The following antennas will be deployed in the proposed system:

Base Station: MTI MT-404007 (60° beam width): The base station will utilize a sectorized antenna system using one sector. The specific azimuths, beam tilts and polarities for each sector will be determined and adjusted as part of the system tests.

Remote/CPE: MTI Wireless Edge MT-30093: This antenna has a beam width of approximately 8°.

All antennas will be mounted on existing Communication Towers and Municipal Water Towers.

Radiation pattern information provided by the manufacturer for these antennas is provided on the following pages.

Wireless Edge Ltd.

Antenna Data Sheet

MT-404007

MT-404007

3.3-3.8 GHz 17dBi Base Station Antenna

Specifications

MTI PART NUMBER		MT – 404007		
ELECTRICAL				
FREQUENCY RANGE		3.3 – 3.8GHz		
GAIN		17 dBi ± 0.5dBi (min) @ 3.4-3.7GHz		
		16.5 dBi (min) @ 3.3-3.4GHz & 3.7-3.8GHz		
VSWR		1.5:1 (typ) 1.7 : 1 (max)		
AZIMUTH BEAMWIDTH @ 13dBi (3.3-3.7GHz)		60° ± 4°		
AZIMUTH BEAMWIDTH @ 12dBi (3.7-3.8GHz)		60° ± 4°		
POLARIZATION		Linear Vertical		
ELEVATION BEAMWIDTH		10° (typ)		
SIDELOBES LEVEL – AZ		ETSI EN 302 085 V1.1.2 CS3		
EL		ETSI EN 302 085 V1.1.2 CS3 @ 3.3-3.7GHz		
CROSS POLARIZATION		ETSI EN 302 085 V1.1.2 CS3		
		-20dB (max)		
F/B RATIO		-25 dB (max)		
INPUT IMPEDANCE		50 (ohm)		
INPUT POWER		6W (max)		
LIGHTNING PROTECTION		DC Grounded		
MECHANICAL				
DIMENSIONS (LxWxD)		500x200X30mm (max)		
WEIGHT		1.5 Kg (max)		
CONNECTOR		N-Type Female		
RADOME		Plastic		
BASE PLATE		Aluminum with chemical conversion coating		
OUTLINE DRAWING		See page 2		
MOUNTING KIT		MT-120019		
ENVIRONMENTAL				
TEST	STANDARD	DURATION	TEMPERTURE	NOTES
LOW TEMPERATURE	IEC 68-2-1	72 h	-45°C	-
HIGH TEMPERATURE	IEC 68-2-2	72 h	+70°C	-
TEMP. CYCLING	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
VIBRATION	IEC 60721-3-4	30 min/axis	-	Random4M3
SHOCK MECHANICAL	IEC 60721-3-4	-	-	4M3
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h	-	95%
WATER TIGHTNESS	IEC 529	-	-	IP67
SOLAR RADIATION	ASTM G53	1000 h	-	-
FLAMMABILITY	UL 94	-	-	Class HB
SALT SPRAY	IEC 68-2-11 Ka	500 h	-	-
ICE AND SNOW	-	-	-	25mm Radial
WIND SPEED	SURVIVAL	-	-	220 Km/h
	OPERATION	-	-	160 Km/h

Wireless Edge Ltd.

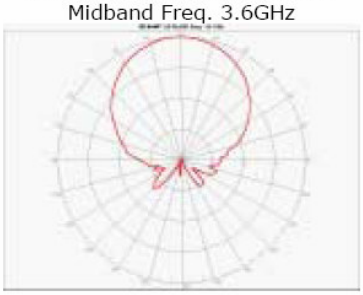
Antenna Data Sheet

MT-404007

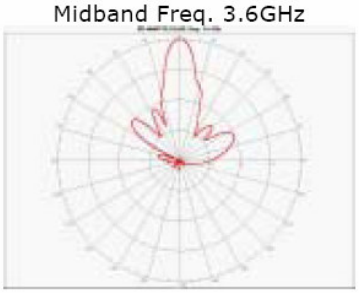
MT-404007

3.3-3.8 GHz 17dBi Base Station Antenna

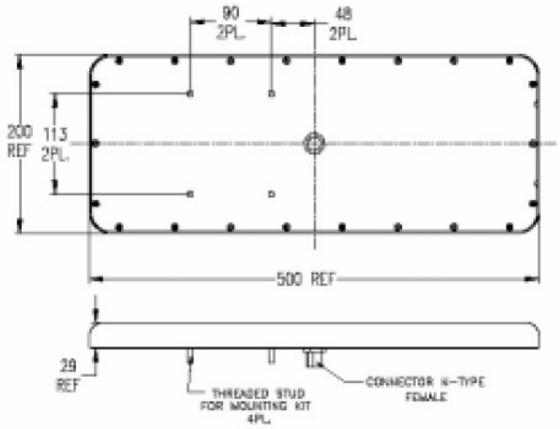
Azimuth Radiation Pattern
Midband Freq. 3.6GHz



Elevation Radiation Pattern
Midband Freq. 3.6GHz



Dimensions [mm]



Existing Antenna Versions

MT-404007	With N – Type Female connector & DC grounding

MTI group is certified according to ISO 9001 and ISO 14001.

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Wireless Edge Ltd.

Antenna Data Sheet

MT-30093

MT-30093

3.3-3.8 GHz 24dBi Subscriber Antenna

Specifications

MTI PART NUMBER		MT – 30093		
ELECTRICAL				
FREQUENCY RANGE		3.3 – 3.8GHz		
GAIN		24 dBi (min)		
VSWR		1.9 : 1 @ 3.3-3.7 GHz		
		2 : 1 @ 3.7-3.8 GHz		
3 dB BEAMWIDTH		8° (typ)		
POLARIZATION		Linear (Vertical or Horizontal)		
SIDELOBES LEVEL		ETSI EN 302 085 V.1.1.2 TS1-TS5		
CROSS POLARIZATION		ETSI EN 302 085 V.1.1.2 TS1-TS5		
F/B RATIO		ETSI EN 302 085 V.1.1.2 TS1-TS5		
INPUT IMPEDANCE		50 (ohm)		
INPUT POWER		6W (max)		
LIGHTNING PROTECTION		DC Grounded		
MECHANICAL				
DIMENSIONS (LxWxD)		600x600X52mm (max)		
WEIGHT		5 Kg (max)		
CONNECTOR		N-Type Female		
RADOME		Plastic		
BASE PLATE		Aluminum with chemical conversion coating		
OUTLINE DRAWING		See page 2		
MOUNTING KIT		MT-120019		
ENVIRONMENTAL				
TEST	STANDARD	DURATION	TEMPERTURE	NOTES
LOW TEMPERATURE	IEC 68-2-1	72 h	-45°C	-
HIGH TEMPERATURE	IEC 68-2-2	72 h	+70°C	-
TEMP. CYCLING	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
VIBRATION	IEC 60721-3-4	30 min/axis	-	Random4M3
SHOCK MECHANICAL	IEC 60721-3-4	-	-	4M3
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h	-	95%
WATER TIGHTNESS	IEC 529	-	-	IP67
SOLAR RADIATION	ASTM G53	1000 h	-	-
FLAMMABILITY	UL 94	-	-	Class HB
SALT SPRAY	IEC 68-2-11 Ka	500 h	-	-
ICE AND SNOW	-	-	-	25mm Radial
WIND SPEED	SURVIVAL	-	-	220 Km/h
	OPERATION	-	-	160 Km/h

Wireless Edge Ltd.

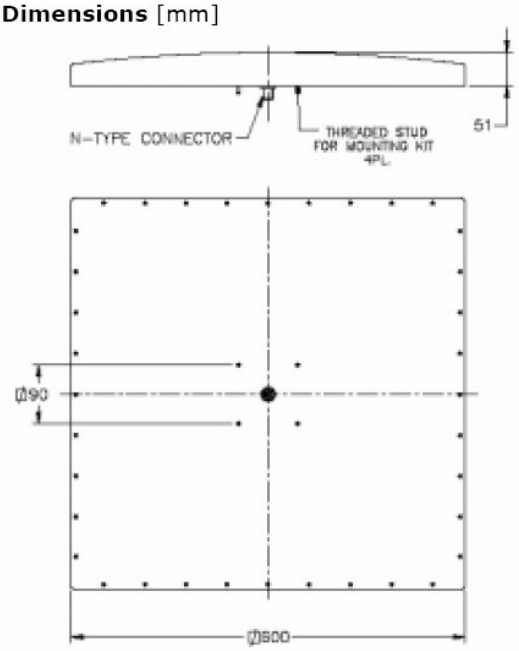
Antenna Data Sheet

MT-30093

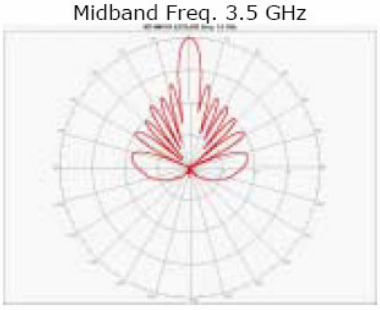
MT-30093

3.3-3.8 GHz 24dBi Subscriber Antenna

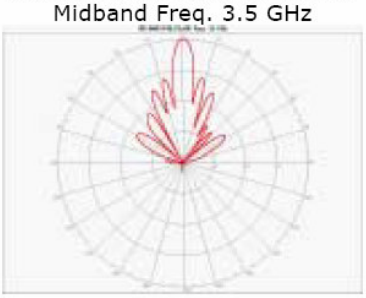
Dimensions [mm]



Azimuth Radiation Pattern
Midband Freq. 3.5 GHz



Elevation Radiation Pattern
Midband Freq. 3.5 GHz



Existing Antenna Versions

MT-30093	With N – Type Female connector & DC grounding

MTI group is certified according to ISO 9001 and ISO 14001.

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