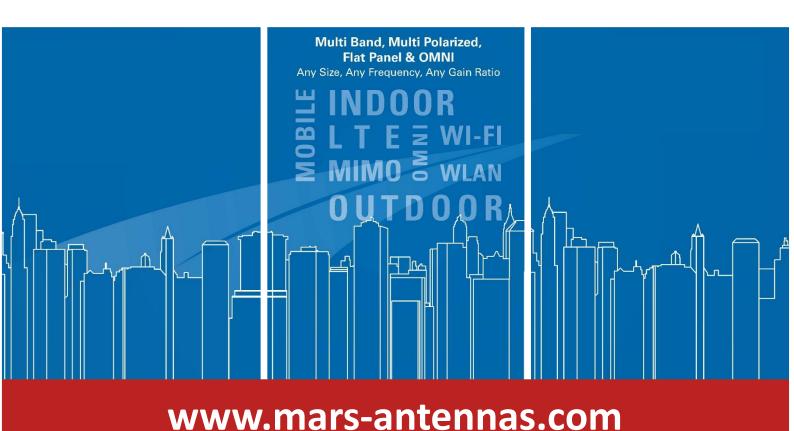


Stadium Antennas







MA-WA6927-DBDP8

698 - 960 MHz & 1700 - 2700 MHz Dual Band & Dual Pol Directional Antenna

MARS Dual band & Dual Polarized Antenna covers all the bands for LTE, 3G, 2.5G and 2G cellular, as well as ISM, WLAN, Bluetooth, GSM 900 and GSM 1900.

The antenna is aesthetic small 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 Outdoor installations as well as In-Building Installations.



Specifications

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Frequency range		698 – 960 MHz	1700 – 2700 MHz	
Gain, typ.		8 dBi 9 dBi		
VOMD	typ.	2.0 : 1	1.7 : 1	
VSWR	max.	2.5 : 1	2.5 : 1	
Polarization	Dual Pol	Vertical & Horizontal		
Port to Port Isolatio	n, min.	-23 dB		
3dB Beam-Width, A	Azimuth, typ.	65°	65°	
3dB Beam-Width, Elevation, typ.		65°	65°	
Front to Back Ratio, min		-15 dB		
PIM, typ.		-140 dBc		
Input power, max.		50 Watt		
Impedance		50 Ohm		
Lightning Protection		DC Grounded		

Mechanical

Dimensions (HxWxD)	310 x 310 x 126 mm (12.2" x 12.2" x 4.96")
Connector	2 x N-type Female
Weight	~1.3 kg
Mounting	See Ordering Options
Radome	UV Protected Plastic
Back Plane	Aluminum protected through chemical passivation.

Environmental

Operating Temperature Range	-55°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

Ordering Options	
MA-WA6927-DBDP8	Antenna Suited for MNT-22
MA-WA6927-DRDP8R	Antenna with MNT-22 mount

MARS Antennas & RF Systems proprietary information





MA-WA82220-DBDP14

698-960 MHz & 1700-2700 MHz Stadium Dual Band & Dual Pol Directional Antenna

MARS new DUAL BAND and DUAL POL antenna specially **designed for arenas and stadiums** that have to supply high capacity and reliable wireless data.

MARS MA-WA82220-DBDP14 provides solutions for services such as LTE, Cellular (2G, 2.5G and 3G), Wi-Fi and WiMAX applications.

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

Additional Features:

- Efficient and stable performance with 12-13 dBi of gain.
- UV protected radome suitable for harsh environment installations
- Durable construction
- · Easy mounting allowing Az/El adjustment
- Aesthetic design
- · Weatherized and durable
- Wind survival rating of 200 km/h



Specially designed for Stadiums

Specifications

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		Liccincai		
Frequency range		698-960 MHz	1700-2700 MHz	
Gain, typ.	V-pol H-pol	12 dBi 13 dBi	13 dBi 13 dBi	
VSWR, max.		2.0 : 1		
Polarization	Dual Pol	Vertical & Horizontal		
Port to Port Isolation, m	nin.	-22 dB	-37 dB	
3dB Beam-Width, Azim	uth, typ.	35°	35°	
3dB Beam-Width, Elevation, typ.		35°	35°	
Front to Back Ratio, min.		-22 dB		
PIM, 3 rd order, 2X20W		-150 dBc		
Input power, max.		50 Watt		
Impedance		50 Ohm		

Mechanical

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Dimensions (HxWxD)	800 x 600 x 110 mm
Connector	2 x N-type Female
Weight	6 Kg.
Mounting	See Ordering Options
Radome	UV Protected Plastic
Back Plane	Aluminum protected through chemical passivation.

Environmental

Operating Temperature Range	-55°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

Ordering Options

MA-WA82220-DBDP14	Antenna 2 x N-type Female connectors Suited for MNT-25 mount
MA-WA82220-DBDP14B	Antenna 2 x N-type Female connectors with MNT-25 mount

MARS Antennas & RF Systems proprietary information

MARS reserves the right to make technical changes or modifications to any of its products and specifications without prior notice and without implementing such changes to prior supplied products. Product images are representative and indicative only. Warranty terms and general conditions of sale are applicable on any purchase of any product, available on MARS website.

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MA-WA6960-DS7P

698-960 MHz & 1.7-2.7 GHz & 5.0-6.0 GHZ Multi Band Dual Slant Directional Antenna

MARS Multi Band Dual Slant Antenna covers all the bands for LTE, 3G, 2.5G and 2G cellular, as well as ISM, Wi Fi, WLAN, Bluetooth, GSM 900 and GSM 1900.

The antenna is aesthetic small 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 Outdoor installations as well as In-Building Installations.



Specifications

Electrical Programme Control of the				
Frequency range		698 – 960 MHz	1.7 – 2.7 GHz	5.0-6.0 GHz
Gain, typ.		7.5 dBi	6 - 7 dBi	6 dBi
VSWR -	typ.	1.5 : 1	1.3 : 1	1.5 : 1
VOVIN	max.	2.8 : 1	2.2 : 1	2.5 : 1
Polarization	Dual Slant	± 45°01	Dual Pole in Diamond	Shape
Port to Port Isolation	on, min.	-25 dB	-40 dB	-50 dB
3dB Beam-Width,	Azimuth, typ.	75°	100°	40°
3dB Beam-Width,	Elevation, typ.	75°	100°	40°
3dB Beam-Width, H-Plane, typ.		90°	105°	50°
3dB Beam-Width, E-Plane, typ		60°	95°	30°
Front to Back Ratio, min		-15 dB		
PIM, typ.		-150 dBc		
Input power, max.		50 Watt		
Impedance		50 Ohm		

Mechanical

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Dimensions (HxWxD)	300 x 300 x 99 mm (12.2" x 12.2" x 4.96")	
Connector	2 x 4.3-10 Female	
Weight	900 gr.	
Mounting	See Ordering Options	
Radome	UV Protected Plastic	
Back Plane	Aluminum protected through chemical passivation.	

Environmental

Operating Temperature Range	-55°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

Ordering Options	
MA-WA6960-DS7P	Antenna Suited for MNT-22 Mount
MA-WA6960-DS7PR	Antenna with MNT-22 Mount

MARS Antennas & RF Systems proprietary information





MA-WA6955-DBDP14

698-960 MHz & 1695-2700 MHz & 5150-5925 MHz Stadium Dual Pol Directional Antenna

MARS new **Triple BAND**, **DUAL POL** antenna is designed especially for **arenas and stadiums** that have to supply high capacity and reliable wireless data.

The MARS MA-WA6955-DBDP14 provides solutions for services such as LTE, Cellular (2G, 2.5G and 3G), Wi-Fi and WiMAX applications. The antenna is PIM certified, thus making is suitable for all multi-carrier systems.

Additional Features:

- Efficient and stable performance with 12-14 dBi of gain
- UV protected radome suitable for harsh environment installations
- · Durable construction and weather resistant
- Easy mounting allowing Az/El adjustment
- · Aesthetic design
- Wind load up to 200 km/h



Specially designed for Arenas and Stadiums

Specifications

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Liectifical				
Frequency range		698-960 MHz	1695-2700 MHz	5150-5925 MHz
Cain turn	V-pol	12 dBi	13 dBi	14 dBi
Gain, typ.	H-pol	13 dBi	13 dBi	14 dBi
VSWR, max.		2.0 : 1	2.0 : 1	2.0 : 1
Polarization	Dual Pol	Vertical & Horizontal		
Port to Port Isolation, min.		-22 dB	-37 dB	-24 dB
3dB Beam-Width, Azimuth, typ.		35°	35°	35°
3dB Beam-Width, Elevation, typ.		35°	35°	35°
Front to Back Ratio, min.		-22 dB		
PIM, 3 rd order, 2X20W		-150 dBc		
Input power, max.		50 Watt		
Impedance		50 Ohm		

Mechanical

Dimensions (HxWxD)	800 x 600 x 110 mm
Connector	2 x 4.3-10 DIN Connector (each covers 698-960 MHz & 1695-2700 MHz)
Connector	2 x 4.3-10 DIN Connector (each covers 5150-5925 MHz)
Weight	~ 6.1 kg
Mounting	MNT-25
Radome	UV Protected Plastic
Back Plane	Aluminum protected through chemical passivation.

Environmental

Operating Temperature Range	-55°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

Mars Antennas & RF Systems proprietary information





MA-WC7927-DS12T

790 – 960 MHz & 1710 – 2690 MHz Multi/Wide-Band Dual Slant Directional Antenna for Stadium Coverage

MARS DUAL BAND and DUAL Slant antenna specially **designed for arenas and stadiums** that have to supply high capacity and reliable wireless data. The antenna is PIM certified, thus making it suitable for all multi-carrier systems providing solutions for services such as LTE, Cellular (2G, 2.5G and 3G), Wi-Fi and WiMAX applications

- Additional Features:
 - Efficient and stable performance with 9.5-12 dBi of gain.
 - UV protected radome suitable for harsh environment installations
 - Durable construction
 - · Easy mounting allowing Az/El adjustment
 - Aesthetic design
 - Weatherized and durable
 - Wind survival rating of 200 km/h



Specifications

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Frequency range		790 – 960 MHz & 1710 – 2690 MHz
Gain		9.5 – 12 dBi
VSWR, max.		1.7 : 1
Polarization Dual Slant		±45°
El. Downtilt Range		0° fixed
Dort to Dort Inclation, min	Intra-Band	-26 dB
Port to Port Isolation, min.	Inter-Band	-50 dB
Side Lobes, min.		-20 dB
Cross-polar Discrimination at 0°, min.		-20 dB
3dB Beam-Width, Azimuth		45°– 55°
3dB Beam-Width, Elevation		45°– 55°
Front to Back Ratio		35 – 41 dB
PIM 3rd order (2 x 43 dBm carrier), min.		-150 dBc
Input power, min.		100 Watt
Impedance		50 Ohm

Mechanical

Dimensions (HxWxD)	811 x 611 x 197 mm
Connector	2 x 7-16 DIM Female
Weight.	10 kg
Mounting	See Ordering Options
Radome	UV Protected Plastic
Back Plane	Aluminum protected through chemical passivation.

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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Ordering	Options
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MA-WC7927-DS12T	Antenna Suited for MNT-25 (optional tilt mount)
MA-WC7927-DS12TB	Antenna with MNT-25 mount

MARS Antennas & RF Systems proprietary information





MA-WA22-DP14

1.7-2.7 GHz Stadium Dual Polarization Antenna

MARS 1.7-2.7 GHz Dual Polarized wide band antenna specially designed for arenas and stadiums that have to supply high capacity and reliable wireless data.

The MA-WA22-DP14 antenna designed for LTE, Wi-Fi, LAN, MMDS, WLL and WiMAX applications.

Additional Features:

- Exceptionally efficient performance.
- High gain/size ratio.
- Aesthetic design.
- · Weatherized and durable.
- · Wind survival rating of 200 km/h



Specially designed for Stadiums

Specifications			
Electrical			
Frequency range		1.7-2.2 GHz	2.2-2.7 GHz
Gain, typ.		13 dBi	14 dBi
VSWR, max.		2.0 : 1	1.7 : 1
Polarization	Dual Pole	Linear, Vertical & Horizontal	
3dB Beam-Width, H-Plane, typ.		33°	
3dB Beam-Width, E-Plane, typ.		33°	
Cross Polarization, typ.		-20 dB	
Front to Back Ratio, min.		-20 dB	
Port to Port Isolation, min.		-30 dB	-40 dB
Input power, max.		50 Watt	
Input Impedance		50 Ohm	
Lightning Protection		DC Grounded	
		Mechanical	
Dimensions (HxWxD)		430 x 240 x 48 mm (16.93" x 9.45" x 1.89")	
Connector		2 x N-type, Female	
Weight		2.5 kg.	
Mounting		See Ordering Options	
Radome		UV Protected Polycarbonate	
Back Plane		Aluminum protected through chemical passivation.	
		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	

Ordering Options	
MA-WA22-DP14	Antenna 2 x N-type, Female connectors Suited for MNT-22 mount
MA-WA22-DP14B	Antenna 2 x N-type, Female connectors with MNT-22 mount

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