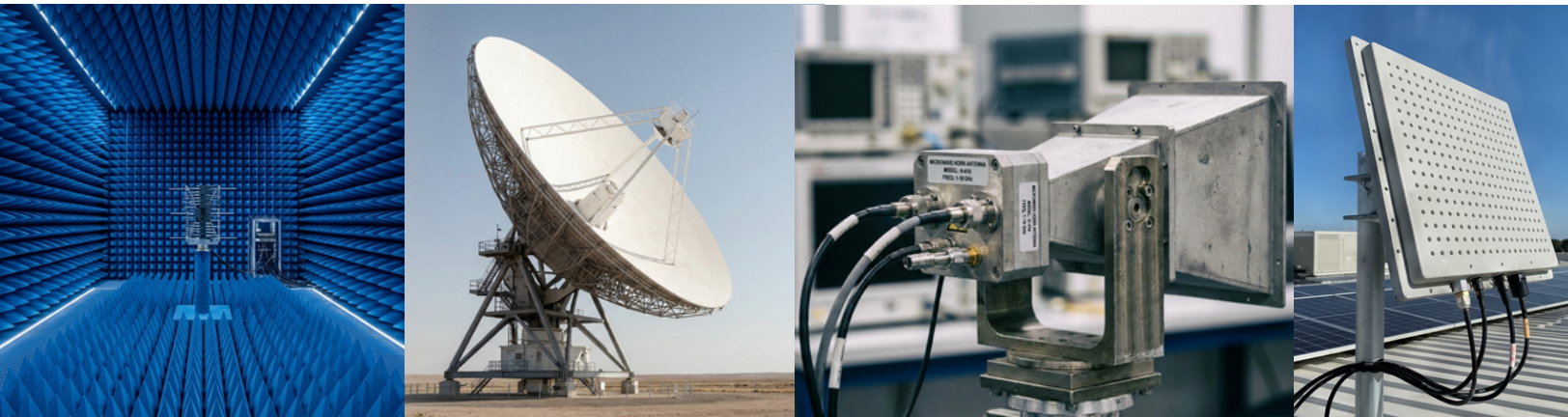




ANTENNA PRODUCTS CATALOGUE



MICROWAVE ANTENNAS, SUBSYSTEMS AND CONSULTANCY

www.antennatec.com

ABOUT US

At the forefront of antenna design and manufacture, AntennaTec delivers cutting-edge solutions in research, design, and production of ultra-wideband antennas, subsystems, and associated RF and microwave components. With a commitment to innovation and engineering excellence, we provide flexible and responsive service, utilising in-house expertise to successfully satisfy challenging commercial, defence, and industrial antenna projects

Products

AntennaTec's expertise in single, dual, linear, and circularly polarised receive and transmit antennas affords a proven capability to provide a wide range of high quality COTS (Commercial Off-The-Shelf) ultra-wideband antenna products operating within the range 0.1 to 6 GHz and beyond. Our products extend beyond those detailed in this brochure to antenna radomes, hog/log-periodic, horn antennas, monopulse, and active phased array antennas.

Subsystems

AntennaTec offers complete all-weather antenna subsystem solutions engineered to meet the most demanding operational requirements across land, maritime, and airborne platforms. Our subsystems integrate high-performance wideband antennas with precision-engineered mounting structures, multi-axis positioning systems, and custom-designed RF-transparent radomes. These fully integrated solutions support critical applications including electronic warfare (EW), radar surveillance, signals intelligence (SIGINT), meteorological sensing, satellite communications, and spectrum management.

Capabilities

AntennaTec leverages advanced electromagnetic simulation tools, complemented by proprietary in-house algorithms, to deliver highly accurate analysis and optimization of complex antenna and RF subsystem designs. Mechanical engineering is supported by industry-leading SolidWorks® and finite element analysis (FEA) software, ensuring structural integrity and environmental resilience. Our comprehensive test facilities include a state-of-the-art anechoic near-field antenna test chamber capable of characterizing antennas up to 8 feet by 8 feet in diameter across 800 MHz to 40 GHz, alongside a fully equipped environmental test laboratory for vibration, shock, temperature, and humidity qualification.

Consultancy

AntennaTec provides expert technical consultancy and custom engineering services to military and civil clients worldwide. Our experienced team supports the full project lifecycle, from feasibility studies and technical concept development through to detailed design, prototyping, system integration, and in-service support. We specialise in delivering tailored solutions for complex RF and microwave challenges, combining deep domain knowledge with a flexible and responsive approach to ensure project success within demanding timeframes and technical specifications



OMNIDIRECTIONAL ANTENNAS

About our Omnidirectional Antennas

AntennaTec's COTS and custom-designed omnidirectional antennas provide broadband coverage across wide frequency range, delivering reliable 360-degree RF performance for a wide variety of communication and surveillance applications.

Available in vertical polarization configuration, these antennas are ideally suited for Electronic Warfare (EW), Signals Intelligence (SIGINT), Direction Finding (DF), Spectrum Monitoring, and advanced RF communication systems.



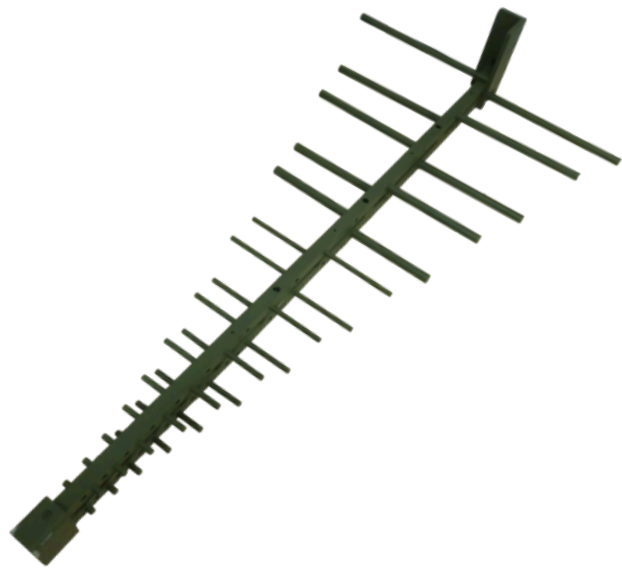
Product No	Catalogue No	Frequency (GHz)	VSWR	Gain (dBi)	Polarization	Power c.w. (W)	Connector
AT-O-2.1-2.4-N	AT-O-2.1-2.4-N-v1.0-0526	2.1-2.4	< 2:1	> 6 dBi	vertical	50	N-type
AT-O-1.2-1.5-S	AT-O-1.2-1.5-S-v1.0-0526	1.2-1.5	< 2:1	> 2 dBi	vertical	20	SMA
AT-O-0.5-3-N	AT-O-0.5-3-N-v1.0-0526	0.5-3	<2:1	2-6.5 dBi	vertical	50	N-type
AT-O-0.004-0.2-N	AT-O-0.004-0.2-N-v1.0-0626	0.004-0.2	<3:1	2 dBi	vertical	160	N-type
AT-O-0.005-0.52-N	AT-O-0.005-0.52-N-v1.0-0626	0.005-0.52	<3.5	2 dBi	vertical	160	N-type
AT-O-0.4-1-S	AT-O-0.4-1-S-v1.0-0526	0.4-1	<2	2dBi	vertical	50	SMA

LPDA ANTENNAS

About our LPDA Antennas

AntennaTec's COTS and custom-designed Log Periodic Dipole Array (LPDA) antennas provide broadband directional coverage across a wide range of frequency bands. These antennas are ideally suited for Electronic Warfare (EW), Signals Intelligence (SIGINT), Communications Intelligence (COMINT), Direction Finding (DF), Spectrum Monitoring, EMC/EMI testing, and broadband wireless communication systems.

AntennaTec also offers custom antenna designs and application-specific modifications to satisfy unique customer requirements and specialized mission profiles.



Product No	Catalogue No	Frequency (GHz)	VSWR	Gain (dBi)	Polarization	Power c.w. (W)	Connector
AT-L-0.4-6-N	AT-L-0.4-6-N-v1.0-0526	0.4-6	< 2.5:1	7-9 dBi	linear/vertical	200	N-type
AT-L-0.39-1.1-N	AT-L-0.39-1.1-N-v1.0-0526	0.39-1.1	< 2:1	7-9 dBi	linear/vertical	200	N-type
AT-L-0.05-0.41-N	AT-L-0.05-0.41-N-v1.0-0526	0.05-0.41	<2.5:1	5-9 dBi	linear/vertical	200	N-type
AT-L-0.3-0.5-N	AT-L-0.3-0.5-N-v1.0-0526	0.3-0.5	<2:1	6-9 dBi	linear/vertical	200	N-type
AT-L-0.5-2-N	AT-L-0.5-2-N-v1.0-0526	0.5-2	<2:1	6-9 dBi	linear/vertical	200	N-type
AT-L-2-4-N	AT-L-2-4-N-v1.0-0526	2-4	<2:1	6-9 dBi	linear/vertical	200	N-type
AT-L-4-6-N	AT-L-4-6-N-v1.0-0526	4-6	<2:1	6-9 dBi	linear/vertical	200	N-type

HORN ANTENNAS

About our Horn Antennas

AntennaTec's COTS and custom-designed horn antennas provide high-gain directional coverage across a broad range of frequency bands, delivering exceptional RF performance for advanced communication, surveillance, and test applications.

Designed for operation in demanding laboratory and field environments, AntennaTec horn antennas combine robust mechanical construction with reliable broadband performance, ensuring long-term durability and consistent operational efficiency. As with other AntennaTec products, bespoke horn antenna designs and application-specific modifications can be developed to meet unique customer requirements and specialized mission profiles.



Product No	Catalogue No	Frequency(GHz)	VSWR	Gain (dBi)	Polarization	Power c.w. (W)	Connector
AT-H-2-4-N	AT-H-2-4-N-v1.0-0526	2-4	< 2:1	12 dBi	linear	200	N-type
AT-H-3.7-7.2-N	AT-H-3.7-7.2-N-v1.0-0526	3.7-7.2	< 2:1	18 dBi	linear	200	N-type
AT-H-1.95-2.6-N	AT-H-1.95-2.6-N-v1.0-0526	1.95-2.6	< 2:1	18 dBi	linear	200	N-type
AT-H-7.85-9.5-N	AT-H-7.85-9.5-N-v1.0-0526	7.85-9.5	< 2:1	20 dBi	linear	200	N-type

HELICAL ANTENNAS

About our Helical Antennas

AntennaTec's COTS and custom-designed helical antennas provide high-performance circularly polarized coverage across a broad range of frequency bands, delivering reliable long-range RF communication for advanced wireless and surveillance applications.

Designed to perform in demanding operational environments, AntennaTec helical antennas combine rugged mechanical construction with dependable broadband performance, ensuring consistent signal integrity and long-term reliability for fixed, mobile, airborne, and tactical platforms. As with other AntennaTec products, bespoke helical antenna designs and application-specific modifications can be developed to meet unique customer requirements and specialized mission profiles.



Product No	Catalogue No	Frequency (GHz)	VSWR	Polarization	Gain (dBi)	Axial Ratio	Connector
AT-HL-2.2-2.4-N	AT-HL-2.2-2.4-N-v1.0-0526	2.2-2.4	< 2:1	Circular	15 dBi	< 3 dBi	N-type
AT-HL-2.4-2.5-N	AT-HL-2.4-2.5-N-v1.0-0626	2.4-2.5, 5.1-5.9	< 2:1	Circular	14 dBi	< 3 dBi	N-type
AT-HL-1.1-1.8-N	AT-HL-1.1-1.8-N-v1.0-0626	1.1-1.8	< 2:1	Circular	9 dBi	< 2 dBi	N-type
AT-HL-1.8-2.8-N	AT-HL-1.8-2.8-N-v1.0-0626	1.8-2.8	< 2:1	Circular	10 dBi	< 2.5 dBi	N-type
AT-HL-2.8-4.2-N	AT-HL-2.8-4.2-N-v1.0-0626	2.8-4.2	< 2:1	Circular	9 dBi	< 2 dBi	N-type
AT-HL-4.2-5.5-N	AT-HL-4.2-5.5-N-v1.0-0626	4.2-5.5	< 2:1	Circular	10 dBi	< 2 dBi	N-type
AT-HL-4.4-6.4-N	AT-HL-4.4-6.4-N-v1.0-0626	4.4-6.4	< 2:1	Circular	12 dBi	< 2 dBi	N-type
AT-HL-6.2-8-N	AT-HL-6.2-8-N-v1.0-0626	6.2-8	< 2:1	Circular	12 dBi	< 2 dBi	N-type
AT-HL-1.1-1.62-N	AT-HL-1.1-1.62-N-v1.0-0626	1.1-1.62	< 2:1	Circular	10 dBi	< 1.5 dBi	N-type
AT-HL-2.4-2.5-N	AT-HL-2.4-2.5-N-v1.0-0626	2.4-2.5	< 1.5:1	Circular	13 dBi	< 3 dBi	N-type
AT-HL-5.72-5.88-N	AT-HL-5.72-5.88-N-v1.0-0626	5.72-5.88	< 1.5:1	Circular	16 dBi	< 1.5 dBi	N-type

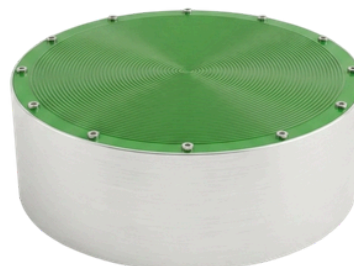
SPIRAL ANTENNAS

About our Spiral Antennas

AntennaTec's COTS and custom-designed spiral antennas provide ultra-wideband coverage with superior circular polarization characteristics, delivering reliable RF performance across a broad range of communication and surveillance applications.

Engineered for stable radiation patterns, excellent impedance matching, and enhanced resistance to polarization mismatch and multipath effects, these antennas are ideally suited for Electronic Warfare (EW), Signals Intelligence (SIGINT), Communications Intelligence (COMINT), Direction Finding (DF), Spectrum Monitoring, RF testing and measurement.

As with other AntennaTec products, bespoke spiral antenna designs and application-specific modifications can be developed to meet unique customer requirements and specialized mission profiles.



Product No	Catalogue No	Frequency (GHz)	VSWR	Gain (dBi)	Polarization	Axial Ratio	Connector
AT-S-1-18-S	AT-S-1-18-S-v1.0-0626	1-18	< 2:1	-9 to 5 dBi	circular	< 2 dBi	SMA
AT-S-1-6-S	AT-S-1-6-S-v1.0-0626	1-6	< 2:1	-2 to 5 dBi	circular	< 2 dBi	SMA
AT-S-6-18-S	AT-S-6-18-S-v1.0-0626	6-18	< 2:1	2 to 4 dBi	circular	< 3 dBi	SMA
AT-S-18-42-X	AT-S-18-42-X-v1.0-0626	18-42	< 2:1	2 to 5 dBi	circular	< 2.5 dBi	2.4 mm male

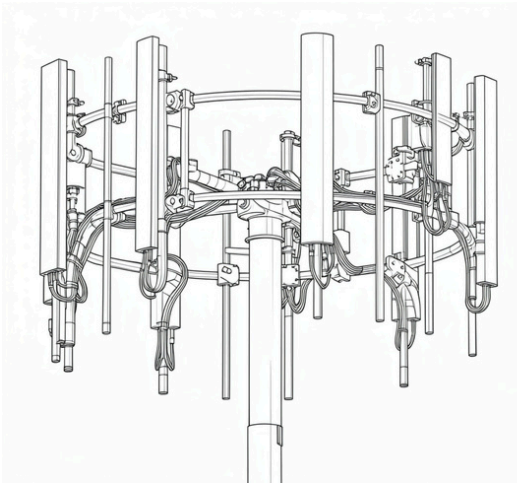
SECTOR ANTENNAS

About our Sector Antennas

AntennaTec’s COTS and custom-engineered sector antennas are designed to deliver high-efficiency, directional RF coverage with precisely defined azimuth sectorization for advanced wireless communication and monitoring architectures. These antennas provide optimized gain distribution, stable radiation patterns, and consistent coverage performance, enabling reliable operation in dense and interference-prone RF environments.

These antennas are ideally suited for telecommunications base stations, point-to-multipoint broadband systems, private wireless networks, spectrum monitoring infrastructure, UAV ground segment communications, and defense or surveillance-grade RF systems where predictable sector coverage and high system reliability are essential.

As with all AntennaTec offerings, bespoke sector antenna configurations and application-specific engineering modifications can be developed to meet specialized operational requirements, customized coverage geometries, and stringent performance specifications.



Frequency Range (MHz)	Catalogue No	3dB Beamwidth	Electrical downtilt(°)	Tilt Method	Gain (dBi)	Connector
450-470	AT-SE-0.45-0.47-X-v1.0-0626	360	0	FET	9	7/16 DIN Female
790-960	AT-SE-0.45-0.47-X-v1.0-0626	65	0	FET	17	7/16 DIN Female
806-960	AT-SE-0.45-0.47-X-v1.0-0626	65	0	FET	17	7/16 DIN Female
1710-2170	AT-SE-0.45-0.47-X-v1.0-0626	90	0	FET	17	7/16 DIN Female
1710-2200	AT-SE-0.45-0.47-X-v1.0-0626	65	0	FET	18	7/16 DIN Female

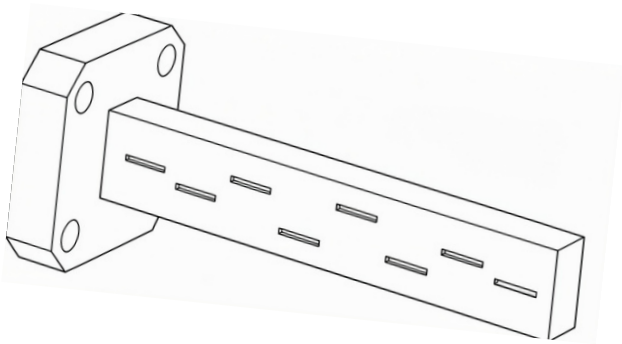
SLOTTED WAVEGUIDE ANTENNAS

About our Slotted Waveguide Antennas

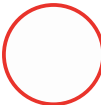
AntennaTec’s COTS and custom-engineered waveguide antennas are developed to provide exceptional high-gain, high-directivity performance for advanced microwave and millimeter-wave systems. Based on precision-fabricated waveguide architectures, these antennas ensure superior electromagnetic confinement, minimal transmission losses, and highly stable radiation characteristics across the designated frequency bands.

Optimized for stringent RF performance requirements, AntennaTec waveguide antennas offer excellent impedance matching, high power handling capability, ultra-low side-lobe levels, and precise beam control.

As with all AntennaTec products, bespoke waveguide antenna solutions and application-specific engineering adaptations can be developed to meet exact operational requirements, frequency allocations, and performance specifications for specialized mission profiles.



Frequency Range (GHz)	Catalogue No	3dB Beamwidth	Feed	Gain (dBi)	Side-lobe level	Waveguide size
9.3-9.4	AT-SW-9.3-9.4-F-v1.0-0626	10	Linear (H)	25 dBi	-25	WR112/WG15
9.4-9.5	AT-SW-9.3-9.4-F-v1.0-0626	3.5	Linear(H)	34 dBi	-30	WR90 / WG16
9.7 - 9.8	AT-SW-9.3-9.4-F-v1.0-0626	3.5	Linear(H)	34 dBi	-30	WR90 / WG16
9.25 - 9.37	AT-SW-9.3-9.4-F-v1.0-0626	4.5 (Az) / 6.0 (El)	Linear(H)	30.5 dBi	-22	WR90 / WG16
9.20 - 9.30	AT-SW-9.3-9.4-F-v1.0-0626	2.0 (Az) / 22.0 - 40.0 (El)	Mono-pulse (V)	28 dBi	-29	WR90 / WG16



WHIP ANTENNAS

About our Whip Antennas

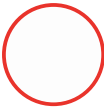
AntennaTec’s COTS and custom-engineered whip antennas are developed to provide exceptional omnidirectional performance for advanced tactical, mobile, and fixed wireless communication systems. Based on precision-designed radiating structures, these antennas ensure efficient RF propagation, broad angular coverage, and highly stable radiation characteristics across the designated frequency bands.

Their ruggedized construction and mechanically resilient design provide outstanding durability and dependable operation under demanding environmental and operational conditions.

As with all AntennaTec products, bespoke whip antenna solutions and application-specific engineering adaptations can be developed to meet exact operational requirements, frequency allocations, platform integration constraints, and performance specifications for specialized mission profiles.



Frequency Range (MHz)	Catalogue No	Polarization	VSWR	Weight	Gain (dBi)	Radiation Pattern	Connector
30-520	AT-W-0.03-0.52-N-v1.0-0626	vertical	<3.5	200g	-16 to 0	Omnidirecional	Male N-type
30-512	AT-W-0.03-0.52-N-v1.0-0626	vertical	<3.5	75g	-16 to 0.5	Omnidirecional	Male TNC-type
25-512	AT-W-0.03-0.52-N-v1.0-0626	vertical	<3.5	500g	-16 to 0	Omnidirecional	Male N-type
30-512	AT-W-0.03-0.52-N-v1.0-0626	vertical	<3	410g	-10 to 0	Omnidirecional	Male N-type



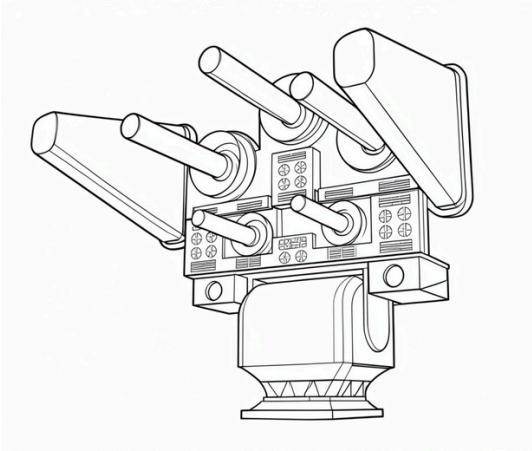
ANTI DRONE JAMMING SYSTEM

About our Anti drone jamming systems

AntennaTec’s COTS and custom-engineered anti-drone jamming systems are developed to provide exceptional counter-UAS (Unmanned Aircraft Systems) performance for advanced tactical, mobile, and fixed electronic defense operations. Based on precision-designed RF signal disruption architectures, these systems ensure efficient mitigation propagation, broad spectrum coverage, and highly stable suppression characteristics across critical multi-band drone control and GNSS frequencies.

Their ruggedized construction and mechanically resilient design provide outstanding durability and dependable operation under demanding environmental conditions and high-stress operational profiles.

As with all AntennaTec products, bespoke jamming solutions and application-specific engineering adaptations can be developed to meet exact operational requirements, specific target frequency allocations, platform integration constraints, and performance specifications for specialized electronic warfare and security mission profiles.



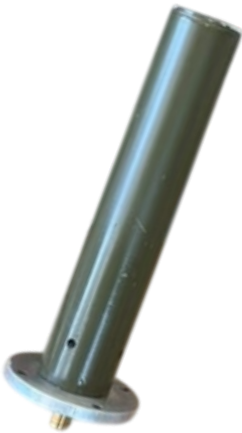
Frequency Range (GHz)	Catalogue No	Polarization	VSWR	Weight	Gain (dBi)	Jamming distance	Connector
0.4-6	AT-JS-0.4-6-N-v1.0-0626	vertical	<2	55 kg	> 8dBi	5 km	N-type
1-6	AT-JS-1-6-N-v1.0-0626	vertical	<2	5 kg	11-15 dBi	2 km	N-type

BIFILAR ANTENNAS

About our Bifilar antennas

Precision-Engineered Bifilar Helical Antennas
AntennaTec’s COTS and custom-engineered bifilar helical antennas are developed to provide exceptional circular polarization performance for advanced tactical satellite, telemetry, and terrestrial wireless communication systems. Based on precision-designed, dual-filar radiating geometries, these antennas ensure efficient RF propagation, excellent axial ratio characteristics, and highly stable hemispherical radiation patterns across the designated frequency bands. Their ruggedized construction and mechanically resilient design provide outstanding durability and dependable operation under demanding environmental conditions and high-stress operational profiles.

As with all AntennaTec products, bespoke bifilar antenna solutions and application-specific engineering adaptations can be developed to meet exact operational requirements, dedicated frequency allocations, aerodynamic platform integration constraints, and performance specifications for specialized aerospace, defense, and maritime mission profiles.



Frequency Range (GHz)	Catalogue No	Polarization	VSWR	Power	Gain (dBi)	Axial ratio	Connector
4.5-5.9	AT-BF-4.5-5.9-S-v1.0-0626	circular (LHCP)	<2	20 W	> 4dBi	< 3dBi	SMA
4.4-5	AT-BF-4.4-5-S-v1.0-0626	circular (RHCP)	<2	20 W	> 4dBi	< 2dBi	SMA

COLLINEAR ANTENNAS

About our Collinear antennas

AntennaTec's COTS and custom-engineered collinear antennas are developed to provide exceptional high-gain, omnidirectional performance for advanced tactical, mobile, and fixed base-station wireless communication systems. Based on precision-designed, vertically stacked radiating elements, these antennas ensure efficient RF energy propagation, an optimized low-angle radiation pattern for extended range.

Their ruggedized construction, often utilizing heavy-duty fiberglass radomes and mechanically resilient mounting hardware, provides outstanding durability and dependable operation under demanding environmental conditions and high-stress operational profiles.

As with all AntennaTec products, bespoke collinear antenna solutions and application-specific engineering adaptations can be developed to meet exact operational requirements, specific frequency allocations, platform integration constraints, and performance specifications for specialized aerospace, defense, and industrial telecommunication mission profiles.



Frequency Range (MHz)	Catalogue No	Power (W)	VSWR	Beamwidth	Gain (dBi)	Radiation Pattern	Connector
420-520	AT-C-0.42-0.52-N-v1.0-0626	200	<2	360°	6 dBi	Omnidirecional	N-type
865-930	AT-C-0.42-0.52-N-v1.0-0626	200	<2	360°	7 dBi	Omnidirecional	N-type
1100-1300	AT-C-0.42-0.52-N-v1.0-0626	200	<2	360°	7 dBi	Omnidirecional	N-type
1400-1650	AT-C-0.42-0.52-N-v1.0-0626	200	<2	360°	8 dBi	Omnidirecional	N-type
2400-2500	AT-C-0.42-0.52-N-v1.0-0626	200	<2	360°	9 dBi	Omnidirecional	N-type
5100-5900	AT-C-0.42-0.52-N-v1.0-0626	200	<2	360°	9 dBi	Omnidirecional	N-type
902-930	AT-C-0.9-0.93-N	200	<2	360°	7 dBi	Omnidirecional	N-type
1555 -1615	AT-C-1.55-1.61-N	200	<2	360°	7 dBi	Omnidirecional	N-type
2400-2500	AT-C-2.4-2.5-N	200	<2	360°	7 dBi	Omnidirecional	N-type
5720-5880	AT-C-5.72-5.88-N	200	<2	360°	7 dBi	Omnidirecional	N-type

DIPOLE ANTENNAS

About our Dipole Antennas

AntennaTec's COTS and custom-designed dipole antennas deliver high-efficiency linear polarization and excellent omnidirectional performance, providing reliable RF coverage across targeted frequency bands for a wide variety of communication and surveillance applications.

Designed for deployment in demanding operational environments, AntennaTec dipole antennas combine lightweight, rugged construction with proven broadband or narrowband performance, ensuring consistent signal integrity and long-term reliability for fixed, mobile, airborne, and tactical platforms.

As with other AntennaTec products, bespoke dipole antenna designs and application-specific modifications can be developed to meet unique customer requirements and specialized mission profiles



Product No	Catalogue No	Frequency (GHz)	VSWR	Gain (dBi)	Polarization	Weight	Connector
AT-D-1.05-1.38-S	AT-D-1.05-1.38-S-v1.0-0626	1.05-1.38	< 2:1	2 dBi	linear	< 35 g	SMA
AT-D-0.79-1.22-S	AT-D-0.79-1.22-S-v1.0-0626	0.79-1.22	< 2:1	2 dBi	linear	< 20 g	SMA
AT-O-0.4-1-S	AT-O-0.4-1-S-v1.0-0526	0.4-1	< 2:1	2 dBi	linear	920 g	SMA



PERFORMANCE WITHOUT COMPROMISE

AntennaTec

Office#209, Second Floor, Center for
Emerging Technologies (CEMTECH),
National Science and Technology Park,
NUST, H-12, Islamabad, Pakistan.

Email: contact@AntennaTec.com

Cell: (+92)303-2306688

More product information available at:
www.AntennaTec.com