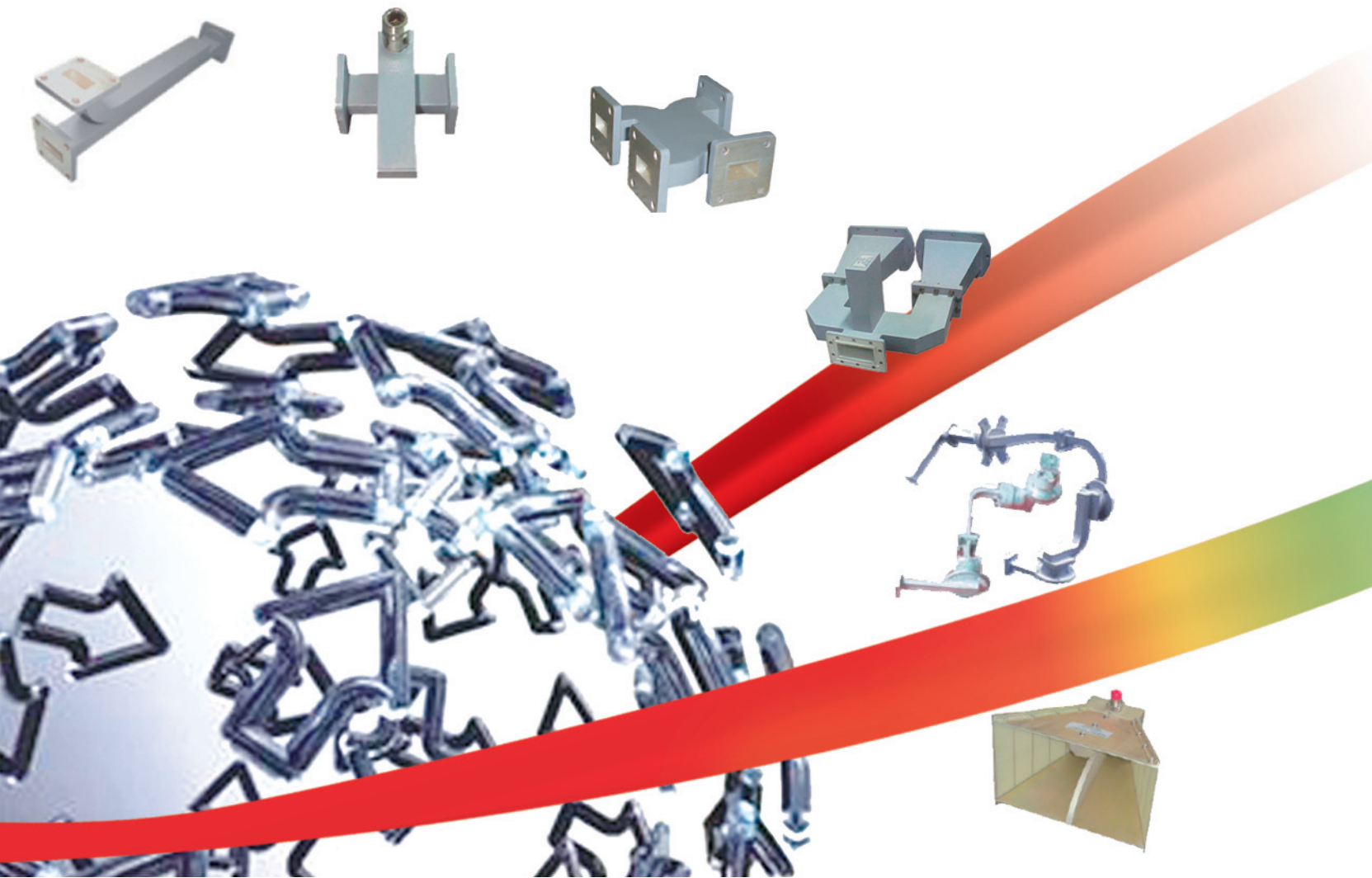




Vector Telecom

CATALOG





Vector Telecom

Company Overview



Vector Telecom provides microwave waveguide components, coaxial components, antennas and other telecommunication components to global market.

Vector Telecom consists of microwave and millimeterwave laboratories, antenna laboratories, microwave and electronic components factories. The laboratories are equipped with advanced microwave measurement facilities and latest R&D platforms. Our professional engineers have excellent background from electronics, telecommunications, space and aviation industries. Continuing investment in the resource indicates Vector Telecom's ongoing commitment to provide customers with innovative and leading edge products.

Vector Telecom offers well-designed, high quality products at global competitive prices. Our products frequency ranges up to 50 GHz. We implement TQM (Total Quality System) and SOP (Standard Operation Procedure) with ISO 9001:2000 certification, which assures Vector Telecom's strong commitment to quality standards and customer satisfaction.

Vector Telecom Mission

Satisfy customers by providing cost effective solutions with reliable quality, good performance and timely delivery.

Company Overview



Vector Telecom Pty Ltd

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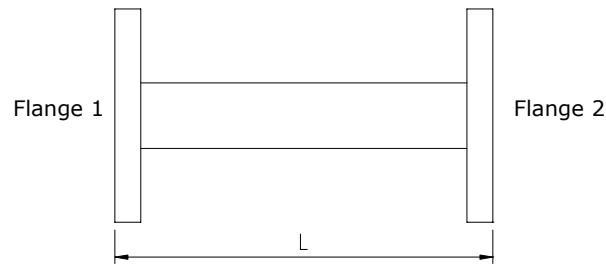
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1 Straight Waveguide

Vector Telecom offers a standard product line of straight waveguides covering waveguide sizes WR10 thru WR2300. We also supply other special configurations to meet customer's specific requirements. For more information please contact us and discuss your needs with our sales engineer.



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	WG Type		Flange	Material
			IEC	EIA		
VT3WAL...	0.32-0.49	1.10	R3	WR2300	FDP/FDM	Al
VT4WAL...	0.35-0.53	1.10	R4	WR2100	FDP/FDM	Al
VT5WAL...	0.41-0.62	1.10	R5	WR1800	FDP/FDM	Al
VT6WAL...	0.49-0.75	1.10	R6	WR1500	FDP/FDM	Al
VT8WAL...	0.64-0.98	1.10	R8	WR1150	FDP/FDM	Al
VT9WAL...	0.75-1.15	1.10	R9	WR975	FDP/FDM	Al
VT12WAL...	0.96-1.46	1.05	R12	WR770	FDP/FDM	Al
VT14WAL...	1.13-1.73	1.05	R14	WR650	FDP/FDM	Al
VT18WAL...	1.45-2.20	1.05	R18	WR510	FDP/FDM	Al
VT22WAL...	1.72-2.61	1.05	R22	WR430	FDP/FDM	Al/Cu
VT26WAL...	2.17-3.30	1.05	R26	WR340	FDP/FDM	Al/Cu
VT32WAL...	2.60-3.95	1.05	R32	WR284	FDP/FDM	Al/Cu
VT40WAL...	3.22-4.90	1.05	R40	WR229	FDP/FDM	Al/Cu
VT48WAL...	3.94-5.99	1.05	R48	WR187	FDP/FDM	Al/Cu
VT58WAL...	4.64-7.05	1.05	R58	WR159	FDP/FDM	Al/Cu
VT70WAL...	5.38-8.17	1.05	R70	WR137	FDP/FDM	Al/Cu
VT84WAL...	6.57-9.99	1.05	R84	WR112	FDP/FDM	Al/Cu



Straight Waveguide



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Model No*	Freq Range (GHz)	VSWR (Max)	WG Type		Flange	Material
			IEC	EIA		
VT100WAL...	8.20-12.40	1.05	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WAL...	9.84-15.0	1.05	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WAL...	11.9-18.0	1.05	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WAL...	14.5-22.0	1.05	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WAL...	17.6-26.7	1.05	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WAL...	21.7-33.0	1.05	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WAL...	26.3-40.0	1.05	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WAL...	32.9-50.1	1.10	R400	WR22	FUGP	Cu
VT500WAL...	39.2-59.6	1.10	R500	WR19	FUGP	Cu
VT620WAL...	49.8-75.8	1.10	R620	WR15	FUGP	Cu
VT740WAL...	60.5-91.9	1.10	R740	WR12	FUGP	Cu
VT900WAL...	73.8-112	1.10	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 100 WAL 200 P M C

Vector Telecom _____

WG Type: R100 _____

Product Type: Straight WG _____

Material: A=Aluminum C=Copper _____

Flange 2 Type: M=FBM100 _____

Flange 1 Type: P=FBP100 _____

Straight WG Length: L=200mm _____

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



Straight Waveguide



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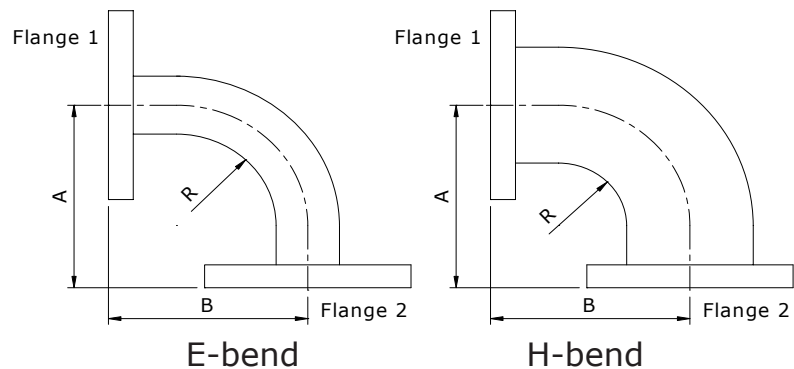
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2 Waveguide Bend

Vector Telecom offers a standard product line of E-bends and H-bends covering waveguide sizes WR10 thru WR430. Multi-degrees, additional sizes, configurations and combinations are available on request.



Section 1
Waveguide Components




Waveguide Bend



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Model No*	Freq Range (GHz)	VSWR (Max)	Std Dimensions AxBxR (mm)**	WG Type		Flange	Material
				IEC	EIA		
VT22WEB...	1.72-2.61	1.15	190x190x95	R22	WR430	FDP/FDM	Al/Cu
VT22WHB...	1.72-2.61	1.15	250x250x152	R22	WR430	FDP/FDM	Al/Cu
VT26WEB...	2.17-3.30	1.15	100x100x40	R26	WR340	FDP/FDM	Al/Cu
VT26WHB...	2.17-3.30	1.15	180x180x100	R26	WR340	FDP/FDM	Al/Cu
VT32WEB...	2.60-3.95	1.10	100x100x40	R32	WR284	FDP/FDM	Al/Cu
VT32WHB...	2.60-3.95	1.10	160x160x100	R32	WR284	FDP/FDM	Al/Cu
VT40WEB...	3.22-4.90	1.10	80x80x40	R40	WR229	FDP/FDM	Al/Cu
VT40WHB...	3.22-4.90	1.10	120x120x78	R40	WR229	FDP/FDM	Al/Cu
VT48WEB...	3.94-5.99	1.10	80x80x40	R48	WR187	FDP/FDM	Al/Cu
VT48WHB...	3.94-5.99	1.10	80x80x40	R48	WR187	FDP/FDM	Al/Cu
VT58WEB...	4.64-7.05	1.10	80x80x40	R58	WR159	FDP/FDM	Al/Cu
VT58WHB...	4.64-7.05	1.10	80x80x40	R58	WR159	FDP/FDM	Al/Cu
VT70WEB...	5.38-8.17	1.10	60x60x30	R70	WR137	FDP/FDM	Al/Cu
VT70WHB...	5.38-8.17	1.10	80x80x50	R70	WR137	FDP/FDM	Al/Cu
VT84WEB...	6.57-9.99	1.10	50x50x25	R84	WR112	FBP/FBM/FBE	Al/Cu
VT84WHB...	6.57-9.99	1.10	60x60x35	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WEB...	8.20-12.40	1.10	40x40x20	R100	WR90	FBP/FBM/FBE	Al/Cu
VT100WHB...	8.20-12.40	1.10	55x55x35	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WEB...	9.84-15.0	1.10	40x40x20	R120	WR75	FBP/FBM/FBE	Al/Cu
VT120WHB...	9.84-15.0	1.10	45x45x30	R120	WR75	FBP/FBM/FBE	Al/Cu



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Section 1

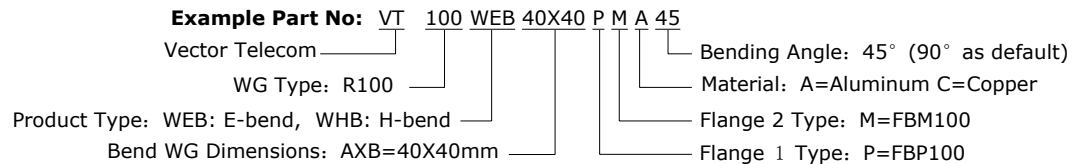
Waveguide Components

Model No*	Freq Range (GHz)	VSWR (Max)	Std Dimensions A×B×R (mm)**	WG Type		Flange	Material
				IEC	EIA		
VT140WEB...	11.9-18.0	1.10	40×40×20	R140	WR62	FBP/FBM/FBE	Al/Cu
VT140WHB...	11.9-18.0	1.10	40×40×25	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WEB...	14.5-22.0	1.10	30×30×15	R180	WR51	FBP/FBM/FBE	Al/Cu
VT180WHB...	14.5-22.0	1.10	35×35×20	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WEB...	17.6-26.7	1.15	30×30×15	R220	WR42	FBP/FBM/FBE	Al/Cu
VT220WHB...	17.6-26.7	1.15	35×35×20	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WEB...	21.7-33.0	1.15	30×30×15	R260	WR34	FBP/FBM/FBE	Al/Cu
VT260WHB...	21.7-33.0	1.15	35×35×20	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WEB...	26.3-40.0	1.15	25×25×10	R320	WR28	FBP/FBM/FBE	Al/Cu
VT320WHB...	26.3-40.0	1.15	30×30×15	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WEB...	32.9-50.1	1.20	25×25×10	R400	WR22	FUGP	Cu
VT400WHB...	32.9-50.1	1.20	20×20×10	R400	WR22	FUGP	Cu
VT500WEB...	39.2-59.6	1.20	25×25×10	R500	WR19	FUGP	Cu
VT500WHB...	39.2-59.6	1.20	25×25×10	R500	WR19	FUGP	Cu
VT620WEB...	49.8-75.8	1.20	20×20×10	R620	WR15	FUGP	Cu
VT620WHB...	49.8-75.8	1.20	25×25×10	R620	WR15	FUGP	Cu
VT740WEB...	60.5-91.9	1.20	20×20×10	R740	WR12	FUGP	Cu
VT740WHB...	60.5-91.9	1.20	25×25×10	R740	WR12	FUGP	Cu
VT900WEB...	73.8-100	1.20	20×20×10	R900	WR10	FUGP	Cu
VT900WHB...	73.8-100	1.20	25×25×10	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Legs (A,B) available in other sizes. Consult sales engineer for more information.

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Bends other than 90° available on request.



Waveguide Bend



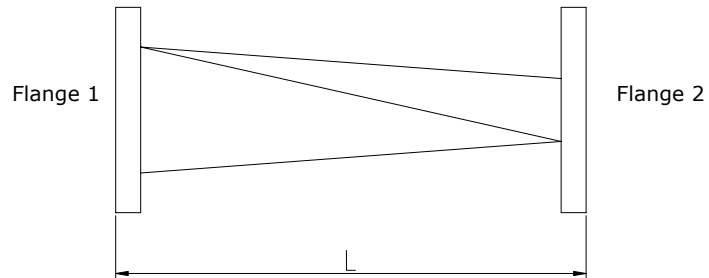
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3 Waveguide Twist

Vector Telecom offers a standard product line of waveguide twist covering waveguide sizes WR10 thru WR430. Twist angle, twist direction and flange types can be custom made as per customer's specific requirements.



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Minimum Length (mm)	WG Type		Flange	Material
				IEC	EIA		
VT22WTA...	1.72-2.61	1.10	800	R22	WR430	FDP/FDM	Al/Cu
VT26WTA...	2.17-3.30	1.10	400	R26	WR340	FDP/FDM	Al/Cu
VT32WTA...	2.60-3.95	1.10	300	R32	WR284	FDP/FDM	Al/Cu
VT40WTA...	3.22-4.90	1.10	250	R40	WR229	FDP/FDM	Al/Cu
VT48WTA...	3.94-5.99	1.10	200	R48	WR187	FDP/FDM	Al/Cu
VT58WTA...	4.64-7.05	1.10	170	R58	WR159	FDP/FDM	Al/Cu
VT70WTA...	5.38-8.17	1.10	150	R70	WR137	FDP/FDM	Al/Cu
VT84WTA...	6.57-9.99	1.10	120	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WTA...	8.20-12.40	1.10	60	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WTA...	9.84-15.0	1.10	60	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WTA...	11.9-18.0	1.10	50	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WTA...	14.5-22.0	1.10	50	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WTA...	17.6-26.7	1.10	50	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WTA...	21.7-33.0	1.15	50	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WTA...	26.3-40.0	1.15	50	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WTA...	32.9-60.1	1.15	50	R400	WR22	FUGP	Cu
VT500WTA...	39.2-59.6	1.15	50	R500	WR19	FUGP	Cu
VT620WTA...	49.8-75.8	1.15	50	R620	WR15	FUGP	Cu
VT740WTA...	60.5-91.9	1.15	50	R740	WR12	FUGP	Cu
VT900WTA...	73.8-112	1.15	50	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.



Waveguide Twist



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Section 1

Waveguide Components

【Ordering Information】

Example Part No: VT 100 WTA 100 P M A 45

Vector Telecom ————
WG Type: R100 ————
Production Type: WG Twist ————
Twist WG Length: L=100mm ————

Twisting Angle: 45° (90° as default)
Material: A=Aluminum C=Copper
Flange 2 Type: M=FBM100
Flange 1 Type: P=FBP100

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Twist angle other than 90° available on request
- Twist direction option of VT unless otherwise specified



Waveguide Twist

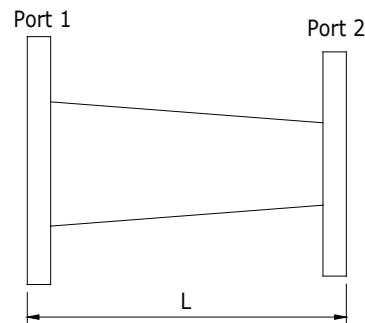
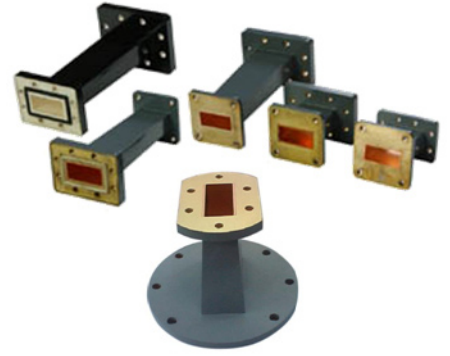


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4 Waveguide Transition

Vector Telecom manufactures a wide variety of waveguide transitions ranging from standard rectangular waveguide transitions in overlapping bands to custom transitions spanning multiple bands. Additional sizes, extended range, and custom design configurations are available on request.



4.1 Rectangular to Rectangular Transitions in Overlapping Bands

【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Length (mm)	Port1 WG Type		Port2 WG Type		Flange	Material
				IEC	EIA	IEC	EIA		
VT34WA...	0.35-0.49	1.10	1000	R3	WR2300	R4	WR2100	FDP/FDM	Al
VT45WA...	0.41-0.53	1.10	1000	R4	WR2100	R5	WR1800	FDP/FDM	Al
VT56WA...	0.49-0.62	1.10	900	R5	WR1800	R6	WR1500	FDP/FDM	Al
VT68WA...	0.64-0.75	1.10	800	R6	WR1500	R8	WR1150	FDP/FDM	Al
VT89WA...	0.75-0.98	1.10	600	R8	WR1150	R9	WR975	FDP/FDM	Al
VT912WA...	0.96-1.15	1.10	500	R9	WR975	R12	WR770	FDP/FDM	Al
VT1214WA...	1.13-1.46	1.10	400	R12	WR770	R14	WR650	FDP/FDM	Al
VT1418WA...	1.45-1.73	1.10	350	R14	WR650	R18	WR510	FDP/FDM	Al
VT1822WA...	1.72-2.20	1.10	300	R18	WR510	R22	WR430	FDP/FDM	Al/Cu
VT2226WA...	2.17-2.61	1.10	250	R22	WR430	R26	WR340	FDP/FDM	Al/Cu
VT2632WA...	2.60-3.30	1.10	200	R26	WR340	R32	WR284	FDP/FDM	Al/Cu
VT3240WA...	3.22-3.95	1.10	200	R32	WR284	R40	WR229	FDP/FDM	Al/Cu
VT4048WA...	3.94-4.90	1.10	180	R40	WR229	R48	WR187	FDP/FDM	Al/Cu

04

Waveguide Transition



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Model No*	Freq Range (GHz)	VSWR (Max)	Length (mm)	Port1 WG Type		Port2 WG Type		Flange	Material
				IEC	EIA	IEC	EIA		
VT4858WA...	4.64-5.99	1.10	180	R48	WR187	R58	WR159	FDP/FDM	Al/Cu
VT5870WA...	5.38-7.05	1.10	150	R58	WR159	R70	WR137	FDP/FDM	Al/Cu
VT7084WA...	6.57-8.17	1.10	130	R70	WR137	R84	WR112	FDP/FDM	Al/Cu
VT84100WA...	8.20-9.99	1.10	100	R84	WR112	R100	WR90	FBP/FBM/FBE	Al/Cu
VT100120WA...	9.84-12.4	1.10	80	R100	WR90	R120	WR75	FBP/FBM/FBE	Al/Cu
VT120140WA...	11.9-15.0	1.10	75	R120	WR75	R140	WR62	FBP/FBM/FBE	Al/Cu
VT140180WA...	14.5-18.0	1.10	60	R140	WR62	R180	WR51	FBP/FBM/FBE	Al/Cu
VT180220WA...	17.6-22.0	1.10	50	R180	WR51	R220	WR42	FBP/FBM/FBE	Al/Cu
VT220260WA...	21.7-26.7	1.15	50	R220	WR42	R260	WR34	FBP/FBM/FBE	Al/Cu
VT260320WA...	26.3-33.0	1.15	50	R260	WR34	R320	WR28	FBP/FBM/FBE	Al/Cu
VT320400WA...	32.9-40.0	1.15	50	R320	WR28	R400	WR22	FBP/FBM/FBE	Al/Cu
VT400500WA...	39.2-60.1	1.20	50	R400	WR22	R500	WR19	FUGP	Cu
VT500620WA...	49.8-59.6	1.20	50	R500	WR19	R620	WR15	FUGP	Cu
VT620740WA...	60.5-75.8	1.20	50	R620	WR15	R740	WR12	FUGP	Cu
VT740900WA...	73.8-91.9	1.20	50	R740	WR12	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 84100 WA 100 P M A

Vector Telecom _____

WG Type: R84 to R100 _____

Product Type: WG Transition _____

Material: A =Aluminum C=Copper

Port 2 Flange Type: M=FBM100

Port 1 Flange Type: P=FBP100

WG Transition Length: L=100mm

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



Waveguide Transition



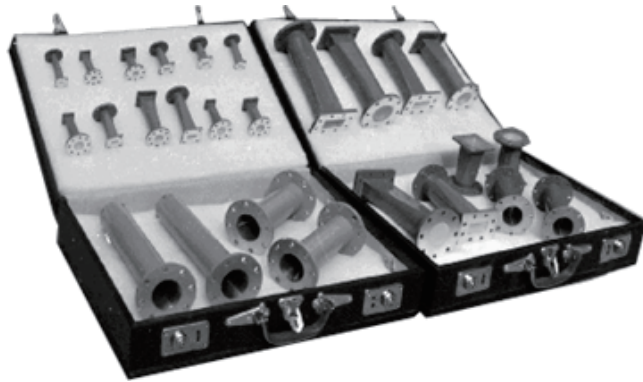
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4.2 Special Transitions

Transitions spanning multiple bands, rectangular to circular waveguide transitions are available. Please consult sales engineer for more information.



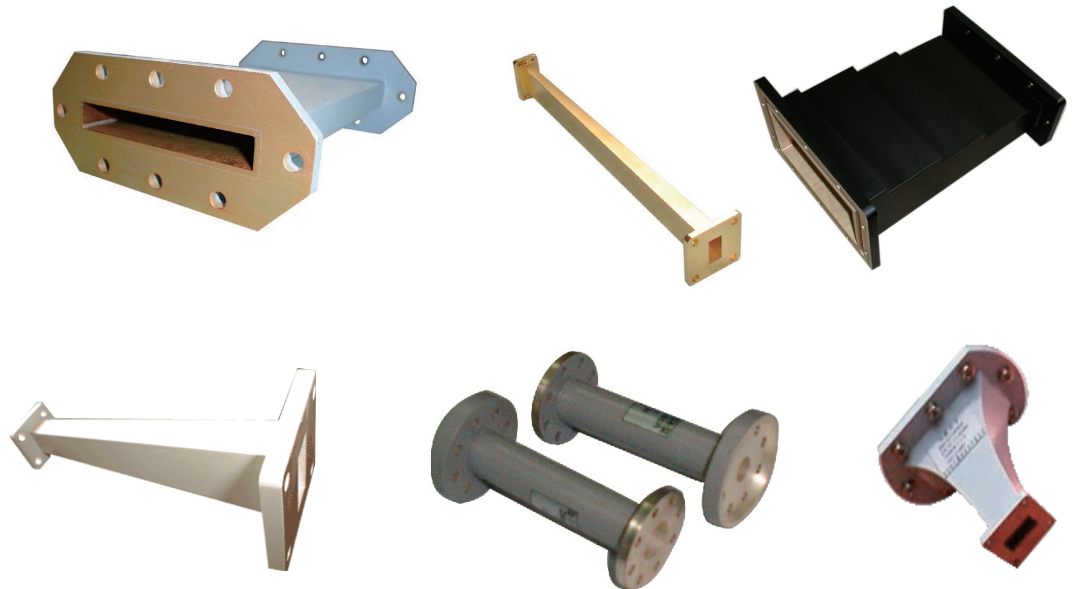
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Waveguide Transition



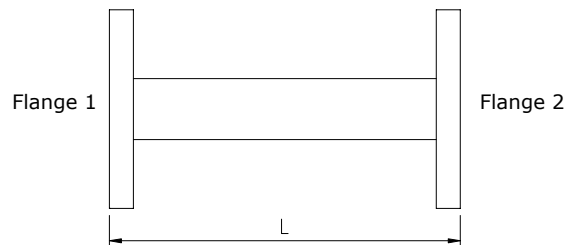
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5 Twistable-Flexible Waveguide

Vector Telecom offers a standard product line of rectangular twistable-flexible waveguides. They are used in requirements where both bending and twisting of the waveguide is needed. For more information feel free to call us and discuss your needs with one of our sales engineers.



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	IL (dB/m) (Max)	Pressure (MPa) (Max)	WG Type		WG Type
					IEC	EIA	
VT32WEL...	2.60-3.95	1.10	0.30	0.10	R32	WR284	FDP/FDM
VT40WEL...	3.22-4.90	1.10	0.40	0.10	R40	WR229	FDP/FDM
VT48WEL...	3.94-5.99	1.10	0.45	0.10	R48	WR187	FDP/FDM
VT58WEL...	4.64-7.05	1.10	0.50	0.10	R58	WR159	FDP/FDM
VT70WEL...	5.38-8.17	1.10	0.60	0.15	R70	WR137	FDP/FDM
VT84WEL...	6.57-9.99	1.10	0.70	0.15	R84	WR112	FBP/FBM/FBE
VT100WEL...	8.20-12.40	1.15	0.80	0.15	R100	WR90	FBP/FBM/FBE
VT120WEL...	9.84-15.0	1.15	1.00	0.15	R120	WR75	FBP/FBM/FBE
VT140WEL...	11.9-18.0	1.15	1.70	0.15	R140	WR62	FBP/FBM/FBE

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 100 WEL 900 P M
 Vector Telecom ————
 WG Type: R100 ————
 Product Type: Twist-Flex WG ————
 Flange 2 Type: M=FBM100
 Flange 1 Type: P=FBP100
 WG Length: L=900mm

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Std lengths (mm): 100, 200, 300, 500, 600, 900, 1000
- Supplied with Neoprene jacket in order to hold pressure, as a standard model



Twistable-Flexible Waveguide



Vector Telecom Pty Ltd

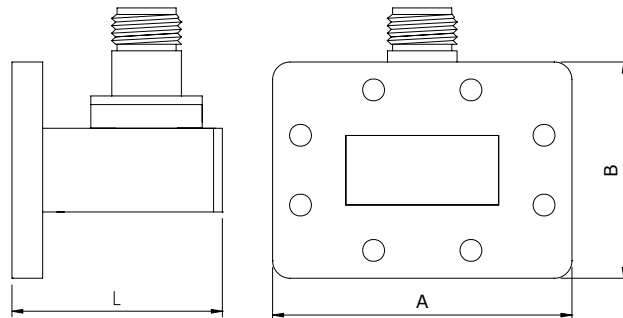
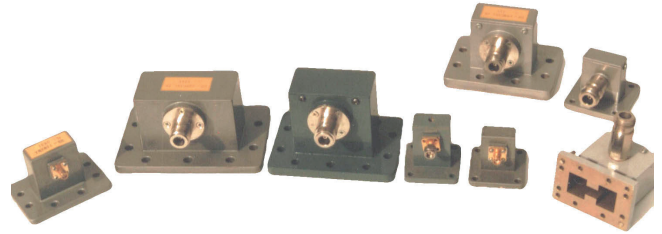
Website: www.vectortele.com
 Email: sales@vectortele.com



6 Adapters

6.1 Waveguide to Coaxial Adapter (Right Angle)

Vector Telecom manufactures Waveguide to Coaxial Adapters covering a full frequency range for Rectangular Waveguides, with multiple flange and coaxial connector types and configurations available. For more information feel free to call us and discuss your needs with one of our sales engineers.



Type N Waveguide to Coaxial Adapters

【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Dimensions L*B*A (mm)	WG Type		Flange	Material
				IEC	EIA		
VT3WCAN...	0.32-0.49	1.25	400*384*676	R3	WR2300	FDP/FDM	Al
VT4WCAN...	0.35-0.53	1.25	380*359*626	R4	WR2100	FDP/FDM	Al
VT5WCAN...	0.41-0.62	1.25	350*318*546	R5	WR1800	FDP/FDM	Al
VT6WCAN...	0.49-0.75	1.25	300*280*470	R6	WR1500	FDP/FDM	Al
VT8WCAN...	0.64-0.98	1.25	260*235*381	R8	WR1150	FDP/FDM	Al
VT9WCAN...	0.75-1.15	1.25	231*212*336	R9	WR975	FDP/FDM	Al
VT12WCAN...	0.96-1.46	1.25	166*187*285	R12	WR770	FDP/FDM	Al
VT14WCAN...	1.13-1.73	1.25	150*138*220	R14	WR650	FDP/FDM	Al
VT18WCAN...	1.45-2.20	1.25	120*120*185	R18	WR510	FDP/FDM	Al/Cu
VT22WCAN...	1.72-2.61	1.25	100*106*161	R22	WR430	FDP/FDM	Al/Cu
VT26WCAN...	2.17-3.30	1.25	90*95*138	R26	WR340	FDP/FDM	Al/Cu
VT32WCAN...	2.60-3.95	1.25	72*76*114	R32	WR284	FDP/FDM	Al/Cu

Model No*	Freq Range (GHz)	VSWR (Max)	Dimensions L*B*A (mm)	WG Type		Flange	Material
				IEC	EIA		
VT40WCAN...	3.22-4.90	1.25	65*70*98	R40	WR229	FDP/FDM	Al/Cu
VT48WCAN...	3.94-5.99	1.25	54*63*89	R48	WR187	FDP/FDM	Al/Cu
VT58WCAN...	4.64-7.05	1.25	50*62*81	R58	WR159	FDP/FDM	Al/Cu
VT70WCAN...	5.38-8.17	1.25	48*49*68	R70	WR137	FDP/FDM	Al/Cu
VT84WCAN...	6.57-9.99	1.25	40*48*48	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WCAN...	8.20-12.4	1.25	38*41*41	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WCAN...	9.84-15.0	1.25	30*38*38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WCAN...	11.9-18.0	1.25	27*33*33	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WCAN...	14.5-22.0	1.25	27*30*30	R180	WR51	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 70 WCA N K M A

Vector Telecom ———

WG Type: R70 ———

Product Type: WG To Coaxial Adapter ———

Material: A =Aluminum, C=Copper

Flange Type: M=FDM70

J=Male, K=Female

Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm, 2.4=2.4mm, TNC=TNC

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Standard unit provided not sealed pressure tight unless otherwise specified

SMA Waveguide to Coaxial Adapters

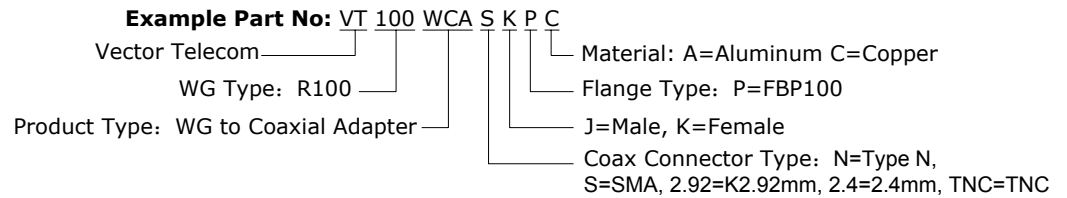
【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Dimensions L*B*A (mm)	WG Type		Flange	Material
				IEC	EIA		
VT100WCAS...	8.20-12.4	1.25	38*41*41	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WCAS...	9.84-15.0	1.25	30*38*38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WCAS...	11.9-18.0	1.25	27*33*33	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WCAS...	14.5-22.0	1.25	27*30*30	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WCAS...	17.6-26.7	1.40	25*22*22	R220	WR42	FBP/FBM/FBE	Al/Cu
VT320WCAS...	26.3-40.0	1.50	25*19*19	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.



【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Standard unit provided not sealed pressure tight unless otherwise specified.

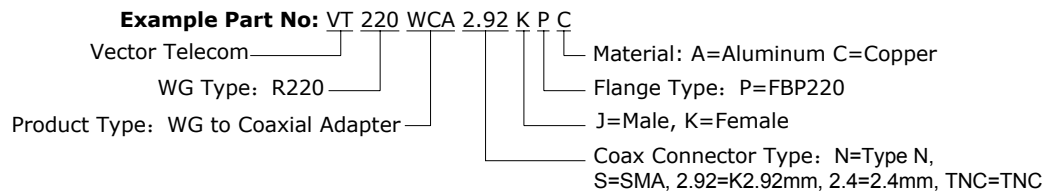
K2.92mm Waveguide to Coaxial Adapters

【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Dimensions L*B*A (mm)	WG Type		Flange	Material
				IEC	EIA		
VT220WCA2.92...	17.6-26.7	1.50	33*22*22	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WCA2.92...	21.7-33.0	1.50	27*21*21	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WCA2.92...	26.3-40.0	1.50	25*19*19	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Standard unit provided not sealed pressure tight unless otherwise specified.



2.4mm Waveguide to Coaxial Adapters

【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Dimensions L*B*A (mm)	WG Type		Flange	Material
				IEC	EIA		
VT220WCA2.4...	17.6-26.7	1.50	36*22*22	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WCA2.4...	21.7-33.0	1.60	27*21*21	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WCA2.4...	26.3-40.0	1.60	25*19*19	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 320 WCA 2.4 K P C

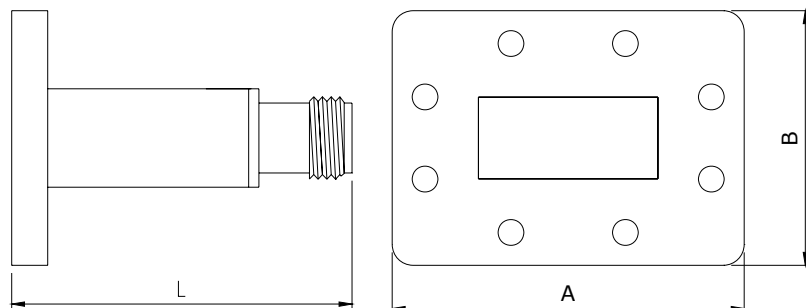
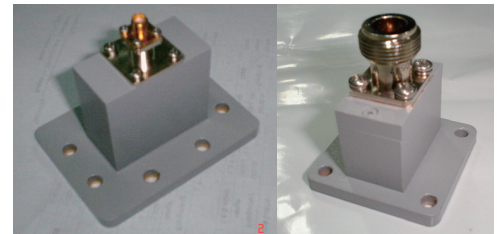
Vector Telecom ——— |
 WG Type: R320 ——— |
 Product Type: WG to Coaxial Adapter ——— |

Material: A=Aluminum C=Copper
 Flange Type: P=FBP320
 J=Male, K=Female
 Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm, 2.4=2.4mm, TNC=TNC

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Standard unit provided not sealed pressure tight unless otherwise specified.

6.2 Waveguide to Coaxial Adapter (End-launch)

Vector Telecom manufactures End-launch Waveguide to Coaxial Adapters covering a full frequency range for Rectangular Waveguides, with multiple flange and coaxial connector types and configurations available. For more information feel free to call us and discuss your needs with one of our sales engineers.





【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Connector Type	Dimensions L*B*A (mm)	WG Type		Flange	Material
					IEC	EIA		
VT22WECAN...	1.72-2.61	1.25	N	128.7*106*161	R22	WR430	FDP/FDM	Al/Cu
VT22WECAS...	1.72-2.61	1.25	SMA	113.4*106*161	R22	WR430	FDP/FDM	Al/Cu
VT26WECAN...	2.17-3.30	1.25	N	118.7*95*138	R26	WR340	FDP/FDM	Al/Cu
VT32WECAN...	2.60-3.95	1.25	N	108.7*76*114	R32	WR284	FDP/FDM	Al/Cu
VT40WECAN...	3.22-4.90	1.25	N	94.7*70*98	R40	WR229	FDP/FDM	Al/Cu
VT48WECAN...	3.94-5.99	1.25	N	74.7*63*89	R48	WR187	FDP/FDM	Al/Cu
VT48WECAS...	3.94-5.99	1.25	SMA	78.4*63*89	R48	WR187	FDP/FDM	Al/Cu
VT58WECAN...	4.64-7.05	1.25	N	72.4*62*81	R58	WR159	FDP/FDM	Al/Cu
VT70WECAN...	5.38-8.17	1.25	N	68.8*49*68	R70	WR137	FDP/FDM	Al/Cu
VT84WECAN...	6.57-9.99	1.25	N	58.8*48*48	R84	WR112	FBP/FBM/FBE	Al/Cu
VT84WECAS...	6.57-9.99	1.25	SMA	49.5*48*48	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WECAN.....	8.20-12.40	1.25	N	49.3*41*41	R100	WR90	FBP/FBM/FBE	Al/Cu
VT100WECAS...	8.20-12.40	1.25	SMA	40*41*41	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WECAN...	9.84-15.0	1.25	N	46.3*38*38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT120WECAS...	9.84-15.0	1.25	SMA	37*38*38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WECAN...	11.9-18.0	1.25	N	43.3*33*33	R140	WR62	FBP/FBM/FBE	Al/Cu
VT140WECAS...	11.9-18.0	1.25	SMA	34*33*33	R140	WR62	FBP/FBM/FBE	Al/Cu
VT220WECAS...	17.6-26.7	1.50	SMA	26.5*22*22	R220	WR42	FBP/FBM/FBE	Al/Cu
VT220WECAK...	17.6-26.7	1.50	K2.92mm	27.8*22*22	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WECAS...	21.7-33.0	1.50	SMA	26.1*21*21	R260	WR34	FBP/FBM/FBE	Al/Cu
VT260WECAK...	21.7-33.0	1.50	K2.92mm	29*21*21	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WECAS...	26.3-40.0	1.50	SMA	25.9*19*19	R320	WR28	FBP/FBM/FBE	Al/Cu
VT320WECAK...	26.3-40.0	1.50	K2.92mm	28.9*19*19	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 70 WECA N K M A

Vector Telecom _____

WG Type: R70 _____

Product Type: WG To Coaxial Adapter (End-launch) _____

Material: A =Aluminum, C=Copper _____

Flange Type: M=FDM70 _____

J=Male, K=Female _____

Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm, 2.4=2.4mm, TNC=TNC _____

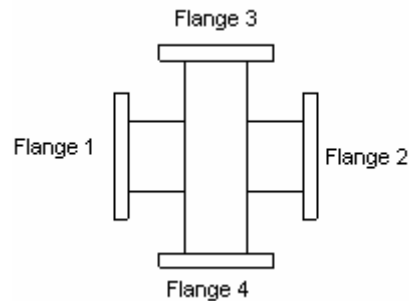
- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat
- Standard unit provided not sealed pressure tight unless otherwise specified.

7 Crossguide Directional Coupler



Vector Telecom manufactures Crossguide Directional Couplers covering a wide frequency range. Couplers are available in 3 or 4 port configuration. Standard coupling values are 20, 30, 40, 50 and 60 dB, with minimum Directivity of 18 dB. The compactness of crossguide coupler suits many applications where space is at a premium and directivity is not the prime consideration. Models are available with combinations of waveguide and coaxial ports. Special multi-port crossguide couplers can be manufactured to suit customer's special requirements.

Style 1 — 4 Waveguide Ports



【Specifications】

Model No*	Freq Range (GHz)	Operating Bandwidth (%)**	VSWR (Max)		Coupling*** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
			Main Line	Secondary Line			IEC	EIA		
VT22W+C...	1.72-2.61	10-20	1.10	1.15	18-60	18	R22	WR430	FDP/FDM	Al/Cu
VT26W+C...	2.17-3.30	10-20	1.10	1.15	18-60	18	R26	WR340	FDP/FDM	Al/Cu
VT32W+C...	2.60-3.95	10-20	1.10	1.15	18-60	18	R32	WR284	FDP/FDM	Al/Cu
VT40W+C...	3.22-4.90	10-20	1.10	1.15	18-60	18	R40	WR229	FDP/FDM	Al/Cu
VT48W+C...	3.94-5.99	10-20	1.10	1.15	18-60	18	R48	WR187	FDP/FDM	Al/Cu
VT58W+C...	4.64-7.05	10-20	1.10	1.15	18-60	18	R58	WR159	FDP/FDM	Al/Cu
VT70W+C...	5.38-8.17	10-20	1.10	1.15	18-60	18	R70	WR137	FDP/FDM	Al/Cu
VT84W+C...	6.57-9.99	10-20	1.10	1.15	18-60	18	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100W+C...	8.20-12.40	10-20	1.10	1.15	18-60	18	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120W+C...	9.84-15.0	10-20	1.10	1.15	18-60	18	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140W+C...	11.9-18.0	10-20	1.10	1.15	18-60	18	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180W+C...	14.5-22.0	10-20	1.10	1.15	18-60	18	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220W+C...	17.6-26.7	10-20	1.10	1.15	18-60	18	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260W+C...	21.7-33.0	10-20	1.10	1.15	18-60	18	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320W+C...	26.3-40.0	10-20	1.15	1.15	18-60	18	R320	WR28	FBP/FBM/FBE	Al/Cu



Crossguide Directional Coupler



Vector Telecom Pty Ltd

Website: www.vectortele.com
Email: sales@vectortele.com

*Indicates Model Number. See Ordering Information for complete part number.
 **Typical operating bandwidth of the crossguide coupler is up to 20% of waveguide bandwidth.
 ***Nominal Accuracy: $\pm 0.7\text{dB}$
 Frequency Sensitivity: $\pm 1\text{dB}$

【Ordering Information】

Example Part No: VT 100 W+C 30 P M E M A

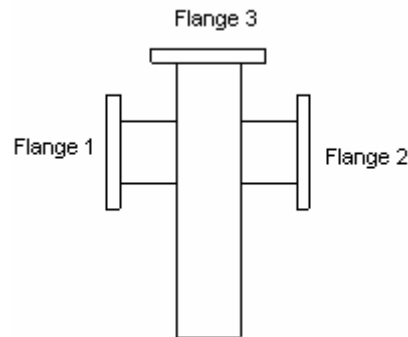
Vector Telecom ————
 WG Type: R100 ————
 Product Type: Crossguide Directional Coupler (4 WG Ports) ————
 Coupling: C=30dB ————

Material: A = Aluminum, C=Copper
 Flange 4 Type: FBM100
 Flange 3 Type: FBE100
 Flange 2 Type: FBM100
 Flange 1 Type: FBP100

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Section 1
Waveguide Components

Style 2 — 3 Waveguide Ports



【Specifications】

Model No*	Freq Range (GHz)	Operating Bandwidth (%)**	VSWR (Max)		Coupling*** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
			Main Line	Secondary Line			IEC	EIA		
VT22WL+C...	1.72-2.61	10-20	1.10	1.15	18-60	18	R22	WR430	FDP/FDM	Al/Cu
VT26WL+C...	2.17-3.30	10-20	1.10	1.15	18-60	18	R26	WR340	FDP/FDM	Al/Cu
VT32WL+C...	2.60-3.95	10-20	1.10	1.15	18-60	18	R32	WR284	FDP/FDM	Al/Cu
VT40WL+C...	3.22-4.90	10-20	1.10	1.15	18-60	18	R40	WR229	FDP/FDM	Al/Cu
VT48WL+C...	3.94-5.99	10-20	1.10	1.15	18-60	18	R48	WR187	FDP/FDM	Al/Cu
VT58WL+C...	4.64-7.05	10-20	1.10	1.15	18-60	18	R58	WR159	FDP/FDM	Al/Cu
VT70WL+C...	5.38-8.17	10-20	1.10	1.15	18-60	18	R70	WR137	FDP/FDM	Al/Cu
VT84WL+C...	6.57-9.99	10-20	1.10	1.15	18-60	18	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WL+C...	8.20-12.40	10-20	1.10	1.15	18-60	18	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WL+C...	9.84-15.0	10-20	1.10	1.15	18-60	18	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WL+C...	11.9-18.0	10-20	1.10	1.15	18-60	18	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WL+C...	14.5-22.0	10-20	1.10	1.15	18-60	18	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WL+C...	17.6-26.7	10-20	1.10	1.15	18-60	18	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WL+C...	21.7-33.0	10-20	1.10	1.15	18-60	18	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WL+C...	26.3-40.0	10-20	1.15	1.15	18-60	18	R320	WR28	FBP/FBM/FBE	Al/Cu



Crossguide Directional Coupler



Vector Telecom Pty Ltd

Website: www.vectortele.com
 Email: sales@vectortele.com

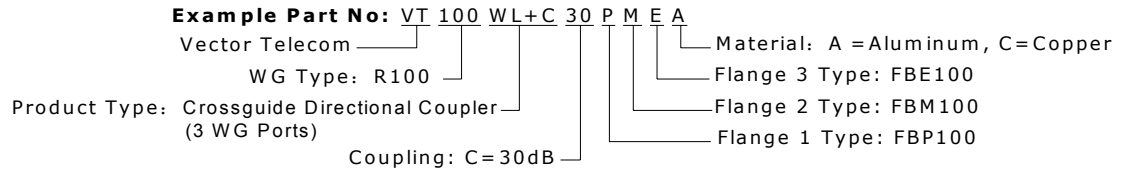
*Indicates Model Number. See Ordering Information for complete part number.

**Typical operating bandwidth of the crossguide coupler is up to 20% of waveguide bandwidth.

***Nominal Accuracy: $\pm 0.7\text{dB}$

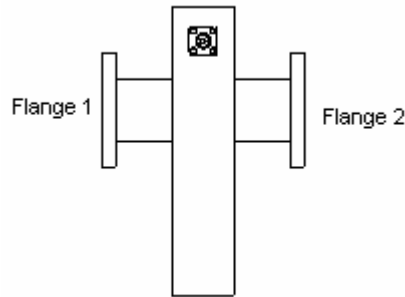
Frequency Sensitivity: $\pm 1\text{dB}$

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 3 — 2 Waveguide Ports, 1 Coax Port



【Specifications】

Model No*	Freq Range (GHz)	Operating Bandwidth (%)**	VSWR (Max)		Coupling*** (dB)	Directivity (Min) (dB)	WG Type		Flange	Coax Connector	Material
			Main Line	Secondary Line			IEC	EIA			
VT22WL+C...	1.72-2.61	10-20	1.10	1.25	18-60	18	R22	WR430	FDP/FDM	N	Al/Cu
VT26WL+C...	2.17-3.30	10-20	1.10	1.25	18-60	18	R26	WR340	FDP/FDM	N	Al/Cu
VT32WL+C...	2.60-3.95	10-20	1.10	1.25	18-60	18	R32	WR284	FDP/FDM	N	Al/Cu
VT40WL+C...	3.22-4.90	10-20	1.10	1.25	18-60	18	R40	WR229	FDP/FDM	N	Al/Cu
VT48WL+C...	3.94-5.99	10-20	1.10	1.25	18-60	18	R48	WR187	FDP/FDM	N	Al/Cu
VT58WL+C...	4.64-7.05	10-20	1.10	1.25	18-60	18	R58	WR159	FDP/FDM	N	Al/Cu
VT70WL+C...	5.38-8.17	10-20	1.10	1.25	18-60	18	R70	WR137	FDP/FDM	N	Al/Cu
VT84WL+C...	6.57-9.99	10-20	1.10	1.25	18-60	18	R84	WR112	FBP/FBM/FBE	N	Al/Cu
VT100WL+C...	8.20-12.4	10-20	1.10	1.25	18-60	18	R100	WR90	FBP/FBM/FBE	N	Al/Cu
VT120WL+C...	9.84-15.0	10-20	1.10	1.25	18-60	18	R120	WR75	FBP/FBM/FBE	SMA	Al/Cu
VT140WL+C...	11.9-18.0	10-20	1.10	1.25	18-60	18	R140	WR62	FBP/FBM/FBE	SMA	Al/Cu
VT180WL+C...	14.5-22.0	10-20	1.10	1.30	18-60	18	R180	WR51	FBP/FBM/FBE	SMA	Al/Cu
VT220WL+C...	17.6-26.7	10-20	1.10	1.50	18-60	18	R220	WR42	FBP/FBM/FBE	SMA, K	Al/Cu
VT320WL+C...	26.3-40.0	10-20	1.15	1.50	18-60	18	R320	WR28	FBP/FBM/FBE	SMA, K	Al/Cu



Crossguide Directional Coupler



Vector Telecom Pty Ltd

Website: www.vectortele.com

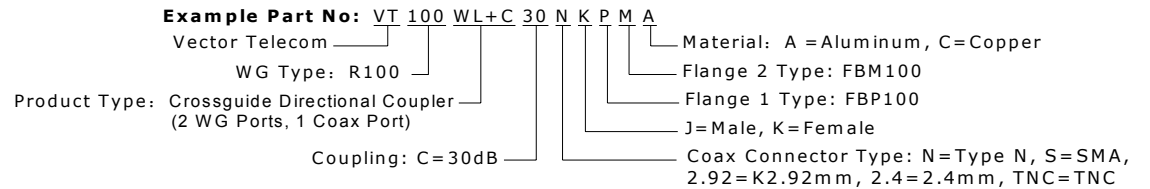
Email: sales@vectortele.com



Section 1
**Waveguide
Components**

*Indicates Model Number. See Ordering Information for complete part number.
**Typical operating bandwidth of the crossguide coupler is up to 20% of waveguide bandwidth.
***Nominal Accuracy: $\pm 0.7\text{dB}$
Frequency Sensitivity: $\pm 1\text{dB}$

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



**Crossguide
Directional
Coupler**



Vector Telecom Pty Ltd

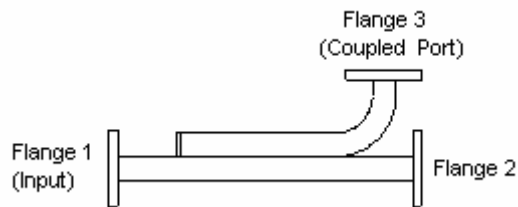
Website: www.vectortele.com
Email: sales@vectortele.com

8 Broadwall Directional Coupler



Vector Telecom manufactures a standard product line of multi-hole broadwall directional couplers covering a wide frequency range. The optimum electrical characteristics of high directivity and coupling flatness are achieved utilizing a precision machined Tchebyscheff coupling hole distribution and a precision ground tapered load element in the secondary arm. Directional couplers are typically used for power sampling, frequency monitoring, especially in the test setups where power reflection measurements are required. Additional sizes and special configurations are available on request.

Style 1 — 3 Waveguide Ports



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
		Main Line	Secondary Line			IEC	EIA		
VT14WC...	1.13-1.73	1.10	1.15	3-40	20-38	R14	WR650	FDP/FDM	Al/Cu
VT18WC...	1.45-2.20	1.10	1.15	3-40	20-38	R18	WR510	FDP/FDM	Al/Cu
VT22WC...	1.72-2.61	1.10	1.15	3-40	20-38	R22	WR430	FDP/FDM	Al/Cu
VT26WC...	2.17-3.30	1.10	1.15	3-40	20-38	R26	WR340	FDP/FDM	Al/Cu
VT32WC...	2.60-3.95	1.10	1.15	3-40	20-38	R32	WR284	FDP/FDM	Al/Cu
VT40WC...	3.22-4.90	1.08	1.12	3-40	20-38	R40	WR229	FDP/FDM	Al/Cu
VT48WC...	3.94-5.99	1.08	1.12	3-40	20-38	R48	WR187	FDP/FDM	Al/Cu
VT58WC...	4.64-7.05	1.08	1.12	3-40	20-38	R58	WR159	FDP/FDM	Al/Cu
VT70WC...	5.38-8.17	1.08	1.12	3-40	20-38	R70	WR137	FDP/FDM	Al/Cu
VT84WC...	6.57-9.99	1.08	1.12	3-40	20-38	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WC...	8.20-12.40	1.08	1.12	3-40	20-38	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WC...	9.84-15.0	1.08	1.12	3-40	20-38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WC...	11.9-18.0	1.10	1.15	3-40	20-38	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WC...	14.5-22.0	1.10	1.15	3-40	20-38	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WC...	17.6-26.7	1.10	1.15	3-40	20-38	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WC...	21.7-33.0	1.10	1.15	3-40	20-38	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WC...	26.3-40.0	1.10	1.15	3-40	20-38	R320	WR28	FBP/FBM/FBE	Al/Cu



Broadwall Directional Coupler



Vector Telecom Pty Ltd

Website: www.vectortele.com

Email: sales@vectortele.com



*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$

Frequency Sensitivity: $\pm 1\text{dB}$

【Ordering Information】

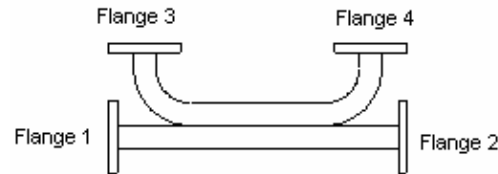
Example Part No: VT 100 WC 30 P M E A

Vector Telecom ————
 WG Type: R100 ————
 Product Type: Broadwall Directional Coupler ————
 Coupling: C=30dB ————

Material: A = Aluminum, C=Copper
 Flange 3 Type: FBE100
 Flange 2 Type: FBM100
 Flange 1 Type: FBP100

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 2 — 4 Waveguide Ports



【Specifications】

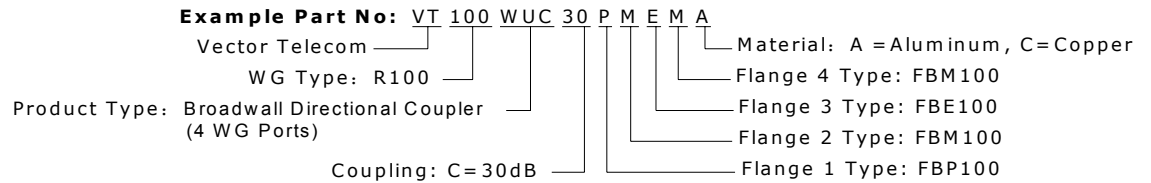
Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
		Main Line	Secondary Line			IEC	EIA		
VT26WUC...	2.17-3.30	1.10	1.15	3-40	20-38	R26	WR340	FDP/FDM	Al/Cu
VT32WUC...	2.60-3.95	1.10	1.15	3-40	20-38	R32	WR284	FDP/FDM	Al/Cu
VT40WUC...	3.22-4.90	1.08	1.12	3-40	20-38	R40	WR229	FDP/FDM	Al/Cu
VT48WUC...	3.94-5.99	1.08	1.12	3-40	20-38	R48	WR187	FDP/FDM	Al/Cu
VT58WUC...	4.64-7.05	1.08	1.12	3-40	20-38	R58	WR159	FDP/FDM	Al/Cu
VT70WUC...	5.38-8.17	1.08	1.12	3-40	20-38	R70	WR137	FDP/FDM	Al/Cu
VT84WUC...	6.57-9.99	1.08	1.12	3-40	20-38	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WUC...	8.20-12.40	1.08	1.12	3-40	20-38	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WUC...	9.84-15.0	1.08	1.12	3-40	20-38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WUC...	11.9-18.0	1.10	1.15	3-40	20-38	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WUC...	14.5-22.0	1.10	1.15	3-40	20-38	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WUC...	17.6-26.7	1.10	1.15	3-40	20-38	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WUC...	21.7-33.0	1.10	1.15	3-40	20-38	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WUC...	26.3-40.0	1.10	1.15	3-40	20-38	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$

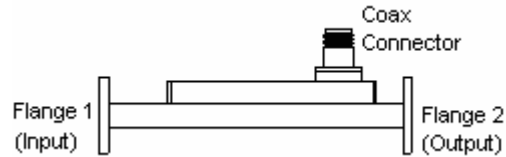
Frequency Sensitivity: $\pm 1\text{dB}$

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 3 — 2 Waveguide Ports, 1 Coax Port



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	Coax Connector	WG Type		Flange	Material
		Main Line	Secondary Line				IEC	EIA		
VT14WC...N	1.13-1.73	1.10	1.25	3-40	20-38	N	R14	WR650	FDP/FDM	Al/Cu
VT18WC...N	1.45-2.20	1.10	1.25	3-40	20-38	N	R18	WR510	FDP/FDM	Al/Cu
VT22WC...N	1.72-2.61	1.10	1.25	3-40	20-38	N	R22	WR430	FDP/FDM	Al/Cu
VT26WC...N	2.17-3.30	1.10	1.25	3-40	20-38	N	R26	WR340	FDP/FDM	Al/Cu
VT32WC...N	2.60-3.95	1.10	1.25	3-40	20-38	N	R32	WR284	FDP/FDM	Al/Cu
VT40WC...N	3.22-4.90	1.08	1.25	3-40	20-38	N	R40	WR229	FDP/FDM	Al/Cu
VT48WC...N	3.94-5.99	1.08	1.25	3-40	20-38	N	R48	WR187	FDP/FDM	Al/Cu
VT58WC...N	4.64-7.05	1.08	1.25	3-40	20-38	N	R58	WR159	FDP/FDM	Al/Cu
VT70WC...N	5.38-8.17	1.08	1.25	3-40	20-38	N	R70	WR137	FDP/FDM	Al/Cu
VT84WC...N	6.57-9.99	1.08	1.25	3-40	20-38	N	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WC...N	8.20-12.40	1.08	1.25	3-40	20-38	N	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WC...S	9.84-15.0	1.08	1.25	3-40	20-38	SMA	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WC...S	11.9-18.0	1.10	1.25	3-40	20-38	SMA	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WC...S	14.5-22.0	1.10	1.25	3-40	20-38	SMA	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WC...S	17.6-26.7	1.10	1.50	3-40	20-38	SMA,K***	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WC...S	21.7-33.0	1.10	1.60	3-40	20-38	SMA,K***	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WC...S	26.3-40.0	1.10	1.50	3-40	20-38	SMA,K***	R320	WR28	FBP/FBM/FBE	Al/Cu

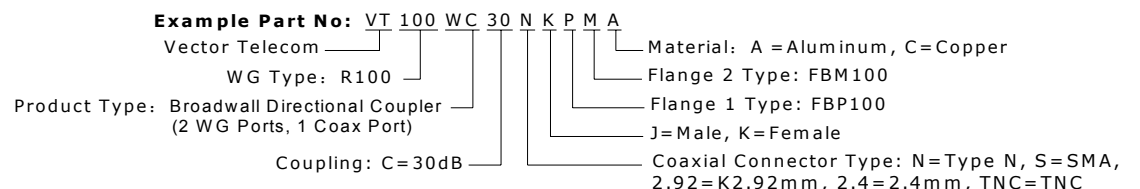
*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$

Frequency Sensitivity: $\pm 1\text{ dB}$

*** These units are supplied with 2.92mm (K-type) connectors.

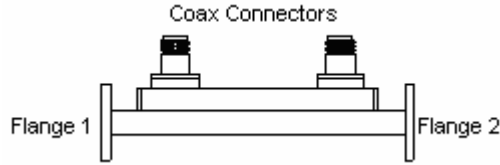
【Ordering Information】





- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 4 — 2 Waveguide Ports, 2 Coax Ports



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	Coax Connector	WG Type		Flange	Material
		Main Line	Secondary Line				IEC	EIA		
VT14WUC...N	1.13-1.73	1.10	1.25	3-40	20-25	N	R14	WR650	FDP/FDM	Al/Cu
VT18WUC...N	1.45-2.20	1.10	1.25	3-40	20-25	N	R18	WR510	FDP/FDM	Al/Cu
VT22WUC...N	1.72-2.61	1.10	1.25	3-40	20-25	N	R22	WR430	FDP/FDM	Al/Cu
VT26WUC...N	2.17-3.30	1.10	1.25	3-40	20-25	N	R26	WR340	FDP/FDM	Al/Cu
VT32WUC...N	2.60-3.95	1.10	1.25	3-40	20-25	N	R32	WR284	FDP/FDM	Al/Cu
VT40WUC...N	3.22-4.90	1.08	1.25	3-40	20-25	N	R40	WR229	FDP/FDM	Al/Cu
VT48WUC...N	3.94-5.99	1.08	1.25	3-40	20-25	N	R48	WR187	FDP/FDM	Al/Cu
VT58WUC...N	4.64-7.05	1.08	1.25	3-40	20-25	N	R58	WR159	FDP/FDM	Al/Cu
VT70WUC...N	5.38-8.17	1.08	1.25	3-40	20-25	N	R70	WR137	FDP/FDM	Al/Cu
VT84WUC...N	6.57-9.99	1.08	1.25	3-40	20-25	N	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WUC...N	8.20-12.40	1.08	1.25	3-40	20-25	N	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WUC...S	9.84-15.0	1.08	1.25	3-40	20-25	SMA	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WUC...S	11.9-18.0	1.10	1.25	3-40	20-25	SMA	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WUC...S	14.5-22.0	1.10	1.25	3-40	20-25	SMA	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WUC...S	17.6-26.7	1.10	1.50	3-40	20-25	SMA,K***	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WUC...S	21.7-33.0	1.10	1.60	3-40	20-25	SMA,K***	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WUC...S	26.3-40.0	1.10	1.50	3-40	20-25	SMA,K***	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$

Frequency Sensitivity: $\pm 1\text{ dB}$

*** These units are supplied with 2.92mm (K-type) connectors.

【Ordering Information】

Example Part No: VT 100 WUC 30 N K P M A

Vector Telecom _____

WG Type: R100 _____

Product Type: Broadwall Directional Coupler (2 WG Ports, 2 Coax Port) _____

Coupling: C=30dB _____

Material: A = Aluminum, C = Copper _____

Flange 2 Type: FBM100 _____

Flange 1 Type: FBP100 _____

J = Male, K = Female _____

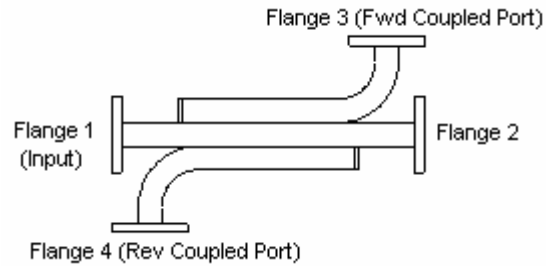
Coax Connector Type: N = Type N, S = SMA, 2.92 = K2.92mm, 2.4 = 2.4mm, TNC = TNC _____

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



Style 5 — Dual-arm Broadwall Directional Coupler

4 Waveguide Ports



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
		Main Line	Secondary Line			IEC	EIA		
VT26WDXC...	2.17-3.30	1.08	1.12	3-40	20-38	R26	WR340	FDP/FDM	Al/Cu
VT32WDXC...	2.60-3.95	1.08	1.12	3-40	20-38	R32	WR284	FDP/FDM	Al/Cu
VT40WDXC...	3.22-4.90	1.08	1.12	3-40	20-38	R40	WR229	FDP/FDM	Al/Cu
VT48WDXC...	3.94-5.99	1.08	1.12	3-40	20-38	R48	WR187	FDP/FDM	Al/Cu
VT58WDXC...	4.64-7.05	1.08	1.12	3-40	20-38	R58	WR159	FDP/FDM	Al/Cu
VT70WDXC...	5.38-8.17	1.08	1.12	3-40	20-38	R70	WR137	FDP/FDM	Al/Cu
VT84WDXC...	6.57-9.99	1.08	1.12	3-40	20-38	R84	WR112	FDP/FDM	Al/Cu
VT100WDXC...	8.20-12.40	1.08	1.12	3-40	20-38	R100	WR90	FDP/FDM	Al/Cu
VT120WDXC...	9.84-15.0	1.08	1.12	3-40	20-38	R120	WR75	FDP/FDM	Al/Cu
VT140WDXC...	11.9-18.0	1.10	1.15	3-40	20-38	R140	WR62	FDP/FDM	Al/Cu
VT180WDXC...	14.5-22.0	1.10	1.15	3-40	20-38	R180	WR51	FDP/FDM	Al/Cu
VT220WDXC...	17.6-26.7	1.10	1.15	3-40	20-38	R220	WR42	FDP/FDM	Al/Cu
VT260WDXC...	21.7-33.0	1.10	1.15	3-40	20-38	R260	WR34	FDP/FDM	Al/Cu
VT320WDXC...	26.3-40.0	1.10	1.15	3-40	20-38	R320	WR28	FDP/FDM	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$

Frequency Sensitivity: $\pm 1\text{dB}$

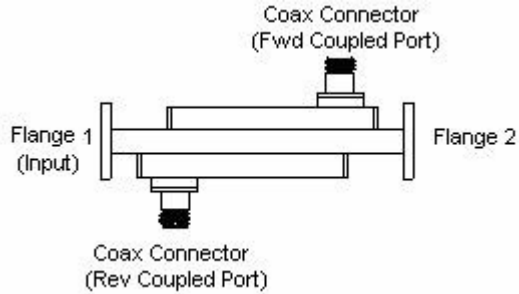
【Ordering Information】

Example Part No: VT 100 WDXC 30 P M E M A

Vector Telecom — VT
 WG Type: R100 — 100
 Product Type: Broadwall Directional Coupler (4 WG Ports) — WDXC
 Coupling: C=30dB — 30
 Material: A = Aluminum, C=Copper — A
 Flange 4 Type: FBM100 — M
 Flange 3 Type: FBE100 — E
 Flange 2 Type: FBM100 — M
 Flange 1 Type: FBP100 — A

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 6 — Dual-arm Broadwall Directional Coupler 2 Waveguide Ports, 2 Coax Ports



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	Coax Connector	WG Type		Flange	Material
		Main Line	Secondary Line				IEC	EIA		
VT26WDXC...N	2.17-3.30	1.10	1.25	3-40	20-38	N	R26	WR340	FDP/FDM	Al/Cu
VT32WDXC...N	2.60-3.95	1.10	1.25	3-40	20-38	N	R32	WR284	FDP/FDM	Al/Cu
VT40WDXC...N	3.22-4.90	1.08	1.25	3-40	20-38	N	R40	WR229	FDP/FDM	Al/Cu
VT48WDXC...N	3.94-5.99	1.08	1.25	3-40	20-38	N	R48	WR187	FDP/FDM	Al/Cu
VT58WDXC...N	4.64-7.05	1.08	1.25	3-40	20-38	N	R58	WR159	FDP/FDM	Al/Cu
VT70WDXC...N	5.38-8.17	1.08	1.25	3-40	20-38	N	R70	WR137	FDP/FDM	Al/Cu
VT84WDXC...N	6.57-9.99	1.08	1.25	3-40	20-38	N	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WDXC...N	8.20-12.40	1.08	1.25	3-40	20-38	N	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WDXC...S	9.84-15.0	1.08	1.25	3-40	20-38	SMA	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WDXC...S	11.9-18.0	1.10	1.25	3-40	20-38	SMA	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WDXC...S	14.5-22.0	1.10	1.25	3-40	20-38	SMA	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WDXC...S	17.6-26.7	1.10	1.50	3-40	20-38	SMA,K***	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WDXC...S	21.7-33.0	1.10	1.50	3-40	20-38	SMA,K***	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WDXC...S	26.3-40.0	1.10	1.50	3-40	20-38	SMA,K***	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$

Frequency Sensitivity: $\pm 1\text{ dB}$

*** These units are supplied with 2.92mm (K-type) connectors.

【Ordering Information】

Example Part No: VT 100 WDXC 30 N K P M A

Vector Telecom ———

WG Type: R100 ———

Product Type: Broadwall Directional Coupler (2 WG Ports, 2 Coax Port) ———

Coupling: C=30dB ———

Material: A = Aluminum, C=Copper ———

Flange 2 Type: FBM100 ———

Flange 1 Type: FBP100 ———

J= Male, K= Female ———

Coax Connector Type: N=Type N, S=S 2.92=K2.92mm, 2.4=2.4mm, TNC= TI

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Section 1

Waveguide Components



Broadwall Directional Coupler



Vector Telecom Pty Ltd

Website: www.vectortele.com

Email: sales@vectortele.com



Vector Telecom

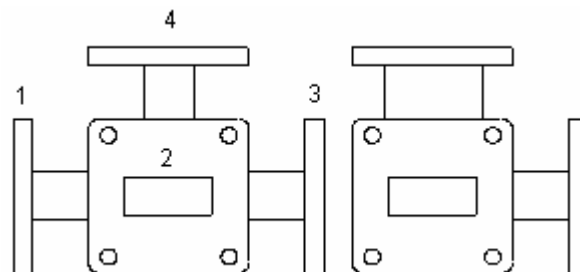
Section 1

Waveguide Components

9 Waveguide Tee

9.1 Magic Hybrid Tee

Vector Telecom's Magic Hybrid Tee is four-port coupler for matching, balance and isolation. E-plane to H-plane Isolation is a function of the symmetry which is carefully balanced on each unit. If the E-plane port 4 or the H-plane port 2 are used as inputs the split is on the output collinear ports 1 and 3. When the input is E plane port 4 the outputs are out of phase 180 deg. When the input is H plane port 2 the outputs are in phase. The in-phase and equal amplitude signals inputting into two collinear ports can result combined signals at H-plane port and cancelled signal at E-plane port. This feature is widely used in monopulse antenna feed structure and phasing testing setup.



【Specifications】

Model No*	Freq Range (GHz)	Operating Bandwidth (%)**	VSWR (Max)		Isolation (H&E Arms) (dB)	Unbalance (Max) (dB)	WG Type		Flange	Material
			H-Arm	E-Arm			IEC	EIA		
VT3WMT...	0.32-0.49	10-15	1.30	1.50	35	±0.25	R3	WR2300	FDP/FDM	Al
VT4WMT...	0.35-0.53	10-15	1.30	1.50	35	±0.25	R4	WR2100	FDP/FDM	Al
VT5WMT...	0.41-0.62	10-15	1.30	1.50	35	±0.25	R5	WR1800	FDP/FDM	Al
VT6WMT...	0.49-0.75	10-15	1.30	1.50	35	±0.25	R6	WR1500	FDP/FDM	Al
VT8WMT...	0.64-0.98	10-15	1.30	1.50	35	±0.25	R8	WR1150	FDP/FDM	Al
VT9WMT...	0.75-1.15	10-15	1.30	1.50	35	±0.25	R9	WR975	FDP/FDM	Al
VT12WMT...	0.96-1.46	10-15	1.20	1.50	35	±0.25	R12	WR770	FDP/FDM	Al
VT14WMT...	1.13-1.73	10-15	1.20	1.50	35	±0.25	R14	WR650	FDP/FDM	Al
VT18WMT...	1.45-2.20	10-15	1.20	1.50	35	±0.25	R18	WR510	FDP/FDM	Al
VT22WMT...	1.72-2.61	10-15	1.30	1.50	35	±0.4	R22	WR430	FDP/FDM	Al/Cu
VT26WMT...	2.17-3.30	10-15	1.30	1.50	35	±0.4	R26	WR340	FDP/FDM	Al/Cu
VT32WMT...	2.60-3.95	10-15	1.30	1.50	35	±0.4	R32	WR284	FDP/FDM	Al/Cu



Waveguide Tee



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Model No*	Freq Range (GHz)	Operating Bandwidth (%)**	VSWR (Max)		Isolation (H&E Arms) (dB)	Unbalance (Max) (dB)	WG Type		Flange	Material
			H-Arm	E-Arm			IEC	EIA		
VT48WMT...	3.94-5.99	10-15	1.20	1.30	35	±0.4	R48	WR187	FDP/FDM	Al/Cu
VT58WMT...	4.64-7.05	10-15	1.20	1.30	35	±0.4	R58	WR159	FDP/FDM	Al/Cu
VT70WMT...	5.38-8.17	10-15	1.20	1.30	35	±0.4	R70	WR137	FDP/FDM	Al/Cu
VT84WMT...	6.57-9.99	10-15	1.20	1.30	35	±0.4	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WMT...	8.20-12.4	10-15	1.20	1.30	35	±0.4	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WMT...	9.84-15.0	10-15	1.20	1.30	35	±0.4	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WMT...	11.9-18.0	10-15	1.20	1.30	35	±0.4	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WMT...	14.5-22.0	10-15	1.20	1.30	35	±0.4	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WMT...	17.6-26.7	10-15	1.20	1.50	30	±0.4	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WMT...	21.7-33.0	10-15	1.20	1.50	30	±0.4	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WMT...	26.3-40.0	10-15	1.20	1.50	30	±0.4	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WMT...	32.9-60.1	5-10	1.50	1.60	20	±0.5	R400	WR22	FUGP	Cu
VT500WMT...	39.2-59.6	5-10	1.50	1.60	20	±0.5	R500	WR19	FUGP	Cu
VT620WMT...	49.8-75.8	5-10	1.50	1.60	20	±0.5	R620	WR15	FUGP	Cu
VT740WMT...	60.5-91.9	5-10	1.50	1.60	20	±0.5	R740	WR12	FUGP	Cu
VT900WMT...	73.8-112	5-10	1.50	1.60	20	±0.5	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Typical operating bandwidth of the hybrid tee is up to 15% of waveguide bandwidth.

Performance degradation may occur while it covers wider waveguide bandwidth.

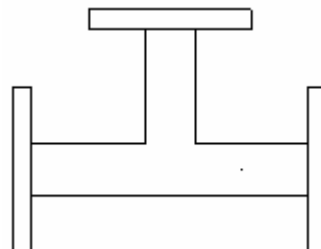
【Ordering Information】

Example Part No: VT 100 WMT A
 Vector Telecom _____
 WG Type: R100 _____
 Material: A=Aluminum C=Copper
 Product Type: Magic Hybrid Tee

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

9.2 E-Plane Tee

Vector Telecom manufactures a wide variety of E-Plane Tees. The junction of the auxiliary arm is made on the broad wall of the main waveguide.



Waveguide Tee



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Section 1

**Waveguide
Components**



**Waveguide
Tee**



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【Specifications】

Model No	Freq Range (GHz)	WG Type		Flange	Material
		IEC	EIA		
VT3WET	0.32-0.49	R3	WR2300	FDP/FDM	Al
VT4WET	0.35-0.53	R4	WR2100	FDP/FDM	Al
VT5WET	0.41-0.62	R5	WR1800	FDP/FDM	Al
VT6WET	0.49-0.75	R6	WR1500	FDP/FDM	Al
VT8WET	0.64-0.98	R8	WR1150	FDP/FDM	Al
VT9WET	0.75-1.15	R9	WR975	FDP/FDM	Al
VT12WET	0.96-1.46	R12	WR770	FDP/FDM	Al
VT14WET	1.13-1.73	R14	WR650	FDP/FDM	Al
VT18WET	1.45-2.20	R18	WR510	FDP/FDM	Al
VT22WET	1.72-2.61	R22	WR430	FDP/FDM	Al/Cu
VT26WET	2.17-3.30	R26	WR340	FDP/FDM	Al/Cu
VT32WET	2.60-3.95	R32	WR284	FDP/FDM	Al/Cu
VT40WET	3.22-4.90	R40	WR229	FDP/FDM	Al/Cu
VT48WET	3.94-5.99	R48	WR187	FDP/FDM	Al/Cu
VT58WET	4.64-7.05	R58	WR159	FDP/FDM	Al/Cu
VT70WET	5.38-8.17	R70	WR137	FDP/FDM	Al/Cu
VT84WET	6.57-9.99	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WET	8.20-12.4	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WET	9.84-15.0	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WET	11.9-18.0	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WET	14.5-22.0	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WET	17.6-26.7	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WET	21.7-33.0	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WET	26.3-40.0	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WET	32.9-60.1	R400	WR22	FUGP	Cu
VT500WET	39.2-59.6	R500	WR19	FUGP	Cu
VT620WET	49.8-75.8	R620	WR15	FUGP	Cu
VT740WET	60.5-91.9	R740	WR12	FUGP	Cu
VT900WET	73.8-112	R900	WR10	FUGP	Cu



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Section 1

Waveguide Components

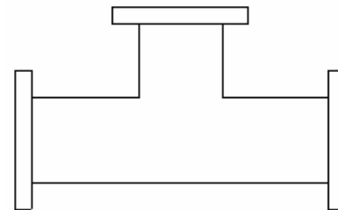
【Ordering Information】

Example Part No: VT 100 WET A
 Vector Telecom ——— |
 WG Type: R100 ——— |
 Material: A=Aluminum C=Copper
 Product Type: E-Plane Tee

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

9.3 H-Plane Tee

Vector Telecom manufactures a wide variety of H-Plane Tees. The junction of the auxiliary arm is made on the narrow wall of the main waveguide.



【Specifications】

Model No	Freq Range (GHz)	WG Type		Flange	Material
		IEC	EIA		
VT3WHT	0.32-0.49	R3	WR2300	FDP/FDM	Al
VT4WHT	0.35-0.53	R4	WR2100	FDP/FDM	Al
VT5WHT	0.41-0.62	R5	WR1800	FDP/FDM	Al
VT6WHT	0.49-0.75	R6	WR1500	FDP/FDM	Al
VT8WHT	0.64-0.98	R8	WR1150	FDP/FDM	Al
VT9WHT	0.75-1.15	R9	WR975	FDP/FDM	Al
VT12WHT	0.96-1.46	R12	WR770	FDP/FDM	Al
VT14WHT	1.13-1.73	R14	WR650	FDP/FDM	Al
VT18WHT	1.45-2.20	R18	WR510	FDP/FDM	Al
VT22WHT	1.72-2.61	R22	WR430	FDP/FDM	Al/Cu



Waveguide Tee



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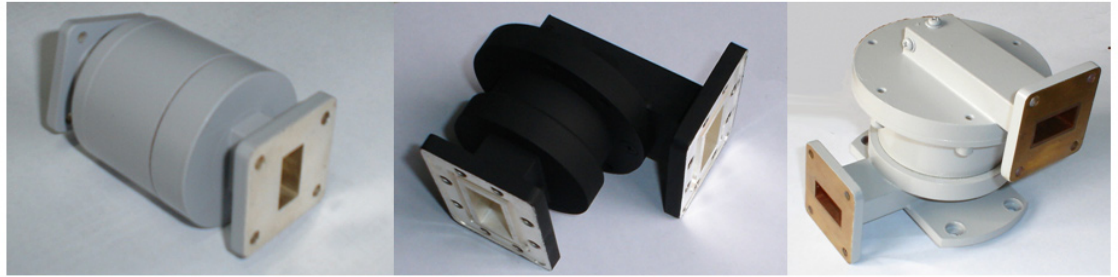
Model No	Freq Range (GHz)	WG Type		Flange	Material
		IEC	EIA		
VT26WHT	2.17-3.30	R26	WR340	FDP/FDM	Al/Cu
VT32WHT	2.60-3.95	R32	WR284	FDP/FDM	Al/Cu
VT40WHT	3.22-4.90	R40	WR229	FDP/FDM	Al/Cu
VT48WHT	3.94-5.99	R48	WR187	FDP/FDM	Al/Cu
VT58WHT	4.64-7.05	R58	WR159	FDP/FDM	Al/Cu
VT70WHT	5.38-8.17	R70	WR137	FDP/FDM	Al/Cu
VT84WHT	6.57-9.99	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WHT	8.20-12.4	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WHT	9.84-15.0	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WHT	11.9-18.0	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WHT	14.5-22.0	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WHT	17.6-26.7	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WHT	21.7-33.0	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WHT	26.3-40.0	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WHT	32.9-60.1	R400	WR22	FUGP	Cu
VT500WHT	39.2-59.6	R500	WR19	FUGP	Cu
VT620WHT	49.8-75.8	R620	WR15	FUGP	Cu
VT740WHT	60.5-91.9	R740	WR12	FUGP	Cu
VT900WHT	73.8-112	R900	WR10	FUGP	Cu

【Ordering Information】

Example Part No: VT 100 WHT A
 Vector Telecom ——— | ——— | ——— | ———
 WG Type: R100 ——— | ——— | ——— | ———
 Material: A=Aluminum C=Copper
 Product Type: H-Plane Tee

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

10 Waveguide Single Channel Rotary Joint

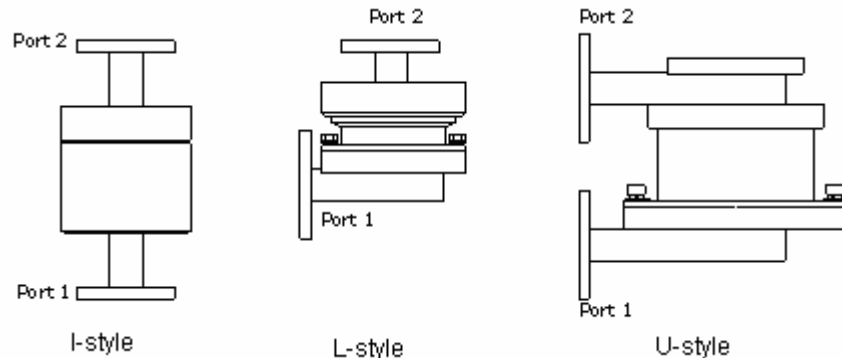


Rotary Joints (rotary couplers) are used to transmit microwave energy from stationary lines to rotating lines. The rotary joint is an electro-mechanical device with RF performance dependent upon rigorous electrical and mechanical design. Available styles are defined by physical geometry as follows:

I-style - Two in-line arms both collinear with the axis of rotation.

L-style - One arm is perpendicular to the axis of rotation.

U-style - Both arms are perpendicular to the axis of rotation.



【Specifications】

Model No	Freq Range (GHz)	Operating Bandwidth (MHz)	VSWR (Max)	VSWR WOW	IL(dB) (Max)	IL WOW (dB)	WG Type		Material
							IEC	EIA	
VT32WRJI	2.60-3.95	200	1.20	0.05	0.3	0.1	R32	WR284	Al/Cu
VT32WRJL	2.60-3.95	200	1.20	0.05	0.3	0.1	R32	WR284	Al/Cu
VT32WRJU	2.60-3.95	200	1.20	0.05	0.3	0.1	R32	WR284	Al/Cu
VT40WRJI	3.22-4.90	200	1.20	0.05	0.3	0.1	R40	WR229	Al/Cu
VT40WRJL	3.22-4.90	200	1.20	0.05	0.3	0.1	R40	WR229	Al/Cu
VT40WRJU	3.22-4.90	200	1.20	0.05	0.3	0.1	R40	WR229	Al/Cu
VT48WRJI	3.94-5.99	200	1.20	0.05	0.3	0.1	R48	WR187	Al/Cu
VT48WRJL	3.94-5.99	200	1.20	0.05	0.3	0.1	R48	WR187	Al/Cu
VT48WRJU	3.94-5.99	200	1.20	0.05	0.3	0.1	R48	WR187	Al/Cu
VT58WRJI	4.64-7.05	300	1.25	0.05	0.25	0.1	R58	WR159	Al/Cu
VT58WRJL	4.64-7.05	300	1.25	0.05	0.25	0.1	R58	WR159	Al/Cu
VT58WRJU	4.64-7.05	300	1.25	0.05	0.25	0.1	R58	WR159	Al/Cu

10 Waveguide Single Channel Rotary Joint





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Section 1

Waveguide Components

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Waveguide Single Channel Rotary Joint



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Model No	Freq Range (GHz)	Operating Bandwidth (MHz)	VSWR (Max)	VSWR WOW	IL(dB) (Max)	IL(dB) WOW	WG Type		Material
							IEC	EIA	
VT70WRJI	5.38-8.17	700	1.25	0.05	0.25	0.1	R70	WR137	Al/Cu
VT70WRJL	5.38-8.17	700	1.25	0.05	0.25	0.1	R70	WR137	Al/Cu
VT70WRJU	5.38-8.17	700	1.25	0.05	0.25	0.1	R70	WR137	Al/Cu
VT84WRJI	6.57-9.99	300	1.20	0.05	0.3	0.1	R84	WR112	Al/Cu
VT84WRJL	6.57-9.99	300	1.20	0.05	0.3	0.1	R84	WR112	Al/Cu
VT84WRJU	6.57-9.99	300	1.20	0.05	0.3	0.1	R84	WR112	Al/Cu
VT100WRJI	8.20-12.4	300	1.20	0.05	0.3	0.1	R100	WR90	Al/Cu
VT100WRJL	8.20-12.4	300	1.20	0.05	0.3	0.1	R100	WR90	Al/Cu
VT100WRJU	8.20-12.4	300	1.20	0.05	0.3	0.1	R100	WR90	Al/Cu
VT120WRJI	9.84-15.0	500	1.25	0.05	0.3	0.1	R120	WR75	Al/Cu
VT120WRJL	9.84-15.0	500	1.25	0.05	0.3	0.1	R120	WR75	Al/Cu
VT120WRJU	9.84-15.0	500	1.25	0.05	0.3	0.1	R120	WR75	Al/Cu
VT140WRJI	11.9-18.0	1000	1.3	0.05	0.4	0.1	R140	WR62	Al/Cu
VT140WRJL	11.9-18.0	1000	1.3	0.05	0.4	0.1	R140	WR62	Al/Cu
VT140WRJU	11.9-18.0	1000	1.3	0.05	0.4	0.1	R140	WR62	Al/Cu
VT180WRJI	14.5-22.0	1000	1.3	0.05	0.4	0.1	R180	WR51	Al/Cu
VT180WRJL	14.5-22.0	1000	1.3	0.05	0.4	0.1	R180	WR51	Al/Cu
VT180WRJU	14.5-22.0	1000	1.3	0.05	0.4	0.1	R180	WR51	Al/Cu
VT220WRJI	17.6-26.7	2000	1.4	0.05	1.0	0.1	R220	WR42	Al/Cu
VT220WRJL	17.6-26.7	2000	1.4	0.05	1.0	0.1	R220	WR42	Al/Cu
VT220WRJU	17.6-26.7	2000	1.4	0.05	1.0	0.1	R220	WR42	Al/Cu
VT260WRJI	21.7-33.0	2000	1.4	0.05	1.0	0.1	R260	WR34	Al/Cu
VT260WRJL	21.7-33.0	2000	1.4	0.05	1.0	0.1	R260	WR34	Al/Cu
VT260WRJU	21.7-33.0	2000	1.4	0.05	1.0	0.1	R260	WR28	Al/Cu
VT320WRJI	26.3-40.0	2000	1.4	0.05	1.0	0.1	R320	WR28	Al/Cu
VT320WRJL	26.3-40.0	2000	1.4	0.05	1.0	0.1	R320	WR28	Al/Cu
VT320WRJU	26.3-40.0	2000	1.4	0.05	1.0	0.1	R320	WR28	Al/Cu

【Ordering Information】

Example Part No: VT 100 WRJL P M A

Vector Telecom ————
 WG Type: R100 ————
 Product Type: Rotary Joint ————
 WRJI (I-style),
 WRJL (L-style),
 WRJU (U-style)

Material: A=Aluminum C=Copper
 Port 2 Flange Type: FBM
 Port 1 Flange Type: FBP

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

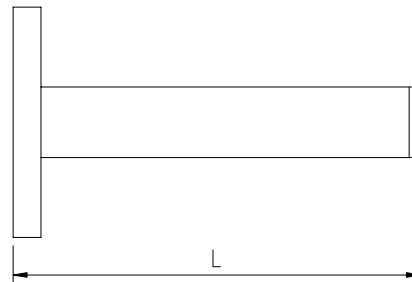


11 Waveguide Termination (Dummy Load)

11.1 Waveguide Low Power Termination



Vector Telecom's standard product line of low power terminations utilizes precision conical load elements for optimum electrical performance. This series of terminations is designed for low power input. VSWR is less than 1.05 over the full waveguide bandwidth.



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Avg Power (W)	Length (L) (mm)	WG Type		Flange	Material
					IEC	EIA		
VT3WL1.05...	0.32-0.49	1.05	2	2005	R3	WR2300	FDP/FDM	Al
VT4WL1.05...	0.35-0.53	1.05	2	1900	R4	WR2100	FDP/FDM	Al
VT5WL1.05...	0.41-0.62	1.05	2	1600	R5	WR1800	FDP/FDM	Al
VT6WL1.05...	0.49-0.75	1.05	2	1300	R6	WR1500	FDP/FDM	Al
VT8WL1.05...	0.64-0.98	1.05	2	1100	R8	WR1150	FDP/FDM	Al
VT9WL1.03...	0.75-1.15	1.03	2	660	R9	WR975	FDP/FDM	Al
VT12WL1.05...	0.96-1.46	1.05	2	680	R12	WR770	FDP/FDM	Al
VT14WL1.03...	1.13-1.73	1.03	2	570	R14	WR650	FDP/FDM	Al
VT18WL1.05...	1.45-2.20	1.05	2	550	R18	WR510	FDP/FDM	Al/Cu
VT22WL1.03...	1.72-2.61	1.03	2	470	R22	WR430	FDP/FDM	Al/Cu
VT26WL1.03...	2.17-3.30	1.03	2	350	R26	WR340	FDP/FDM	Al/Cu
VT32WL1.03...	2.60-3.95	1.03	2	278	R32	WR284	FDP/FDM	Al/Cu
VT40WL1.03...	3.22-4.90	1.03	2	275	R40	WR229	FDP/FDM	Al/Cu
VT48WL1.03...	3.94-5.99	1.03	2	170	R48	WR187	FDP/FDM	Al/Cu
VT58WL1.03...	4.64-7.05	1.03	2	135	R58	WR159	FDP/FDM	Al/Cu
VT70WL1.03...	5.38-8.17	1.03	2	180	R70	WR137	FDP/FDM	Al/Cu
VT84WL1.03...	6.57-9.99	1.03	2	150	R84	WR112	FDP/FDM	Al/Cu

Model No*	Freq Range (GHz)	VSWR (Max)	Avg Power (W)	Length (L) (mm)	WG Type		Flange	Material
					IEC	EIA		
VT100WL1.03...	8.20-12.40	1.03	2	130	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WL1.03...	9.84-15.0	1.03	2	110	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WL1.03...	11.9-18.0	1.03	2	90	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WL1.03...	14.5-22.0	1.03	2	75	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WL1.03...	17.6-26.7	1.03	2	85	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WL1.03...	21.7-33.0	1.03	2	55	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WL1.03...	26.3-40.0	1.03	2	40	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 100 WL 1.05 M A
 Vector Telecom _____
 WG Type: R100 _____
 Product Type: WG Low Power Termination _____
 Material: A=Aluminum C=Copper
 Flange Type: M=FBM100
 Max VSWR: 1.05

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

11.2 Waveguide High Power Termination



Vector Telecom manufactures a wide selection of high power terminations. Please call us and discuss your special needs with one of our sales engineers.

【Specification】

Model No*	Freq Range (GHz)	VSWR** (Max)	Avg Power (W)	WG Type		Flange	Material
				IEC	EIA		
VT14WHPL100...	1.13-1.73	1.20	100	R14	WR650	FDP/FDM	Al
VT14WHPL350...	1.13-1.73	1.20	350	R14	WR650	FDP/FDM	Al
VT14WHPL500...	1.13-1.73	1.20	500	R14	WR650	FDP/FDM	Al
VT14WHPL1000...	1.13-1.73	1.20	1000	R14	WR650	FDP/FDM	Al
VT18WHPL100...	1.45-2.20	1.20	100	R18	WR510	FDP/FDM	Al/Cu



Waveguide Termination (Dummy Load)



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Model No*	Freq Range (GHz)	VSWR** (Max)	Avg Power (W)	WG Type		Flange	Material
				IEC	EIA		
VT18WHPL300...	1.45-2.20	1.20	300	R18	WR510	FDP/FDM	Al/Cu
VT18WHPL500...	1.45-2.20	1.20	500	R18	WR510	FDP/FDM	Al/Cu
VT18WHPL1000...	1.45-2.20	1.20	1000	R18	WR510	FDP/FDM	Al/Cu
VT22WHPL100...	1.72-2.61	1.15	100	R22	WR430	FDP/FDM	Al/Cu
VT22WHPL250...	1.72-2.61	1.15	250	R22	WR430	FDP/FDM	Al/Cu
VT26WHPL300...	2.17-3.30	1.15	300	R26	WR340	FDP/FDM	Al/Cu
VT26WHPL800...	2.17-3.30	1.15	800	R26	WR340	FDP/FDM	Al/Cu
VT32WHPL250...	2.60-3.95	1.10	250	R32	WR284	FDP/FDM	Al/Cu
VT32WHPL500...	2.60-3.95	1.10	500	R32	WR284	FDP/FDM	Al/Cu
VT40WHPL300...	3.22-4.90	1.10	500	R40	WR229	FDP/FDM	Al/Cu
VT48WHPL70...	3.94-5.99	1.10	70	R48	WR187	FDP/FDM	Al/Cu
VT48WHPL100...	3.94-5.99	1.10	100	R48	WR187	FDP/FDM	Al/Cu
VT48WHPL400...	3.94-5.99	1.10	400	R48	WR187	FDP/FDM	Al/Cu
VT48WHPL500...	3.94-5.99	1.10	500	R48	WR187	FDP/FDM	Al/Cu
VT48WHPL1000...	3.94-5.99	1.10	1000	R48	WR187	FDP/FDM	Al/Cu
VT58WHPL50...	4.64-7.05	1.10	50	R58	WR159	FDP/FDM	Al/Cu
VT58WHPL800...	4.64-7.05	1.10	800	R58	WR159	FDP/FDM	Al/Cu
VT70WHPL75...	5.38-8.17	1.10	75	R70	WR137	FDP/FDM	Al/Cu
VT70WHPL150...	5.38-8.17	1.10	150	R70	WR137	FDP/FDM	Al/Cu
VT70WHPL200...	5.38-8.17	1.10	200	R70	WR137	FDP/FDM	Al/Cu
VT70WHPL250...	5.38-8.17	1.10	250	R70	WR137	FDP/FDM	Al/Cu
VT70WHPL300...	5.38-8.17	1.10	300	R70	WR137	FDP/FDM	Al/Cu
VT70WHPL500...	5.38-8.17	1.10	500	R70	WR137	FDP/FDM	Al/Cu
VT70WHPL550...	5.38-8.17	1.10	550	R70	WR137	FDP/FDM	Al/Cu
VT84WHPL300...	6.57-9.99	1.10	300	R84	WR112	FDP/FDM	Al/Cu
VT84WHPL500...	6.57-9.99	1.10	500	R84	WR112	FDP/FDM	Al/Cu
VT100WHPL100...	8.20-12.40	1.10	100	R100	WR90	FDP/FDM	Al/Cu
VT100WHPL200...	8.20-12.40	1.10	200	R100	WR90	FDP/FDM	Al/Cu
VT100WHPL300...	8.20-12.40	1.10	300	R100	WR90	FDP/FDM	Al/Cu
VT120WHPL50...	9.84-15.0	1.10	50	R120	WR75	FDP/FDM	Al/Cu
VT120WHPL75...	9.84-15.0	1.10	75	R120	WR75	FDP/FDM	Al/Cu
VT120WHPL150...	9.84-15.0	1.10	150	R120	WR75	FDP/FDM	Al/Cu
VT120WHPL200...	9.84-15.0	1.10	200	R120	WR75	FDP/FDM	Al/Cu
VT120WHPL400...	9.84-15.0	1.10	400	R120	WR75	FDP/FDM	Al/Cu
VT140WHPL50...	11.9-18.0	1.10	50	R140	WR62	FDP/FDM	Al/Cu
VT140WHPL100...	11.9-18.0	1.10	100	R140	WR62	FDP/FDM	Al/Cu



Vector Telecom

Section 1

Waveguide Components

Model No*	Freq Range (GHz)	VSWR** (Max)	Avg Power (W)	WG Type		Flange	Material
				IEC	EIA		
VT140WHPL200...	11.9-18.0	1.10	200	R140	WR62	FBP/FBM/FBE	Al/Cu
VT140WHPL300...	11.9-18.0	1.10	300	R140	WR62	FBP/FBM/FBE	Al/Cu
VT140WHPL400...	11.9-18.0	1.10	400	R140	WR62	FBP/FBM/FBE	Al/Cu
VT140WHPL500...	11.9-18.0	1.10	500	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WHPL50...	14.5-22.0	1.15	50	R180	WR51	FBP/FBM/FBE	Al/Cu
VT180WHPL500...	14.5-22.0	1.15	500	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WHPL100...	17.6-26.7	1.15	100	R220	WR42	FBP/FBM/FBE	Al/Cu
VT220WHPL200...	17.6-26.7	1.15	200	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WHPL100...	21.7-33.0	1.15	100	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WHPL30...	26.3-40.0	1.15	30	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WHPL10...	32.9-50.1	1.15	10	R400	WR22	FUGP	Cu
VT400WHPL20...	32.9-50.1	1.15	20	R400	WR22	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

**VSWR refers to 30% of waveguide bandwidth.

【Ordering Information】

Example Part No: VT 100 WHPL 300 M A

Vector Telecom ——— |
 WG Type: R100 ——— |
 Product Type: WG High Power Termination ——— |

Material: A=Aluminum C=Copper
 Flange Type: M=FBM100
 Power Handling(Max): 300W(Avg)

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



Waveguide Termination (Dummy Load)



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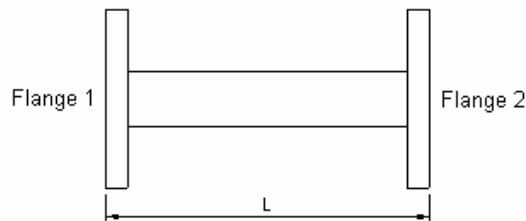
Email: sales@vectortele.com



12 Waveguide Attenuator

Vector Telecom offers a series of rectangular waveguide attenuators. Typical Attenuation values are 3dB, 6dB, 10dB, 20dB and 30dB (other attenuation values available, consult sales engineers for details). The assembly construction includes a precision element for optimum electrical performance, but note that Attenuation vs. Frequency can vary greatly depending on the attenuation at a given frequency. Waveguide Fixed Attenuators with normal and high power units are also available. For more information feel free to call us and discuss your needs with one of our sales engineers.

12.1 Waveguide Fixed Attenuator



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Power (W)	Attenuation** (dB)	WG Type		Flange	Material
					IEC	EIA		
VT14WFA...	1.13-1.73	1.20	2	3/6/10/20/30	R14	WR650	FDP/FDM	Al
VT18WFA...	1.45-2.20	1.20	2	3/6/10/20/30	R18	WR510	FDP/FDM	Al
VT22WFA...	1.72-2.61	1.20	2	3/6/10/20/30	R22	WR430	FDP/FDM	Al/Cu
VT26WFA...	2.17-3.30	1.20	2	3/6/10/20/30	R26	WR340	FDP/FDM	Al/Cu
VT32WFA...	2.60-3.95	1.15	2	3/6/10/20/30	R32	WR284	FDP/FDM	Al/Cu
VT40WFA...	3.22-4.90	1.15	2	3/6/10/20/30	R40	WR229	FDP/FDM	Al/Cu
VT48WFA...	3.94-5.99	1.15	2	3/6/10/20/30	R48	WR187	FDP/FDM	Al/Cu
VT58WFA...	4.64-7.05	1.15	2	3/6/10/20/30	R58	WR159	FDP/FDM	Al/Cu
VT70WFA...	5.38-8.17	1.15	2	3/6/10/20/30	R70	WR137	FDP/FDM	Al/Cu
VT84WFA...	6.57-9.99	1.15	2	3/6/10/20/30	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WFA...	8.20-12.40	1.15	2	3/6/10/20/30	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WFA...	9.84-15.0	1.15	2	3/6/10/20/30	R120	WR75	FBP/FBM/FBE	Al/Cu



Model No*	Freq Range (GHz)	VSWR (Max)	Power (W)	Attenuation** (dB)	WG Type		Flange	Material
					IEC	EIA		
VT140WFA...	11.9-18.0	1.15	2	3/6/10/20/30	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WFA...	14.5-22.0	1.15	2	3/6/10/20/30	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WFA...	17.6-26.7	1.20	2	3/6/10/20/30	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WFA...	21.7-33.0	1.20	2	3/6/10/20/30	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WFA...	26.3-40.0	1.20	2	3/6/10/20/30	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

** Nominal Attenuation Accuracy: $\pm 0.5\text{dB}$

Frequency Sensitivity: $\pm 0.7\text{dB}$

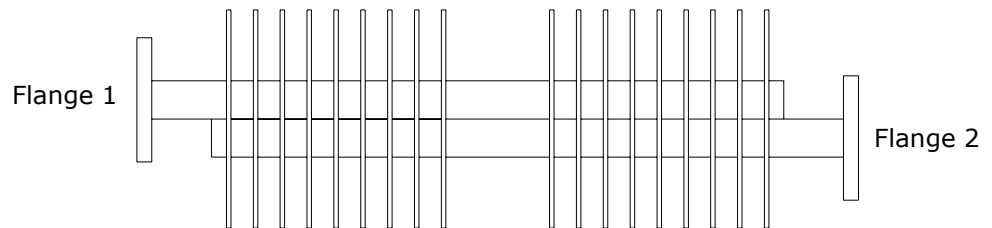
【Ordering Information】

Example Part No: VT 100 WFA 30 P M A

Vector Telecom — VT
WG Type: R100 — 100
Product Type: Waveguide Fixed Attenuator — WFA
Attenuation: 30dB — 30
Flange 1 Type: P=FBP100 — P
Flange 2 Type: M=FBM100 — M
Material: A=Aluminum C=Copper — A

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

12.2 Waveguide High Power Fixed Attenuator



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)	Power (W)	Attenuation** (dB)	WG Type		Flange	Material
					IEC	EIA		
VT48WHPFA...	5.4-5.9	1.25	50	10/20	R48	WR187	FDP/FDM	Al/Cu
VT70WHPFA...	5.85-7.025	1.20	500	55	R70	WR137	FDP/FDM	Al/Cu
VT100WHPFA...	8.5-9.6	1.10	250	10	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WHPFA...	9.84-15.0	1.15	50	10/20/30	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WHPFA...	14.5-15.5	1.25	100	40	R140	WR62	FBP/FBM/FBE	Al/Cu
VT320WHPFA...	26.3-40.0	1.25	20	10	R320	WR28	FBP/FBM/FBE	Al/Cu



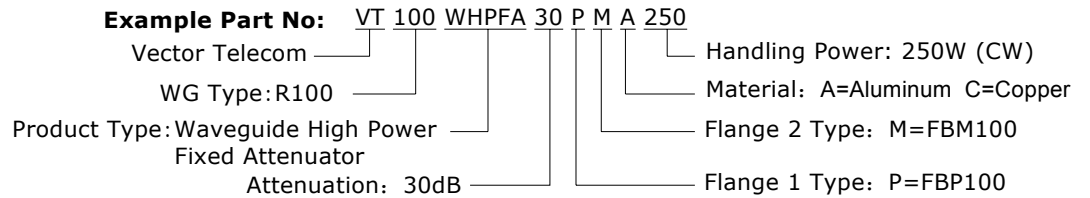
Section 1
**Waveguide
Components**

**Indicates Model Number. See Ordering Information for complete part number.*

*** Nominal Attenuation Accuracy: $\pm 0.5\text{dB}$*

Frequency Sensitivity: $\pm 0.7\text{dB}$

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

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**Waveguide
Attenuator**



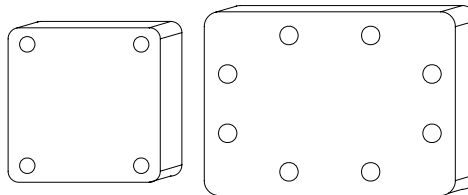
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Email: sales@vectortele.com

13 Waveguide Short

Vector Telecom offers a standard product line of waveguide short plates which provide high reflection short circuits for terminating all standard waveguides. Vector Telecom offers a cover, all-clear configuration as a standard product. Alternate materials and configurations are available upon request.

13.1 Waveguide Short Plate



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Waveguide Short



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【Specifications】

Model No*	Freq Range (GHz)	VSWR (Min)	Thickness (mm)	WG Type		Flange	Material
				IEC	EIA		
VT3WS...	0.32-0.49	60	23	R3	WR2300	FDP	Al
VT4WS...	0.35-0.53	60	23	R4	WR2100	FDP	Al
VT5WS...	0.41-0.62	60	18	R5	WR1800	FDP	Al
VT6WS...	0.49-0.75	60	18	R6	WR1500	FDP	Al
VT8WS...	0.64-0.98	60	14	R8	WR1150	FDP	Al
VT9WS...	0.75-1.15	60	14	R9	WR975	FDP	Al
VT12WS...	0.96-1.46	60	12	R12	WR770	FDP	Al
VT14WS...	1.13-1.73	60	12	R14	WR650	FDP	Al
VT18WS...	1.45-2.20	60	12	R18	WR510	FDP	Al/Cu
VT22WS...	1.72-2.61	60	10	R22	WR430	FDP	Al/Cu
VT26WS...	2.17-3.30	60	10	R26	WR340	FDP	Al/Cu
VT32WS...	2.60-3.95	60	8	R32	WR284	FDP	Al/Cu
VT40WS...	3.22-4.90	60	8	R40	WR229	FDP	Al/Cu



Model No*	Freq Range (GHz)	VSWR (Min)	Thickness (mm)	WG Type		Flange	Material
				IEC	EIA		
VT48WS...	3.94-5.99	60	7	R48	WR187	FDP	Al/Cu
VT58WS...	4.64-7.05	60	7	R58	WR159	FDP	Al/Cu
VT70WS...	5.38-8.17	60	7	R70	WR137	FDP	Al/Cu
VT84WS...	6.57-9.99	60	5	R84	WR112	FBP	Al/Cu
VT100WS...	8.20-12.40	60	5	R100	WR90	FBP	Al/Cu
VT120WS...	9.84-15.0	60	5	R120	WR75	FBP	Al/Cu
VT140WS...	11.9-18.0	60	5	R140	WR62	FBP	Al/Cu
VT180WS...	14.5-22.0	60	5	R180	WR51	FBP	Al/Cu
VT220WS...	17.6-26.7	60	4	R220	WR42	FBP	Al/Cu
VT260WS...	21.7-33.0	60	4	R260	WR34	FBP	Al/Cu
VT320WS...	26.3-40.0	60	4	R320	WR28	FBP	Al/Cu
VT400WS...	32.9-50.1	60	4	R400	WR22	FUGP	Cu
VT500WS...	39.2-59.6	60	4	R500	WR19	FUGP	Cu
VT620WS...	49.8-75.8	60	4	R620	WR15	FUGP	Cu
VT740WS...	60.5-91.9	60	4	R740	WR12	FUGP	Cu
VT900WS...	73.8-112	60	4	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

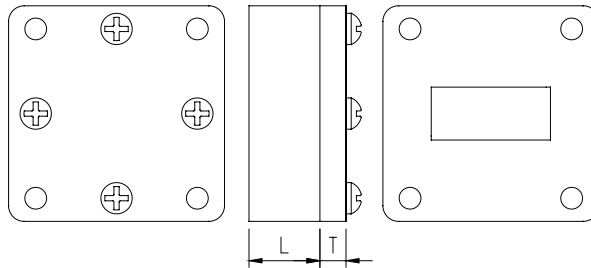
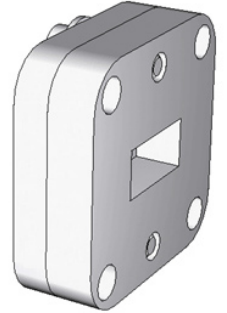
【Ordering Information】

Example Part No: VT 100 WS A
 Vector Telecom _____
 WG Type: R100 _____
 Material: A=Aluminum C=Copper
 Product Type: Waveguide Short

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

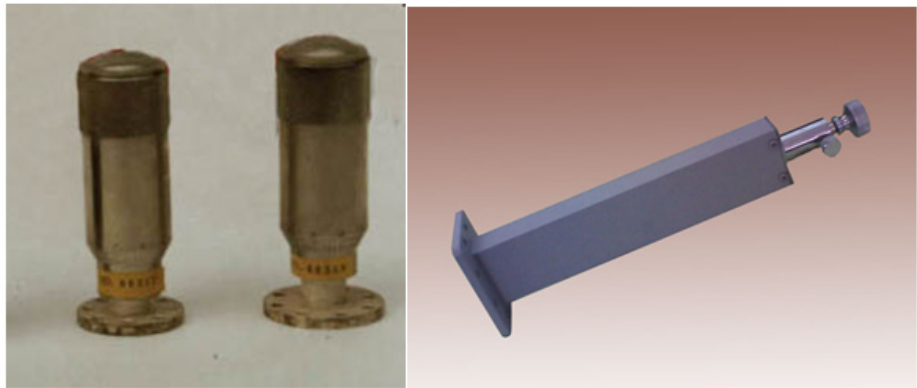
13.2 Waveguide Offset Short

Waveguide offset shorts are available on special order. These are designed to have a specific shorting distance as required.



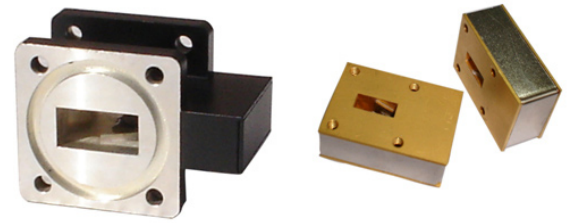
13.3 Waveguide Sliding Short

Waveguide sliding shorts are available. Please consult sales engineer for more information.



14 Waveguide Isolator

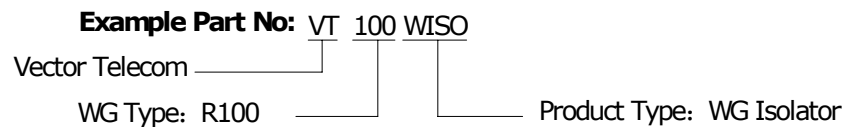
Vector Telecom offers a standard product line of waveguide isolators ranging from WR10 to WR137. For more information feel free to call us and discuss your needs with one of our sales engineers.



【Specifications】

Model No	Freq Range (GHz)	Operating Bandwidth (MHz)	VSWR (Max)	IL (dB) (Max)	Isolation (dB) (Min)	WG Type		Flange	Material
						IEC	EIA		
VT70WISO	5.38-8.17	700	1.20	0.3	20	R70	WR137	FDP/FDM	Al/Cu
VT84WISO	6.57-9.99	700	1.20	0.3	20	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WISO	8.2-12.5	800	1.20	0.3	20	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WISO	9.84-15.0	1000	1.20	0.3	20	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WISO	11.9-18.0	1000	1.20	0.3	20	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WISO	14.5-22.0	1000	1.20	0.3	20	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WISO	17.6-26.7	2000	1.20	0.3	20	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WISO	21.7-33.0	2000	1.20	0.3	20	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WISO	26.3-40.0	2000	1.20	0.3	20	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WISO	32.9-60.1	2000	1.30	0.6	20	R400	WR22	FUGP	Cu
VT500WISO	39.2-59.6	2000	1.30	0.6	20	R500	WR19	FUGP	Cu
VT620WISO	49.8-75.8	2000	1.30	0.6	20	R620	WR15	FUGP	Cu
VT740WISO	60.5-91.9	2000	1.30	0.8	20	R740	WR12	FUGP	Cu
VT900WISO	73.8-112	2000	1.30	1.0	20	R900	WR10	FUGP	Cu

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Section 1

Waveguide Components

14
Waveguide Isolator



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15 Waveguide Circulator

Vector Telecom offers a standard product line of waveguide circulators ranging from WR10 to WR137. For more information feel free to call us and discuss your needs with one of our sales engineers.



【Specifications】

Model No	Freq Range (GHz)	Operating Bandwidth (MHz)	VSWR (Max)	IL (dB) (Max)	Isolation (dB) (Min)	WG Type		Flange	Material
						IEC	EIA		
VT70WCIC	5.38-8.17	700	1.20	0.3	20	R70	WR137	FDP/FDM	Al/Cu
VT84WCIC	6.57-9.99	700	1.20	0.3	20	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WCIC	8.20-12.40	800	1.20	0.3	20	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WCIC	9.84-15.0	1000	1.20	0.3	20	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WCIC	11.9-18.0	1000	1.20	0.3	20	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WCIC	14.5-22.0	1000	1.20	0.3	20	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WCIC	17.6-26.7	2000	1.20	0.3	20	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WCIC	21.7-33.0	2000	1.20	0.3	20	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WCIC	26.3-40.0	2000	1.20	0.3	20	R320	WR28	FBP/FBM/FBE	Al/Cu
VT400WCIC	32.9-50.1	2000	1.30	0.6	20	R400	WR22	FUGP	Cu
VT500WCIC	39.2-59.6	2000	1.30	0.6	20	R500	WR19	FUGP	Cu
VT620WCIC	49.8-75.8	2000	1.30	0.6	20	R620	WR15	FUGP	Cu
VT740WCIC	60.5-91.9	2000	1.30	0.8	20	R740	WR12	FUGP	Cu
VT900WCIC	73.8-112	2000	1.30	1.0	20	R900	WR10	FUGP	Cu

【Ordering Information】

Example Part No: VT 100 WCIC

Vector Telecom

WG Type: R100

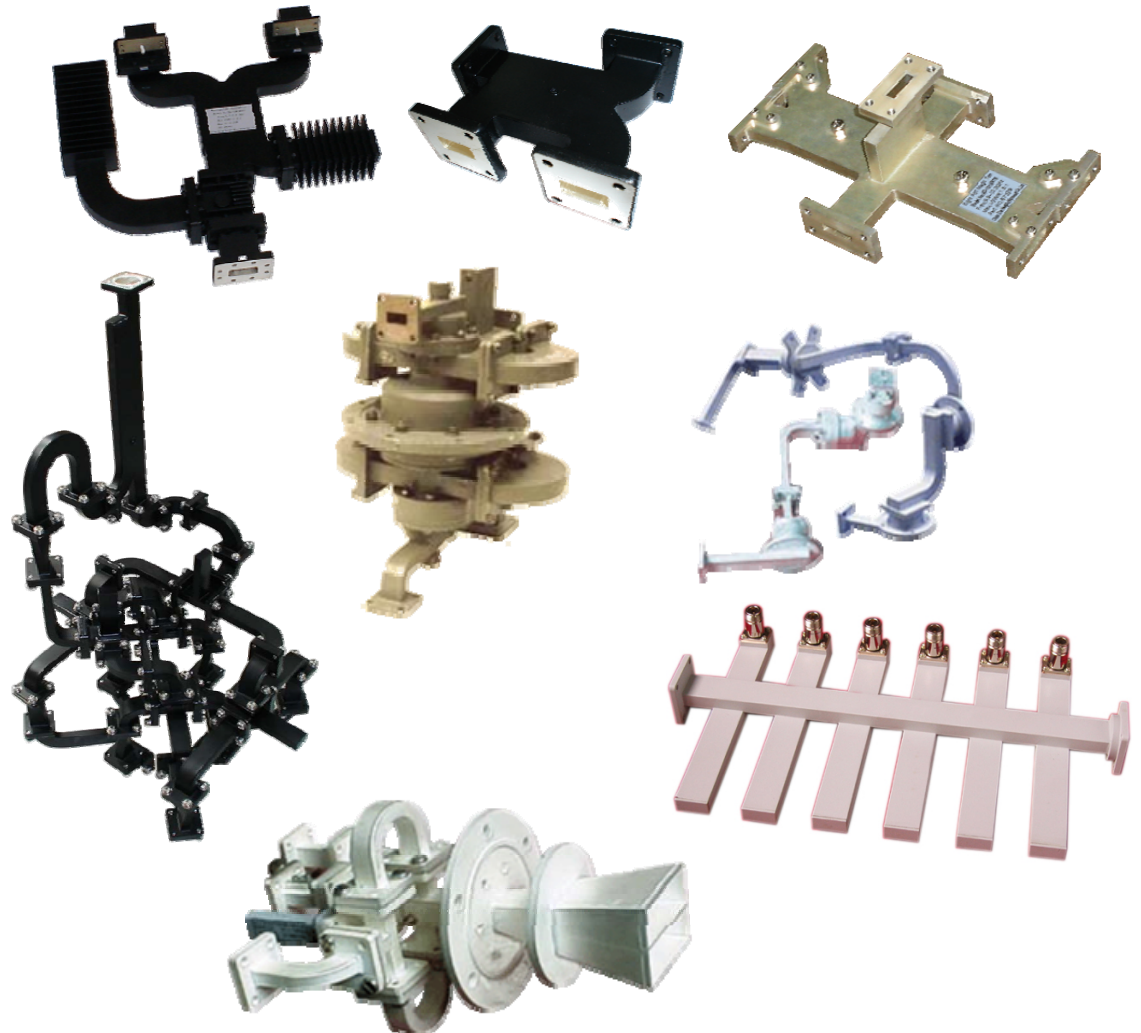
Product Type: WG Circulator

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

16 Custom Waveguide Assemblies

Vector Telecom provides a wide variety of waveguide assemblies that are custom designed, manufactured and tested to meet customer's special requirements. Please call us and discuss your needs with one of our sales engineers.

Section 1
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Components**



16
**Custom
Waveguide
Assemblies**



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Email: sales@vectortele.com

17 Coaxial Fixed Termination

Vector Telecom supplies high quality Coaxial Terminations up to 18 GHz. Our Free Standing Convection Cooled Terminations offer great flexibility for all your engineering applications. Please call us with your requirements and discuss your needs with one of our sales engineers.



【Specifications】

Model No*	Avg Power (W)	Peak Power (kW)	Freq Range (GHz)	VSWR	Coax Connector Type	Impedance (Ω)
VT124CL2S...	2	0.25	DC-12.4	1.10-1.25	SMA	50
VT040CL2S...	2	0.25	DC-4	≤ 1.20	SMA	50
VT400CL2S...	2	0.25	DC-40	1.10-1.40	SMA	50
VT180CL2S1...	2	0.25	DC-18	1.10-1.30	SMA	50
VT180CL2S2...	2	0.25	DC-18	1.05-1.30	SMA	50
VT180CL2S3...	2	0.5	DC-18	≤ 1.25	SMA	50
VT400CL5S...	5	0.5	DC-40	≤ 1.40	SMA	50
VT180CL10S...	10	0.5	DC-18	≤ 1.45	SMA	50
VT060CL2N...	2	0.5	DC-6	1.10-1.25	N,SMA,BNC,TNC,7/16	50
VT180CL2N...	2	0.5	DC-18	1.10-1.30	N,BNC,SMA,TNC,7/16	50
VT030CL2...	2	1	DC-3	≤ 1.10	7/16 (M)	50
VT080CL2N...	2	0.5	DC-8	1.10-1.25	N(M)	50
VT060CL5N1...	5	0.5	DC-6	1.10-1.30	N,BNC,SMA,TNC,7/16	50
VT060CL5N2...	5	1	DC-6	1.10-1.25	N(M)	50
VT180CL5N1...	5	0.5	DC-18	1.10-1.30	N	50
VT180CL5N2...	5	0.5	DC-18	1.10-1.30	N,BNC,SMA,TNC	50
VT060CL10N...	10	1	DC-6	1.10-1.30	N,BNC,SMA,TNC,7/16	50
VT100CL10N...	10	1	DC-10	1.10-1.45	N	50
VT180CL10N1...	10	1	DC-18	1.10-1.40	N,SMA,BNC,TNC	50
VT180CL10N2...	10	1	DC-18	1.10-1.30	N	50
VT060CL25N...	25	1	DC-6	1.10-1.25	SMA,N,7/16,TNC,BNC	50
VT100CL25N...	25	1	DC-10	1.10-1.45	N	50
VT180CL25N...	25	1	DC-18	1.15-1.35	N,SMA,TNC	50
VT060CL30N...	30	10	DC-6	1.10-1.30	N,SMA,7/16,TNC,BNC	50
VT100CL30N...	30	1	DC-10	1.10-1.45	N	50
VT040CL50N1...	50	10	DC-4	1.05-1.20	N,SMA,7/16,TNC	50





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Section 2
Coaxial
Components



Coaxial
Fixed
Termination



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Model No*	Avg Power (W)	Peak Power (kW)	Freq Range (GHz)	VSWR	Coax Connector Type	Impedance (Ω)
VT060CL50N...	50	1	DC-6	1.10-1.25	N,BNC,7/16,TNC	50
VT100CL50N...	50	1	DC-10	1.10-1.45	N	50
VT180CL50N1...	50	1	DC-18	1.10-1.45	N,SMA	50
VT180CL50N2...	50	5	DC-18	1.10-1.55	N,7/16,SMA	50
VT040CL80N...	80	10	DC-4	1.05-1.25	N,7/16,TNC	50
VT180CL80N1...	80	1	DC-18	1.15-1.45	N	50
VT180CL80N2...	80	5	DC-18	1.15-1.55	N	50
VT040CL100N1...	100	10	DC-4	1.10-1.25	N,7/16	50
VT180CL100N1...	100	5	DC-18	1.10-1.25	N	50
VT180CL100N2...	100	5	DC-18	1.10-1.55	N	50
VT040CL150N...	150	10	DC-4	1.15-1.30	N,7/16	50
VT180CL150N1...	150	10	DC-18	1.15-1.50	N	50
VT180CL150N2...	150	5	DC-18	1.15-1.55	N	50
VT040CL200N...	200	10	DC-4	1.15-1.30	N,7/16	50
VT100CL200N...	200	5	DC-10	1.10-1.35	N,7/16	50
VT040CL250N...	250	10	DC-4	1.15-1.35	N,7/16	50
VT100CL25N2...	25	5	DC-10	1.10-1.35	N,7/16	50
VT040CL300N1...	300	10	DC-4	1.15-1.40	N, 7/16	50
VT100CL300N...	300	5	DC-10	1.10-1.35	N,7/16	50
VT040CL400N...	400	10	DC-4	1.15-1.45	N,7/16	50
VT100CL400N...	400	10	DC-10	1.10-1.50	N,7/16	50
VT040CL500N1...	500	10	DC-4	1.15-1.40	N,7/16	50
VT040CL500N2...	500	5	DC-4	1.15-1.55	N,7/16	50
VT040CL800N...	800	10	DC-4	1.20-1.45	N,7/16	50
VT040CL1000N...	1000	10	DC-4	≤1.40	N,7/16,L27	50
VT040CL1500N...	1500	10	DC-4	≤1.40	N,7/16,L27	50
VT040CL2000N...	2000	10	DC-4	≤1.40	N,7/16,L27	50
VT020CL1000N...	1000	50	DC-2	≤1.30	N,7/16,L27	50
VT020CL2000N...	2000	50	DC-2	≤1.30	N,7/16,L27	50
VT020CL3000N...	3000	50	DC-2	≤1.30	L27, 7/16,L36	50
VT010CL5000N...	5000	100	DC-1	≤1.40	L27, 7/16,L52	50
VT030CL1N...	1	0.5	DC-3	≤1.20	N, NBC	75
VT030CL2N...	2	0.5	DC-3	≤1.20	N, NBC	75
VT030CL5N...	5	0.5	DC-3	≤1.20	N, NBC	75
VT030CL50N...	50	5	DC-3	≤1.05	N	50
VT030CL150N...	150	5	DC-3	≤1.05	N	50



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Section 2

Coaxial Components



Coaxial Fixed Termination



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Model No*	Avg Power (W)	Peak Power (kW)	Freq Range (GHz)	VSWR	Coax Connector Type	Impedance (Ω)
VT085CL30N...	30	5	DC-8.5	≤ 1.30	N,SMA	50
VT180CL50N3...	50	5	DC-18	≤ 1.55	N,SMA	50
VT180CL75N...	75	5	DC-18	≤ 1.55	N,SMA	50
VT180CL150N3...	150	5	DC-18	≤ 1.55	N	50
VT040CL50N2...	50	10	DC-4	≤ 1.30	N	50
VT040CL100N2...	100	10	DC-4	≤ 1.30	N	50
VT040CL300N2...	300	10	DC-4	≤ 1.40	N	50
VT180CL50N4...	50	5	DC-18	≤ 1.55	N	50
VT180CL100N3...	100	5	DC-18	≤ 1.55	N	50
VT180CL200N...	200	5	DC-18	≤ 1.55	N	50
VT0820CL300N...	300	5	0.8-2	≤ 1.20	N	50
VT0820CL350N...	350	5	0.8-2	≤ 1.20	N	50
VT1214CL300N...	300	12	1.2-1.4	≤ 1.20	N	50
VT040CL25N...	25	1	DC-4	≤ 1.20	N	50
VT040CL30N...	30	1	DC-4	≤ 1.20	N	50
VT040CL50N3...	50	1	DC-4	≤ 1.20	N	50
VT040CL80N...	80	1	DC-4	≤ 1.20	N	50
VT040CL100N3...	100	5	DC-4	≤ 1.20	N	50

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 040 CL 200 N J

Vector Telecom _____

Freq Range: 0-4GHz _____

Product Type: Coaxial Termination _____

J=Male, K=Female

Coax Connector Type: N=Type N, S=SMA

Avg Power: 200W

18 Coaxial Fixed Attenuator

Vector Telecom supplies a wide selection of high quality Fixed Attenuators ranging from 2 W to 10 kW in standard Attenuation values of 3, 6, 10, 20, 30, 40 and 50 dB. Please call us with your requirements and discuss your needs with one of our sales engineers.



【Specifications】

Model No*	Avg Power (W)	Peak Power (kW)	Freq Range (GHz)	VSWR	Nom Attenuation Value(dB)	Coax Connector Type	Impedance (Ω)
VT180CFA2S1...	2	0.5	DC-18	1.15-1.35	1-6,7-8,9-12	SMA	50
VT180CFA2S2...	2	0.5	DC-18	1.15-1.35	1-9,10,20,30	SMA	50
VT180CFA2S3...	2	0.5	DC-18	1.10-1.30	1-9,10,20,30	SMA	50
VT265CFA2S...	2	0.5	DC-26.5	1.10-1.35	1-9,10,20,30	SMA	50
VT180CFA2S4...	2	0.5	DC-18	1.15-1.35	1-9,10,20,30	SMA	50
VT180CFA3N...	3	0.5	DC-18	1.15-1.35	40,50,60,70,80,90	N,SMA,TNC	50
VT180CFA5S...	5	0.5	DC-18	1.15-1.40	3,6,10,20	SMA	50
VT180CFA10S...	10	0.5	DC-18	1.15-1.40	3,6,10,20,30	SMA	50
VT040CFA2N...	2	0.5	DC-4	1.10-1.20	1-9,10,20,30,40	N,BNC,SMA,TNC,L16	50
VT180CFA2N1...	2	0.5	DC-18	1.15-1.35	1-9,10,20,30,40	N,SMA	50
VT180CFA2N2...	2	0.5	DC-18	1.15-1.35	50,60,70,80,90	N,SMA	50
VT040CFA5N...	5	0.5	DC-4	1.10-1.20	1-9,10,20,30,40	N,BNC,SMA,TNC	50
VT180CFA5N1...	5	0.5	DC-18	1.15-1.35	10,20,30,40	N,SMA	50
VT180CFA5N2...	5	0.5	DC-18	1.15-1.35	50,60,70,80,90	N,SMA	50
VT040CFA10N...	10	1	DC-4	1.10-1.20	1-9,10,20,30,40	N,SMA,TNC,BNC,7/16	50
VT180CFA10N1...	10	1	DC-18	1.15-1.35	10,20,30,40	N,SMA	50
VT180CFA10N2...	10	1	DC-18	1.15-1.35	10,20,30,40,50,60,70,80,90	N,SMA,TNC	50
VT040CFA25N...	25	1	DC-4	1.10-1.20	1-9,10,20,30,40,50	N,SMA,TNC,BNC	50
VT180CFA25N1...	25	1	DC-18	1.15-1.35	10,20,30,40	N,SMA,TNC,BNC	50
VT180CFA25N2...	25	1	DC-18	1.10-1.40	10,20,30,40,50,60,70,80,90	N,SMA,TNC,BNC	50
VT040CFA30N...	30	1	DC-4	1.10-1.20	1-9,10,20,30,40	N,SMA,7/16,TNC,BNC	50
VT040CFA50N1...	50	10	DC-4	1.10-1.35	10,20,30,40,50	N,SMA,7/16,TNC,BNC	50
VT040CFA50N...	50	10	DC-4	1.10-1.20	10,20,30,40	N,SMA,7/16,TNC,BNC	50
VT180CFA50N...	50	10	DC-18	1.15-1.35	10,20,30,40	N,SMA,7/16,TNC,BNC	50

Section 2

Coaxial
Components

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Coaxial
Fixed
Attenuator



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Section 2
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Model No*	Avg Power (W)	Peak Power (kW)	Freq Range (GHz)	VSWR	Nom Attenuation Value(dB)	Coax Connector Type	Impedance (Ω)
VT100CFA50N1...	50	5	DC-10	1.10-1.35	3/6,10,20,30,40	N,7/16	50
VT100CFA50N2...	50	5	DC-10	1.10-1.35	3/6,10,20,30,40	N,7/16	50
VT040CFA80N...	80	10	DC-4	1.10-1.35	10,20,30,40,50	N,7/16,TNC,BNC	50
VT180CFA80N...	80	1	DC-18	1.10-1.45	10,20,30,40	N,SMA	50
VT100CFA80N...	80	5	DC-10	1.10-1.35	3/6,10,20,30,40	N,7/16	50
VT040CFA100N1...	100	10	DC-4	1.10-1.35	10,20,30,40,50	N,7/16	50
VT180CFA100N...	100	1	DC-18	1.20-1.45	10,20,30,40	N,SMA	50
VT100CFA100N1...	100	5	DC-10	1.10-1.35	20,30,40,50	N,7/16	50
VT040CFA150N...	150	10	DC-4	1.15-1.35	10,20,30,40,50	N,7/16	50
VT180CFA150N...	150	1	DC-18	1.20-1.60	30,40	N	50
VT100CFA150N...	150	5	DC-10	1.10-1.35	20,30,40	N,7/16	50
VT040CFA200N...	200	10	DC-4	1.15-1.40	10,20,30,40,50	N,7/16	50
VT100CFA200N1...	200	5	DC-10	1.15-1.45	10,20,30,40,50	N,7/16	50
VT040CFA250N...	250	10	DC-4	1.15-1.40	10,20,30,40,50	N,7/16	50
VT100CFA250N...	250	5	DC-10	1.15-1.45	10,20,30,40	N,7/16	50
VT040CFA300N1...	300	10	DC-4	1.15-1.50	10,20,30,40,50	N,7/16	50
VT100CFA300N...	300	5	DC-10	1.25-1.45	30,40	N	50
VT040CFA400N...	400	10	DC-4	1.20-1.50	10,20,30,40,50	N,7/16	50
VT080CFA400N...	400	5	DC-8	1.25-1.45	40,50	N	50
VT040CFA500N...	500	10	DC-4	1.20-1.50	10,20,30,40,50	N,7/16	50
VT075CFA500N...	500	5	DC-7.5	1.25-1.50	40,50	N	50
VT040CFA800N...	800	10	DC-4	1.20-1.50	40,50,60	N,7/16	50
VT030CFA1000N...	1000	10	DC-3	≤1.40	40,50	N,L27,7/16	50
VT030CFA1500N...	1500	10	DC-3	≤1.40	40,50	N,L27,7/16	50
VT030CFA2000N...	2000	10	DC-3	≤1.40	40,50	N,L27,7/16	50
VT020CFA1000N...	1000	50	DC-2	≤1.30	30,40,50	N,L27,7/16	50
VT020CFA2000N...	2000	50	DC-2	≤1.30	30,40,50	N,L27,7/16	50
VT020CFA3000N...	3000	50	DC-2	≤1.30	30,40,50	N,L27,7/16	50
VT010CFA4000N...	4000	100	DC-1	≤1.40	30,40,50	N,L27,7/16	50
VT010CFA5000N...	5000	100	DC-1	≤1.40	30,40,50	L29,L36,L50	50
VT010CFA10000N...	10000	200	DC-1	≤1.40	30,40,50	L29,L36,L50	50
VT010CFA1F1...	1	0.5	DC-1	≤1.15	10,20,30,40	F,N	75
VT010CFA1F2...	1	0.5	DC-1	≤1.10	1,2,4,8,16,20	F	75
VT030CFA2N...	2	0.5	DC-3	≤1.25	1-9,10,20,30	N,BNC	75
VT030CFA5N...	5	0.5	DC-3	≤1.25	1-9,10,20,30	N,BNC	75
VT040CFA50N2...	50	10	DC-4	≤1.35	3,6,10,20,30,40	N,SMA	50
VT040CFA100N2...	100	10	DC-4	≤1.40	3,6,10,20,30,40	N,SMA	50
VT040CFA300N2...	300	10	DC-4	≤1.40	3,6,10,20,30,40	N,SMA	50
VT100CFA50N3...	50	10	DC-10	≤1.35	10,20,30,40	N,SMA	50

Model No*	Avg Power (W)	Peak Power (kW)	Freq Range (GHz)	VSWR	Nom Attenuation Value(dB)	Coax Connector Type	Impedance (Ω)
VT100CFA100N2...	100	10	DC-10	≤1.40	10,20,30,40	N,SMA	50
VT100CFA200N2...	200	10	DC-10	≤1.40	10,20,30,40	N,SMA	50

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】

Example Part No: VT 040 CFA 200 N J K 30

Vector Telecom ————

Freq Range: 0-4GHz ————

Product Type: Coaxial Fixed Attenuator ————

Avg Power: 200W ————

Attenuation: 30dB

Output Connector Type: J=Male, K=Female

Input Connector Type: J=Male, K=Female

Coax Connector Type: N=Type N, S=SMA

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Coaxial Fixed Attenuator



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19 Standard Gain Horn Antenna

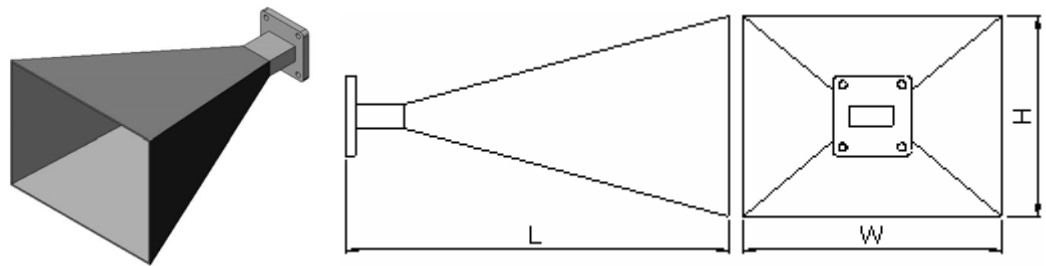
Vector Telecom manufactures a high quality line of standard gain horn antennas that are linearly polarized, lightweight and corrosion resistant. The most common Gain values available are 10, 15, 20, 25dB. Other Gain values and Horn sizes can be designed to your requirement.



Please call us with your specification and discuss your needs with one of our sales engineers.

19.1 Standard Gain Horn Antenna, 10 dB

Style 1 - Waveguide Input



【Specifications】

Model No	Freq Range (GHz)	Gain* (dB)	3dB Beamwidth* (Nom)	Dimensions (mm)			WG Type		Flange
				L	W	H	IEC	EIA	
VT3HA10	0.32-0.49	10	55°	1600	1198	955	R3	WR2300	FDP
VT4HA10	0.35-0.53	10	55°	1400	1006	726	R4	WR2100	FDP
VT5HA10	0.41-0.62	10	55°	1300	906	656	R5	WR1800	FDP
VT6HA10	0.49-0.75	10	55°	1100	760	556	R6	WR1500	FDP
VT8HA10	0.64-0.98	10	55°	1200	606	436	R8	WR1150	FDP
VT9HA10	0.75-1.15	10	55°	1000	506	366	R9	WR975	FDP
VT12HA10	0.96-1.46	10	55°	635	364	274	R12	WR770	FDP
VT14HA10	1.13-1.73	10	55°	545	315	235	R14	WR650	FDP
VT18HA10	1.45-2.20	10	55°	425	249	184	R18	WR510	FDP
VT22HA10	1.72-2.61	10	55°	345	209	154	R22	WR430	FDP
VT26HA10	2.17-3.30	10	55°	270	163	123	R26	WR340	FDP
VT32HA10	2.60-3.95	10	55°	230	143	103	R32	WR284	FDP
VT40HA10	3.22-4.90	10	55°	185	130	88	R40	WR229	FDP
VT48HA10	3.94-5.99	10	55°	150	98	73	R48	WR187	FDP
VT58HA10	4.64-7.05	10	55°	125	83	63	R58	WR159	FDP
VT70HA10	5.38-8.17	10	55°	110	67	52	R70	WR137	FDP
VT84HA10	6.57-9.99	10	55°	90	57	42	R84	WR112	FBP
VT100HA10	8.20-12.40	10	55°	75	47	41	R100	WR90	FBP
VT120HA10	9.84-15.0	10	55°	65	43	33	R120	WR75	FBP
VT140HA10	11.9-18.0	10	55°	60	37	27	R140	WR62	FBP
VT180HA10	14.5-22.0	10	55°	47	32	22	R180	WR51	FBP
VT220HA10	17.6-26.7	10	55°	42	25	18	R220	WR42	FBP

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Standard Gain Horn Antenna



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Model No	Freq Range (GHz)	Gain* (dB)	3dB Beamwidth* (Nom)	Dimensions (mm)			WG Type		Flange
				L	W	H	IEC	EIA	
VT260HA10	21.7-33.0	10	55°	39	22	17	R260	WR34	FBP
VT320HA10	26.5-40.0	10	55°	35	17	15	R320	WR28	FBP
VT400HA10	32.9-50.1	10	55°	36	10.8	7.9	R400	WR22	FUGP
VT500HA10	39.2-59.6	10	55°	40	9	6.4	R500	WR19	FUGP
VT620HA10	49.8-75.8	10	55°	40	7.5	5.3	R620	WR15	FUGP
VT740HA10	60.5-91.9	10	55°	20	5.9	4.5	R740	WR12	FUGP
VT900HA10	73.8-112	10	55°	20	5.3	4	R900	WR10	FUGP

*Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

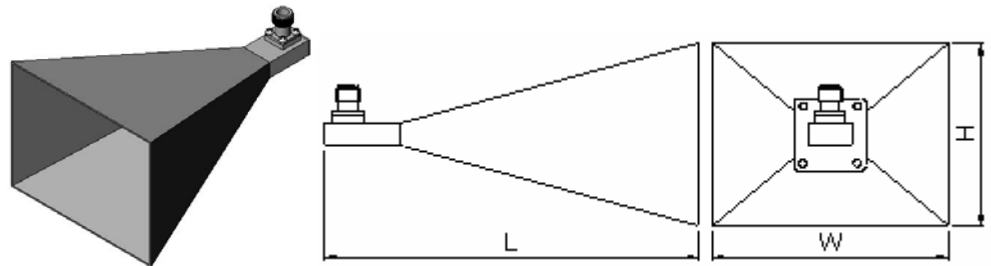
Example Part No: VT 100 HA 10

Vector Telecom ——— Gain: 10dB

WG Type: R100 ——— Product Type: Standard Gain Horn Antenna with Waveguide Input

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 2 - Built-in Coaxial Input



【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)			WG Type		Connector
				L	W	H	IEC	EIA	
VT3HA10N...	0.32-0.49	10	55°	1600	1198	955	R3	WR2300	N Type
VT4HA10N...	0.35-0.53	10	55°	1400	1006	726	R4	WR2100	N Type
VT5HA10N...	0.41-0.62	10	55°	1300	906	656	R5	WR1800	N Type
VT6HA10N...	0.49-0.75	10	55°	1100	760	556	R6	WR1500	N Type
VT8HA10N...	0.64-0.98	10	55°	1200	606	436	R8	WR1150	N Type
VT9HA10N...	0.75-1.15	10	55°	1000	506	366	R9	WR975	N Type
VT12HA10N...	0.96-1.46	10	55°	635	364	274	R12	WR770	N Type
VT14HA10N...	1.13-1.73	10	55°	545	315	235	R14	WR650	N Type
VT18HA10N...	1.45-2.20	10	55°	425	249	184	R18	WR510	N Type
VT22HA10N...	1.72-2.61	10	55°	345	209	154	R22	WR430	N Type
VT26HA10N...	2.17-3.30	10	55°	270	163	123	R26	WR340	N Type
VT32HA10N...	2.60-3.95	10	55°	230	143	103	R32	WR284	N Type
VT40HA10N...	3.22-4.90	10	55°	185	130	88	R40	WR229	N Type
VT48HA10N...	3.94-5.99	10	55°	150	98	73	R48	WR187	N Type

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Standard Gain Horn Antenna



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Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)			WG Type		Connector
				L	W	H	IEC	EIA	
VT58HA10N...	4.64-7.05	10	55°	125	83	63	R58	WR159	N Type
VT70HA10N...	5.38-8.17	10	55°	110	67	52	R70	WR137	N Type
VT84HA10N...	6.57-9.99	10	55°	90	57	42	R84	WR112	N Type
VT100HA10N...	8.20-12.40	10	55°	75	47	41	R100	WR90	N Type
VT120HA10S...	9.84-15.0	10	55°	65	43	33	R120	WR75	SMA
VT140HA10S...	11.9-18.0	10	55°	60	37	27	R140	WR62	SMA
VT180HA10S...	14.5-22.0	10	55°	47	32	22	R180	WR51	SMA
VT220HA10S...	17.6-26.7	10	55°	42	25	18	R220	WR42	SMA
VT260HA10K...	21.7-33.0	10	55°	39	22	17	R260	WR34	K2.92mm
VT320HA10K...	26.5-40.0	10	55°	35	17	15	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

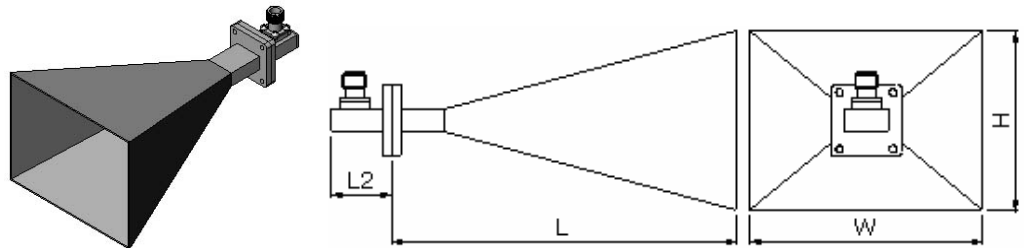
**Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

Example Part No: VT 100 HA 10 N K
 Vector Telecom ——— J=Male, K=Female
 WG Type: R100 ——— Coax Connector Type: N=Type N,
 Product Type: Standard Gain Horn Antenna ——— Gain: 10dB S=SMA, 2.92=K2.92mm
 with Built-in Coax Input

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 3 - with Coaxial Connector



【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)				WG Type		Connector
				L	L2	W	H	IEC	EIA	
VT3HA10+N...	0.32-0.49	10	55°	1600	400	1198	955	R3	WR2300	N Type
VT4HA10+N...	0.35-0.53	10	55°	1400	380	1006	726	R4	WR2100	N Type
VT5HA10+N...	0.41-0.62	10	55°	1300	350	906	656	R5	WR1800	N Type
VT6HA10+N...	0.49-0.75	10	55°	1100	300	760	556	R6	WR1500	N Type
VT8HA10+N...	0.64-0.98	10	55°	1200	260	606	436	R8	WR1150	N Type
VT9HA10+N...	0.75-1.15	10	55°	1000	231	506	366	R9	WR975	N Type
VT12HA10+N...	0.96-1.46	10	55°	635	166	364	274	R12	WR770	N Type
VT14HA10+N...	1.13-1.73	10	55°	545	150	315	235	R14	WR650	N Type
VT18HA10+N...	1.45-2.20	10	55°	425	120	249	184	R18	WR510	N Type

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)				WG Type		Connector
				L	L2	W	H	IEC	EIA	
VT22HA10+N...	1.72-2.61	10	55°	345	100	209	154	R22	WR430	N Type
VT26HA10+N...	2.17-3.30	10	55°	270	90	163	123	R26	WR340	N Type
VT32HA10+N...	2.60-3.95	10	55°	230	72	143	103	R32	WR284	N Type
VT40HA10+N...	3.22-4.90	10	55°	185	65	130	88	R40	WR229	N Type
VT48HA10+N...	3.94-5.99	10	55°	150	54	98	73	R48	WR187	N Type
VT58HA10+N...	4.64-7.05	10	55°	125	50	83	63	R58	WR159	N Type
VT70HA10+N...	5.38-8.17	10	55°	110	48	67	52	R70	WR137	N Type
VT84HA10+N...	6.57-9.99	10	55°	90	40	57	42	R84	WR112	N Type
VT100HA10+N...	8.20-12.40	10	55°	75	38	47	41	R100	WR90	N Type
VT120HA10+S...	9.84-15.0	10	55°	65	30	43	33	R120	WR75	SMA
VT140HA10+S...	11.9-18.0	10	55°	60	27	37	27	R140	WR62	SMA
VT180HA10+S...	14.5-22.0	10	55°	47	27	32	22	R180	WR51	SMA
VT220HA10+S...	17.6-26.7	10	55°	42	27	25	18	R220	WR42	SMA
VT260HA10+K...	21.7-33.0	10	55°	39	25	22	17	R260	WR34	K2.92mm
VT320HA10+K...	26.5-40.0	10	55°	35	25	17	15	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

**Gain and 3dB Beamwidth values have been calculated by computer simulation.

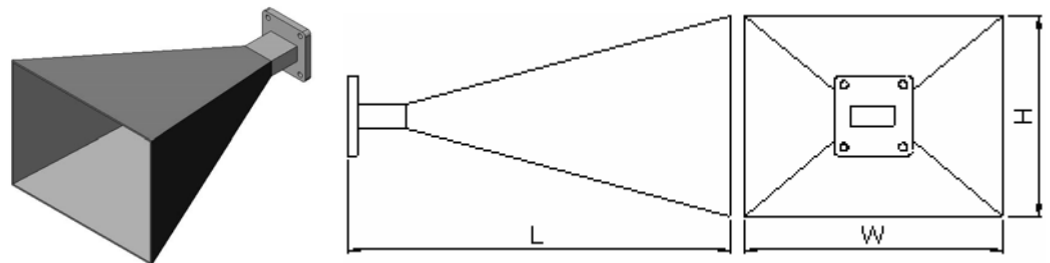
【Ordering Information】

Example Part No: VT 100 HA 10 +N K
 Vector Telecom ——— |
 WG Type: R100 ——— |
 Product Type: Standard Gain Horn Antenna with Coaxial Connector ——— |
 Gain: 10dB ——— |
 J=Male, K=Female ——— |
 Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm ——— |

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

19.2 Standard Gain Horn Antenna, 15 dB

Style 1 – Waveguide Input



19

Standard
Gain Horn
Antenna



Vector Telecom Pty Ltd

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【Specifications】

Model No	Freq Range (GHz)	Gain* (dB)	3dB Beamwidth* (Nom)	Dimensions (mm)			WG Type		Flange
				L	W	H	IEC	EIA	
VT9HA15	0.75-1.15	15	30°	619	834	619	R9	WR975	FDP
VT12HA15	0.96-1.46	15	30°	650	681	506	R12	WR770	FDP
VT14HA15	1.13-1.73	15	30°	410	563	423	R14	WR650	FDP
VT18HA15	1.45-2.20	15	30°	400	441	327	R18	WR510	FDP
VT22HA15	1.72-2.61	15	30°	300	374	278	R22	WR430	FDP
VT26HA15	2.17-3.30	15	30°	294	309	238	R26	WR340	FDP
VT32HA15	2.60-3.95	15	30°	270	224	169	R32	WR284	FDP
VT40HA15	3.22-4.90	15	30°	260	211	148	R40	WR229	FDP
VT48HA15	3.94-5.99	15	30°	210	168	118	R48	WR187	FDP
VT58HA15	4.64-7.05	15	30°	150	138	103	R58	WR159	FDP
VT70HA15	5.38-8.17	15	30°	170	143	113	R70	WR137	FDP
VT84HA15	6.57-9.99	15	30°	140	102	71	R84	WR112	FBP
VT100HA15	8.20-12.40	15	30°	105	84	60	R100	WR90	FBP
VT120HA15	9.84-15.0	15	30°	90	68	48	R120	WR75	FBP
VT140HA15	11.9-18.0	15	30°	60	50	35	R140	WR62	FBP
VT180HA15	14.5-22.0	15	30°	60	44	34	R180	WR51	FBP
VT220HA15	17.6-26.7	15	30°	48	34	24.5	R220	WR42	FBP
VT260HA15	21.7-33.0	15	30°	42	31	22	R260	WR34	FBP
VT320HA15	26.5-40.0	15	30°	36	20.2	16.6	R320	WR28	FBP
VT400HA15	32.9-50.1	15	30°	30	20.5	14	R400	WR22	FUGP
VT500HA15	39.2-59.6	15	30°	25	17	12	R500	WR19	FUGP
VT620HA15	49.8-75.8	15	30°	40	13.5	10	R620	WR15	FUGP
VT740HA15	60.5-91.9	15	30°	25	11	7.07	R740	WR12	FUGP
VT900HA15	73.8-112	15	30°	25	10.4	7.9	R900	WR10	FUGP

*Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

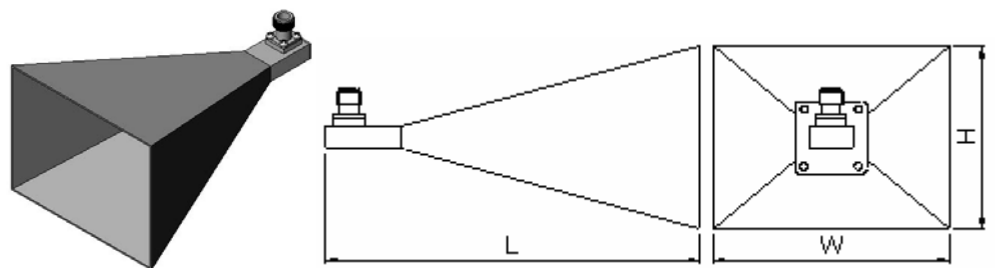
Example Part No: VT 100 HA 15

Vector Telecom — Gain: 15dB

WG Type: R100 — Product Type: Standard Gain Horn Antenna with Waveguide Input

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 2 — Built-in Coaxial Input





【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)			WG Type		Connector
				L	W	H	IEC	EIA	
VT9HA15N...	0.75-1.15	15	30°	619	834	619	R9	WR975	N Type
VT12HA15N...	0.96-1.46	15	30°	818	661	491	R12	WR770	N Type
VT14HA15N...	1.13-1.73	15	30°	580	563	423	R14	WR650	N Type
VT18HA15N...	1.45-2.20	15	30°	400	441	327	R18	WR510	N Type
VT22HA15N...	1.72-2.61	15	30°	400	373	277	R22	WR430	N Type
VT26HA15N...	2.17-3.30	15	30°	325	309	238	R26	WR340	N Type
VT32HA15N...	2.60-3.95	15	30°	292	224	169	R32	WR284	N Type
VT40HA15N...	3.22-4.90	15	30°	290	211	148	R40	WR229	N Type
VT48HA15N...	3.94-5.99	15	30°	230	168	118	R48	WR187	N Type
VT58HA15N...	4.64-7.05	15	30°	200	138	103	R58	WR159	N Type
VT70HA15N...	5.38-8.17	15	30°	190	143	113	R70	WR137	N Type
VT84HA15N...	6.57-9.99	15	30°	150	102	71	R84	WR112	N Type
VT100HA15N...	8.20-12.40	15	30°	123	84	60	R100	WR90	N Type
VT120HA15S...	9.84-15.0	15	30°	100	68	48	R120	WR75	SMA
VT140HA15S...	11.9-18.0	15	30°	80	50	35	R140	WR62	SMA
VT180HA15S...	14.5-22.0	15	30°	77	44	34	R180	WR51	SMA
VT220HA15S...	17.6-26.7	15	30°	67	34	24.5	R220	WR42	SMA
VT260HA15K...	21.7-33.0	15	30°	60	31	22	R260	WR34	K2.92mm
VT320HA15K...	26.5-40.0	15	30°	55	20.2	16.6	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

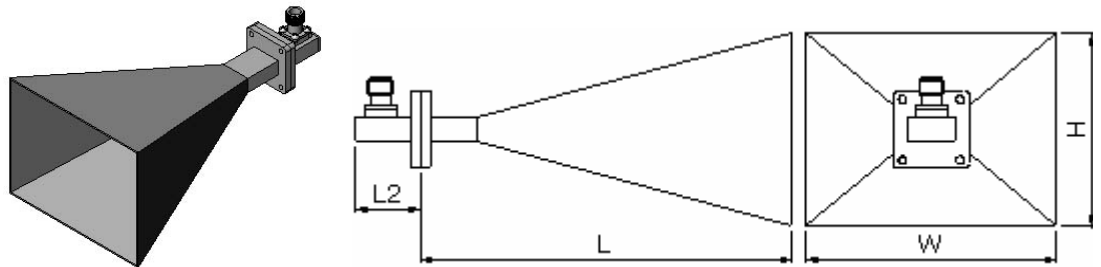
**Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

Example Part No: VT 100 HA 15 N K
 Vector Telecom ——— |
 WG Type: R100 ——— |
 Product Type: Standard Gain Horn Antenna with Built-in Coax Input ——— |
 Gain: 15dB ——— |
 J=Male, K=Female ——— |
 Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm ——— |

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 3 — with Coaxial Connector





【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)				WG Type		Connector
				L	L2	W	H	IEC	EIA	
VT9HA15+N...	0.75-1.15	15	30°	619	231	576	456	R9	WR975	N Type
VT12HA15+N...	0.96-1.46	15	30°	650	166	661	491	R12	WR770	N Type
VT14HA15+N...	1.13-1.73	15	30°	410	150	563	423	R14	WR650	N Type
VT18HA15+N...	1.45-2.20	15	30°	400	120	441	327	R18	WR510	N Type
VT22HA15+N...	1.72-2.61	15	30°	300	100	373	277	R22	WR430	N Type
VT26HA15+N...	2.17-3.30	15	30°	294	90	309	238	R26	WR340	N Type
VT32HA15+N...	2.60-3.95	15	30°	270	72	224	169	R32	WR284	N Type
VT40HA15+N...	3.22-4.90	15	30°	260	65	211	148	R40	WR229	N Type
VT48HA15+N...	3.94-5.99	15	30°	210	54	168	118	R48	WR187	N Type
VT58HA15+N...	4.64-7.05	15	30°	150	50	138	103	R58	WR159	N Type
VT70HA15+N...	5.38-8.17	15	30°	170	48	143	113	R70	WR137	N Type
VT84HA15+N...	6.57-9.99	15	30°	140	40	102	71	R84	WR112	N Type
VT100HA15+N...	8.20-12.40	15	30°	105	38	84	60	R100	WR90	N Type
VT120HA15+S...	9.84-15.0	15	30°	90	30	68	48	R120	WR75	SMA
VT140HA15+S...	11.9-18.0	15	30°	60	27	50	35	R140	WR62	SMA
VT180HA15+S...	14.5-22.0	15	30°	60	27	44	34	R180	WR51	SMA
VT220HA15+S...	17.6-26.7	15	30°	48	27	34	24.5	R220	WR42	SMA
VT260HA15+K...	21.7-33.0	15	30°	42	25	31	22	R260	WR34	K2.92mm
VT320HA15+K...	26.5-40.0	15	30°	36	25	20.2	16.6	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

**Gain and 3dB Beamwidth values have been calculated by computer simulation.

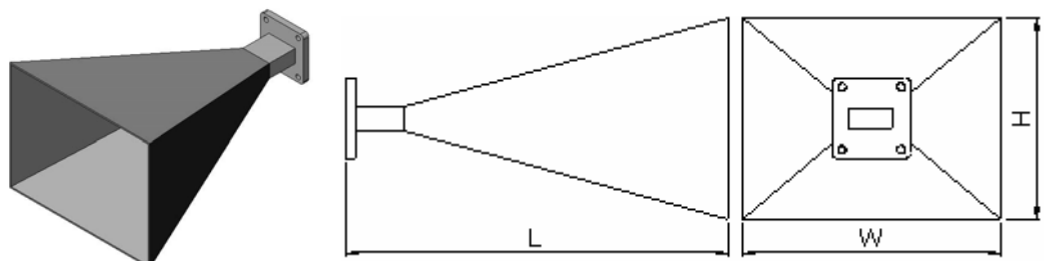
【Ordering Information】

Example Part No: VT 100 HA 15 +N K
 Vector Telecom ——— J=Male, K=Female
 WG Type: R100 ——— Coax Connector Type: N=Type N,
 Product Type: Standard Gain Horn Antenna ——— Gain: 15dB S=SMA, 2.92=K2.92mm
 with Coaxial Connector

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

19.3 Standard Gain Horn Antenna, 20 dB

Style 1 – Waveguide Input



【Specifications】

Model No	Freq Range (GHz)	Gain* (dB)	3dB Beamwidth* (Nom)	Dimensions (mm)			WG Type		Flange
				L	W	H	IEC	EIA	
VT32HA20	2.60-3.95	20	18°	550	405	325	R32	WR284	D Type
VT40HA20	3.22-4.90	20	18°	388	345	264	R40	WR229	D Type
VT48HA20	3.94-5.99	20	18°	350	274	212	R48	WR187	D Type
VT58HA20	4.64-7.05	20	18°	265	225	173	R58	WR159	D Type
VT70HA20	5.38-8.17	20	18°	290	197	153	R70	WR137	D Type
VT84HA20	6.57-9.99	20	18°	230	172	128	R84	WR112	B Type
VT100HA20	8.20-12.40	20	18°	200	138	107	R100	WR90	B Type
VT120HA20	9.84-15.0	20	18°	155	108	83	R120	WR75	B Type
VT140HA20	11.9-18.0	20	18°	135	93	72	R140	WR62	B Type
VT180HA20	14.5-22.0	20	18°	110	77	60	R180	WR51	B Type
VT220HA20	17.6-26.7	20	18°	90	63.5	49.4	R220	WR42	B Type
VT260HA20	21.7-33.0	20	18°	95	54	42	R260	WR34	B Type
VT320HA20	26.5-40.0	20	18°	70	40.5	32	R320	WR28	B Type
VT400HA20	32.9-50.1	20	18°	51.4	35	27	R400	WR22	FUGP
VT500HA20	39.2-59.6	20	18°	70	31.4	25.3	R500	WR19	FUGP
VT620HA20	49.8-75.8	20	18°	36.4	23	18	R620	WR15	FUGP
VT740HA20	60.5-91.9	20	18°	31.4	20	16	R740	WR12	FUGP
VT900HA20	73.8-112	20	18°	31.4	16	13	R900	WR10	FUGP

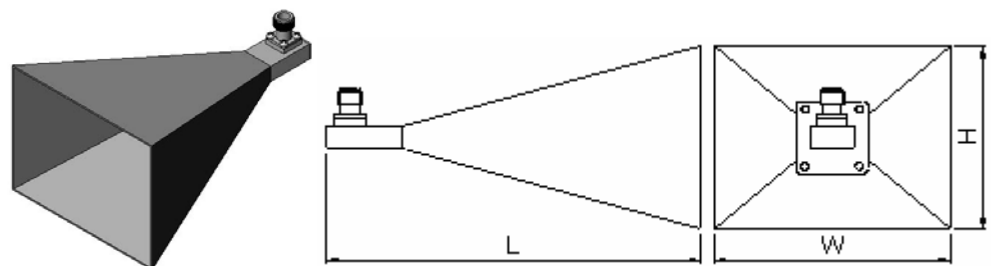
*Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

Example Part No: VT 100 HA 20
 Vector Telecom ———|——— Gain: 20dB
 WG Type: R100 ———|——— Product Type: Standard Gain Horn Antenna with Waveguide Input

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 2 — Built-in Coaxial Input



19
Standard Gain Horn Antenna



Vector Telecom Pty Ltd

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【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)			WG Type		Connector
				L	W	H	IEC	EIA	
VT32HA20N...	2.60-3.95	20	18°	585	405	325	R32	WR284	N Type
VT40HA20N...	3.22-4.90	20	18°	453	345	264	R40	WR229	N Type
VT48HA20N...	3.94-5.99	20	18°	374	374	212	R48	WR187	N Type
VT58HA20N...	4.64-7.05	20	18°	275	225	173	R58	WR159	N Type
VT70HA20N...	5.38-8.17	20	18°	290	197	153	R70	WR137	N Type
VT84HA20N...	6.57-9.99	20	18°	235	172	128	R84	WR112	N Type
VT100HA20N...	8.20-12.40	20	18°	230	138	107	R100	WR90	N Type
VT120HA20S...	9.84-15.0	20	18°	160	108	83	R120	WR75	SMA
VT140HA20S...	11.9-18.0	20	18°	145	93	72	R140	WR62	SMA
VT180HA20S...	14.5-22.0	20	18°	141	75	58	R180	WR51	SMA
VT220HA20S...	17.6-26.7	20	18°	100	63.5	49.4	R220	WR42	SMA
VT260HA20K...	21.7-33.0	20	18°	100	54	42	R260	WR34	K2.92mm
VT320HA20K...	26.5-40.0	20	18°	80	40.5	32	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

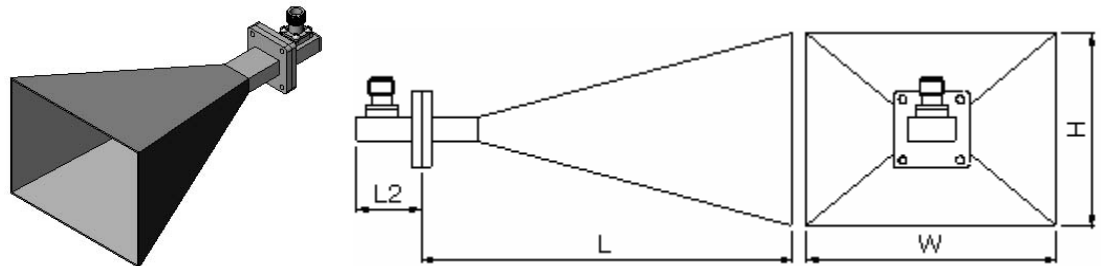
**Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

Example Part No: VT 100 HA 20 N K
 Vector Telecom ——— |
 WG Type: R100 ——— |
 Product Type: Standard Gain Horn Antenna with Built-in Coax Input ——— |
 Gain: 20dB ——— |
 J=Male, K=Female ——— |
 Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm ——— |

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 3 — with Coaxial Connector



【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)				WG Type		Connector
				L	L2	W	H	IEC	EIA	
VT32HA20+N...	2.60-3.95	20	18°	550	72	405	325	R32	WR284	N Type
VT40HA20+N...	3.22-4.90	20	18°	388	65	345	264	R40	WR229	N Type
VT48HA20+N...	3.94-5.99	20	18°	350	54	374	212	R48	WR187	N Type
VT58HA20+N...	4.64-7.05	20	18°	265	50	225	173	R58	WR159	N Type
VT70HA20+N...	5.38-8.17	20	18°	290	48	197	153	R70	WR137	N Type
VT84HA20+N...	6.57-9.99	20	18°	230	40	172	128	R84	WR112	N Type
VT100HA20+N...	8.20-12.40	20	18°	200	38	138	107	R100	WR90	N Type
VT120HA20+S...	9.84-15.0	20	18°	155	30	108	83	R120	WR75	SMA
VT140HA20+S...	11.9-18.0	20	18°	135	27	93	72	R140	WR62	SMA
VT180HA20+S...	14.5-22.0	20	18°	110	27	75	58	R180	WR51	SMA
VT220HA20+S...	17.6-26.7	20	18°	90	25	63.5	49.4	R220	WR42	SMA
VT260HA20+K...	21.7-33.0	20	18°	95	25	54	42	R260	WR34	K2.92mm
VT320HA20+K...	26.5-40.0	20	18°	70	25	40.5	32	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

**Gain and 3dB Beamwidth values have been calculated by computer simulation.

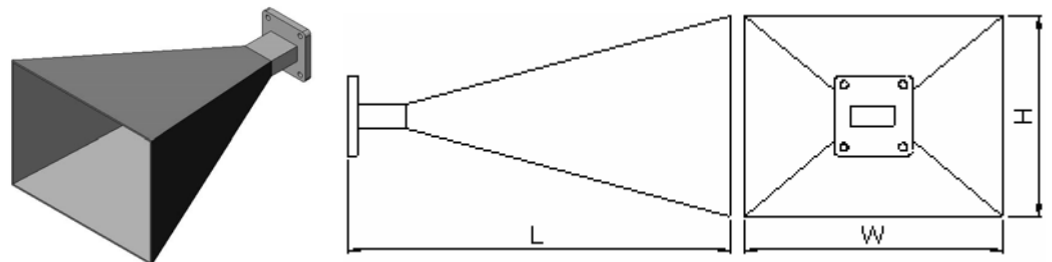
【Ordering Information】

Example Part No: VT 100 HA 20 +N K
 Vector Telecom ——— J=Male, K=Female
 WG Type: R100 ——— Coax Connector Type: N=Type N,
 Product Type: Standard Gain Horn Antenna ——— Gain: 20dB S=SMA, 2.92=K2.92mm
 with Coaxial Connector

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

19.4 Standard Gain Horn Antenna, 25 dB

Style 1 — Waveguide Input



19

Standard Gain Horn Antenna



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【Specifications】

Model No	Freq Range (GHz)	Gain* (dB)	3dB Beamwidth* (Nom)	Dimensions (mm)			WG Type		Flange
				L	W	H	IEC	EIA	
VT100HA25	8.20-12.40	25	10°	840	244	204	R100	WR90	FBP
VT120HA25	9.84-15.0	25	10°	400	185	155	R120	WR75	FBP
VT140HA25	11.9-18.0	25	10°	356	155	128	R140	WR62	FBP
VT180HA25	14.5-22.0	25	10°	260	130	100	R180	WR51	FBP
VT220HA25	17.6-26.7	25	10°	271	104	85	R220	WR42	FBP
VT260HA25	21.7-33.0	25	10°	220	92	72	R260	WR34	FBP
VT320HA25	26.5-40.0	25	10°	172	71	59	R320	WR28	FBP
VT400HA25	32.9-50.1	25	10°	136	59	46	R400	WR22	FUGP
VT500HA25	39.2-59.6	25	10°	130	49	41	R500	WR19	FUGP
VT620HA25	49.8-75.8	25	10°	91.4	38	31	R620	WR15	FUGP
VT740HA25	60.5-91.9	25	10°	82	32	26	R740	WR12	FUGP
VT900HA25	73.8-112	25	10°	70	28	22	R900	WR10	FUGP

*Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

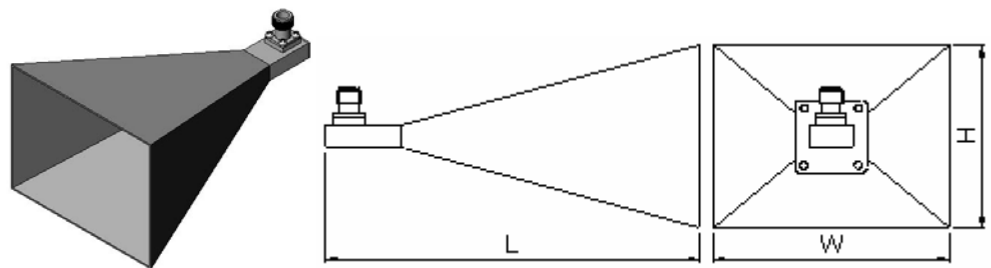
Example Part No: VT 100 HA 25

Vector Telecom ——— Gain: 25dB

WG Type: R100 ——— Product Type: Standard Gain Horn Antenna with Waveguide Input

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 2 — Built-in Coaxial Input



【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)			WG Type		Connector
				L	W	H	IEC	EIA	
VT100HA25N...	8.20-12.40	25	10°	836	244	204	R100	WR90	N Type
VT120HA25S...	9.84-15.0	25	10°	405	185	155	R120	WR75	SMA
VT140HA25S...	11.9-18.0	25	10°	336	155	128	R140	WR62	SMA
VT180HA25S...	14.5-22.0	25	10°	330	130	100	R180	WR51	SMA
VT220HA25S...	17.6-26.7	25	10°	276	104	85	R220	WR42	SMA
VT260HA25K...	21.7-33.0	25	10°	225	92	72	R260	WR34	K2.92mm
VT320HA25K...	26.5-40.0	25	10°	180	71	59	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

**Gain and 3dB Beamwidth values have been calculated by computer simulation.

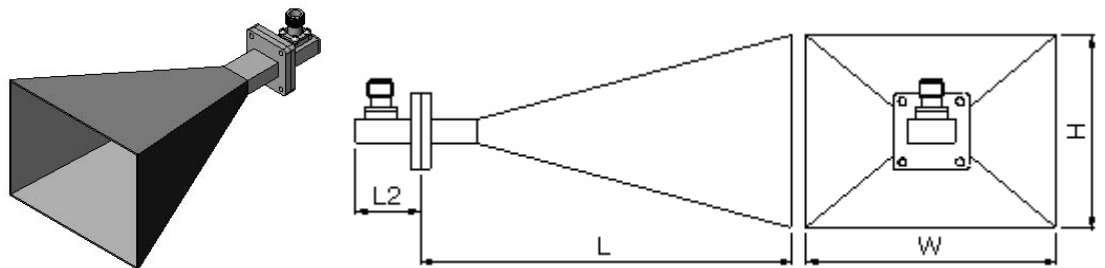


【Ordering Information】

Example Part No: VT 100 HA 25 N K
 Vector Telecom ——— | J=Male, K=Female
 WG Type: R100 ——— | Coax Connector Type: N=Type N,
 Product Type: Standard Gain Horn Antenna ——— | Gain: 25dB S=SMA, 2.92=K2.92mm
 with Built-in Coax Input

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 3 — with Coaxial Connector



【Specifications】

Model No*	Freq Range (GHz)	Gain** (dB)	3dB Beamwidth** (Nom)	Dimensions (mm)				WG Type		Connector
				L	L2	W	H	IEC	EIA	
VT100HA25+N...	8.20-12.40	25	10°	840	38	244	204	R100	WR90	N Type
VT120HA25+S...	9.84-15.0	25	10°	400	30	185	155	R120	WR75	SMA
VT140HA25+S...	11.9-18.0	25	10°	356	27	155	128	R140	WR62	SMA
VT180HA25+S...	14.5-22.0	25	10°	300	27	130	100	R180	WR51	SMA
VT220HA25+S...	17.6-26.7	25	10°	271	25	104	85	R220	WR42	SMA
VT260HA25+K...	21.7-33.0	25	10°	220	25	92	72	R260	WR34	K2.92mm
VT320HA25+K...	26.5-40.0	25	10°	172	25	71	59	R320	WR28	K2.92mm

*Indicates Model Number. See Ordering Information for complete part number.

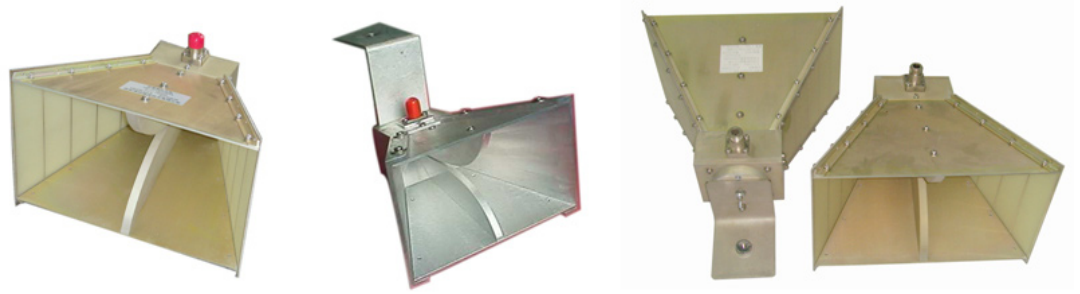
**Gain and 3dB Beamwidth values have been calculated by computer simulation.

【Ordering Information】

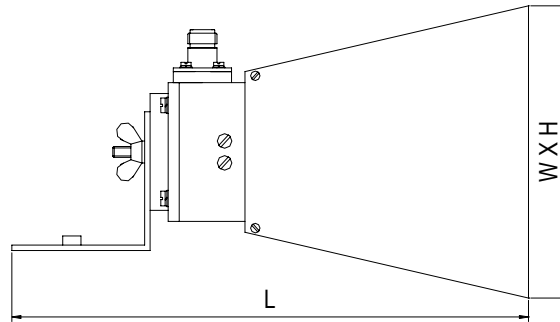
Example Part No: VT 100 HA 25 +N K
 Vector Telecom ——— | J=Male, K=Female
 WG Type: R100 ——— | Coax Connector Type: N=Type N,
 Product Type: Standard Gain Horn Antenna ——— | Gain: 25dB S=SMA, 2.92=K2.92mm
 with Coaxial Connector

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

20 Wideband Horn Antenna



Vector Telecom manufactures a high quality line of dual-ridged horn antennas typically used for EMI testing, surveillance equipment, antenna gain and pattern measurement. Wideband dual-ridged horn antennas are linearly polarized with high Gain, low VSWR, lightweight, covering from 0.2GHz to 40GHz. Please contact us with your specification and discuss your needs with one of our sales engineers.



【Specifications】

Model No*	Freq Range (GHz)	Gain (dB)	3dB Beamwidth		VSWR (Max)	Dimensions (mm)			Input Coax Connector Type
			E-Plane	H-Plane		L	W	H	
VT10180DRHA10S...	1.0-18.0	8.2-14.6	30°-77°	23°-60°	2.5	284	160	245	SMA
VT10180DRHA10N...	1.0-18.0	8.2-14.6	30°-77°	23°-60°	2.5	284	160	245	Type N
VT80180DRHA10N...	8.0-18.0	10-12	21°-34°	21°-44°	2.5	114.5	63	53	Type N
VT80180DRHA10S...	8.0-18.0	10-12	21°-34°	21°-44°	2.5	114.5	63	53	SMA
VT180400DRHA15K...	18.0 - 40.0	9-15.6	17°-44°	18°-33°	2.5	100	42	57	K2.4mm

*Indicates Model Number. See Ordering Information for complete part number.

Example Part No: VT 10180 DRHA 10 N K

Vector Telecom ——— J=Male, K=Female

Freq Rang:1-18GHz ——— Coax Connector Type: N=Type N, S=SMA, 2.92=K2.92mm

Product Type: Dual-Ridged Horn Antenna ——— Gain: 10dB (Avg)

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

20

Wideband Horn Antenna



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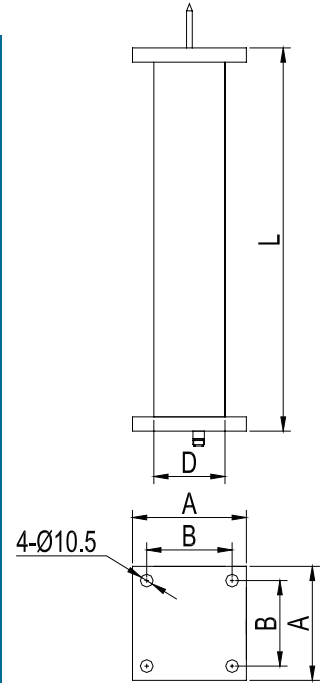
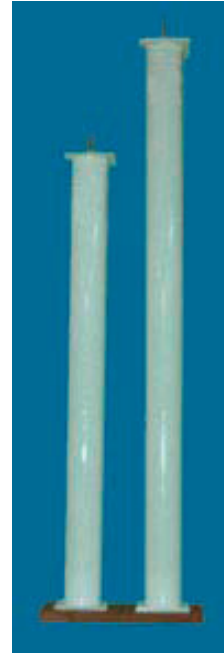
Email: sales@vectortele.com

21 MMDS Transmitting Antenna

Vector Telecom manufactures a high quality line of MMDS transmitting antennas. Please call us with your specification and discuss your needs with one of our sales engineers.

Features:

- High radiation efficiency
- Wide frequency range
- Low VSWR
- More Gain values available
- Power rating 300W (CW)
- Light weight aluminium material
- Well sealed
- Easy for installation
- Direct lightning protection
- Ground wind velocity 25m/s



21

MMDS Transmitting Antenna



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[Specifications]

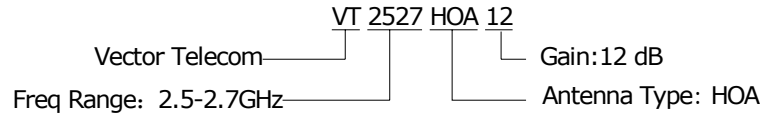
Model No	Freq Range (GHz)	VSWR (Max)	Gain (dB)	Polarization	Beamwidth (Azimuth)	Beamwidth (Elevation)	Dimensions (D*H) (mm)	Dimensions (A*B) (mm)	Power Handling (W)	Connector
VT2527HOA10	2.5-2.7	1.5	10	Horizontal	360°	6°	130*1000	180*152	300	N-F
VT2527HOA12	2.5-2.7	1.5	12	Horizontal	360°	5°	130*1300	180*152	300	N-F
VT2527HOA16	2.5-2.7	1.5	13	Horizontal	360°	4°	130*1600	180*152	300	N-F
VT2527VOA10	2.5-2.7	1.5	10	Vertical	360°	6°	170*1000	220*180	300	N-F
VT2527VOA12	2.5-2.7	1.5	12	Vertical	360°	5°	170*1300	220*180	300	N-F
VT2527VOA16	2.5-2.7	1.5	13	Vertical	360°	4°	170*1600	220*180	300	N-F
VT2527HCA10	2.5-2.7	1.5	13	Horizontal	180°	6°	130*1000	180*152	300	N-F
VT2527HCA12	2.5-2.7	1.5	15	Horizontal	180°	5°	130*1300	180*152	300	N-F
VT2527HCA16	2.5-2.7	1.5	16	Horizontal	180°	4°	130*1600	180*152	300	N-F
VT2527VCA10	2.5-2.7	1.5	13	Vertical	180°	6°	170*1000	220*180	300	N-F
VT2527VCA12	2.5-2.7	1.5	15	Vertical	180°	5°	170*1300	220*180	300	N-F
VT2527VCA16	2.5-2.7	1.5	16	Vertical	180°	4°	170*1600	220*180	300	N-F



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Section 3
Antennas

【Ordering Information】



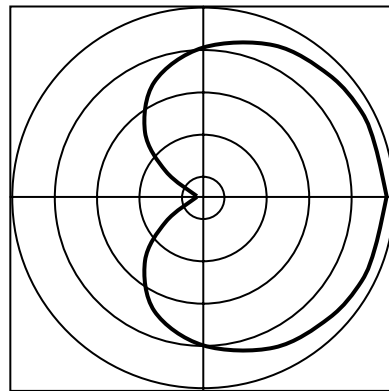
Antenna Type:

HOA - Omni-directional, Horizontal polarized

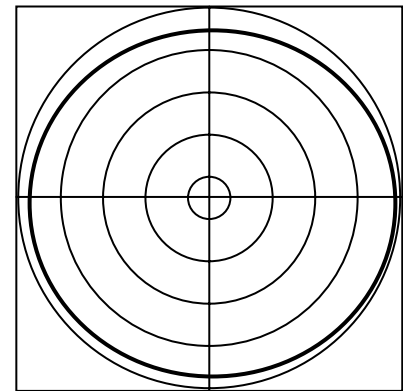
HCA - Half-directional, Horizontal polarized

VOA - Omni-directional, Vertical polarized

VCA - Half -directional, Vertical polarized



180°



360°

Azimuth Beam Pattern

21

**MMDS
Transmitting
Antenna**



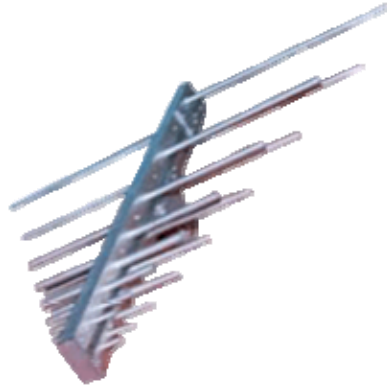
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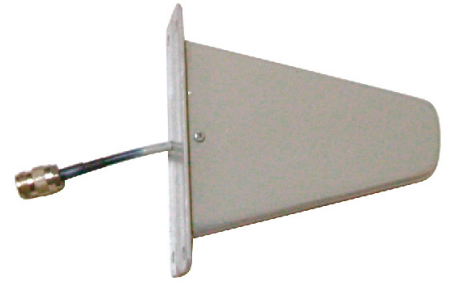
Email: sales@vectortele.com

22 Other Antennas

Vector Telecom provides a variety of antennas that are custom designed, manufactured and tested to meet customer's special requirements. Please call us and discuss your needs with one of our sales engineers.



Logarithm Periodic Antenna



Microstrip Logarithm Periodic Antenna



Paraboloid Antenna



Horn Lens Antenna



Multi-Polarization Antenna Feed



Helical Antenna

22

Other
Antennas



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23 Rectangular Waveguide Tubing Information

Section 4
Technical Reference

23

Rectangular Waveguide Tubing Information



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Model No	EIA WG Designation	IEC WG Designation	Freq Range (GHz)	Material (Stock)	Inside Dimensions (mm)	Std Tol ± Inside Dim (mm)	Nom Wall Thickness (mm)	Outside Dimensions (mm)	Std Tol ± Outside Dim (mm)	Freq of Cut-Off for TE _{1,0} Mode (GHz)	Wave-length of Cut-Off for TE _{1,0} Mode (mm)	Theoretical Attenuation lowest to highest freq (dB/100ft)	
												Al	Cu
VTBJ3	WR2300	R3	0.32-0.49	Aluminum	584.2*292.1		6			0.257	1169.2	0.270-0.400	
VTBJ4	WR2100	R4	0.35-0.53	Aluminum	533.4*266.7		5			0.281	1067.5	0.310-0.460	
VTBJ5	WR1800	R5	0.41-0.62	Aluminum	457.2*228.6	0.51	5			0.328	915.0	0.390-0.580	
VTBJ6	WR1500	R6	0.49-0.75	Aluminum	381*190.5	0.38	3.18			0.393	762.5	0.510-0.760	
VTBJ8	WR1150	R8	0.64-0.98	Aluminum	292.1*146.05	0.38	3.18			0.513	584.6	0.760-0.113	
VTBJ9	WR975	R9	0.76-1.15	Aluminum	247.65*123.82		3.18			0.605	495.6	0.098-0.145	
VTBJ12	WR770	R12	0.96-1.46	Aluminum	195.58*97.79		3.18			0.766	391.4	0.140-0.206	
VTBJ14	WR650	R14	1.13-1.73	Copper Aluminum	165.1*82.55	0.33	2.03	169.16*86.61	0.2	0.908	330.4	0.180-0.266	0.214-0.317
VTBJ18	WR510	R18	1.45-2.2	Copper Aluminum	129.54*64.77	0.26	2.03	133.6*68.83	0.2	1.157	259.1	0.259-0.382	0.309-0.456
VTBJ22	WR430	R22	1.72-2.61	Copper Aluminum	109.22*54.61	0.22	2.03	113.28*58.67	0.2	1.372	218.4	0.334-0.494	0.399-0.588
VTBJ26	WR340	R26	2.17-3.3	Copper Aluminum	86.36*43.18	0.17	2.03	90.42*47.24	0.17	1.736	172.7	0.475-0.702	0.567-0.837
VTBJ32	WR284	R32	2.6-3.95	Copper Aluminum	72.14*34.04	0.14	2.03	76.2*38.1	0.14	2.078	144.3	0.652-0.953	0.777-1.136
VTBJ40	WR229	R40	3.22-4.9	Copper Aluminum	58.17*29.08	0.12	1.625	61.42*32.33	0.12	2.577	116.3	0.860-1.270	1.026-1.514
VTBJ48	WR187	R48	3.94-5.99	Copper Aluminum	47.549*22.149	0.095	1.625	50.8*25.4	0.1	3.153	95.1	1.231-1.795	1.467-2.140
VTBJ58	WR159	R58	4.64-7.05	Copper Aluminum	40.386*20.193	0.081	1.625	43.64*23.44	0.08	3.712	80.77	1.487-2.195	1.773-2.617
VTBJ70	WR137	R70	5.38-8.17	Copper Aluminum	34.849*15.799	0.07	1.625	38.1*19.05	0.08	4.301	69.7	2.004-2.910	2.390-3.470
VTBJ84	WR112	R84	6.57-9.99	Copper Aluminum	28.499*12.624	0.057	1.625	31.75*15.88	0.05	5.260	57	2.761-3.993	3.292-4.761
VTBJ100	WR90	R100	8.2-12.5	Copper Aluminum	22.86*10.16	0.046	1.27	25.4*12.7	0.05	6.557	45.72	3.833-5.547	4.570-6.614
VTBJ120	WR75	R120	9.84-15	Copper Aluminum	19.05*9.525	0.038	1.27	21.59*12.06	0.05	7.869	38.1	4.590-6.775	5.472-8.078
VTBJ140	WR62	R140	11.9-18	Copper Aluminum	15.799*7.899	0.031	1.015	17.83*9.93	0.05	9.488	31.6	6.077-8.971	7.246-10.696
VTBJ180	WR51	R180	14.5-22	Copper Aluminum	12.95*6.477	0.026	1.015	14.99*8.51	0.05	11.575	25.91	8.185-12.082	9.759-14.406
VTBJ220	WR42	R220	17.6-26.7	Copper Aluminum	10.668*4.318	0.021	1.015	12.7*6.35	0.05	14.051	21.34	12.970-18.487	15.464-22.042
VTBJ260	WR34	R260	21.7-33	Copper Aluminum	8.636*4.318	0.02	1.015	10.67*6.35	0.05	17.358	17.27	15.036-22.197	17.928-26.465
VTBJ320	WR28	R320	26.3-40	Copper Aluminum	7.12*3.556	0.02	1.015	9.14*5.59	0.05	21.053	14.22	20.120-29.701	23.989-35.413
VTBJ400	WR22	R400	32.9-50.1	Copper Aluminum	5.69*2.845	0.02	1.015	7.72*4.88	0.05	26.344	11.38	28.119-41.508	33.526-49.491
VTBJ500	WR19	R500	39.2-59.6	Copper	4.775*2.388	0.02	1.015	6.81*4.42	0.05	31.393	9.55		43.603-64.367
VTBJ620	WR15	R620	49.8-75.8	Copper	3.795*1.88	0.02	1.015	5.79*3.91	0.05	39.499	7.52		62.425-92.152
VTBJ740	WR12	R740	60.5-91.9	Copper	3.0988*1.5494	0.0127	1.015	5.13*3.58	0.05	48.374	6.2		83.409-123.128
VTBJ900	WR10	R900	73.8-112	Copper	2.54*1.27	0.0127	1.015	4.57*3.3	0.05	59.016	5.08		112.397-165.920



Vector Telecom

Section 4
Technical Reference

24
Flange Information



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24 Flange Information

Click Flange Type No to see the detailed outline drawings.

WG Type		A Type			B Type			D Type		FUGP
EIA Std	IEC Std	FAP (RND COVER)	FAM (RND GROOVED)	FAE (RND CHOKE)	FBP (SQ COVER)	FBM (SQ GROOVED)	FBE (SQ CHOKE)	FDP (CPRF)	FDM (CPRG)	
WR2300	R3							FDP3	FDM3	
WR2100	R4							FDP4	FDM4	
WR1800	R5							FDP5	FDM5	
WR1500	R6							FDP6	FDM6	
WR1150	R8							FDP8	FDM8	
WR975	R9							FDP9	FDM9	
WR770	R12							FDP12	FDM12	
WR650	R14							FDP14	FDM14	
WR510	R18							FDP18	FDM18	
WR430	R22							FDP22	FDM22	
WR340	R26							FDP26	FDM26	
WR284	R32	FAP32	FAM32	FAE32				FDP32	FDM32	
WR229	R40	FAP40	FAM40	FAE40				FDP40	FDM40	
WR187	R48	FAP48	FAM48	FAE48				FDP48	FDM48	
WR159	R58	FAP58	FAM58	FAE58				FDP58	FDM58	
WR137	R70	FAP70	FAM70	FAE70				FDP70	FDM70	
WR112	R84				FBP84	FBM84	FBE84	FDP84	FDM84	
WR90	R100				FBP100	FBM100	FBE100	FDP100	FDM100	
WR75	R120				FBP120	FBM120	FBE120	FDP120	FDM120	
WR62	R140				FBP140	FBM140	FBE140	FDP140	FDM140	
WR51	R180				FBP180	FBM180	FBE180	FDP180	FDM180	
WR42	R220				FBP220	FBM220	FBE220			
WR34	R260				FBP260	FBM260	FBE260			
WR28	R320				FBP320	FBM320	FBE320			
WR22	R400	FAP400	FAM400							FUGP400
WR19	R500	FAP500	FAM500							FUGP500
WR15	R620	FAP620	FAM620							FUGP620
WR12	R740	FAP740	FAM740							FUGP740
WR10	R900	FAP900	FAM900							FUGP900

Revision History

Date	Revision	Changes
10-Dec-2008	1	First release

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