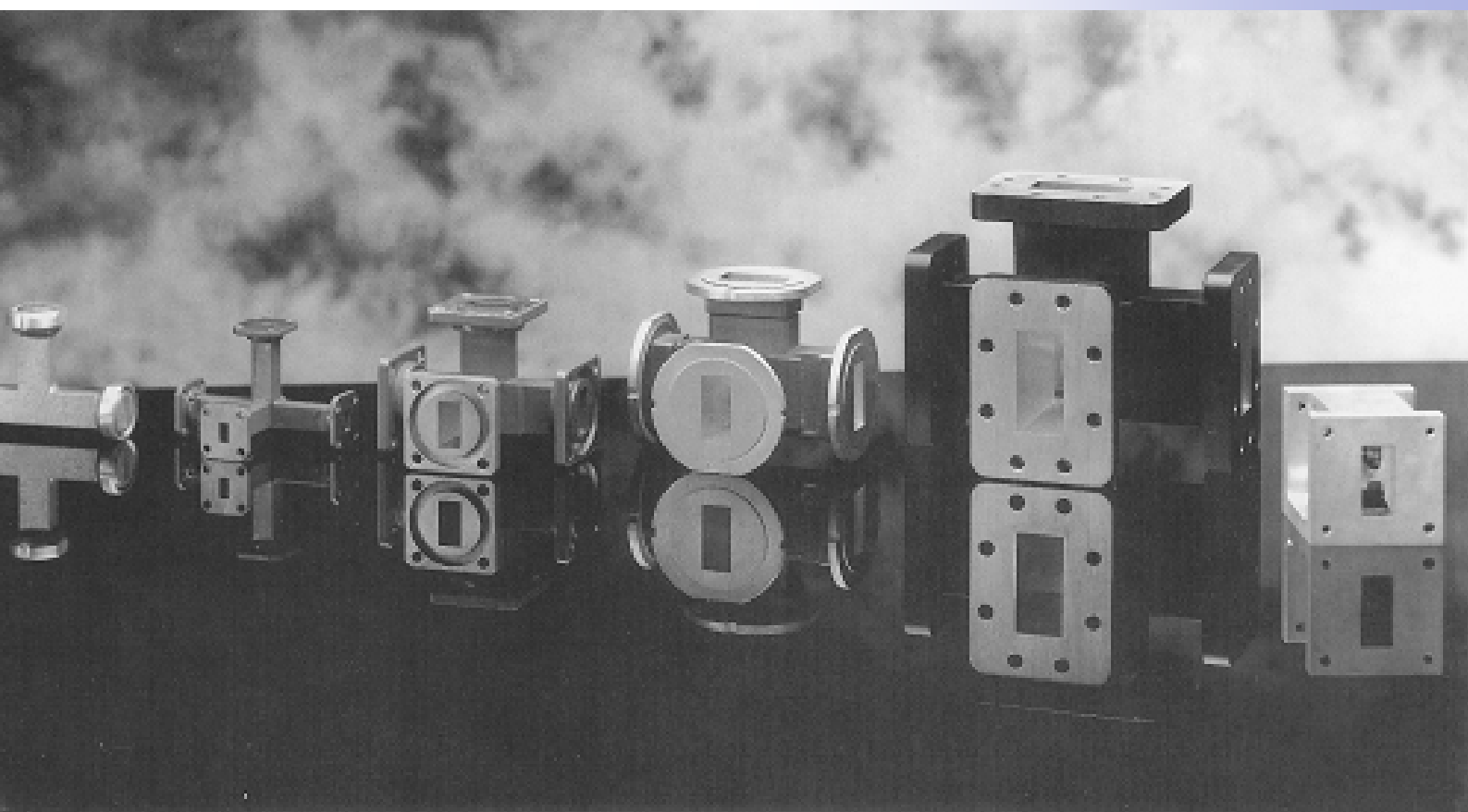




Waveguide Tee Junctions

E & H Plane Tee Junctions
WT SERIES

Magic Tee Junctions
MT SERIES



The Waveguide Solution range of Tee Junctions offers a variety of compact designs. All items are fabricated from Brass waveguide tube or machined from copper or aluminum block. Alternative versions are available upon request. The WT and MT series of tee junctions are manufactured to the highest quality standards. Tee junctions are manufactured with the full range of International Flange Styles as shown in The Waveguide Solution Flange Catalogue and can be offered with alternative plating finishes on request. All The Waveguide Solution Tee Junctions are offered with an attractive, hardwearing, epoxy paint finish where appropriate. The Waveguide Solution facility is approved to ISO 9001:2000.

Waveguide Tee Junctions

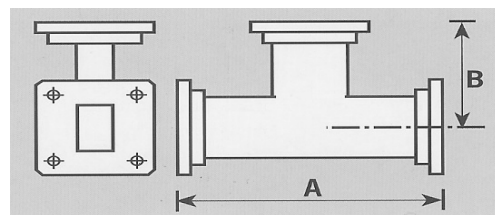
The Waveguide Solution manufacture a range of unmatched E and H Plane Tee Junctions and a wide range of wide bandwidth matched Hybrid (Magic) Tee Junctions.

TEE JUNCTIONS “E” & “H” PLANE (UNMATCHED)

Standard Rectangular

Specification:

Material: Brass or Aluminum
 Finish: Blue Paint, Silver Plated,
 Chromated / Iridites Flanges



E Plane

Operating Frequency Band (GHz)	Waveguide Designation			TWS PART NUMBER	Dimension (mm)	
	UK WG	IEC R	E.I.A. WR		'A'	'B'
2.60 – 3.95	10	32	284	WT 10 –SQB- (***)-B-E	279	139
3.30 – 4.90	11A	40	229	WT 11A –SQB- (***)-B-E	228	114
3.95 – 5.85	12	48	187	WT 12 –SQB- (***)-B-E	139	70
4.90 – 7.05	13	58	159	WT 13 –SQB- (***)-B-E	130	65
5.85 – 8.20	14	70	137	WT 14 –SQB- (***)-B-E	114	57
7.05 – 10.0	15	84	112	WT 15 –SQB- (***)-B-E	89	44
8.20 – 12.40	16	100	90	WT 16 –SQB- (***)-B-E	95	47
10.0 – 15.0	17	120	75	WT 17 –SQB- (***)-B-E	76	38
12.4 – 18.0	18	140	62	WT 18 –SQB- (***)-B-E	76	38
18.0 – 26.5	20	220	42	WT 20 –SQB- (***)-B-E	70	35
26.5 – 40.0	22	320	28	WT 22 –SQB- (***)-B-E	70	35

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

H Plane

Operating Frequency Band (GHz)	Waveguide Designation			TWS PART NUMBER	Dimension (mm)	
	UK WG	IEC R	E.I.A. WR		'A'	'B'
2.60 – 3.95	10	32	284	WT 10 –SQB- (***)-B-H	279	139
3.30 – 4.90	11A	40	229	WT 11A –SQB- (***)-B-H	228	114
3.95 – 5.85	12	48	187	WT 12 –SQB- (***)-B-H	139	70
4.90 – 7.05	13	58	159	WT 13 –SQB- (***)-B-H	130	65
5.85 – 8.20	14	70	137	WT 14 –SQB- (***)-B-H	114	57
7.05 – 10.0	15	84	112	WT 15 –SQB- (***)-B-H	89	44
8.20 – 12.40	16	100	90	WT 16 –SQB- (***)-B-H	95	47
10.0 – 15.0	17	120	75	WT 17 –SQB- (***)-B-H	76	38
12.4 – 18.0	18	140	62	WT 18 –SQB- (***)-B-H	76	38
18.00 – 22.00	19	180	51	WT 19 –SQB- (***)-B-H	76	38
18.0 – 26.5	20	220	42	WT 20 –SQB- (***)-B-H	70	35
22.00 – 33.00	21	320	28	WT 21 –SQB- (***)-B-H	70	35
26.5 – 40.0	22	320	28	WT 22 –SQB- (***)-B-H	70	35

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

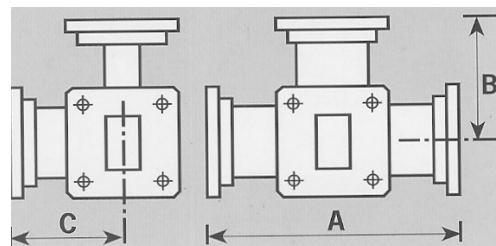
MAGIC TEE JUNCTIONS (NARROW BAND)

Standard Rectangular

Specification: V.S.W.R. and Isolation as shown below

Material: Brass or Aluminum

Finish: Blue Paint, Silver Plated
Chromated / Iridited Flanges



Full band designs are not available; each design may be optimized to suit a 10% approx bandwidth within the following frequency ranges. Please advise specific frequency band when ordering.

Operating Frequency Band (GHz)	Waveguide Designation			TWS PART NUMBER	V.S.W.R	Isolation Min		Dimension (mm)		
	UK WG	IEC R	E.I.A. WR			E-H Plane	Thru	'A'	'B'	'C'
2.60 - 3.95	10	32	284	MT 10 -SQB- (**)-B	1.90	18	35	279	139	120
3.7 - 4.2	11A	40	229	MT 11A -SQB- (**)-B	1.35	20	35	228	114	114
4.9 - 5.5	12	48	187	MT 12 -SQB- (**)-B	1.90	18	38	139	70	57
5.85 - 8.2	14	70	137	MT 14 -SQB- (**)-B	1.65	35	16	114	57	57
7.05 - 10.00	15	84	112	MT 15 -SQB- (**)-B	1.45	35	15	89	44	44
8.2 - 12.40	16	100	90	MT 16 -SQB- (**)-B	1.40	33	19	76	38	38
10.7 - 11.7	17	120	75	MT 17 -SQB- (**)-B	1.40	33	19	76	38	38
12.4 - 18.00	18	140	62	MT 18 -SQB- (**)-B	1.50	32	19	70	35	35
17.7 - 26.5	20	220	42	MT 20 -SQB- (**)-B	1.65	30	21	51	25	35
37 - 40	22	320	28	MT 22 -SQB- (**)-B	1.65	30	15	47	24	35
32.0 - 35.0	22	320	28	MT 22 -SQB- (**)-B	1.65	30	15	47	24	35

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

Electrical performance offered as a guide for narrow band performance. Specific performance may improve or decline dependant on bandwidth of operation.

Other bands available on request.

Ordering Information

TWS TEE JUNCTIONS

WT 16 — S — Q — B — 402 — B — E

WAVEGUIDE SIZE
USE THE BRITISH WG SIZE FOR RECTANGULAR WAVEGUIDE
E.g. 16= WAVEGUIDE SIZE WG16

TYPE
S = STANDARD

PAINT
Q = PAINTED (NOT AVAILABLE ON MAGIC TEES WG17 – WG22)
Z = UNPAINTED

FINISH
Z = UNPLATED (OPTIONAL NON-STANDARD)
A = TIN (OPTIONAL NON-STANDARD)
B = SILVER (STANDARD)
H = CHROMATE
F = IRIDITE

FLANGE TYPE
SELECT THE REQUIRED FLANGE BY SELECTING THE LAST 3 DIGITS OF THE TWS FLANGE PART No.
E.g. 402= UBR FLANGE

MATERIAL
A= ALUMINIUM
B= BRASS

'E' or 'H' TEE
E= 'E' TEE
H= 'H' TEE
NOT APPLICABLE TO MAGIC TEE

PRODUCT CODE
MT= MAGIC TEE
WT= 'E' or 'H' WAVEGUIDE TEE

Notes:
1) The flange should be brass to remain standard.

For assistance selecting RoHS compliant options please contact the factory



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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.

Information provided in this brochure is for reference only. Dimensions or specifications are typical values. All designs, specifications and availabilities of products and services presented in this document may be subject to change without notice. For confirmation of details please consult your agent or manufacturer. Issue 1.0a

