19	UG383/U	1.05	≤0.1
CTM191501	40.0-60.0	WR-19	UG385/U	50.0-75.0	WR-15	UG383/U	1.05	≤0.1
CTM121001	60.0-90.0	WR-12	UG387/UM	75.0-110.0	WR-10	UG385/U	1.05	≤0.1
CTM100801	75.0-110.0	WR-10	UG387/UM	90.0-140.00	WR-8	UG387/U	1.10	≤0.15

Notes: CUSTOM TRANSITIONS ARE ALSO AVAILABLE BETWEEN ANY TWO WAVEGUIDE SIZES.

HOW TO ORDER:

Specify Model Number



Example: To order WR-22 waveguide to WR19 mode transition with an insertion loss of 0.1db, specify CTM221901

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE