

## FEATURES

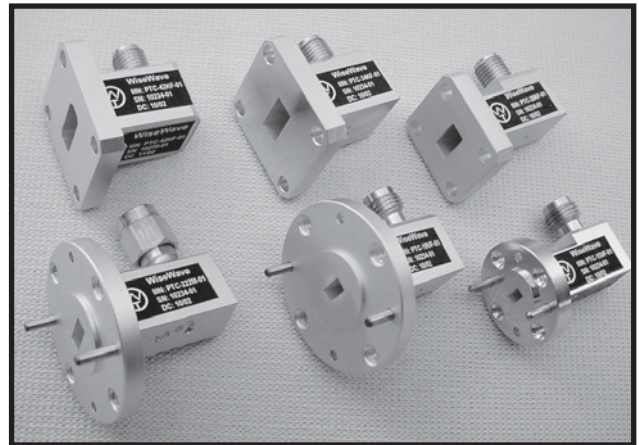
- ❖ Full waveguide band operation
- ❖ Low insertion loss
- ❖ Low VSWR
- ❖ Rugged mechanical configuration

## APPLICATIONS

- ❖ Test setups
- ❖ Instrumentation
- ❖ Subsystems
- ❖ Transceivers

## DESCRIPTION

PTC series waveguide to coax adapters are available in nine waveguide bands covering the frequency range of 8.2 to 70 GHz. The adapters covering 8.2 to 60 GHz frequency range are designed for full waveguide band operation, while V band one is for 50 to 70 GHz. These adapters are specially designed with exceptional high performance. SMA male or female connectors are standard coaxial line interfaces for WR-90, WR-75, WR-62 waveguide adapters. 2.92 mm (K) male or female connectors are for WR-42 and WR-28 waveguide adapters, while 2.4 mm male or female connectors are for WR-22 and V male or female connectors are for WR-19 and WR-15 waveguide adapters. The adapters are ideal choices where the waveguide to coaxial transitions are required.



**PTC Series**

## SPECIFICATIONS

Model Number	Frequency (GHz)	Waveguide Size	Coax Connector	Insertion Loss (dB, Max)	Return Loss (dB, Min)	Flange Type	Outline Drawing
PTC-90SF-01	8.2 to 12.4	WR-90	SMA (F)	0.20	20.0	UG39/U	WT-E-5
PTC-90SM-01	8.2 to 12.4	WR-90	SMA (M)	0.20	20.0	UG39/U	WT-E-5
PTC-75SF-01	10.0 to 15.0	WR-75	SMA (F)	0.20	20.0	Square	WT-E-5
PTC-75SM-01	10.0 to 15.0	WR-75	SMA (M)	0.20	20.0	Square	WT-E-5
PTC-62SF-01	12.4 to 18.0	WR-62	SMA (F)	0.25	20.0	UG419/U	WT-E-5
PTC-62SM-01	12.4 to 18.0	WR-62	SMA (M)	0.25	20.0	UG419/U	WT-E-5
PTC-42KF-01	18.0 to 26.5	WR-42	K (F)	0.30	20.0	UG595/U	WT-E-5
PTC-42KM-01	18.0 to 26.5	WR-42	K (M)	0.30	20.0	UG595/U	WT-E-5
PTC-34KF-01	22.0 to 33.0	WR-34	K (F)	0.30	20.0	UG1530/U	WT-E-5
PTC-34KM-01	22.0 to 33.0	WR-34	K (M)	0.30	20.0	UG1530/U	WT-E-5
PTC-28KF-01	26.5 to 40.0	WR-28	K (F)	0.35	20.0	UG599/U	WT-E-5
PTC-28KM-01	26.5 to 40.0	WR-28	K (M)	0.35	20.0	UG599/U	WT-E-5
PTC-222F-01	33.0 to 50.0	WR-22	2.4 mm (F)	0.40	18.0	UG383/U	WT-E-5
PTC-222M-01	33.0 to 50.0	WR-22	2.4 mm (M)	0.40	18.0	UG383/U	WT-E-5
PTC-19VF-01	40.0 to 60.0	WR-19	V (F)	0.40	17.0	UG383/U-M	WT-E-5
PTC-19VM-01	40.0 to 60.0	WR-19	V (M)	0.40	17.0	UG383/U-M	WT-E-5
PTC-15VF-01	50.0 to 70.0	WR-15	V (F)	0.50	16.0	UG385/U	WT-E-5
PTC-15VM-01	50.0 to 70.0	WR-15	V (M)	0.50	16.0	UG385/U	WT-E-5

**Note:** The adapters with different type of coax interface and flange are available per request.

### WT-E-1

BAND	L	H	A	H0
K	1.20	1.04	1.00	0.44
K <sub>a</sub>	1.00	0.88	0.85	0.38
Q & U	1.40	1.27	1.16	0.57
V,E & W	1.00	0.88	0.80	0.38

*Dimensions are in inches*

### WT-E-2

BAND	K	K <sub>a</sub>	Q & U	V,E & W
L	Vary per Specifications			

*Dimensions are in inches*

### WT-E-3

High Pass

BAND	K	K <sub>a</sub>	Q & U	V,E & W
L	3.00	2.60	2.20	1.80

*Dimensions are in inches*

### WT-E-4

Low Pass

BAND	K	K <sub>a</sub>	Q & U	V,E & W
L	3.00	2.50	2.00	1.60

*Dimensions are in inches*

### WT-E-5

BAND	X	WR-75	WR-62	K/WR-34	K <sub>a</sub> , Q & U	V
L	1.40	1.25	1.20	0.85	1.00	1.05
L0	1.00	0.90	0.95	0.60	0.75	0.80

NOTES:  
BOTH MALE AND FEMALE COAXIAL CONNECTORS ARE AVAILABLE FOR ALL BANDS

*Dimensions are in inches*

### WT-E-6

PTW	BIGGER WAVEGUIDE BAND	K	K <sub>a</sub>	Q	U	V	E
	L	2.00	2.00	1.50	1.50	1.00	1.00

PRC	RECTANGULAR WG BAND	K	K <sub>a</sub>	Q	U	V	E	W
	L	2.00	1.50	1.30	1.30	1.10	1.10	1.10

*Dimensions are in inches*

The flange pattern shown is for illustration purpose. Refer to Technical Reference Section for flange pattern details. The outline drawings shown are standard versions. Contact factory for your specific package requirements.

**WT-E-7**

BAND	K	Ka	Q	U	V	E	W
L	1.20	1.00	1.30	1.30	1.00	1.00	1.00
W	1.20	1.00	1.30	1.30	1.00	1.00	1.00
H	1.06	0.90	1.25	1.23	0.83	0.82	0.81

*Dimensions are in inches*

**WT-E-8**

Band	X	WR-75	Ku	K	Ka	Q	U	V	E	W
L	5.46	4.80	4.66	4.24	3.46	3.26	2.66	2.56	2.56	2.46
A	1.73	1.65	1.58	1.52	1.23	1.23	0.98	0.98	0.98	0.98
D	0.45	0.43	0.35	0.21	0.18	0.15	0.13	0.11	0.10	0.09
H	3.46	3.30	3.16	3.04	2.46	2.46	1.96	1.96	1.96	1.96

*Dimensions are in inches*

**WT-E-9**

BAND	Q	U	V	E	W
L	5.50	5.50	3.50	3.50	3.50
W	1.30	1.30	1.00	1.00	1.00
H	1.25	1.23	0.83	0.82	0.81
A	0.80	0.80	0.60	0.60	0.60

*Dimensions are in inches*

**WT-E-10**

Band	X	WR-75	Ku	K	Ka	Q	U	V	E	W
L	19.50	16.50	13.00	11.00	10.00	8.00	6.50	6.00	5.50	5.00
W	1.90	1.85	1.75	1.50	1.40	1.20	1.20	1.00	1.00	1.00
B	0.95	0.95	0.90	0.70	0.60	0.70	0.70	0.60	0.60	0.60
D	0.45	0.43	0.35	0.21	0.18	0.15	0.13	0.11	0.10	0.09

*Dimensions are in inches*

**WT-E-11**

*Dimensions are in inches*

**WT-E-12**

*Dimensions are in inches*

The flange pattern shown is for illustration purpose. Refer to Technical Reference Section for flange pattern details. The outline drawings shown are standard versions. Contact factory for your specific package requirements.