

Microwave Passive Components for Satellite Communications



SATCOM Applications

Vector Telecom is a global supplier of microwave passive components and sub-systems to telecom and satcom markets.

Choose the waveguide components for the integration of your SATCOM system, and you will receive a timely and cost effective solution. Immediate technical support, engineered solutions, full documentation, fast delivery – that is Vector Telecom.

Waveguide Single Channel Rotary Joint

Vector Telecom's line of Waveguide Single Channel Rotary Joints 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.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



Model No*	Band	Freq Range (GHz)	VSWR (Max)	VSWR WOW	IL (dB) (Max)	IL (dB) WOW	Power Handling (W)	WG Type
VT70WRJL...	C	5.85-6.425	1.25	0.05	0.25	0.05	500	WR137
VT70WRJLA1...	C	5.85-6.725	1.2	0.05	0.2	0.05	500	WR137
VT120WRJI...	Ku	14-14.5	1.25	0.05	0.3	0.05	200	WR75
VT120WRJL...	Ku	14-14.5	1.3	0.10	0.3	0.05	200	WR75
VT120WRJU...	Ku	14-14.5	1.2	0.05	0.3	0.05	200	WR75
VT140WRJL...	Ku	12.5-15.5	1.3	0.05	0.3	0.05	200	WR62
VT140WRJU...	Ku	14-16	1.3	0.05	0.3	0.05	75	WR62
VT260WHPRJL...	Ka	25.37-26.07	1.2	0.05	0.3	0.05	100	WR34
VT320WRJL...	Ka	33-35	1.4	0.10	0.6	0.10	40	WR28
VT320WRJI...	Ka	36-38	1.5	0.10	1.0	0.20	40	WR28

*Indicates Model Number. See VT catalog for complete part number info.

Waveguide High Power Termination

Vector Telecom manufactures a wide selection of high power termination.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



Model No*	Band	Freq Range (GHz)	VSWR (Max)	Power Handling** (W)	WG Type
VT70WHPL200...	C	5.85-8.17	1.2	200	WR137
VT70WHPL450...	C	5.85-8.17	1.2	450	WR137
VT120WHPL100...	Ku	10-15	1.2	100	WR75
VT120WHPL250...	Ku	10-15	1.2	200	WR75
VT260WHPL200...	Ka	21.7-33	1.2	200	WR34
VT320WHPL200...	Ka	26.5-40	1.2	200	WR28

*Indicates Model Number. See VT catalog for complete part number info.

**Other power ratings available upon request.

Waveguide Combiner/Divider

Vector Telecom's 3dB Waveguide Combiners/Dividers are typically used for power distribution or power combination.

KEY FEATURES

- Available in C, Ku and Ka Bands
- Compact size
- Rated for outdoor use



- Waveguide In-phase Hybrid 3dB Combiner/Divider

Model No	Band	Freq Range (GHz)	VSWR (Max)	IL (dB) (Max)	Isolation (dB) (Min)	Power Handling (W)	WG Type
VT70WMTPC400	C	5.8-6.7	1.3	0.3	20	400	WR137
VT70WMTPC300	C	6.7-7.2	1.3	0.3	20	300	WR137
VT70WMTPC300-1	C	5.8-6.4	1.3	0.3	20	300	WR137
VT120WMTPC	Ku	10.95-12.95	1.3	0.3	20	200	WR75
VT120WMTPCT	Ku	12.5-14.5	1.3	0.3	20	200	WR75
VT140WMTPC	Ku	13.75-14.5	1.3	0.5	20	200	WR62
VT260WMTPC100	Ka	22.5-24.5	1.3	0.5	20	100	WR34
VT320WMTPC100	Ka	33-35	1.25	0.5	25	100	WR28



- Waveguide 3dB Combiner/Divider

Model No	Band	Freq Range (GHz)	VSWR (Max)	IL (dB) (Max)	Isolation (dB) (Min)	Power Handling (W)	WG Type
VT70WSC3	C	6.7-7.2	1.3	0.5	20	300	WR137
VT70WSC3-1	C	5.8-6.4	1.3	0.5	20	300	WR137
VT120WSC3	Ku	13.75-14.5	1.3	0.5	20	200	WR75

Waveguide to Coaxial Adapter

Vector Telecom's Waveguide to Coaxial Adapters are a means of adapting from coaxial to waveguide transmission line or vice versa.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



- Waveguide to Coaxial Adapter (Right Angle)

Model No*	Band	Freq Range (GHz)	VSWR (Max)	Connector	WG Type
VT70WCAN...	C	5.85-8.17	1.20	N	WR137
VT70WCAS...	C	5.85-8.17	1.20	SMA	WR137
VT120WCAN...	Ku	10-15	1.20	N	WR75
VT120WCAS...	Ku	10-15	1.20	SMA	WR75
VT140WCAN...	Ku	11.9-18	1.20	N	WR62
VT140WCAS...	Ku	11.9-18	1.20	SMA	WR62
VT260WCA2.92...	Ka	29-31	1.35	K2.92mm	WR34
VT320WCA2.92...	Ka	33-37	1.35	K2.92mm	WR28

*Indicates Model Number. See VT catalog for complete part number info.



- Waveguide to Coaxial Adapter (End-launch)

Model No*	Band	Freq Range (GHz)	VSWR (Max)	Connector	WG Type
VT70WECAN...	C	5.85-8.17	1.20	N	WR137
VT70WECAS...	C	5.85-8.17	1.20	SMA	WR137
VT120WECAN...	Ku	10-15	1.20	N	WR75
VT120WECAS...	Ku	10-15	1.20	SMA	WR75
VT140WECAN...	Ku	11.9-18	1.25	N	WR62
VT140WECAS...	Ku	11.9-18	1.25	SMA	WR62
VT260WECA2.92...	Ka	29-31	1.35	K2.92mm	WR34
VT320WECA2.92...	Ka	33-37	1.35	K2.92mm	WR28

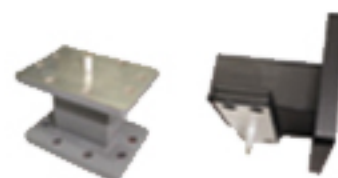
*Indicates Model Number. See VT catalog for complete part number info.

Waveguide to Microstrip Adapter

Vector Telecom's Waveguide to Microstrip Adapters are a means of adapting from waveguide transmission line to microstrip line. They are typically connected with active power amplifier module in SATCOM systems.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



Model No	Band	Freq Range (GHz)	VSWR (Max)	Power Handling (W)	WG Type
VT70WMI1	C	5.85-6.425	1.1	100	WR137
VT70WMI2	C	5.85-6.725	1.2	100	WR137
VT70WMI3	C	6.7-7.2	1.2	100	WR137
VT120WMI	Ku	13.75-14.5	1.2	80	WR75
VT140WMI	Ku	13.5-15.2	1.2	50	WR62
VT140WMI PC	Ku	16-17	1.2	50	WR62
VT320WEMI	Ka	35-36.5	1.3	25	WR28

Crossguide Directional Coupler

Vector Telecom's Crossguide Directional Couplers with their compact size, moderate directivity and flat coupling over a wide frequency range are ideal for such applications as power monitoring, signal injection and telemetry.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery
- Available in single arm or dual arm design



Model No*	Band	Freq Range (GHz)	VSWR(Max)		Coupling (dB)	Directivity (Min)	Connector	WG Type
			Main Line	Secondary Line				
VT40WL+C...N	C	3.6-4.2	1.1	1.2	18~60	18	N	WR229
VT70WL+C...N	C	5.85-7.2	1.1	1.2	18~60	18	N	WR137
VT70WL+C...S	C	5.85-7.2	1.1	1.2	18~60	18	SMA	WR137
VT120WL+C...N	Ku	10.95-14.5	1.1	1.2	18~60	18	N	WR75
VT120WL+C...S	Ku	10.95-14.5	1.1	1.2	18~60	18	SMA	WR75
VT140WL+C...N	Ku	12.25-14.5	1.1	1.2	18~60	18	N	WR62
VT140WL+C...S	Ku	12.25-14.5	1.1	1.2	18~60	18	SMA	WR62
VT260WL+C...S	Ka	22.5-24.5	1.1	1.15	18~60	18	SMA	WR34
VT320WL+C...K	Ka	27.5-31	1.15	1.35	18~60	18	K2.29mm	WR28

*Indicates Model Number. See VT catalog for complete part number info.

Waveguide Ortho Mode Transducer (OMT) Assembly

Vector Telecom supplies a quality line of OMT assembly. The assembly is designed to transmit on one polarization and receive on the other.

KEY FEATURES

- Available in C, Ku and Ka bands
- High Isolation
- In-house manufacturing ensures fast delivery



Model No	Band	Passband Freq (GHz)		VSWR (Max) Tx / Rx	Tx & Rx Isolation (dB) (Min)	Cross Polarization Isolation (dB) (Min)
		Tx	Rx			
VT700MT	C	5.925-6.425	3.7-4.2	1.4 / 1.3	85	35
VT700MT1	C	5.85-6.425	3.4-4.2	1.4 / 1.3	85	35
VT1200MT	Ku	14-14.5	10.7-12.75	1.4 / 1.3	85	35
VT1200MT19.2	Ku	14-14.5	12.25-12.75	1.3	80	35
VT3202200MT11.5	Ka	29.4-31	19.6-21.2	1.3	80	35

Waveguide High Power Isolator

Vector Telecom supplies a quality line of waveguide high power isolators which minimize reflections in transmission line.

KEY FEATURES

- Available in C and Ku bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



Model No	Band	Freq Range (GHz)	VSWR (Max)	IL (dB) (Max)	Isolation (dB)(Min)	Power Handling Fwd / Rev (W)	WG Type
VT70WHPISO100W	C	5.85-6.725	1.2	0.3	20	100 / 50	WR137
VT70WHPISO200W1	C	5.8-6.7	1.2	0.3	20	200 / 60	WR137
VT120WHPISO100W	Ku	13.75-14.5	1.2	0.3	20	150 / 60	WR75



- Waveguide High Power Isolator (with Reverse Power Sampling Port)

Model No	Band	Freq Range (GHz)	VSWR (Max)	IL (dB) (Max)	Iso (dB) (Min)	Coupling @ SMA port (dB)	Power Handling Fwd / Rev (W)	WG Type
VT70WHPISO1S	C	5.8-6.4	1.2	0.3	20	30±1.5	200 / 60	WR137
VT70WHPISO2S	C	6.7-7.2	1.2	0.3	20	30±1.5	200 / 60	WR137
VT70WHPISO300S	C	5.8-6.4	1.2	0.3	20	30±1.5	300 / 300	WR137
VT70WHPISO400S	C	5.8-6.8	1.2	0.3	20	30±1.5	400 / 200	WR137
VT120WHPISO120W40S	Ku	13.75-14.5	1.25	0.3	20	40±2.0	120 / 30	WR75
VT120WHPISO120W40S1	Ku	13.75-14.5	1.25	0.3	20	40±2.0	120 / 30	WR75
VT120WHPISO120W30S	Ku	13.75-14.5	1.25	0.3	20	30±1.5	120 / 30	WR75

Waveguide Filter

Vector Telecom's lines of Reject Filters have been specifically designed for SATCOM applications. Transmit Reject Filters are used in the receivers and reject any spurious signals at the transmit frequency. Receive Reject Filters are used in the transmitters and reject any spurious frequencies at the receive frequency.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



• C Band Receive Reject Filter

Model No	Band	Freq Range (GHz)		VSWR (Max)	IL (dB) (Max) Passband	Rejection (dB) (Min)	WG Type
		Passband	Reject band				
VT70WBPF	C	5.85-6.425	Below 4.85	1.25	0.4	45	WR137

• Ku Band Receive Reject Filter

Model No	Band	Freq Range (GHz)		VSWR (Max)	IL (dB) (Max) Passband	Rejection (dB) (Min)	WG Type
		Passband	Reject band				
VT120WBPFPM4	Ku	13.75-14.5	12.25-12.75	1.25	0.6	40	WR75
VT120WBPFPM5	Ku	14 -14.5	12.25-12.75	1.25	0.5	60	WR75

• Ku Band Transmit Reject Filter

Model No	Band	Freq Range (GHz)		VSWR (Max)	IL (dB) (Max) Passband	Rejection (dB) (Min)	WG Type
		Passband	Reject band				
VT120WLPF	Ku	10.95-12.75	14-14.5	1.20	0.25	60	WR75
VT120WLPF1	Ku	10.95-12.75	13.75-14.5	1.20	0.3	60	WR75

• Ka Band Receive Reject Filter

Model No	Band	Freq Range (GHz)		VSWR (Max)	IL (dB) (Max) Passband	Rejection (dB) (Min)	WG Type
		Passband	Reject band				
VT260WBPF	Ka	25.25-27.5	Below 16	1.3	0.5	80	WR34
VT320WLPF1	Ka	28.8-29.3	Below 27.8	1.25	0.5	40	WR28

• Ka Band Transmit Reject Filter

Model No	Band	Freq Range (GHz)		VSWR (Max)	IL (dB) (Max) Passband	Rejection (dB) (Min)	WG Type
		Passband	Reject band				
VT260WBPFPM	Ka	23-25	28-29	1.3	0.5	40	WR34
VT260WBPFPM	Ka	24.5-28	28-29	1.3	0.5	50	WR34
VT260WLPF1	Ka	26.5-27.5	28-29	1.3	0.5	40	WR34



Waveguide Bend

Vector Telecom manufactures a wide variety of radius and mitered waveguide bends. Multi-degrees, additional sizes, configurations and combinations are available on request.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery

• Radius Bend



Model No*	Band	Freq Range (GHz)	VSWR (Max)	WG Type
VT70WWEB60X60...	C	5.85-8.17	1.1	WR137
VT70WVHB80X80...	C	5.85-8.17	1.1	WR137
VT120WWEB30X30...	Ku	10-15	1.1	WR75
VT120WVHB40X40...	Ku	10-15	1.1	WR75
VT140WWEB30X30...	Ku	11.9-18	1.1	WR62
VT140WVHB40X40...	Ku	11.9-18	1.1	WR62
VT260WWEB20X20...	Ka	21.7-33	1.1	WR34
VT260WVHB30X30...	Ka	21.7-33	1.1	WR34
VT320WWEB20X20...	Ka	26.5-40	1.1	WR28
VT320WVHB30X30...	Ka	26.5-40	1.1	WR28

*Indicates Model Number. See VT catalog for complete part number info.

• Mitered Bend



Model No*	Band	Freq Range (GHz)	VSWR (Max)	WG Type
VT70WTEB40X40...	C	5.85-8.17	1.15	WR137
VT70WVTHB50X50...	C	5.85-8.17	1.15	WR137
VT120WTEB30X30...	Ku	10-15	1.15	WR75
VT120WVTHB40X40...	Ku	10-15	1.15	WR75
VT140WTEB30X30...	Ku	11.9-18	1.15	WR62
VT140WVTHB40X40...	Ku	11.9-18	1.15	WR62
VT260WTEB20X20...	Ka	21.7-33	1.15	WR34
VT260WVTHB30X30...	Ka	21.7-33	1.15	WR34
VT320WTEB20X20...	Ka	26.5-40	1.15	WR28
VT320WVTHB30X30...	Ka	26.5-40	1.15	WR28

*Indicates Model Number. See VT catalog for complete part number info.

Flexible Waveguide

Vector Telecom supplies a quality line of flexible waveguides. They are used in requirements where both bending and twisting of the waveguide is needed.

KEY FEATURES

- Available in C and Ku bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



Model No*	Band	Freq Range (GHz)	VSWR (Max)	IL (dB/m) (Max)	Length** (mm)	WG Type
VT70WEL...	C	5.8-6.4	1.15	0.50	100/300/500/600/900/1000	WR137
		6.7-7.2	1.15	0.50	100/300/500/600/900/1000	WR137
VT120WEL...	Ku	10.7-12.75	1.15	0.60	100/300/500/600/900/1000	WR75
		13.75-14.5	1.15	0.60	100/300/500/600/900/1000	WR75
VT140WEL...	Ku	12.25-12.75	1.15	0.60	100/300/500/600/900/1000	WR62
		14-14.5	1.15	0.60	100/300/500/600/900/1000	WR62

*Indicates Model Number. See VT catalog for complete part number info.

**Other lengths available upon request.

Waveguide Section

Vector Telecom manufactures a wide variety of straight sections and twists to complete your transmission line.

KEY FEATURES

- Available in C, Ku and Ka bands
- Rated for outdoor use
- In-house manufacturing ensures fast delivery



• Straight Section

Model No*	Band	Freq Range (GHz)	VSWR (Max)	WG Type
VT40WAL...	C	3.7-4.9	1.05	WR229
VT70WAL...	C	5.85-8.17	1.05	WR137
VT120WAL...	Ku	10-15	1.05	WR75
VT140WAL...	Ku	12.4-18	1.05	WR62
VT260WAL...	Ka	21.7-33	1.05	WR34
VT320WAL...	Ka	26.5-40	1.05	WR28

*Indicates Model Number. See VT catalog for complete part number info.



• Twist Section

Model No*	Band	Freq Range (GHz)	VSWR (Max)	Length** (Min)	WG Type
VT40WTA200...	C	3.22-4.90	1.1	200	WR229
VT70WTA200...	C	5.85-8.17	1.1	200	WR137
VT120WTA90...	Ku	10-15	1.1	90	WR75
VT140WTA90...	Ku	12.4-18	1.1	90	WR62
VT260WTA50...	Ka	21.7-33	1.1	50	WR34
VT320WTA50...	Ka	26.5-40	1.1	50	WR28

*Indicates Model Number. See VT catalog for complete part number info.

**Other lengths available upon request.