

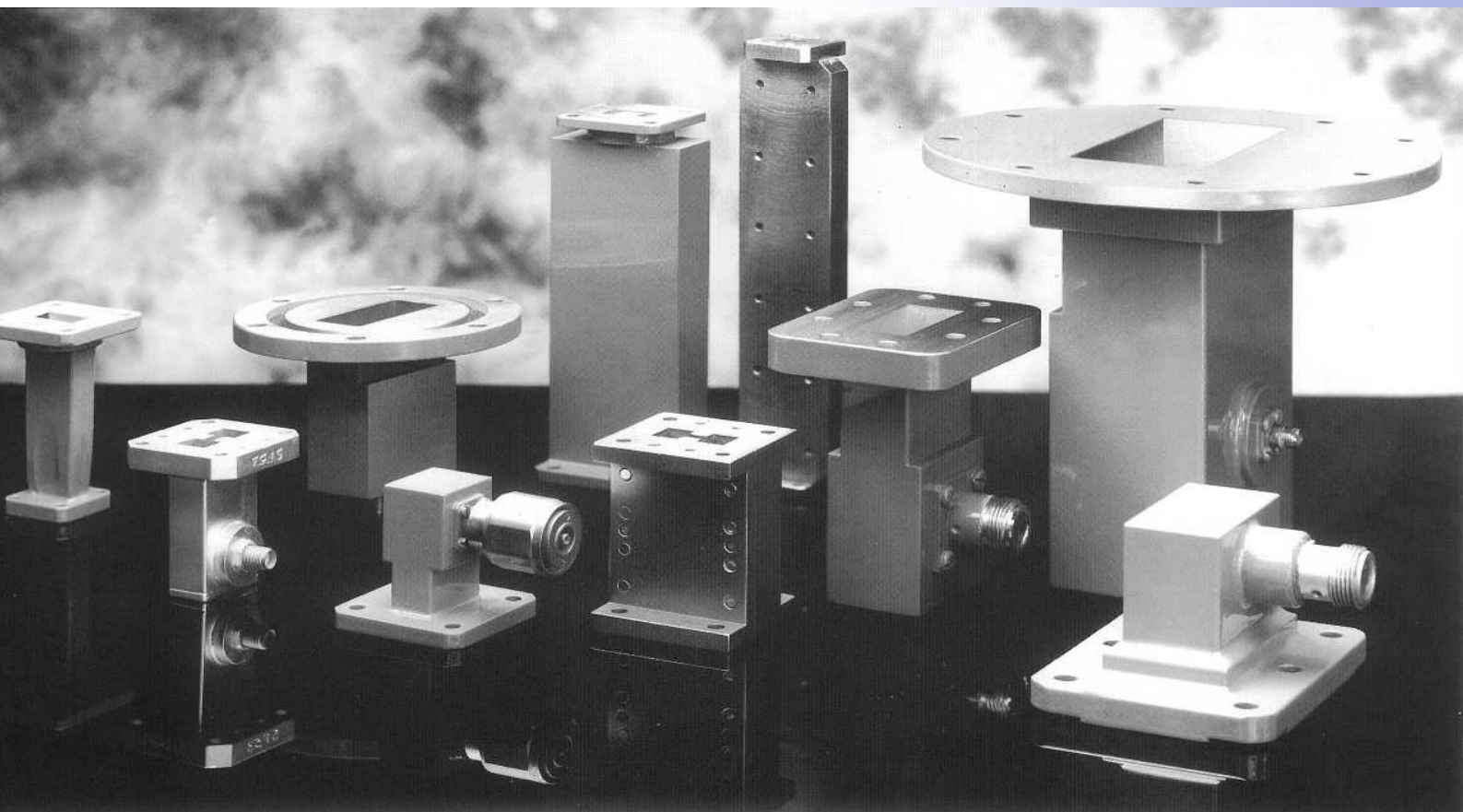


The Waveguide Solution

## Waveguide Taper Transitions

Taper Transitions

TT SERIES



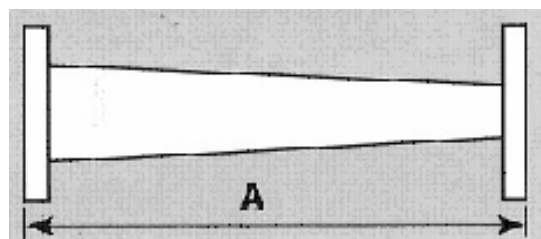
The Waveguide Solution offers a standard range of Waveguide to waveguide Taper Transitions. All designs have been optimized to offer high Performance within a compact outline. Double Ridge tapers are machined from aluminium or brass while the rectangular tapers are either fabricated from brass, aluminium or copper. Other designs of Non-Linear tapers are available on request. The TT series of transitions are manufactured to the highest quality standards. Transitions are manufactured with the full range of International Flange Styles as shown in the TWS Flange Catalogue and can be offered with alternative plate finishes on request. All TWS Transitions are offered with an attractive, hardwearing, epoxy paint finish. The Waveguide Solution facility is approved to ISO 9001:2000.

# TAPER TRANSITIONS

## Standard Rectangular to Rectangular

### Specification:

V.S.W.R:	Please refer to tables
Material:	Copper Electroform or Machined Aluminium/Brass Fabrication
Finish:	Blue Paint, Silver Plated Brass or Chromated / Iridited Aluminium Flanges



Overlapping Frequency Band (GHz)	Waveguide Designation						TWS PART NUMBER	Max V.S.W.R.	Material	Overall Length "A" (mm)
	UK WG		IEC R		E.I.A. WR					
	From	To	From	To	From	To				
2.60 – 3.30	9A	10	26	32	340	284	TT 9A –SQB-(***-**-*)-B-10	1.05	Brass	261
2.60 – 3.95	10F	10	F32	32	-	284	TT 10F –SQB-(***-**-*)-B-10	1.05	Brass	153
2.60 – 3.95	10M	10	M32	32	-	284	TT 10M –SQB-(***-**-*)-B-10	1.05	Brass	203
3.30 – 3.95	10	11A	32	40	284	159	TT 10 –SQB-(***-**-*)-B-11A	1.05	Brass	102
3.95 – 4.90	11A	12	40	48	229	187	TT 11A –SQB-(***-**-*)-C-12	1.05	Copper	222
3.95 – 4.90	11A	12	40	48	229	187	TT 11A –SQB-(***-**-*)-B-12	1.05	Brass	102
4.90 – 5.85	12	13	48	58	187	159	TT 12 –SQB-(***-**-*)-C-13	1.05	Copper	191
4.90 – 5.85	12	13	48	58	187	159	TT 12 –SQB-(***-**-*)-B-13	1.05	Brass	102
5.85 – 7.05	13	14	58	70	159	137	TT 13 –SQB-(***-**-*)-C-14	1.05	Copper	168
5.85 – 7.05	13	14	58	70	159	137	TT 13 –SQB-(***-**-*)-B-14	1.05	Brass	102
7.05 – 8.20	14	15	70	84	137	112	TT 14 –SQB-(***-**-*)-C-15	1.05	Copper	140
7.05 – 8.20	14	15	70	84	137	112	TT 14 –SQB-(***-**-*)-B-15	1.05	Brass	102
8.20 – 10.00	15	16	84	100	112	90	TT 15 –SQB-(***-**-*)-C-16	1.05	Copper	121
8.20 – 10.00	15	16	84	100	112	90	TT 15 –SQB-(***-**-*)-B-16	1.05	Brass	101
8.20 – 12.40	16M	16	M100	100	-	90	TT 16M –SQB-(***-**-*)-B-16	1.05	Brass	153
10.00 -12.40	16	17	100	120	90	75	TT 16 –SQB-(***-**-*)-C-17	1.05	Copper	61
10.00 -12.40	16	17	100	120	90	75	TT 16 –SQB-(***-**-*)-B-17	1.05	Brass	38
12.40 -15.00	17	18	120	140	75	62	TT 17 –SQB-(***-**-*)-C-18	1.05	Copper	61
12.40 -15.00	17	18	120	140	75	62	TT 17 –SQB-(***-**-*)-B-18	1.05	Brass	38
15.00 -18.00	18	19	140	180	62	51	TT 18 –SQB-(***-**-*)-B-19	1.075	Brass	38
18.00 -22.00	19	20	180	220	51	42	TT 19 –SQB-(***-**-*)-B-20	1.10	Brass	38
17.7 - 26.50	20	21	220	280	42	34	TT 20 –SQB-(***-**-*)-B-21	1.10	Brass	38
22.00 -33.00	21	22	280	320	34	28	TT 21 –SQB-(***-**-*)-B-22	1.10	Brass	38
26.5 - 40.00	22	23	320	400	28	22	TT 22 –SQB-(***-**-*)-C-23	1.10	Copper	38
Standard Rectangular to Rectangular WR102										
7.05 –10.00	15	99	84	-	112	102	TT 15 –SQB-(***-**-*)-B-99	1.05	Brass	102
8.20 – 11.00	16	99	100	-	90	102	TT 16 –SQB-(***-**-*)-B-99	1.05	Brass	102
*** For 3 Digit Rectangular Flange part number, refer to the TWS Flange Catalogue, or consult the factory.										
***** For 5-digit non-standard part number refer to the factory.										

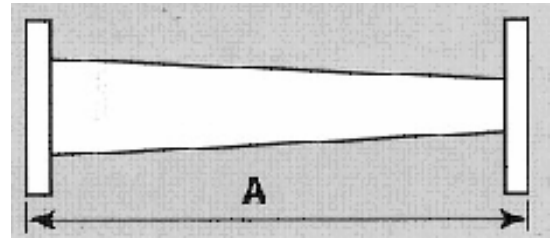
H= Half Height Waveguide  
 F= Quarter Height Waveguide  
 99 = Non Standard Waveguide Size

## TAPER TRANSITIONS

### Standard Rectangular to Double Ridge

**Specification:**

V.S.W.R:	Please refer to tables
Material:	Machined Aluminium or Brass
Finish:	Blue Paint, Chromate / Iridite or Silver Plated Flanges



Overlapping Frequency Band (GHz)	Waveguide Designation						TWS PART NUMBER	Max V.S.W. R.	Material	Overall Length "A" (mm)
	From	To	From	To	From	To				
	UK WG	WRD	IEC R	WRD	EIA WR	WRD				
4.75 – 5.85	12	475	48	475	187	475	TT 12 – SQB-(***-***)-B-475	1.05	Brass	140
5.85 – 8.20	14	350	70	350	137	350	TT 14 – SQH-(***-***)-A-350	1.05	Aluminium	89
5.85 – 8.20	14	475	70	475	137	475	TT 14 – SQB-(***-***)-B-475	1.05	Brass	89
5.85 – 8.20	14	580	70	580	137	580	TT 14 – SQH-(***-***)-A-580	1.05	Aluminium	116
6.50 – 8.20	14	650	70	650	137	650	TT 14 – SQB-(***-***)-B-650	1.05	Brass	89
7.05 – 10.00	15	650	84	650	112	650	TT 15 – SQB-(***-***)-B-650	1.05	Brass	89
7.5 – 10.00	15	750	84	750	112	750	TT 15 – SQB-(***-***)-B-750	1.05	Brass	89
8.20 – 11.00	16	475	100	475	90	475	TT 16 – SQB-(***-***)-B-475	1.05	Brass	89
8.20 – 12.40	16	650	100	650	90	650	TT 16 – SQH-(***-***)-A-650	1.05	Aluminium	89
8.20 – 12.40	16	750	100	750	90	750	TT 16 – SQH-(***-***)-A-750	1.05	Aluminium	89
10.00 -15.00	17	580	120	580	75	580	TT 17 – SQH-(***-***)-A-580	1.05	Aluminium	103
12.40 -18.00	18	750	140	750	62	750	TT 18 – SQH-(***-***)-A-750	1.075	Aluminium	51
15.00 -22.00	19	180	180	180	51	180	TT 19 – SQB-(***-***)-B-180	1.10	Brass	51
17.7 - 26.50	20	180	220	180	42	180	TT 20 – SQH-(***-***)-A-180	1.10	Aluminium	51
22.33 - 40.0	21	180	320	180	28	180	TT 21 – SQB-(***-***)-B-180	1.10	Brass	51
26.5 - 40.00	22	180	260	180	34	180	TT 22 – SQH-(***-***)-A-180	1.10	Aluminium	51

\*\*\* For 3 Digit Rectangular Flange part number, refer to the TWS Flange Catalogue, or consult the factory.

## TAPER TRANSITIONS

### Standard Double Ridge to Double Ridge

**Specification:**

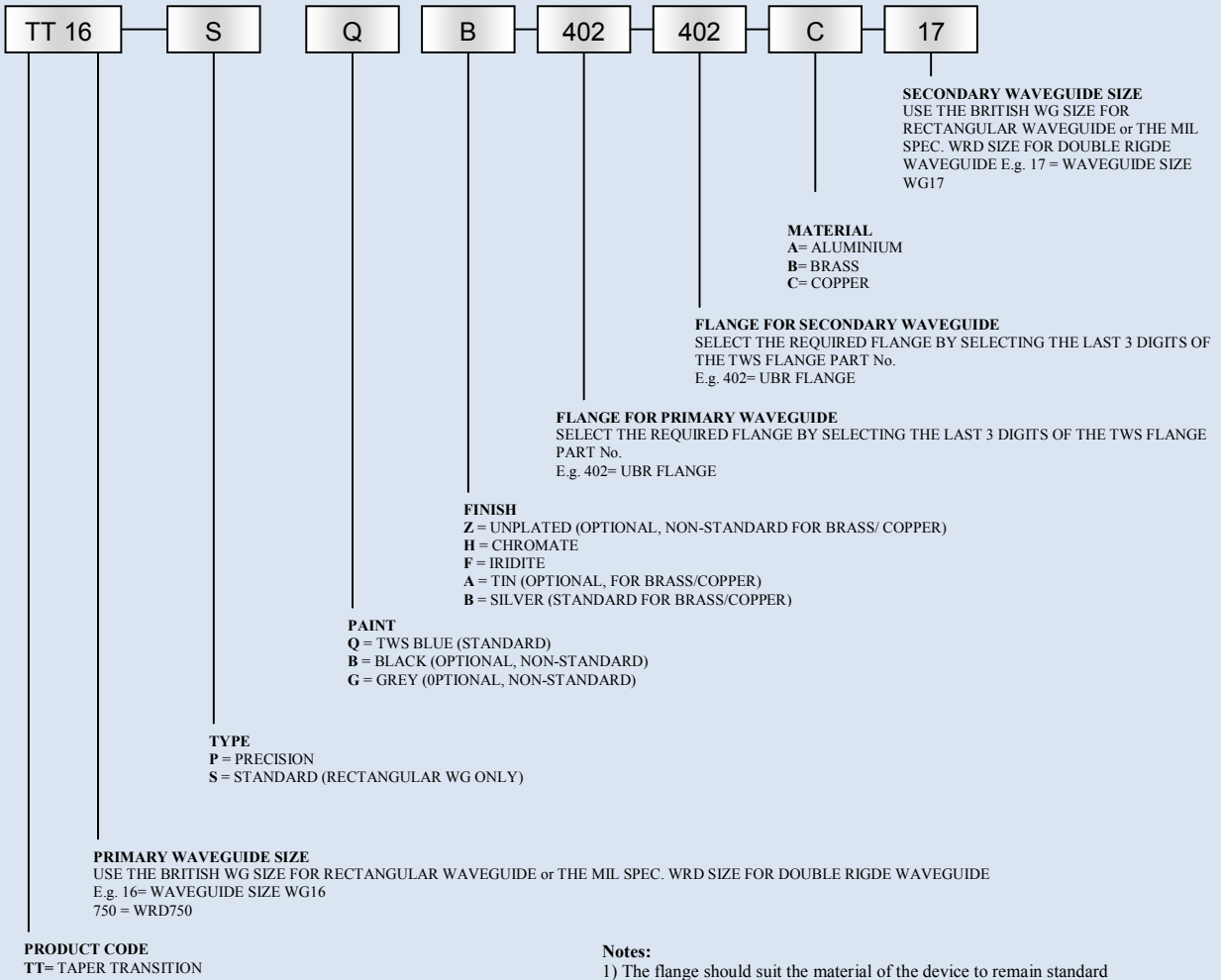
V.S.W.R:	Please refer to tables
Material:	Machined Aluminium
Finish:	Blue Paint, Chromate / Iridite Aluminium

Overlapping Frequency Band (GHz)	Waveguide Designation		TWS PART NUMBER	Max V.S.W. R.	Material	Overall Length "A" (mm)
	From	To				
6.50 – 11.00	WRD 475 D24	WRD 650 D28	TT 475 – SQG-(***-***)-A-650	1.05	Aluminium	76
7.50 – 11.00	WRD 475 D24	WRD 750 D24	TT 475 – SQG-(***-***)-A-750	1.05	Aluminium	76
6.50 – 16.00	WRD 580 D28	WRD 650 D28	TT 580 – SQG-(***-***)-A-650	1.05	Aluminium	76
7.50 – 16.00	WRD 580 D28	WRD 750 D24	TT 580 – SQG-(***-***)-A-750	1.05	Aluminium	76
7.50 – 18.00	WRD 650 D28	WRD 750 D24	TT 650 – SQG-(***-***)-A-750	1.05	Aluminium	76

\*\*\* For 3 Digit Rectangular Flange part number, refer to the TWS Quasar Flange Catalogue, or consult the factory.

Specifications on this page may be subject to redesign to suit the latest manufacturing techniques. Please contact factory for availability.

## Ordering Information



For assistance selecting RoHS compliant options please contact the factory



## The Waveguide Solution

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**Specifications shown on this document are offered as a guide only. Components may be modified to suit the mechanical or electrical parameters requested, or may be optimized to suit the operating frequency range. Frequency range of operation shall be advised when ordering.**

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