



PRODUCT CATALOG

JULY 2026

Antenna Technology For High-Performance Wireless Networks

RF elements develops antenna technologies designed to solve real-world challenges in fixed wireless networks. From interference-heavy environments to high-density deployments, our solutions focus on maximizing spectrum efficiency and enabling scalable network design.

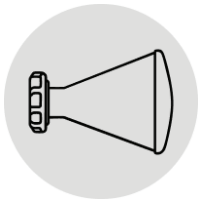
Designed To Solve RF Noise

RF elements Horn Antennas address the critical problem with RF Noise by focusing energy into a well-defined main beam with naturally suppressed side lobes. This results in Improved Signal-to-Noise Ratio (SNR), reduced interference from neighboring sectors, more stable and predictable links and massive increase in overall network capacity.

By controlling how RF energy is transmitted and received, our technology enables operators to make better, sustainable use of spectrum.

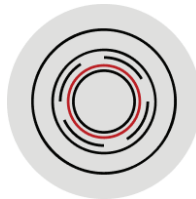
We deliver fast, sustainable wireless!

RF elements technology delivers fast, massively scalable wireless while addressing the issue of RF pollution, proper use of spectrum and sustainable growth. Unique, pioneering approach makes RF elements antenna technology excellent in rejecting noise, eliminating RF system loss and achieving massive scalability of wireless networks.



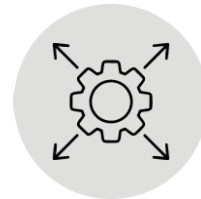
Horn Antennas

Excellent noise rejection



TwistPort™

Virtually lossless connector

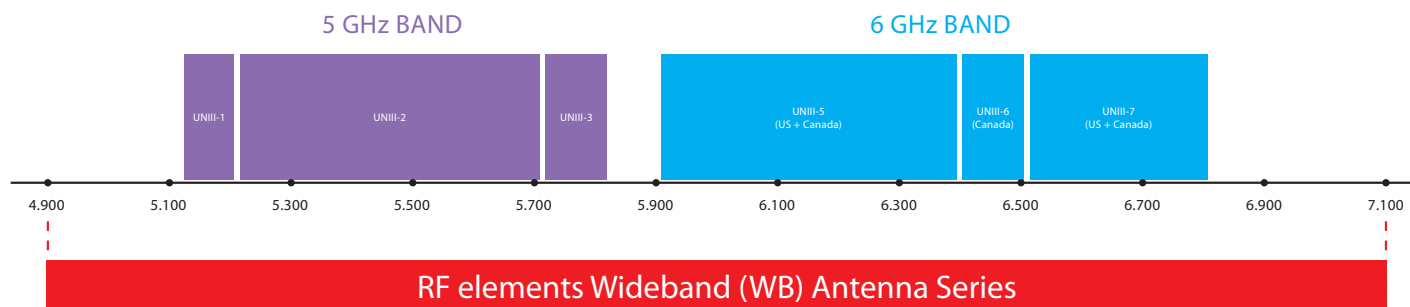


Massive Scalability

Grows with your network

5 + 6 GHz Wideband Antennas For Scalable FWA Connectivity

With global adoption of 6 GHz unlicensed band for outdoor installations, operators increasingly require antennas that support both 5 GHz and 6 GHz unlicensed bands operation without hardware replacement. RF elements® Wideband Antennas deliver exactly that - engineered for extended frequency coverage with controlled radiation and real-world performance.



Stable Wideband Beam Performance

Wideband performance is meaningful only if radiation characteristics remain consistent across the band. In terms of physics, narrowing the band provides practical advantages for radio and antenna designers, and widening the band brings substantial challenges for hardware designers. This is why RF elements wideband antennas shine.

RF elements wideband antennas maintain stable gain across 5 GHz and 6 GHz bands which is very difficult task to achieve. Controlled, predictable beam shapes with naturally attenuated side lobes guarantee excellent performance and strong co-location capability.

This results in improved Signal-to-Noise Ratio (SNR) and better link stability especially in dense WISP deployments where interference management is key.

Future-Proof Your Network

As 6 GHz adoption accelerates globally, infrastructure flexibility is essential. RF elements 5 + 6 GHz Wideband Antennas enable service providers to avoid repeated and unnecessary antenna replacement and future-proof installations for new radio platforms.

With the latest wideband antenna series, operators can rapidly deploy multi-band and multi-carrier networks without compromising support for advanced MIMO and high-capacity strategies.

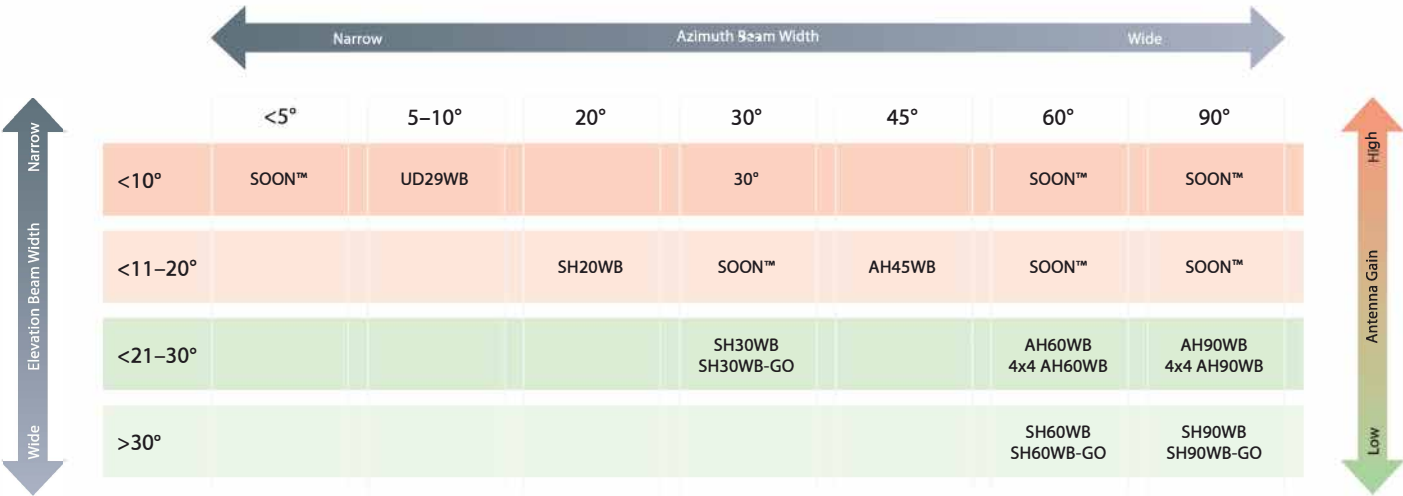
Simplify Inventory and Upgrades

One antenna platform can support today's 5 GHz deployments, new 6 GHz radios, and mixed 5 + 6 GHz strategies. For distributors, integrators, and service providers, this means fewer dedicated antenna models, easier stock planning, and faster response to changing radio platforms.

Flexible Coverage Options: Choose the Cell You Need

Our Product portfolio is essentially a scalable RF Toolbox. Wideband models are available in popular and proven symmetrical and asymmetrical beam shapes, enabling operators to optimize sector layout and overlap. Wideband Antennas enable deployments of multi-carrier 5+6 GHz networks.

Operators can create scalable cluster sector designs and substantially increase frequency reuse. Combined with the TwistPort™ waveguide interface, wideband antennas provide clean installs, fast deployments and deliver predictable and reliable RF performance.



Built for Real-World Deployments

RF elements wideband antennas are engineered for extreme durability and long service life. More than a decade of real-world experience, based on hundreds of thousands of horn antennas deployed worldwide, provides continuous feedback that drives our engineering and product development.

Designed and Manufactured In-House in the EU

RF elements Wideband Antennas are proudly designed, engineered, and manufactured in-house in the European Union. We build what we design. The same engineering team that develops the products is directly involved in production implementation.

By maintaining complete control over both development and manufacturing, RF elements ensures that every antenna meets the demanding performance and durability standards required for professional wireless networks.



5 + 6 GHz Asymmetrical Horn WB Antennas

Asymmetrical Horn WB Antennas are designed to cover both 5 GHz and 6 GHz unlicensed bands. They provide unique asymmetrical beam shape and are equipped with our proprietary game-changing TwistPort™ waveguide connector.

Asymmetrical Horns provide beams which are wide in azimuth and narrower in elevation. Deployment scenarios include wide horizontal coverage, tower mounted APs and wide area sectors with excellent sidelobe control.

Antennas are very compact and incredibly lightweight. Compared to 5 GHz Asymmetrical Horn TP Series, the weight of AH-WB antennas has been reduced by almost 50%. Asymmetrical Horn WB Antennas are built with non corrosive materials and have superb longevity and durability.



Parameter	45° Sector	60° Sector	90° Sector
Gain	19 dBi	16 dBi	15 dBi
Beamwidth (-6dB)	45° / 20°	60° / 25°	90° / 25°
Frequency Range (MHz)	4900 - 7125	4900 - 7125	4900 - 7125
Beam Efficiency	98 %	96 %	96 %
Product ID	AH45WB	AH60WB	AH90WB
MSRP	399.00 USD	399.00 USD	399.00 USD

5 + 6 GHz 4x4 Asymmetrical Horn WB Antennas

4x4 Asymmetrical Horn Antennas are built to enable excellent performance of the Asymmetrical Horn WB antenna for high performance 4x4 outdoor deployments. 4x4 5 + 6 GHz Asymmetrical Horn WB Antennas provide excellent noise rejection, network scalability and beam performance. Antennas are optimized for H and V radiation patterns providing the best radiation patterns over extremely wide band of operation.

4x4 5 + 6 GHz Asymmetrical Horn WB Antennas provide ultimate flexibility for almost any 4x4 or 2x2 deployment scenario. Combination of excellent wideband performance, wide selection of TwistPort™ antenna feeds and dual radio mounts allow for virtually endless configuration options of your Access Point, including Single carrier, Dual Carrier in 5 GHz, 6 GHz or 5+6 GHz bands.



Parameter	4x4 60° Sector	4x4 90° Sector
Gain	16 dBi	15 dBi
Beamwidth (-6dB)	60° / 25°	90° / 25°
Frequency Range (MHz)	4900 - 7125	4900 - 7125
Beam Efficiency	96 %	96 %
Product ID	AH60WB-4X4-SMA	AH60WB-4X4-SMA
MSRP	499.00 USD	499.00 USD

5 + 6 GHz Symmetrical Horn WB Antennas

RF elements Symmetrical Horn WB Antennas provide clean, controlled sector coverage across both 5 GHz and 6 GHz bands. They combine wideband performance, deeply suppressed side lobes, TwistPort™ radio integration, and advanced mounting for modern fixed wireless deployments.

Symmetrical Horn WB Antennas cover both 5 and 6 GHz unlicensed bands. SH-WB is the main RF elements wideband Symmetrical Horn series. It is designed for WISPs deploying

today in 5 GHz and preparing for 6 GHz radio platforms, wider channels, and higher site density. This helps operators keep planning simple, reuse installation logic, and build cleaner point-to-multipoint networks.

Antennas are lightweight and extremely durable. Advanced mount allows for precise alignment and practical installation features for demanding tower deployments.



Parameter	20° Sector	30° Sector	60° Sector	90° Sector
Gain	21-23 dBi	18 dBi	13 dBi	10 dBi
Beamwidth (-6dB)	20° / 20°	30° / 30°	60° / 60°	90° / 90°
Frequency Range (MHz)	4900 - 7125	4900 - 7125	4900 - 7125	4900 - 7125
Beam Efficiency	93 %	98 %	96 %	96 %
Product ID	SH20WB	SH30WB	SH60WB	SH90WB
MSRP	350.00 USD	205.00 USD	205.00 USD	205.00 USD

5 + 6 GHz Symmetrical Horn GO Antennas

RF elements Symmetrical Horn WB GO Antennas bring clean horn antenna performance to cost-sensitive fixed wireless deployments. They provide controlled sector coverage, strong noise rejection, TwistPort™ radio integration, and practical mounting in a lightweight, efficient design. SH-WB GO Antennas cover both 5 GHz and 6 GHz bands. This

makes them suitable for current 5 GHz deployments and future 6 GHz radio platforms. SH-WB GO Antennas are built for fast and efficient tower installation. The lightweight design, extremely durable and resistant materials and practical aluminum mount make deployment simple while keeping the mechanical stability needed for real outdoor WISP networks.



Parameter	30° Sector	60° Sector	90° Sector
Gain	19 dBi	16 dBi	10 dBi
Beamwidth (-6dB)	30° / 30°	60° / 60°	90° / 90°
Frequency Range (MHz)	4900 - 7125	4900 - 7125	4900 - 7125
Beam Efficiency	98 %	96 %	96 %
Product ID	SH30WB-GO	SH60WB-GO	SH90WB-GO
MSRP	140.00 USD	130.00 USD	130.00 USD

5 + 6 Ghz UltraDish™ WB



UltraDish™ WB Antennas are high-gain parabolic dish antennas designed for operation across both 5 GHz and 6 GHz unlicensed bands.

UltraDish™ 29 WB is engineered for premium CPE applications and demanding links where higher gain, directivity, and clean RF performance are required. The proprietary TwistPort™ waveguide connector ensures a precise, efficient radio-to-antenna connection.

UltraDish™ 29 WB features a redesigned reinforced bracket and a sleek, professional mechanical design. The antenna is built for long-term outdoor reliability and harsh weather conditions, using corrosion-resistant materials including aluminum sheets, zinc alloy, and high-quality ABS plastic.

UltraDish™ 29 WB is available in multiple packaging options. Optional accessories include the RC29 Radome and SIDE-STRUT-29 Side Strut.

Parameter	UltraDish™ 29 WB
Gain	28-29 dBi
Beamwidth (-6dB)	7.6° / 7.6°
Frequency Range (MHz)	4900 - 7125
Beam Efficiency	98 %
Product ID	UD29WB
MSRP	215.00 USD

TwistPort™ Adaptors (TPA)

TwistPort™ Adaptor PAF V2

Product ID: TPA-PAF-V2

Compatible radios: Prism 5AC,
airFiber 5X & LTU, TPA-MLO5

MSRP: 59.00 USD



TwistPort™ Adaptor for Rocket AC

Product ID: TPA-R5AC

Compatible radios:

UBNT™ Rocket® 5AC-Lite

MSRP: 32.00 USD



TwistPort™ Adaptor for ePMP-B-6

Product ID: TPA-ePMP-B-6

Compatible radios: ePMP
4600L, 4600 C

MSRP: 48.00 USD



TwistPort™ Adaptor for Mimosa WG

Product ID: TPA-AMU-V3

Compatible radios:

Mimosa waveguide 5 + 6 GHz

MSRP: 22.00 USD

TwistPort™ Adaptor for ePMP-A

Product ID: TPA-ePMP

Compatible radios: ePMP 1000 /
CSM, 3000, 300CSM, 450b

MSRP: 26.00 USD



TwistPort™ Adaptor for ePMP-B

Product ID: TP-ADAP-E2K

Compatible radios: ePMP 2000 AP,
400C, 4500L

MSRP: 48.00 USD



TwistPort™ Adaptor for RouterBoard RBC

Product ID: TPA-RBC

Compatible radios:

MikroTik™ RouterBoard™
RBM11G, RB92X, RB91X,
RB71X, RB411L series

MSRP: 36.00 USD



TwistPort™ Adaptor with SMA Connectors for 6 GHz band

Product ID: TPA-SMA6

MSRP: 22.00 USD

TwistPort™ Adaptor with SMA Connectors for 5 GHz band

Product ID: TPA-SMA

MSRP: 20.00 USD



5 GHz Asymmetrical Horn TP Antennas

Asymmetrical Horn TP Antennas combine a clean asymmetrical beam pattern with the game-changing TwistPort™ waveguide connector. They provide excellent noise rejection, improved network scalability, and higher usable throughput in demanding WISP deployments.

The Asymmetrical Horn Antenna Series was voted WISPA Product of the Year in 2019, 2020, and 2021. Three consecutive wins sent a clear message about its real-world field performance. Typical deployment scenarios include wide horizontal coverage, tower-mounted access points, and wide-area sectors requiring excellent side lobe control.



Parameter	30° Sector	60° Sector	90° Sector
Gain	20.5 dBi	17 dBi	16 dBi
Beamwidth (-6dB)	30° / 20°	60° / 25°	90° / 25°
Frequency Range	5180 - 6000 MHz	5180 - 6000 MHz	5180 - 6000 MHz
Beam Efficiency	95 %	95 %	90 %
Product ID	AH2030-TP	AH60-TP	AH90-TP
MSRP	299.00 USD	299.00 USD	299.00 USD



5 GHz Asymmetrical Horn CC Antennas

Asymmetrical Horn CC Antennas are horn antennas with an elliptical beam cross-section. The CC version is equipped with N-female connectors for standard coaxial radio connection. Asymmetrical Horns provide wide azimuth coverage and a narrower elevation beam, making them ideal for sector deployments where clean coverage and interference control are critical.

They address major weaknesses of conventional sector antenna technologies by delivering excellent noise rejection, improved network stability, and higher usable throughput. Typical deployment scenarios include wide horizontal coverage, tower-mounted access points, and wide-area sectors requiring excellent side lobe control.



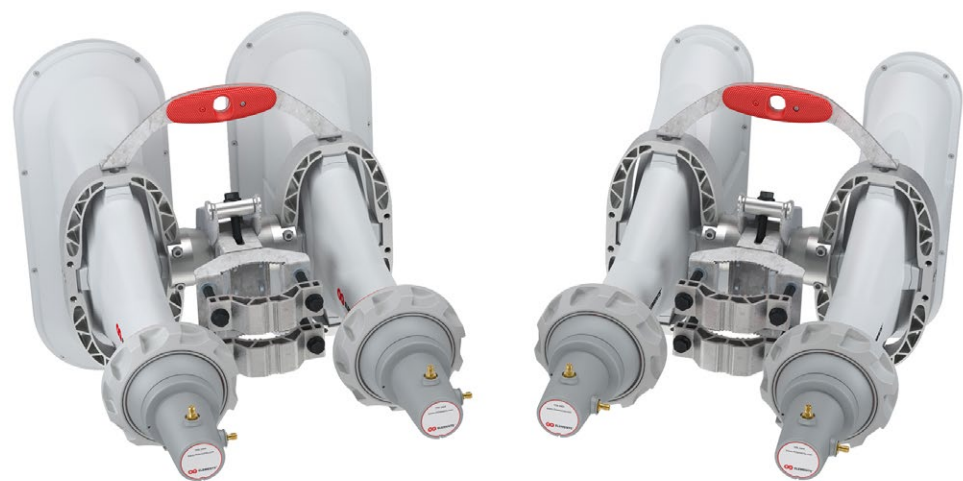
Parameter	20° Sector	30° Sector	60° Sector	90° Sector
Gain	20.5 dBi	20.5 dBi	17 dBi	16 dBi
Beamwidth (-6dB)	20° / 30°	30° / 20°	60° / 25°	90° / 25°
Frequency Range	5180 - 6000 MHz	5180 - 6000 MHz	5180 - 6000 MHz	5180 - 6000 MHz
Beam Efficiency	95 %	95 %	95 %	90 %
Product ID	AH20-CC	AH30-CC	AH60-CC	AH90-CC
MSRP	299.00 USD	299.00 USD	299.00 USD	299.00 USD



5 GHz 4x4 Asymmetrical Horn Antennas

4x4 5 GHz Asymmetrical Horn Antennas bring proven horn performance to outdoor 4x4 MU-MIMO deployments. They are engineered to deliver excellent noise rejection, improved network scalability, and higher usable throughput in demanding WISP environments.

The 4x4 Horn design is built as an array of two 2x2 Asymmetrical Horn Antennas - the award-winning antenna platform recognized with the WISPA Product of the Year Award for three consecutive years, from 2019 to 2021. The antennas also feature an innovative mounting system with the mount separated from the antenna body, making installation, alignment, and adjustment fast and easy.



Parameter	4x4 60° Sector	4x4 90° Sector
Gain	16 dBi	15 dBi
Beamwidth (-6dB)	60° / 25°	90° / 25°
Frequency Range (MHz)	5180 - 6000	5180 - 6000
Beam Efficiency	95 %	90 %
Product ID	AH60-4x4-SMA	AH90-4x4-SMA
MSRP	430.00 USD	430.00 USD



Smart Brackets For Asymmetrical Horn Antennas

The BR-WG Smart Brackets add a dedicated mounting point that allows other devices be installed directly on any RF elements Asymmetrical Horn Antenna with a structural aluminium ring. This creates a clean, space-efficient setup ideal for deployments where a 90° Asymmetrical Horn serves as a failover 5 GHz antenna, and / or as a supporting mounting structure.

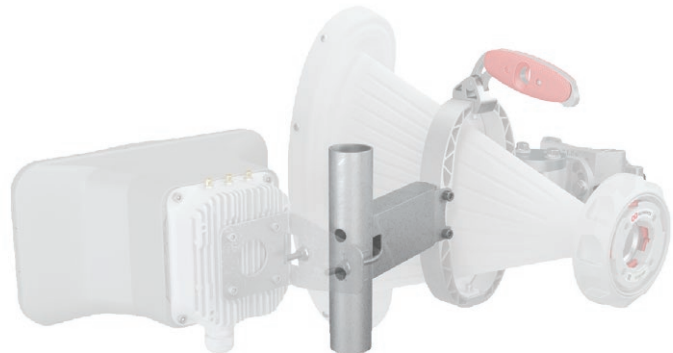
Once mounted, the Wave AP Pro Gen2 / Tachyon TNA-305X can be aligned in azimuth and elevation together with the horn, ensuring precise and coordinated positioning. The horizontal mounting orientation also saves valuable vertical tower space, enabling more efficient stacking of equipment.



Product ID	BR-WG2	BR-WG3
MSRP	30.00 USD	30.00 USD

The BR-WG Smart Brackets add a dedicated mounting point that allows other devices be installed directly on any RF elements Asymmetrical Horn Antenna with a structural aluminium ring. This creates a clean, space-efficient setup ideal for deployments where a 90° Asymmetrical Horn serves as a failover 5 GHz antenna, and / or as a supporting mounting structure.

Once mounted, the Wave AP Pro Gen2 / Tachyon TNA-305X can be aligned in azimuth and elevation together with the horn, ensuring precise and coordinated positioning. The horizontal mounting orientation also saves valuable vertical tower space, enabling more efficient stacking of equipment.



Compatible Antennas

- AH2030-TP, AH60-TP, AH90-TP
- AH20-CC, AH30-CC, AH60-CC, AH90-CC
- AH60-4x4-SMA, H90-4x4-SMA
- AH45WB, AH60WB, AH90WB
- AH60WB-4x4-SMA, AH90WB-4x4-SMA

Ultrahorn™ Antennas

UltraHorn™ TP is a high-gain scalar horn antenna engineered for demanding point-to-point links in high-noise environments. It combines the key advantages of scalar horn technology: exceptional noise rejection, virtually lossless TwistPort™ radio connection, a symmetrical beam pattern, and substantially suppressed side lobes.

With 99% beam efficiency, UltraHorn™ TP sets the benchmark for noise rejection and clean RF performance in professional WISP networks.



Parameter	UltraHorn™ TP 5-24	UltraHorn™ CC 5-24
Gain	24 dBi	24 dBi
Beamwidth (-6dB)	16° / 16°	16° / 16°
Frequency Range (MHz)	5180 - 6775	5180 - 6775
Beam Efficiency	99 %	99 %
Product ID	UH-TP-5-24	UH-CC-5-24
MSRP	299.00 USD	299.00 USD

Starter Antennas

The Starter Series includes StarterHorn™ and StarterDish™ antennas, designed as cost-effective solutions with strong RF performance. Starter Series antennas are directly compatible with the Ubiquiti waveguide port and, using dedicated adaptors, can also support Mimosa waveguide and RP-SMA radio connections commonly used in the WISP industry.

Starter Antennas provide an accessible entry point for customers new to horn antenna technology, especially where low initial investment is important. StarterHorn™ A45 USMA

features an asymmetrical main lobe with suppressed side lobes, delivering strong noise rejection for high-density AP clusters and dense co-location environments. StarterDish™ antennas are designed for CPE applications. Their steel reflectors provide solid beam performance in a cost-effective package. The antennas are easy to assemble and are available in highly economical 5-pack packaging.



Parameter	StarterHorn™ A45° USMA	StarterHorn™ 21 UM	StarterHorn™ 24 UM	StarterHorn™ 27 UM
Gain	17 dBi	21 dBi	24 dBi	27 dBi
Beamwidth (-6dB)	45° / 30°	15° / 15°	12° / 12°	8° / 8°
Frequency Range	5150 - 6400	5150 - 5950 MHz	5150 - 6400 MHz	5150 - 6400 MHz
Beam Efficiency	90 %	28 %	34 %	42 %
Product ID	STH-A45-USMA	STD-21-UM-5PACK	STD-24-UM-5PACK	STD-27-UM-5PACK
MSRP	99.00 USD	345.00 USD	400.00 USD	525.00 USD

Array Sector Antennas

Array Sector Antennas are patch array antennas optimized for sector coverage and dense AP cluster deployments.

RF elements® Array Sector Antennas deliver balanced gain performance across the full usable bandwidth, ensuring consistent RF performance regardless of the selected channel. The antennas feature integrated BackShield™ technology - RF elements' patented frequency-selective surface designed to significantly attenuate azimuth side lobes and back radiation. This improves co-location capability and helps maintain cleaner RF conditions in dense deployments.

Array Sector Antennas are built from high-grade aluminum, making them compact, lightweight, and highly durable, including in harsh coastal environments.

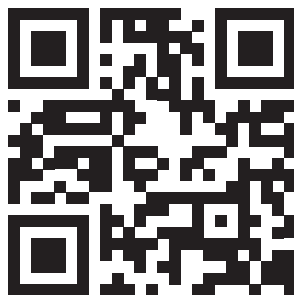


Parameter	Array Sector 5-20	Array Sector 2-14	Array Sector 2-17
Gain	20 dBi	14 dBi	17 dBi
Beamwidth (-6 dB)	100° / 4.5°	112° / 21°	110° / 10°
Frequency Range (MHz)	5150 - 5850	2400 - 2484	2400 - 2484
Beam Efficiency	69 %	88%	87%
Product ID	AS-5-20	AS-2-14	AS-2-17
MSRP	120.00 USD	110.00 USD	120.00 USD





MSRP does not include taxes, export or import duties
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