

## MA-WA24-2X

### 2.3-2.7 GHz Subscriber Antenna

MARS 2.4 GHz Antenna is a wide band 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.

The antenna with the enclosure (small or large) solution is Waterproof and Weatherproof with provisions for Azimuth/Elevation Adjustable mount.

This solution enables WISP/Integrator to design his own low cost, weatherized subscriber unit, saving high costs of special antenna-radio integration.



### Specifications

#### Electrical

Frequency range	2.3-2.7 GHz
GAIN, typ.	2.3-2.4 @ 17 dBi    2.4-2.7 @ 18 dBi
VSWR, max.	1.5 : 1
Polarization	Linear, Vertical (Horizontal with MNT-22 Option)
3 dB Beam-Width, H-Plane, typ.	21°
3 dB Beam-Width, E-Plane, typ.	20°
Side Lobes, min.	-16 dB
Cross Polarization, min.	-26 dB
Front to Back Ratio, min.	-26 dB
Input power, max.	30 Watt
Input Impedance	50 Ohm
Lightning Protection	DC Grounded

#### Mechanical

Dimensions (HxWxD)	305 x 305 x 15 mm (12" x 12" x 0.6")
Weight	1 kg (without Enclosure)
Connector (without enclosure)	N-Type, Female
Connector (with enclosure)	SMA Female / Pig Tail with MCX, Female (*)
Back Plane	Aluminum; protected through chemical passivation
Radome	UV Protected Polycarbonate
Enclosure - Small	171 x 167 x 68 mm. (External dimension)
Enclosure - Large	287 x 287 x 68 mm. (External dimension)
Mount	See ordering options

#### 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
Ice and Snow	25mm Radial

#### Standard Compliance

ETSI EN 302 085 V1.2.3 – TS1, TS2, TS3

### Ordering Options

MA-WA24-2X PM	Antenna with integral Pole Mount includes stainless steel brackets
MA-WA24-2X MNT	Antenna Suited for MNT-22 (optional wall/pole adjustable mount)
MA-WA24-2X MNTB	Antenna with MNT-22 mount
MA-WA24-2XSMESY / MA-WA24-2XMCESY	Antenna with small enclosure, SMA/pig tail Connector and MNT-22
MA-WA24-2XSMESZ / MA-WA24-2XMCESZ	Antenna with small enclosure, SMA/pig tail Connector with PEMs and MNT-22
MA-WA24-2XSMELY / MA-WA24-2XMCELY	Antenna with large enclosure, SMA/pig tail Connector and MNT-22
MA-WA24-2XSMELZ / MA-WA24-2XMCELZ	Antenna with large enclosure, SMA/pig tail Connector with PEMs and MNT-22

(\*) Can be customized with different connector configuration

Patterns are available on our website

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