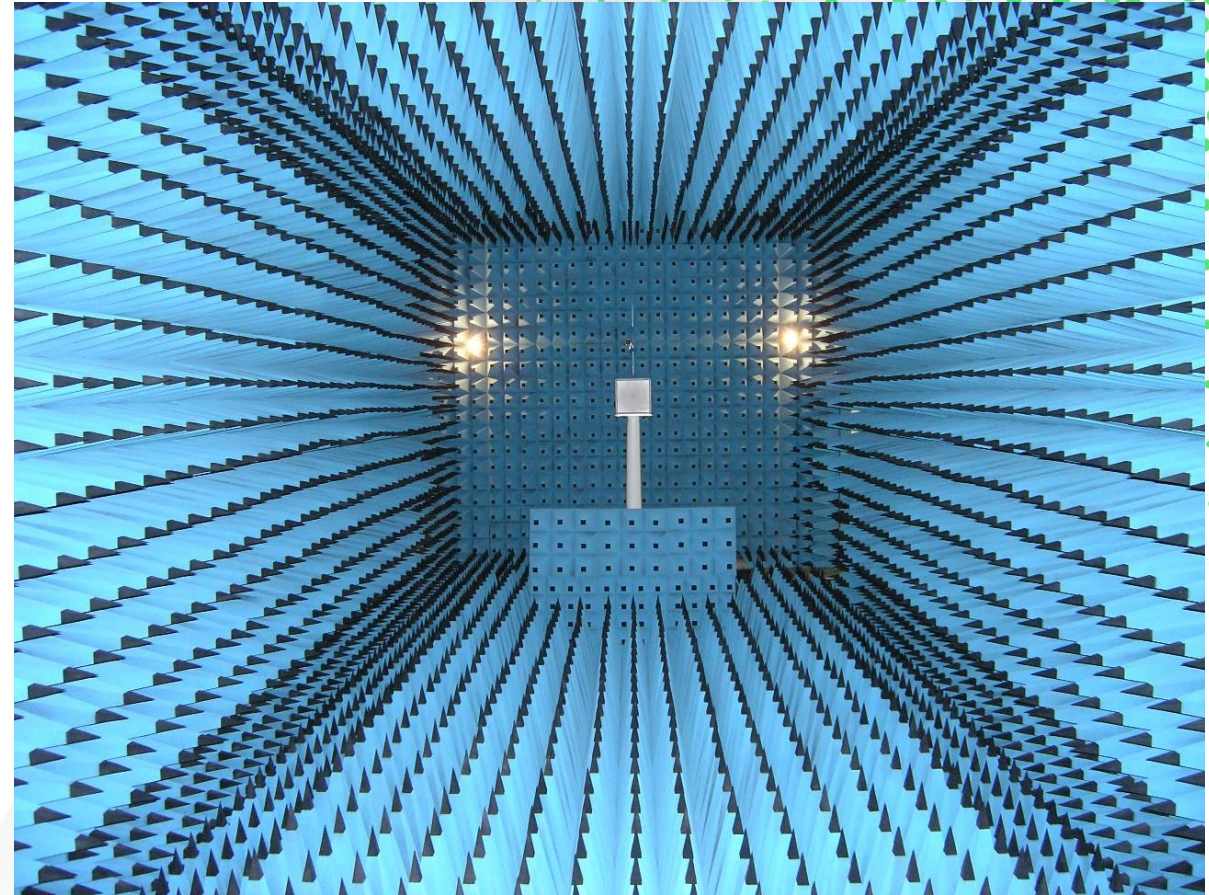


03 November 2022

A faded, light-colored photograph of a multi-story office building. The building has a modern architectural style with a grid of windows and balconies. On the upper part of the building, the 'MARS' logo is visible. The image is overlaid with a semi-transparent white and blue geometric shape that frames the text.

MARS Antennas & RF Systems Company Presentation

- MARS was established in 1994 and is based in Israel
- MARS specializes in the design and manufacture of advanced antennas, both off-the-shelf and custom-made using advanced materials technology.
- Full certification to ISO9001 & ISO14001 Full RoHS compliance In-house up-to-date antennas anechoic chamber
- Fully customized design within shortest lead-times
- Dedication to excellence and innovation



MARS Advantages

- Large product portfolio with more than 400 products mainly CPE and Base Station antennas covering frequencies from 100 MHz up to 31 GHz
- Providing a variety of solutions for most applications currently in the market such as : **TETRA, TV White-Space, LORA, GSM, UMTS, LTE, CBRS WiFi, WLAN, IoT, GPS** and more.
- Full customization Capability - Specialize in custom design of tailor-made products with short response times and competitive pricing.
- Flexibility
- Short lead-times

Partner types

- OEM's – Combining MARS Antennas with their own Radio equipment
- Distributors – Online and Offline sales
- Small Manufactures – Embedded Antenna board (MARS inside)
- Integrators / Resellers (VARs) - Offering end to end solution with MARS Antennas

Vertical examples

- WISP (Wireless Internet Service Provider) - High speed wireless coverage of cellular, multiband and Wi-Fi solutions
- Public safety and first responders (FirstNet) - Wi-Fi hotspots, Land Mobile Radio, Vehicle tracking and Fleet management
- Mobile and DSRC (Dedicated short-range communications) - Highway communications (V2I) traffic management (V2V), intersection management, and other DSRC applications (i.e., parking, tolling and trucking supervision).
- Homeland Defense and Government - Customized Antenna solutions for UAV and Drone control

- Broadband Access Antennas –
Directional and Base Station antennas for Wi-Fi, LTE,
and WLAN applications.
- Antennas for Public Safety, ISM & Special Applications
- In-Building Antennas (covering 380 MHz to 6 GHz band)
- Embedded Antennas
- Antennas for military applications



Main Antenna lines

Click on the
desired
product
family 

Beamforming



802.11ax



X pole Outdoor



Stadium



Mobile



Outdoor Omni



In-Building



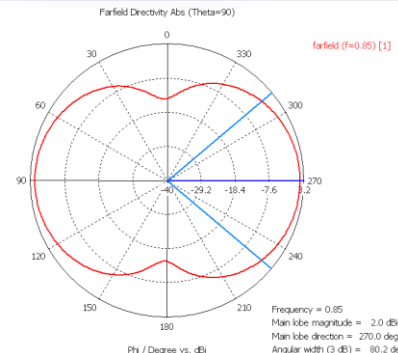
Public Safety



mm Wave



Part Number	MA-CQ27-1X		MA-WO3860-MIMO		MA-WA3560-DS7P	
						
Description	TETRA, GSM, UMTS, LTE, WLAN, Wi-Fi Multi Band Omni		TETRA, GSM, UMTS, LTE, WLAN, Wi-Fi Multi Band MIMO Omni		LTE, 3G, 2G, ISM, Wi Fi, WLAN, Bluetooth, GSM 900 / 1900	
Frequency (MHz)	380-806	1 (2*) dBi	380 - 1200 MHz	1-5 dBi	350-400	1.5 dBi
	806-960	4 dBi	1200 -1900 MHz	6dBi	698-960	7.5 dBi
	1395-1432	5 dBi	1900 -3300 MHz	7 dBi	1700-2700	7 dBi
	1710-2170	5 dBi	3300 - 6000 MHz	8dBi	3300-3800	7 dBi
	2300-2500	6 dBi			5150-6000	6 dBi
	3300-3700	6 dBi				
	4900-6000	6 dBi				
Polarization	Linear, Vertical		Linear, 2 X Vertical		Dual Slant $\pm 45^\circ$ Dual Pol in Diamond Shape	

MA-VWB-2A	MA-WA12-6	MA-WOLTE-3S
Car Window Mounted Antenna	Directional Antenna	Multi Band Two ports Omni Antenna
800-2700 MHz	1150 – 1375 MHz	790 – 2700 MHz
		
 <p>Farfield Directivity Abs (Theta=90) farfield (f=0.85) [1]</p> <p>Frequency = 0.85 Main lobe magnitude = 2.0 dBi Main lobe direction = 270.0 deg. Angular width (3 dB) = 80.2 deg.</p>	 <p>Farfield Directivity Abs (Theta=90) farfield (f=1.88) [1]</p> <p>Frequency = 1.88 Main lobe magnitude = 2.0 dBi Main lobe direction = 270.0 deg. Angular width (3 dB) = 76.1 deg.</p>	

MA-WO7402700-5

**Multi Band Omni Directional
Base Station Antenna**

**740-960 MHz
4dBi**

**1710-2700 MHz
6dBi**

Linear, Vertical



4X4 and 5X5 Outdoor Antennas



20 X 20cm	30 X 30cm	30 X 30cm	30 X 30cm	37 X 37cm
MA-WA55-4QP13 4X4	MA-WA2455-QPMIMO 4X4	MA-WA56-MIMO5-14 5X5	MA-WA55-QP4MIMO 4X4	MA-WA57-QP4MIMO19 4X4
Quad Polarized MIMO Antenna	Dual Band Quad Polarized MIMO Antenna	5X5 MIMO Antenna	Quad Polarized MIMO Antenna	Dual Band Quad Polarized MIMO Antenna
4.9-6.1 GHz 4 X 13 dBi Vertical, Horizontal & Dual Slant $\pm 45^\circ$	5.15-5.875 GHz 16dBi Vertical & Horizontal Pol 2.3-2.7 GHz 12 dBi Dual Slant $\pm 45^\circ$	4.9-6.1 GHz 5 x 13.5 dBi Linear, Vertical	5.1-5.9 GHz 4 x 16 dBi Vertical, Horizontal & Dual Slant $\pm 45^\circ$	4.9-5.15 GHz 4 x 18 dBi Vertical, Horizontal & Dual Slant $\pm 45^\circ$ 5.15-6.425 GHz 4 x 19 dBi Vertical, Horizontal & Dual Slant $\pm 45^\circ$

2X2 Outdoor Antennas



10 X 10	20 X 20	30 X 30	37 X 37	60 X 60
MA-WA56-DP13	MA-WA56-DP19	MA-WA56-DP23	MA-WA56-DP25N	MA-WA56-DP28N
4.9-6.1 GHz Dual Pol/Slant H-pol 14.5 dBi V-pol 13.5 dBi	4.9-6.1 GHz Dual Pol/Slant 19 ± 1 dBi	4.9-6.1 GHz Dual Pol/Slant 23 ± 1 dBi	4.9-5.875 GHz Dual Pol/Slant H-pol 24.5 dBi V-pol 23.5 dBi	4.7-6.425 GHz Dual Pol/Slant H-pol 28.5±1 dBi V-pol 29±1 dBi
MA-WA25-DP9	MA-WA25-DP14	MA-WA25-DP17	MA-WA25-DP19	MA-WA25-DP23
2.3-2.7 GHz Dual Pol 8±1 dBi	2.3-2.7 GHz Dual Pol 14 dBi	2.3-2.7 GHz Dual Pol 17.5±1 dBi	2.3-2.7 GHz Dual Pol 19±1 dBi	2.3-2.7 GHz Dual Pol 23±1 dBi

MARS 4X4 Base Station Antennas



MA-WC25-2DS17 4X4	MA-WC35-2DS17 4X4	MA-WE2458-2H 4X4
2.3-2.7 GHz Double Dual Slant Base Station Antenna, 65°	3.2-4.1 GHz Double Dual Slant Base Station Antenna, 65°	4.9-6.1 GHz Double Dual Slant Base Station Antenna, 120°
4 X 7.5 dBi 2 X Dual Slant ±45°	4 X 17 dBi 2 X Dual Slant ±45°	4 X 17±0.5 dBi 2 X Dual Slant ±45°

MARS Access Points (AP) WAVE2



MA-WC2458-2H 2X2	MA-WC2458-3H 3X3	MA-WE2458-2H 2X2	MA-WE2458-3H 3X3
2.4-2.5 GHz & 5.15-5.875 GHz	2.4-2.5 GHz & 5.15-5.875 GHz	2.3-2.7 GHz & 4.9-6.1 GHz	2.3-2.7 GHz & 4.9-6.1 GHz
Dual Band Small Sector Antenna, 60°	Dual Band Small Sector Antenna, 60°	Dual Band MIMO Applications Sector Antenna, 120°	Dual Band MIMO Applications Sector Antenna, 120°
2 X 7.5 dBi Dual Slant ± 45°	3 X 7.5 dBi Vertical & Dual Slant ± 45°	2 X 5 dBi Dual Slant ± 45°	3 X 5 dBi Vertical & 2 X Dual Slant ±45°

MARS Access Points 802.11ax



MA-WC2458-MIMO4-8 4X4	MA-WE2458-MIMO4-5 4X4
2.4-2.5 GHz & 5.15-5.875 GHz	2.3-2.7 GHz & 4.9-6.1 GHz
Dual Band MIMO Applications Sector Antenna, 60°	Dual Band MIMO Applications Sector Antenna, 120°
4 X 6 dBi Dual Slant $\pm 45^\circ$	4 X 5 dBi Dual Slant $\pm 45^\circ$ & Dual Slant $\pm 135^\circ$ &

MA-WA78-DP19N - Dual Polarized Directional Antenna

- Frequency range coverage:
 - **7-8 GHz** 19±1 dBi
- High gain/size ratio
- Efficient and stable performance
- Light weight and durable construction
- UV protected Polycarbonate Radome



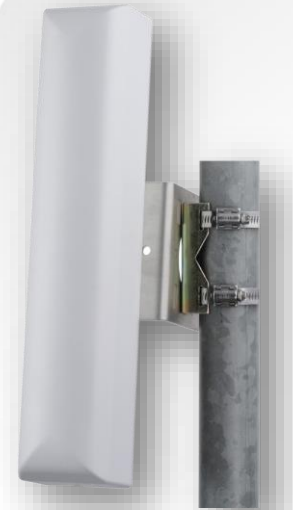
MA-WA10-DP23 - Dual Polarized Directional Antenna

- Frequency range coverage:
 - **10.15-11 GHz** 23 dBi
- High gain/size ratio
- Efficient and stable performance
- Light weight and durable construction
- UV protected Polycarbonate Radome



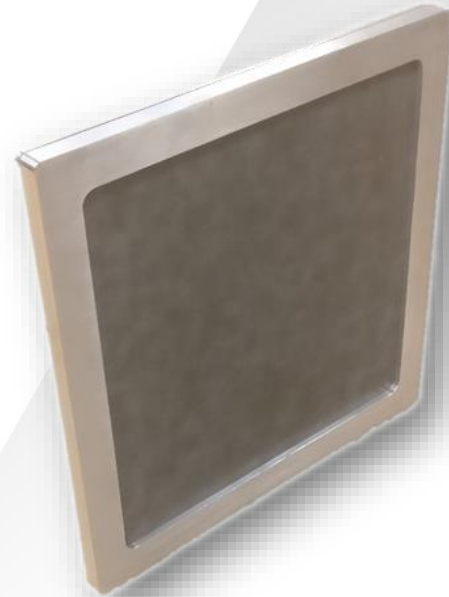
MA-WD10-DP14 - Dual Polarized Base Station Antenna, 90°

- Frequency range coverage:
 - **10.15-10.7 GHz** 14 dBi
- Stable performance
- Compact size allowing for easy blending with any environment
- UV protected Radome suitable for harsh environment installations



MA-WA28-30 26-31 GHz directional Antenna

- Frequency range coverage:
 - **26-31 GHz** 30dBi
- Stable performance
- High gain/size ratio
- UV protected Radome suitable for harsh environment installations



MA-WP600-36 - Parabolic Dish Antenna, 13cm Diameter

- Frequency range - **57-64 GHz**
- Gain - 36dBi
- Stable performance
- Lightweight of less than 0.35kg
- Compact size design - \varnothing 130mm
- Beam width of 2.5°
- Minimizes visual impact in any urban environment or other landscape



MARS Omni-directional Antennas



MA-WO7402700-5	MA-DBO2458-6	MA-WO36-10N
Multi Band Omni Directional Base Station Antenna	2.3-2.7GHz & 4.9-6GHz Dual Band Omni Directional Antenna	Omni Directional Base Station Antenna
740-960 MHz 4dBi 1710-2700 MHz 6dBi	4 dBi @ 2.3-2.7 GHz 5 dBi @ 2.4-2.5 GHz 7 dBi @ 4.9-6.0 GHz	9.5 dBi @ 3.4-3.8 GHz 9 dBi @ 3.3-3.4 GHz
Linear, Vertical	Linear, Vertical	Linear, Vertical

MA-WO-UWB

138-6000 MHz

Ultra Wide Band OMNI Directional Antenna

TETRA, TVWS, GSM, LTE, LORA, UMTS, WiFi, WLAN

138-174 MHz	3dBi
380-450 MHz	4dBi
406-512 MHz	5dBi
698-746 MHz	6dBi
746-806 MHz	7dBi
806-960 MHz	7dBi
1200-2700 MHz	8dBi
3300-3800 MHz	10dBi
4100-6000 MHz	11dBi

Linear ,Vertical



MARS Dual Polarized OMNI Antennas



MA-WO25-DP10	MA-WO36-DP10	MA-WO56-DP10
<p>2.3-2.7 GHz Dual Polarized Omni Directional Antenna</p>	<p>3.3-3.8 GHz Dual Polarized Omni Directional Antenna</p>	<p>4.9-5.9 GHz Dual Polarized Omni Directional Antenna</p>
<p>Vertical Pol @ 9 dBi Horizontal Pol @10 dBi</p>	<p>Vertical Pol @ 9 dBi Horizontal Pol @10 dBi</p>	<p>4.9-5.1GHz Vertical Pol @ 8dBi Horizontal Pol @ 10dBi 5.1-5.9 GHz @ 10dBi</p>
<p>Vertical & Horizontal</p>	<p>Vertical & Horizontal</p>	<p>Vertical & Horizontal</p>

MA-WO2556-DPDB9 - Dual Pol Dual Band Omni Directional Antenna

- Frequency range – **2.3-2.7 & 4.9-5.9 GHz**
- Gain (typ.) – 7.5-9dBi
- Bands coverage: 802.11, Point To Multi Point, WLAN access points, mesh Networks, ISM, WiMAX, etc.



MA-WO2455-DPDB8 - Dual Pol Dual Band Omni-Directional Antenna

- Frequency range – 2.4-2.5 & 5.1-5.9 GHz
- Gain (typ.) – 5-8dBi
- Bands coverage: 802.11, Point To Multi Point ,WLAN access points, mesh Networks, ISM, WiMAX and more
- The Elevation Patterns without any deviation from the horizon in full band
- 2 x N-Type Female Connectors



Dual Polarized Wide Band Omni-Directional Antenna

- Frequency range – 4.4GHz -6.5 GHz
- Gain (typ.) – 7dBi

Benefits include

- Wide frequency range to support Public Safety, LTE, Wi-Fi and more
- Supports both MIMO and SISO applications
- Small form factor



MARS Stadium Antennas



MA-WA22-DP14	MA-WA82220-DBDP14	MA-WA6927-DBDP8
Stadium Dual Polarized Antenna Beam width 33°	698-960 MHz & 1.7-2.7 GHz Stadium Dual Band & Dual Pol Directional Antenna Beam width 35°	698-960 MHz & 1.7-2.7 GHz Dual Band & Dual Pol Directional Antenna Beam width 65°
13 dBi @ 1.7-2.2 GHz 14 dBi @ 2.2-2.7 GHz	698-960 MHz Vertical @ 12dBi Horizontal @ 13dBi 1.7-2.7 GHz @ 13dBi	698-960 MHz @ 8dBi 1.7-2.7 GHz @ 9dBi
Linear, Vertical & Horizontal	Linear, Vertical & Horizontal	Linear, Vertical & Horizontal

MA-WC7927-DS12T

Wide-Band Dual Slant Directional Antenna

Frequency range	790 – 960 MHz & 1710 – 2690 MHz
Gain	9.5 – 12 dBi
3dB Beam-Width, Azimuth	45° – 55°
3dB Beam-Width, Elevation	45° – 55°
PIM 3rd order (2 x 43 dBm carrier), min.	-150 dBc
Input power, min.	100 Watt



MA-VMB-5RD

698 MHz - 6.5 GHz Multi Band Reinforced Blade Antenna

Ruggedized model for Mobile Applications

- Mining & Heavy Machinery

Frequency	698-806 MHz	1.71-2.17 GHz	2.3-2.7 GHz	3.3-3.8 GHz	4.9-6.5 GHz
Gain (typ.)	2dBi	3dBi	4dBi	4dBi	6dBi
Standard	LTE	PCS, DECT, GSM 1900, UMTS	Bluetooth, ISM, WLAN	WLL	UNII, WLL, H-LAN, Wi-Fi



MA-VMB55-5RD

4.9 GHz–6.0 GHz Dual Polarization Reinforced Blade Antenna

Ruggedized model for Mobile Applications

Special use:

- Mining
- Heavy Machinery



MA-DBO2455-3 - Dual Band Omni Antenna 2.3-2.7 GHz & 4.9-6.4 GHz

- Frequency range coverage:
 - 2.3-2.7GHz 2dBi
 - 4.9-6.4GHz 4dBi
- Simultaneous coverage of LTE, 802.11 a, b, g, WiMAX and 4.9 GHz Public Safety bands
- Suitable for either outdoor (car top) or indoor (ceiling) installations

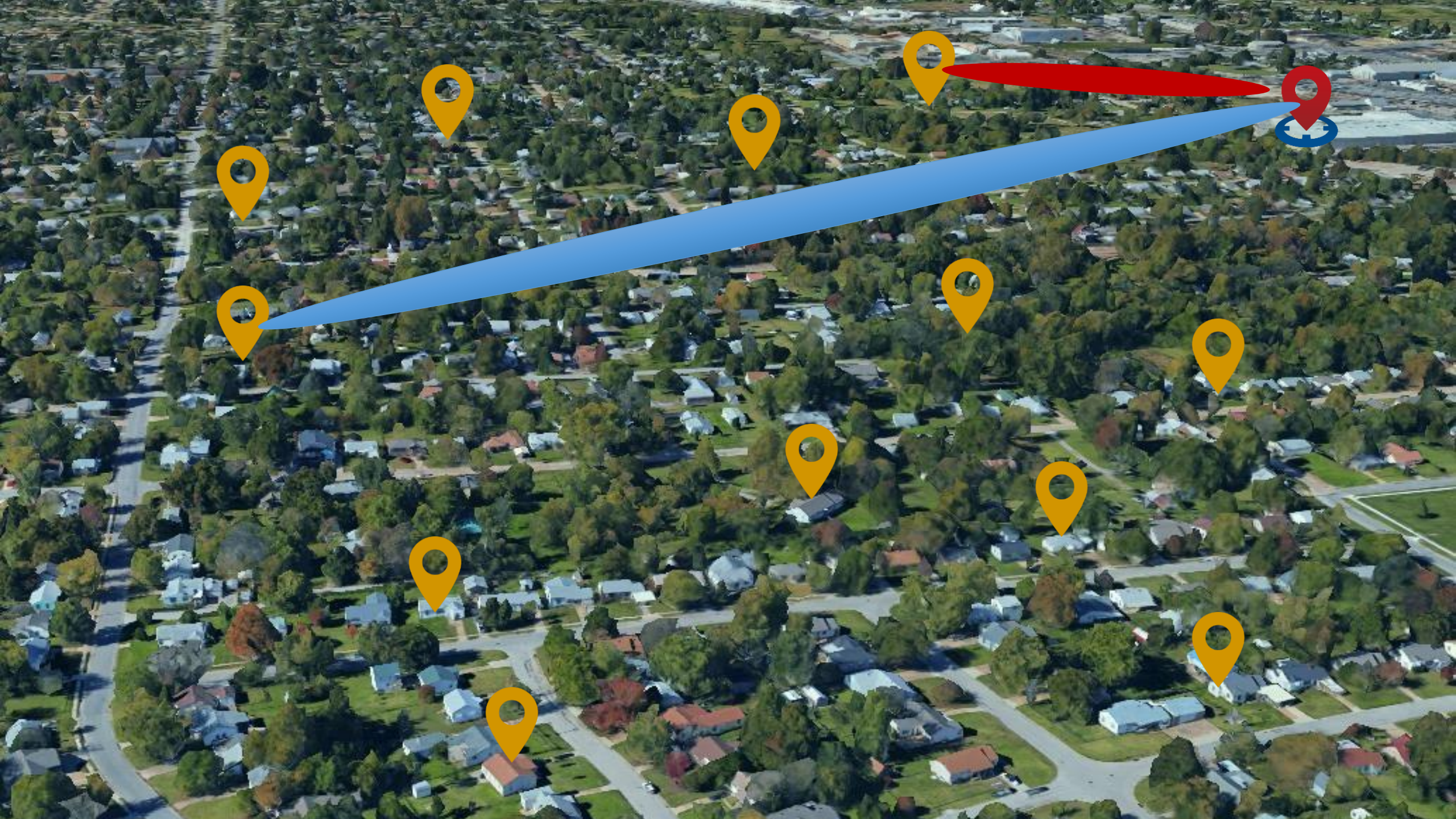


Beamforming technology – better range, capacity and efficiency

- Beamforming is a signal processing technique used in sensor arrays for directional signal transmission or reception
- This method allows to direct the radiation patterns in the targets desired direction and nulling the pattern of the targets that are undesired
- Beamforming can be used at both the transmitting and receiving ends in order to achieve spatial selectivity

Smart and reliable approach to wireless connectivity

- A new generation of base station with smart antenna provides higher capacity at large distances, in either urban or rural areas
- Thanks to its ability to focus only on the relevant subscriber units, a new generation of base station provides guaranteed speed even at high interference levels
- Compared to previous generations, new BTS generation's coverage and power are higher
- The new base station operates smoothly even if a remote client unit is on the move, and boosts the networks up to its full capacity



1. Passive Antenna *MA-PBSA56-DP21*

Dual polarized antenna four columns each with 0.5λ distance between columns in the center frequency

2. Two Beams Antenna *MA-TBA56-DP18*

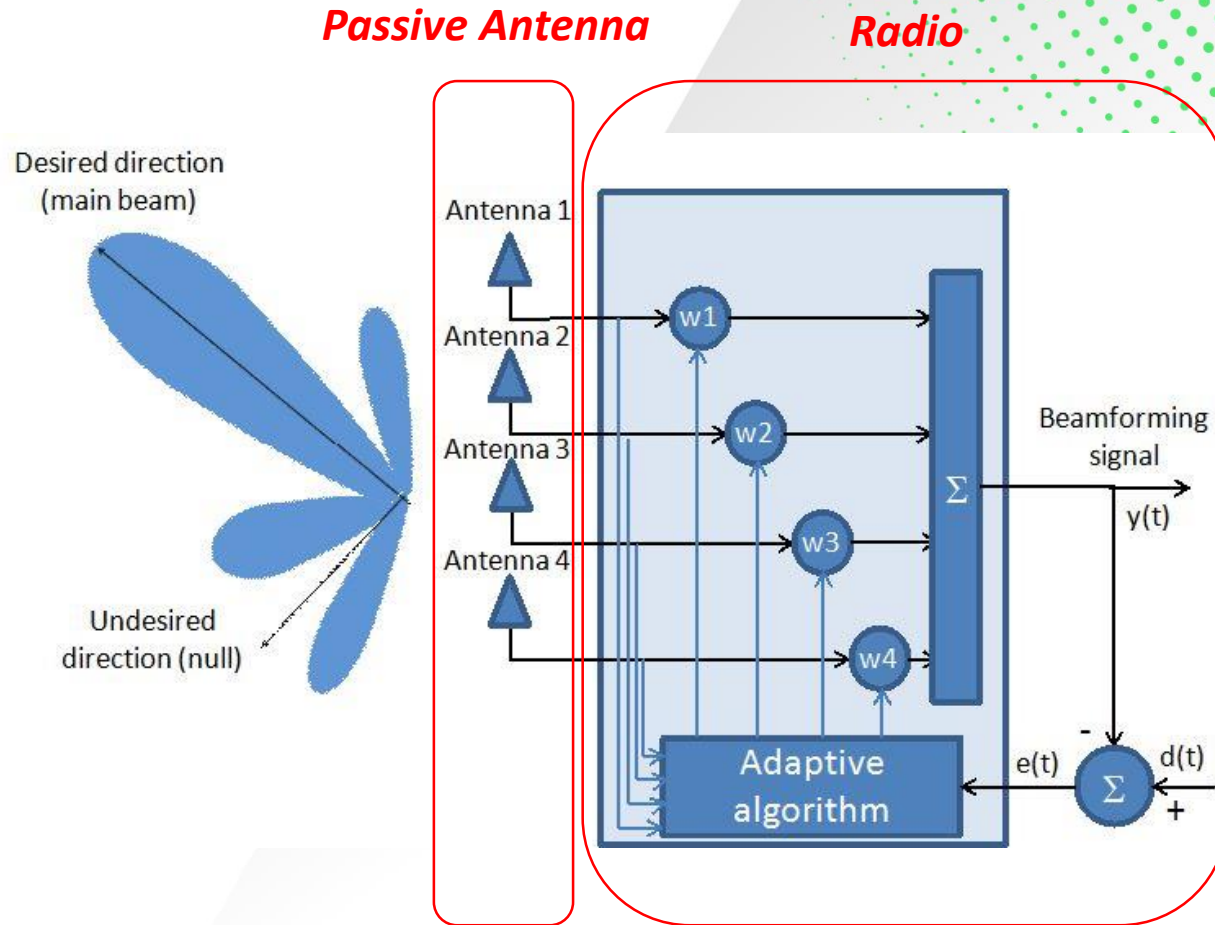
100 Deg coverage by 20 Deg. Beamwidth with 15 options for beam directions with 5 Deg. step

3. Active Antenna *MA-WABSA55-DP15_g*

Dual polarized antenna, Two Beams each polarization



- Beam is controlled by the customer
- Beam directions determined by Phase and Amplitude input each column



5-6 GHz Passive Antenna For Beam Steering, Azimuth Scan

Array antenna for Beam Steering Applications

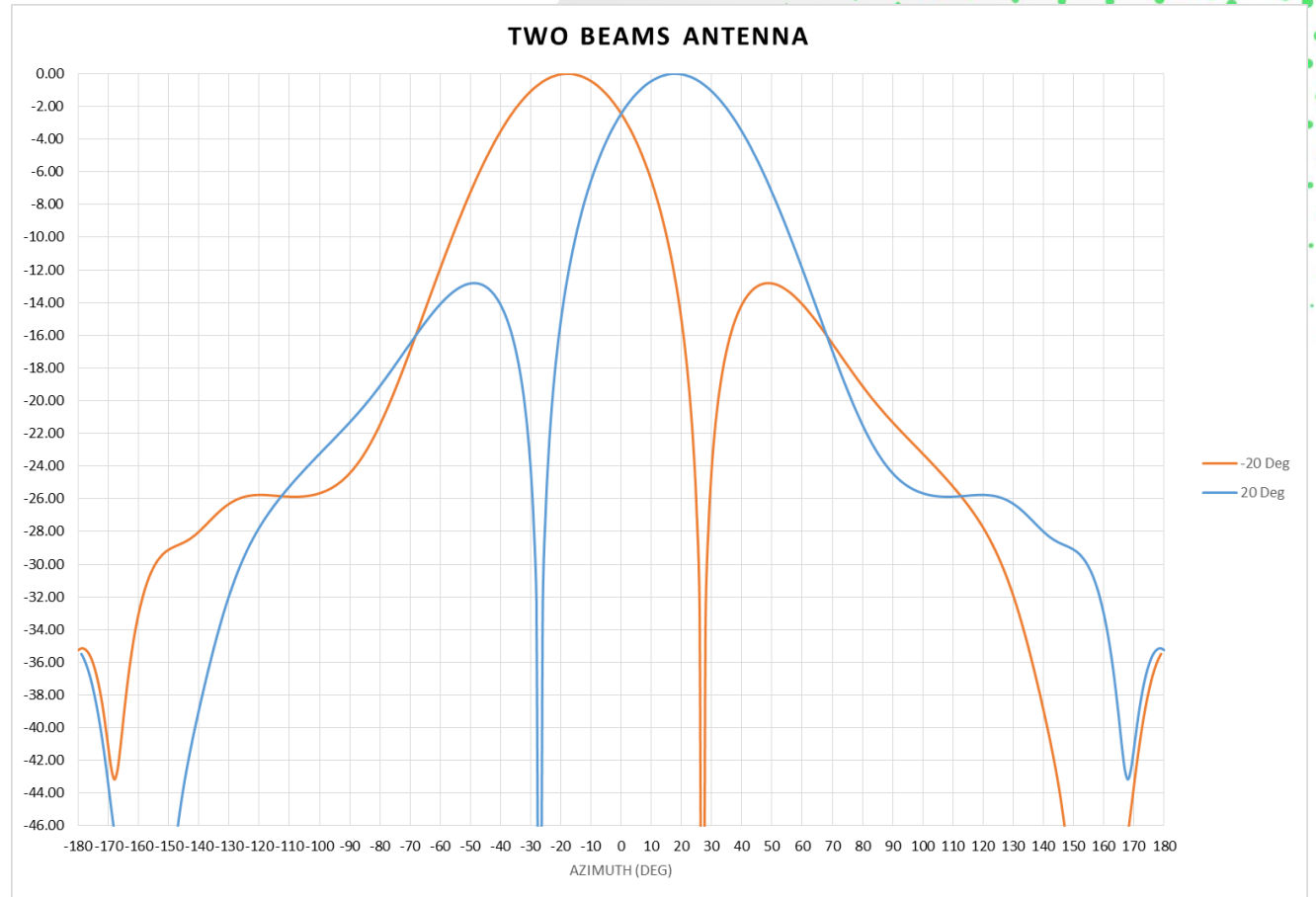
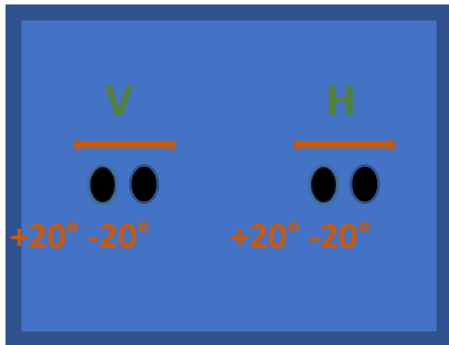
- Dual polarized antenna four columns each.
- Distance 0.5λ between columns in the center frequency.



Specifications

		Electrical
Frequency range		5 - 6 GHz
Polarization	Dual Pol	V&H
<u>Individual Column</u>		
Gain, typ.		16 dBi
3 dB Beam-Width, Azimuth Plane		$90^\circ \pm 10^\circ$
Cross Polarization, typ.		-20 dB
Front to Back Ratio, min.		-30 dB
<u>Array 4 Columns</u> (Equal Amp & Phase Boresight)		
Gain, typ.		21 dBi
3 dB Beam-Width, Azimuth Plane, typ.		25°
Cross Polarization, typ.		-20 dB
Front to Back Ratio, min.		-30 dB
<u>General</u>		
3 dB Beam-Width, Elevation Plane, typ.		8°
Side Lobes, Elevation Plane, typ.		-12 dB
Input power, max		10W
Input Impedance		50 Ohm
Lightning Protection		DC Ground
		Mechanical
Dimensions (HxWxD)		370 x 370 x 40 mm (14.5"x 14.5"x 1.6")
Weight		2 kg

- The Beam directions are constant
- Each connector - different Beam direction



5-6 GHz Passive Antenna For Beam Steering, Azimuth Scan

Array antenna for Beam Steering Applications

- Dual polarized antenna Two Beams each.



Specifications

Electrical

Frequency range	5 - 6 GHz
Gain, typ.	18 dBi
VSWR, max.	1.7 : 1
Polarization	Dual Pol V&H
3 dB Beam-Width, Azimuth Plane, typ.	40°
3 dB Beam-Width, Elevation Plane, typ.	8°
Side Lobes, Elevation Plane, typ.	-12 dB
Number of Beams (each polarization)	2
Beams Directions	±20°
Cross Polarization, typ.	-20 dB
Front to Back Ratio, min.	-30 dB
Input power, max	10W
Input Impedance	50 Ohm
Lightning Protection	DC Ground

Mechanical

Dimensions (HxWxD)	400 x 300 x 50 mm (15.7" x 11.8" x 2")
Weight	2 kg
Connector	4 x N-Type , Female

- 100 Deg Azimuth coverage by Beam with 20 degrees Beam-width
- 15 Beam directions
- Scan step 3-7 degrees
- Digital control interface provides Modes Tx/Rx,
Beamforming/Broadcast and means to select Beam direction

	Beamforming		Broadcast	
	RX	TX	RX	TX
Active Gain (dBi)	32	40	33	34

5.0-6.0 GHz Beam Steering Active Antenna, Azimuth Scan

Dual polarized Beamforming antenna for beam steering applications :

- 100 Deg coverage by 20 Deg Beamwidth.
- 15 options for beam directions with 5 Deg step.
- Reduce co-channel interferences and pointing independent beams toward various clients.


Specifications
Electrical

Frequency range		5.0-6.0 GHz
Polarization	Dual Pol	Vertical & Horizontal
Elevation 3dB beam width		8 - 10°
Azimuth 3dB Beam width		15°- 20°
Azimuth scan step		(3-7)°
Azimuth beam control range *		+/-45° *
Side lobes, typ.		-10 dB
Modes (External control)		Rx or Tx, Beamforming or Broadcast
Beamforming (V & H polarization):		
	Gain of passive antenna part, typ.	21dBi
	Gain with LNA's (Broadside), typ.	32dBi
<u>Rx Mode:</u>	Noise figure (Rx channel), typ.	5-6 dB
	Output Operating RF Power (Output PA), typ.	19-23dBm
<u>Tx Mode:</u>	Gain with PA (Broadside), typ.	40dBi
Broadcast (V & H polarization):		
	Gain of passive antenna part, typ.	15dBi
	Azimuth 3dB Beam width	60°-70°
	Azimuth 5dB Beam width	90°-100°
<u>Rx Mode:</u>	Gain with LNA's, typ.	33dBi
	Output Operating RF Power (Output PA), typ.	19-23dBm
<u>Tx Mode:</u>	Gain with PA, typ.	34dBi
Max Input RF Power (damage)		18dBm
VSWR		2 : 1
Impedance		50 Ohm
Front to Back Ratio, min.		-30 dB
Cross Polarization, typ.		-20 dB
Port-Port Isolation, typ.		-25 dB
Beam and Modes selection time, typ.		1-2 us
External Power supply		+5V ; PoE (+48 B)
External control interface		GPIO (7 wires)
Lighting protection		DC grounded

* - For Azimuth beam control range +/- (30-45)° : Gain = Gain, typ. - (~3) dB; Side Lobes < -(1-3)dB.

Mechanical

Dimensions (HxWxD)	370x370x60mm (TBD)
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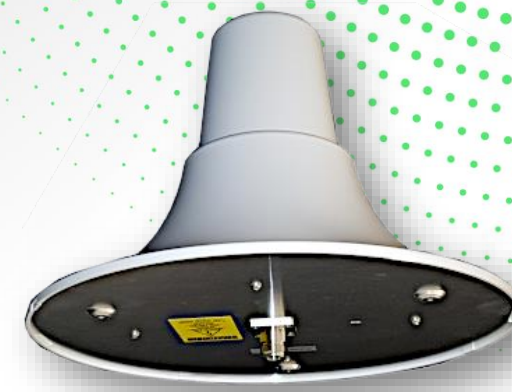
The key advantages of MARS's Beamforming Active antenna's usage:

- Major increase in the link stability
- Significant improvement in network capacity – twofold or even more

Excellent feedback and performance results received from the customers, who deployed the products in their networks - both in fixed and mobile scenarios

MARS In-Building Antennas

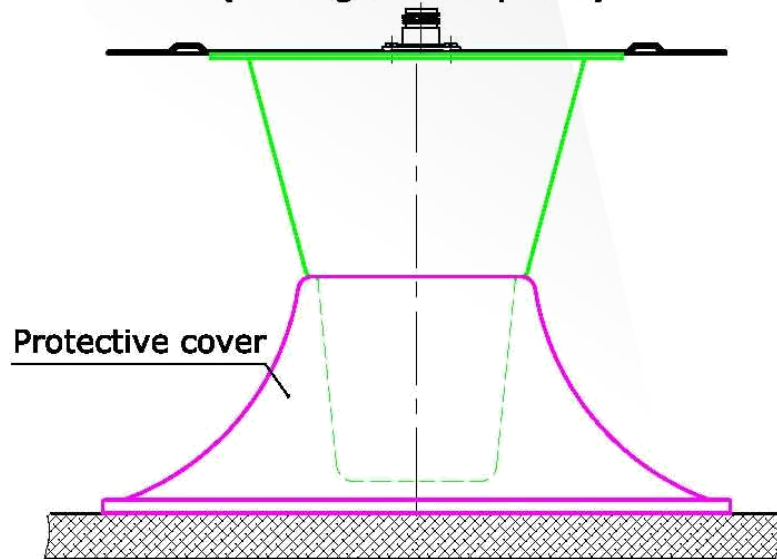
Part Number	MA-CQ29-1X		MA-WOLTE-3X	
Description	380MHz-6 GHz Multi Band Omni		LTE, GSM, UMTS, WLAN, Wi-Fi Multi Band Omni	
Frequency (MHz)	380-806	1 (2*) dBi	698-806	2 dBi
	806-960	4 dBi	806-960	2 dBi
	1395-1432	5 dBi	1710-2170	3-4 dBi
	1710-2170	5 dBi	2300-2700	5 dBi
	2300-2500	6 dBi	3300-3800	4 dBi
	3300-3700	6 dBi	4900-6400	6 dBi
	4900-6000	6 dBi		
Polarization	Linear, Vertical		Linear, Vertical	



MARS In-Building Antennas

MA-CQ29-1X & MA-WOLTE-3X Installation layout

ABOVE CEILING PLACEMENT
(Bolting Not Required)

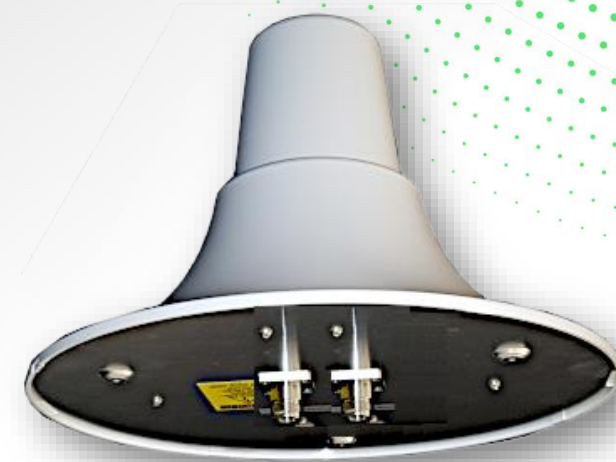


1. Remove the protective cover by slightly rotating it
2. Place the protective cover on top of the ceiling panel (on the inside)-as shown
3. Place the antenna on the protective cover, connect the cable and secure it



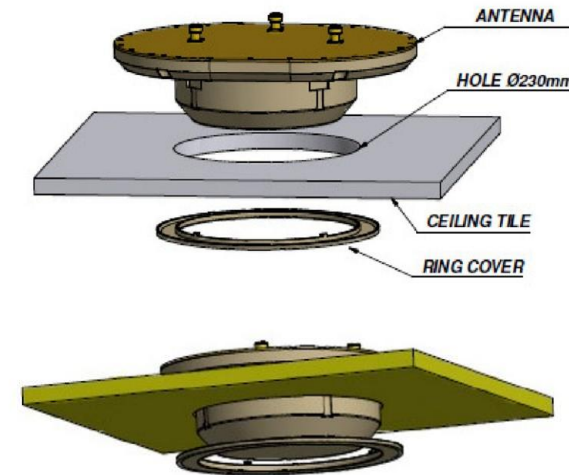
MARS In-Building Antennas

Part Number	MA-WOLTE-DP1	
Description	698-6500 MHz Multi Band Dual Polarized Omni Antenna	
Frequency (MHz)	Vertical	
	698-960	4 dBi
	1710-2170	5 dBi
	2300-2700	5.5 dBi
	3300-3800	7 dBi
	4900-6500	7.5 dBi
Frequency (MHz)	Horizontal	
	1710-2170	3 dBi
	2300-2700	3 dBi
	3300-3800	4 dBi
	4900-6500	6 dBi
Polarization	Linear, Vertical & Horizontal	



MARS In-Building Antennas

Part Number	MA-WOLTE-3M1		MA-WOLTE-DP2	
Description	698-6500 MHz Multi Band Tri-Ports Omni Antenna		LTE, GSM, UMTS, WLAN, Wi-Fi, Multi Band Omni	
Frequency (MHz)	Port 1 & 2		Port 1	
	698-960	2 dBi	1700-2700	5 dBi
	1710-2170	3-4 dBi	Port 2	
	2300-2700	5 dBi	4400-6600	
	3300-3800	4 dBi	6 dBi	
	4900-6500	6 dBi	Port 3	
	Port 3		Port 3	
1710-2170	3 dBi	698-960	4 dBi	
2300-2700	3 dBi	1700-2300	3-4 dBi	
3300-3800	4 dBi	2300-2700	5.5 dBi	
4900-6500	6 dBi	3300-3800	4 dBi	
		4900-6600	6 dBi	
Polarization	Linear, Vertical		Linear, Vertical	



MARS In-Building Antennas

Part Number	MA-WO3860-MIMO	
Description	LTE, GSM, UMTS, WLAN, Wi-Fi Multi Band MIMO Omni	
Frequency (MHz)	380 - 1200 MHz	1-5 dBi
	1200 -1900 MHz	6dBi
	1900 -3300 MHz	7 dBi
	3300 - 6000 MHz	8dBi
Polarization	Linear, Vertical	



MARS In-Building Antennas

617 MHz - 6 GHz Multi Band Dual Polarization Omni Antenna

MA-WO6960-DS7

- Frequency range – 617 MHz – 6000 MHz
- Gain (typ.) – 2-7dBi
- Gain (above metal surface) – 4.5-8.5dBi
- Bands coverage: Cellular (4G, 3G, 2.5G and 2G), UHF (806 - 960 MHz), LTE (698-806 MHz), ISM, WLAN, UNII, Bluetooth and Wi-Fi



Thank you!