

A blue globe with white and yellow network lines and dots, representing global connectivity.

Dual Pol OMNI Antennas

Multi Band, Multi Polarized,
Flat Panel & OMNI
Any Size, Any Frequency, Any Gain Ratio

MOBILE INDOOR
LTE MIMO OMNI WI-FI
WLAN
OUTDOOR

www.mars-antennas.com

MA-WO6960-DP6DIN

698 MHz - 6 GHz Multi Band Dual Polarization Omni Antenna

MARS Multi Band Dual Pol Omni Antenna covers all the bands for 2G, 2.5G, 3G and 4G cellular, as well as UHF (806 - 960 MHz), LTE (698-806 MHz), ISM, WLAN, UNII, Bluetooth and Wi-Fi bands.

The antenna is aesthetic, and has unobtrusive profile that blends easily with any environment.

The antenna is easy-installed and is highly recommended as an outstanding logistic solution for In-Building Installations.

The antenna is PIM certified, thus making it suitable for all multi-carrier systems.



Specifications

Electrical

Standard	LTE	SMR, AMPS, CDMA, TDMA, GSM 900	PCS, DECT, GSM 1900, UMTS	Bluetooth, ISM, WLAN	UNII, WLL, H-LAN, Wi-Fi
Frequency range	698-806 MHz	806-960 MHz	1.695-2.17 GHz	2.3-2.7 GHz	5-6 GHz
GAIN, typ.	2 (4.5*)	2.5 (5*)	5 (7*)	6 (7*)	7 (8.5*)
VSWR	1.5:1 typ. ; 2.5 : 1 max.				
Polarization	Linear, Vertical & Horizontal				
Input power, max.	50 Watt				
Port to Port Isolation, typ.	-20dB	-20dB	-25dB	-30dB	-30dB
Input Impedance	50 Ohm				
PIM, 3rd order, 2X20W	-150 dBc				

Mechanical

Dimensions (DxH)	303 x 86 mm
Weight	0.6 Kg.
Connector	2 x 12" Coaxial Plenum Rated Pigtail with 4.3-10 DIN, Female Connector
Back Plane	Glass Epoxy
Radome	UV Protected Plastic
Mount	Ceiling Mounting

Environmental

Operating Temp Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)

*Above metal surface, with spacing of 50-60 mm

Patent Pending

MARS Antennas & RF Systems proprietary information

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MA-WOLTE-DP1

698 MHz – 6.5 GHz Multi Band Dual Polarized Omni Antenna

MARS Multi Band Omni Antenna covers continuously all the bands from 698 to 6500 MHz in Vertical Polarization and 2.3-2.7 GHz & 4.9-5.875 GHz Band in Horizontal Polarization in a single antenna radome.

The antenna is aesthetic and has unobtrusive profile that blends easily with any environment.

The antenna is easy-installed and is highly recommended as an outstanding logistic solution for fast deployments and "In-Building" installations. The antenna is available also for outdoor applications.

The antenna is PIM certified thus making it suitable for all multi-carrier systems.



Specifications

Electrical

Polarization	Horizontal		Vertical				
Frequency range	2.3-2.7 GHz	4.9-5.875 GHz	698-960 MHz	1.71-2.17 GHz	2.3-2.7 GHz	3.3-3.8 GHz	4.9-6.5 GHz
GAIN, typ.	5 dBi	5 dBi	4 dBi	5 dBi	5.5 dBi	7 dBi	7.5 dBi
VSWR, max.	2 : 1						
Input power, max.	10 Watt						
Input Impedance	50 Ohm						
PIM, 3rd order, 2X20W (optional)	<-150 dBc						
Port to Port Isolation, typ.	-40 dB						

Mechanical

Dimensions (HxWxD)	Base Diameter – 275 mm, Height – 190 mm
Weight	400 gr.
Connector	2 x N-Type, Female
Back Plane	Aluminum; protected through chemical passivation
Radome	UV Protected Plastic
Mount	Ceiling Mounting

Environmental

Operating Temperature Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Water Proofing	See Ordering Options
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)

Ordering Options

MA-WOLTE-DP1	Antenna Indoor
MA-WOLTE-DP1R	Antenna Outdoor (IP67)
MA-WOLTE-DP1P	Antenna Indoor PIM certified
MA-WOLTE-DP1RP	Antenna Outdoor (IP67) PIM certified

Patterns are available on our website

Patent Pending

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MA-WOLTE-DP2

698 MHz – 6.6 GHz Multi Band Dual Polarized Omni Antenna

MARS Multi Band Omni Antenna covers continuously all the bands from 698 MHz to 6.6 GHz in Vertical Polarization and 1.7-2.7 GHz & 4.6-6.6 GHz Band in Horizontal Polarization in a single antenna radome.

The antenna is aesthetic and has unobtrusive profile that blends easily with any environment.

The antenna is easy-installed and is highly recommended as an outstanding logistic solution for fast deployments and "In-Building" installations. The antenna is available also for outdoor applications.



Specifications

Electrical

	Electrical						
	Port 1	Port 2	Port 3				
Frequency range	1.7-2.7 GHz	4.5-6.6 GHz	698-960 MHz	1.7-2.3 GHz	2.3-2.7 GHz	3.3-3.8 GHz	4.6-6.6 GHz
GAIN, typ.	5 dBi	6 dBi	4 dBi	3-4 dBi	5.5 dBi	4 dBi	6 dBi
Polarization.	Linear, Horizontal		Linear, Vertical				
Horizontal Beam width	Omni 360°						
VSWR	1.5:1 typ. 2:1 max.						
Input power, max.	30 Watt						
Input Impedance	50 Ohm						
Port to Port Isolation, typ	-40 dB						

Mechanical

Visible dimension (Dia x H) *	220 x 45 mm
Antenna dimension (L x W x H) **	369 x 270 x 95 mm
Weight	900 gr.
Connector	3 x N-Type, Female
Back Plane	UV Protected Polycarbonate
Radome	UV Protected Polycarbonate
Mounting	Ceiling Mounting or through 4 holes

Environmental

Operating Temp. Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Water Proofing	Ordering Option
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)

Patent Pending

Available configuration for port 1 & port 2. Other configurations available upon request.

Ordering Options

Indoor Product Name	Outdoor Product Name (IP67)	Port 1 gain	Port 2 gain
MA-WOLTE-DP2	MA-WOLTE-DP2R	5dBi	6dBi
MA-WOLTE-DP2-5-0	MA-WOLTE-DP2-5-0R	5dBi	N/A
MA-WOLTE-DP2-2-6	MA-WOLTE-DP2-2-6R	2dBi	6dBi
MA-WOLTE-DP2-2-0	MA-WOLTE-DP2-2-0R	2dBi	N/A
MA-WOLTE-DP2-0-6	MA-WOLTE-DP2-0-6R	N/A	6dBi

(*) Dimensions for installation inside the ceiling tile

(**) Dimension for installation outside of the tile (4 screws)

Patterns are available on our website

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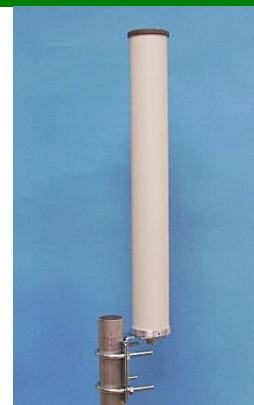
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MA-WO21-DP9

1980 – 2300 MHz Dual Polarization Omni Directional Antenna

MARS MA-WO21-DP9 is a Dual Polarization OMNI Directional Antenna covering 1980-2300 MHz providing a stable and efficient performance with 9dBi of gain.

The Elevation Patterns without any deviation from the horizon in full band



Specifications

Electrical

Frequency range	1980 -2300 MHz
GAIN, typ.	9 dBi
VSWR, max.	2 : 1
Polarization	Dual Pole
3 dB Beam-Width Azimuth, typ.	Vertical & Horizontal
3 dB Beam-Width Elevation, typ.	Omni - Directional
Port to Port Isolation, typ.	10°
Input power, max.	-30 dB
Input Impedance	10 Watt
Lightning Protection	50 Ohm
	DC Grounded

Mechanical

Dimensions (H x Dia.)	742 x 111.5 mm
Weight	1.5 Kg.
Connector	2 x N-Type Female
Radome	UV Protected Plastic
Mount	2" Pole Mount

Environmental

Operating Temp. Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)
Water Proofing	IP-65
Wind Load	200 km/h (survival)

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MA-WO25-DP8

2.3-2.7 GHz Dual Polarization Omni Directional Antenna

Mars 2.3-2.7 GHz Dual Polarization provides a stable and efficient performance with 7.5 dBi of gain and cost effective solution for large-scale applications and systems such as 802.11-Point To Point, WLAN access points, mesh Networks, ISM, WiMAX and more.

The Elevation Patterns are without any deviation from the horizon in full band.



Specifications

Electrical

Frequency Range	2.3 - 2.7 GHz
GAIN, typ.	7.5 dBi
VSWR,	1.7 : 1 typ. 2 : 1 max.
Polarization Dual Pole	Vertical & Horizontal
3 dB Beam-Width, Azimuth, typ.	Omni - Directional
3 dB Beam-Width, Elevation, typ.	22°
Port to Port Isolation	30 dB typ. ; 25 dB min.
Input power, max.	10 Watt
Lightning Protection	DC Grounded
Input Impedance	50 Ohm

Mechanical

Dimensions (HxDia.)	650 x 70 mm
Weight	750 gr.
Connector	2x N-Type, Female
Radome	UV Protected Plastic
Mount	2" Pole Mount

Environmental

Operating Temperature Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Wind Load	200 km/h (survival)
Flammability	UL94
Water Proofing	IP-65
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)
Salt Fog	According to IEC 68-2-11

Mars Antennas & RF Systems proprietary information

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MA-WO2556-DPDB9

2.3-2.7 & 4.9-5.9 GHz Dual Polarization Dual Band Omni Directional Antenna

Mars 2.3-2.7 and 4.9-5.9 GHz Dual Polarization and Dual Band Antenna provides a stable and efficient performance with 7.5 -9 dBi of gain and cost effective solution for large scale applications and systems such as 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.



Specifications

Electrical

Frequency Range	2.3 -2.7 GHz	4.9-5.9 GHz
GAIN, typ.	7.5 dBi	9 dBi
VSWR,	1.7 :1 typ. ; 2 : 1 max.	1.7 :1 typ. ; 2.5 : 1 max.
Polarization	Dual Pol Vertical & Horizontal	
3 dB Beam-Width, Azimuth, typ.	Omni - Directional	
3 dB Beam-Width, Elevation, typ.	22°	11°
Port to Port Isolation	30 dB typ. ; 25 dB min.	30 dB typ. ; 20 dB min.
Input power, max.	10 Watt	
Lightning Protection	DC Grounded	
Input Impedance	50 Ohm	

Mechanical

Dimensions (HxDia.)	970 x 70 mm
Weight	1.1 Kg.
Connector	4 x N-Type, Female
Radome	UV Protected Plastic
Mount	2" Pole Mount

Environmental

Operating Temperature Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Wind Load	200 km/h (survival)
Flammability	UL94
Water Proofing	IP-65
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)
Salt Fog	According to IEC 68-2-11

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MA-WO25-DP10

2.3-2.7 GHz Dual Polarization Omni Directional Antenna

MARS 2.3-2.7 GHz Dual Polarization Omni Directional Antenna provides a stable and efficient performance with 9-10dBi of gain and cost effective solution for large scale applications and systems such as 802.11, Point-to-multi-point, WLAN access points, ISM, WiMAX and more.

The Elevation Patterns without any deviation from the horizon in full band



Specifications

Electrical

Frequency range	2.3 -2.7 GHz
GAIN, typ.	Vertical Polarization @ 9 dBi ; Horizontal Polarization @10 dBi
VSWR, max.	2 : 1
Polarization	Dual Pole
3 dB Beam-Width Azimuth, typ.	Vertical & Horizontal
3 dB Beam-Width Elevation, typ.	Omni – Directional
Port to Port Isolation, typ.	11°
Input power, max.	-35 dB
Input Impedance	10 Watt
Lightning Protection	50 Ohm
	DC Grounded

Mechanical

Dimensions (H x Dia.)	640 x 110 mm
Weight	1.2 Kg.
Connector	2 x N-Type Female
Radome	UV Protected Plastic
Mount	2" Pole Mount

Environmental

Operating Temp. Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)
Water Proofing	IP-65
Wind Load	200 km/h (survival)

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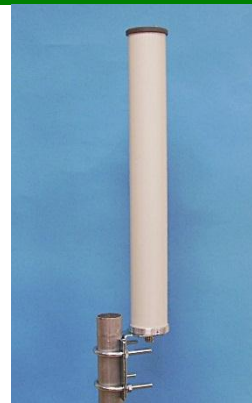
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MA-WO36-DP10

3.3 - 3.8 GHz Dual Pol Omni Directional Antenna

MARS 3.3-3.8 GHz Dual Polarization Omni Directional Antenna provides a stable and efficient performance with 9-10dBi of gain and cost effective solution for large scale applications and systems such as 802.11, Point-to-multi-point, WLAN access points, ISM, WiMAX and more.

There is no deviation from the horizon in the elevation patterns across the entire band.



Specifications

Electrical

Frequency range	3.3-3.8 GHz
GAIN, typ.	Vertical Polarization @ 9dBi Horizontal Polarization @ 10dBi
VSWR, max.	2 : 1
Polarization	Dual Pole
3 dB Beam-Width Azimuth, typ.	Omni – Directional
3 dB Beam-Width Elevation, typ.	11°
Port to Port Isolation, typ.	-30 dB
Input power, max.	10 Watt
Input Impedance	50 Ohm
Lightning Protection	DC Grounded

Mechanical

Dimensions (H x Dia.)	485 x 85 mm (19.1" x 3.35")
Weight	600 gr.
Connector	2 x N-Type Female
Radome	UV Protected Plastic
Mount	2" Pole Mount

Environmental

Operating Temp. Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)
Water Proofing	IP-65
Wind Load	200 km/h (survival)

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MA-WO56-DP10

4.9-5.9 GHz Dual Polarization Omni Directional Antenna

MARS 4.9-5.9GHz Dual Polarization Omni Directional Antenna provides a cost effective solution for large scale WLL, WLAN, ISM and Point-to-Multi Point applications.

UV protected radome suitable for harsh environment installations.

Antenna features stable performance with exceptional 10 dBi of gain.

Applications:

- MESH Networks.
- Point-to-Point Applications.



Specifications

Electrical

Frequency range	4.9 - 5.9 GHz
GAIN, typ.	4.9-5.1 GHz Vertical @ 8dBi & Horizontal @ 10dBi 5.1-5.9 GHz Vertical & Horizontal @ 10dBi
VSWR, 1.7 : 1 typ.	4.9-5.1 @ 2.5:1 max. 5.1-5.9 @ 2: 1 max.
Polarization Dual Pole	Vertical & Horizontal
3 dB Beam-Width, Azimuth, typ.	Omni - Directional
3 dB Beam-Width, Elevation, typ.	11°
Port to Port Isolation	-30 dB typ. -20 dB min.
Input power, max.	10 Watt
Lightning Protection	DC Grounded
Input Impedance	50 Ohm

Mechanical

Dimensions (HxDia.)	355 x 66 mm
Weight	370 gr.
Connector	2 X N-Type, Female
Radome	UV Protected Polycarbonate
Mount	2" Pole Mount

Environmental

Operating Temperature Range	-40°C to +65°C
Vibration	According to IEC 60721-3-4
Wind Load	200 km/h (survival)
Flammability	UL94
Water Proofing	IP-67
Humidity	ETS 300 019-1-4, EN 302 085 (annex A.1.1)
Salt Fog	According to IEC 68-2-11

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