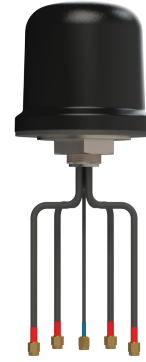




Netz 5in1-MIMO

CELLULAR/LTE MIMO and GNSS - Screw mount antenna

Part #: 100-00177-01



Description

The Netz 5in1-MIMO is a MIMO technology solution by Maxtena that combines four Cellular/ LTE antennas, with GNSS. Our 5 in 1 solution is ideal for high data throughput and streaming, video, industrial and IOT applications. It offers a low profile design with easy mounting and integrated SMA connectors.

The antenna is designed with rugged PC+ABS plastic black housing and is ideal for the most demanding environmental challenges.

This screw mount antenna is easy to install with maximum durability. The Netz 5in1-MIMO has five cables with a SMA-Male standard connector, 3m standard cable length and is fully customizable by offering additional connector types, cable lengths and cable types.

Electrical Specification

Parameter		Specification		
Cable 1 - CELLULAR / LTE Antenna	Frequency Range	698-960 MHz	1710-2170 MHz	2500-2700 MHz
	Band	700/850/900 MHz	1700/1800/1900/2100 MHz	2600 MHz
	Return Loss	-6.5 dB	-10.9 dB	-21.3 dB
	VSWR	2.9:1	1.9:1	1.3:1
	Efficiency	36%	41%	53%
	Peak Gain	0.2 dBi	3.8 dBi	6.0 dBi
	Average Gain	-4.4 dB	-3.9 dB	-2.7 dB
	Impedance	50 Ω		
	Polarization	Linear		
	Radiation Pattern	Omni-Directional		
Max. Input Power	25 W			
Cable 2 - CELLULAR / LTE Antenna	Frequency Range	698-960 MHz	1710-2170 MHz	2500-2700 MHz
	Band	700/850/900 MHz	1700/1800/1900/2100 MHz	2600 MHz
	Return Loss	-6.6 dB	-10.0 dB	-15.4 dB
	VSWR	2.8:1	2.1:1	1.4:1
	Efficiency	35%	42%	53%
	Peak Gain	-0.1 dBi	3.2 dBi	5.6 dBi
	Average Gain	-4.5 dB	-3.8 dB	-2.7 dB
	Impedance	50 Ω		
	Polarization	Linear		
	Radiation Pattern	Omni-Directional		
Max. Input Power	25 W			

Features

- CELLULAR / LTE & GPS/GLONASS/QZSS/ Galileo frequency range
- Easy mounting: Screw Mount
- Heavy Duty antenna
- High Performance
- Ground Plane Independent
- Customizable Cable and Connector
- Dimensions: Ø 96 x H 90 mm
- IP67, IP69, IK09

Applications

- Fleet Management
- Commercial Transport
- HD Video Monitoring
- Buses, Train & Commercial Applications
- Smart Cities



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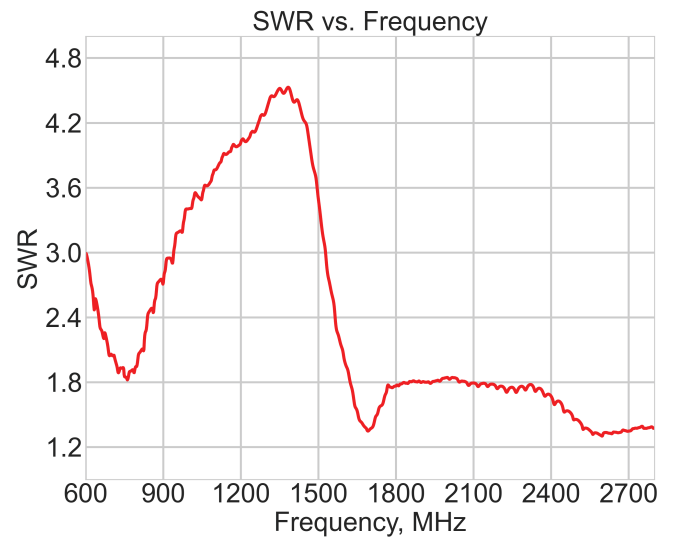
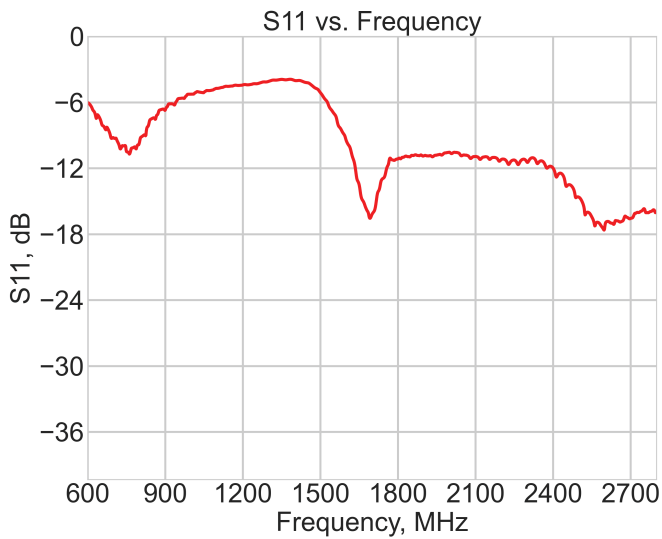
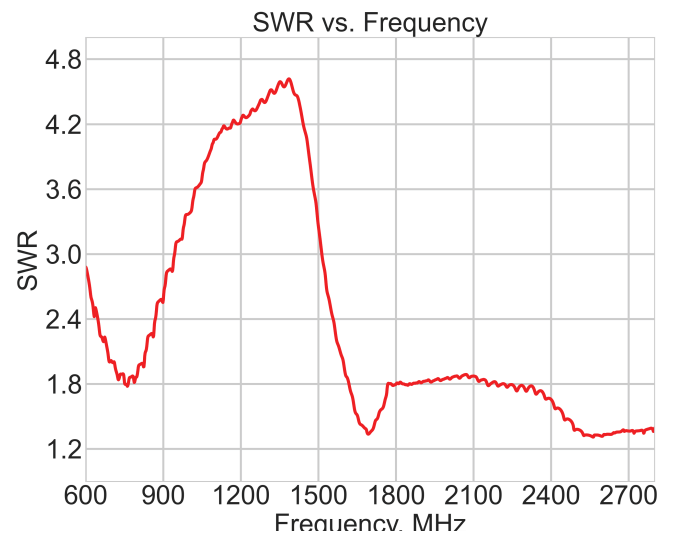
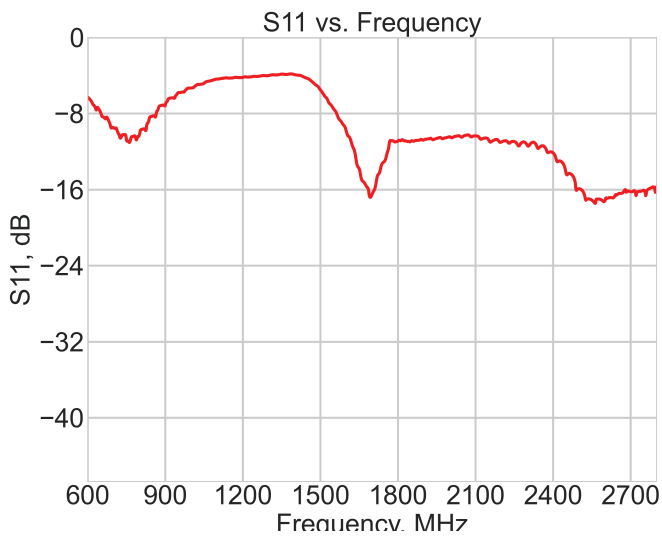
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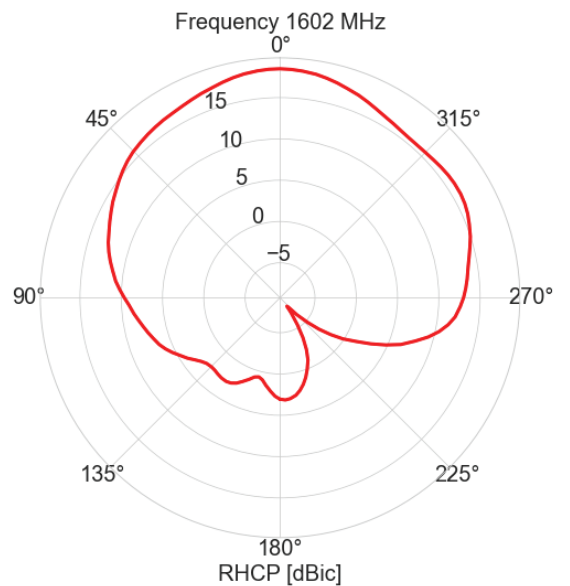
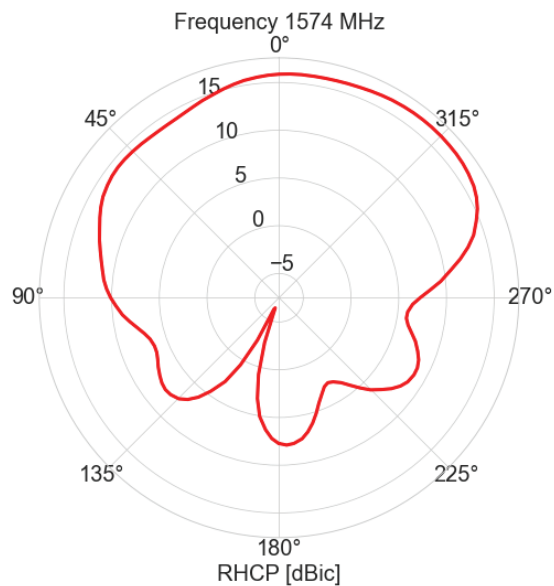
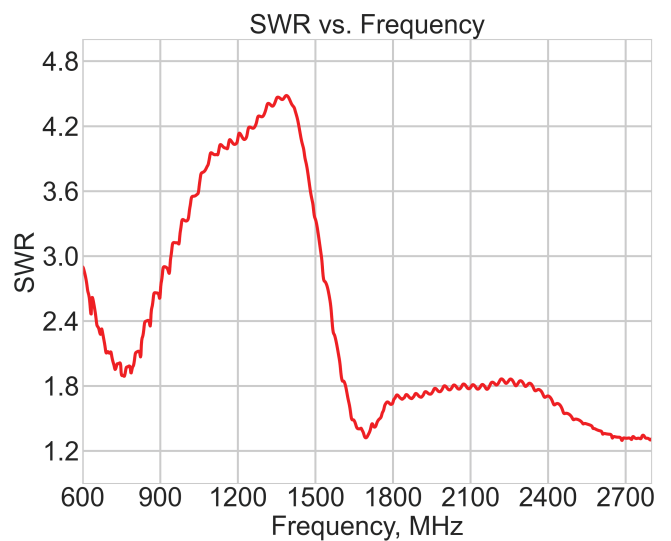
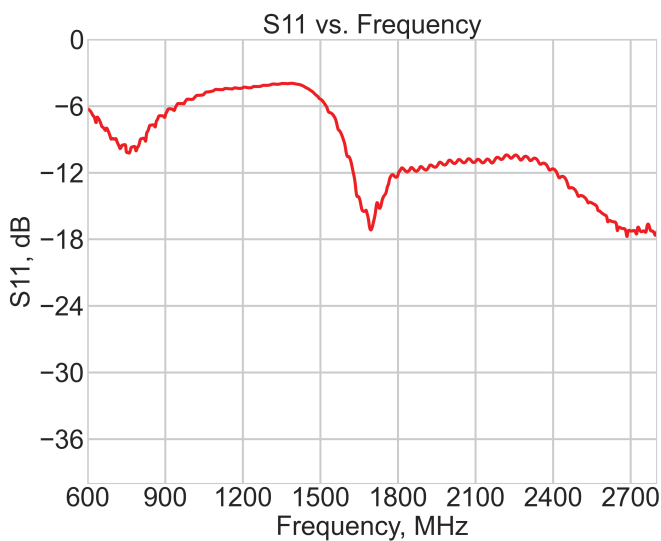
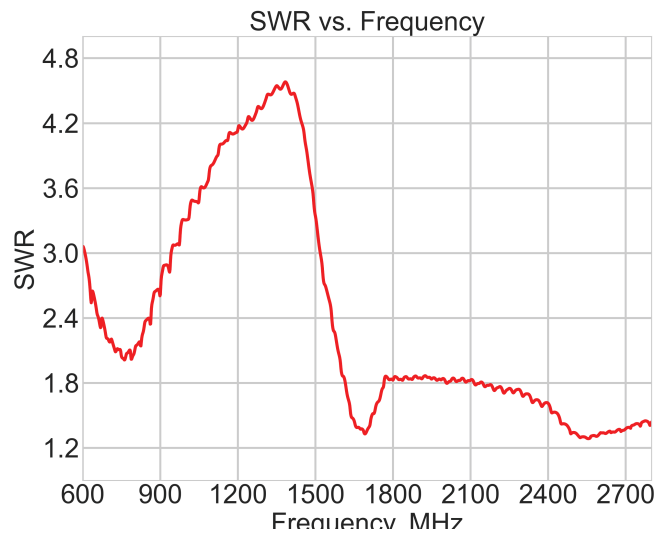
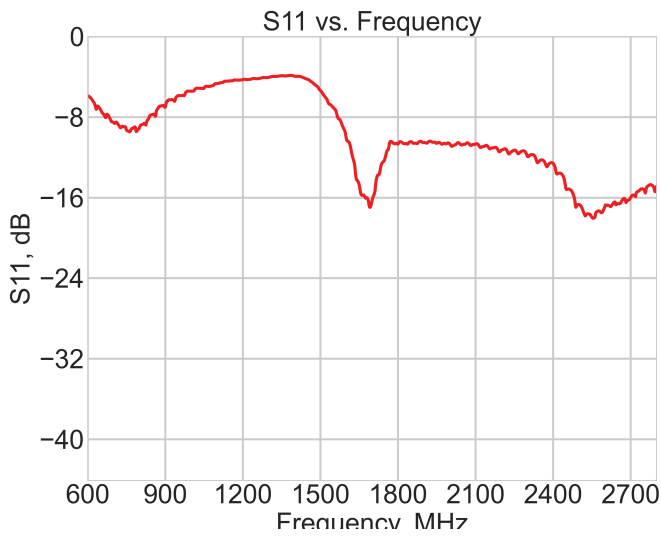
Parameter		Specification		
Cable 3 - CELLULAR / LTE Antenna	Frequency Range	698-960 MHz	1710-2170 MHz	2500-2700 MHz
	Band	700/850/ 900 MHz	1700/1800/ 1900/2100 MHz	2600 MHz
	Return Loss	-6.4 dB	-10.4 dB	-18.9 dB
	VSWR	2.9:1	2.0:1	1.4:1
	Efficiency	35%	40%	53%
	Peak Gain	-0.5 dBi	3.1 dBi	5.0 dBi
	Average Gain	-4.5 dB	-4.0 dB	-2.7 dB
	Impedance	50 Ω		
	Polarization	Linear		
	Radiation Pattern	Omni-Directional		
	Max. Input Power	25 W		
Cable 4 - CELLULAR / LTE Antenna	Frequency Range	698-960 MHz	1710-2170 MHz	2500-2700 MHz
	Band	700/850/ 900 MHz	1700/1800/ 1900/2100 MHz	2600 MHz
	Return Loss	-6.7 dB	-10.4 dB	-16.3 dB
	VSWR	2.8:1	2.1:1	1.4:1
	Efficiency	36%	42%	54%
	Peak Gain	-0.7 dBi	3.0 dBi	4.8 dBi
	Average Gain	-4.4 dB	-3.7 dB	-2.6 dB
	Impedance	50 Ω		
	Polarization	Linear		
	Radiation Pattern	Omni-Directional		
	Max. Input Power	25 W		
Cable 5 - GPS/GLONASS Antenna	Frequency Range	1563-1587 MHz	1598-1610 MHz	
	Band	1575 MHz	1602 MHz	
	Return Loss	≤ -14 dB		
	VSWR	$\leq 1.5:1$		
	Impedance	50 Ω		
	Radiation Pattern	Hemispherical		
	Polarization	RHCP		
	Saw Filter	Post-Filter		
	Active Gain	23 dB @ 3 V; 24dB @ 5 V		
	Noise Figure	1.2 dB		
	Voltage	2.7 - 5.5 V		
	Current Consumption	15 - 25 mA		
	Power Consumption	40.5 - 137.5 mW		
Out of Band Rejection	32 dBc			

Mechanical Specification

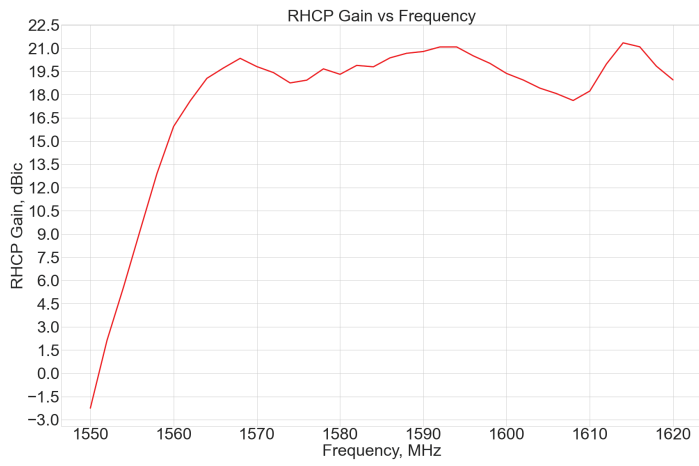
Parameter	Specification
Antenna Dimensions	Ø 96 x 90 mm
Operating Temperature	-40°C to + 85°C
Antenna Weight	690 g
Mounting Type	Screw Mount
Connector	SMA-Male
Cable	LL100/LL195 Standard
Radome	ASA / White, Black
Substance Compliance	RoHS
Certificates	IP67, IP69, IK09

*Mounted on Metal Plate of 30 x 30 cm





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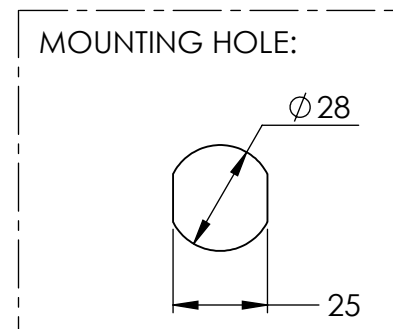
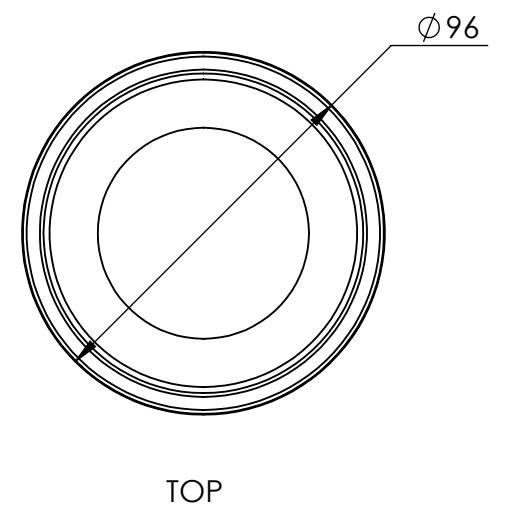
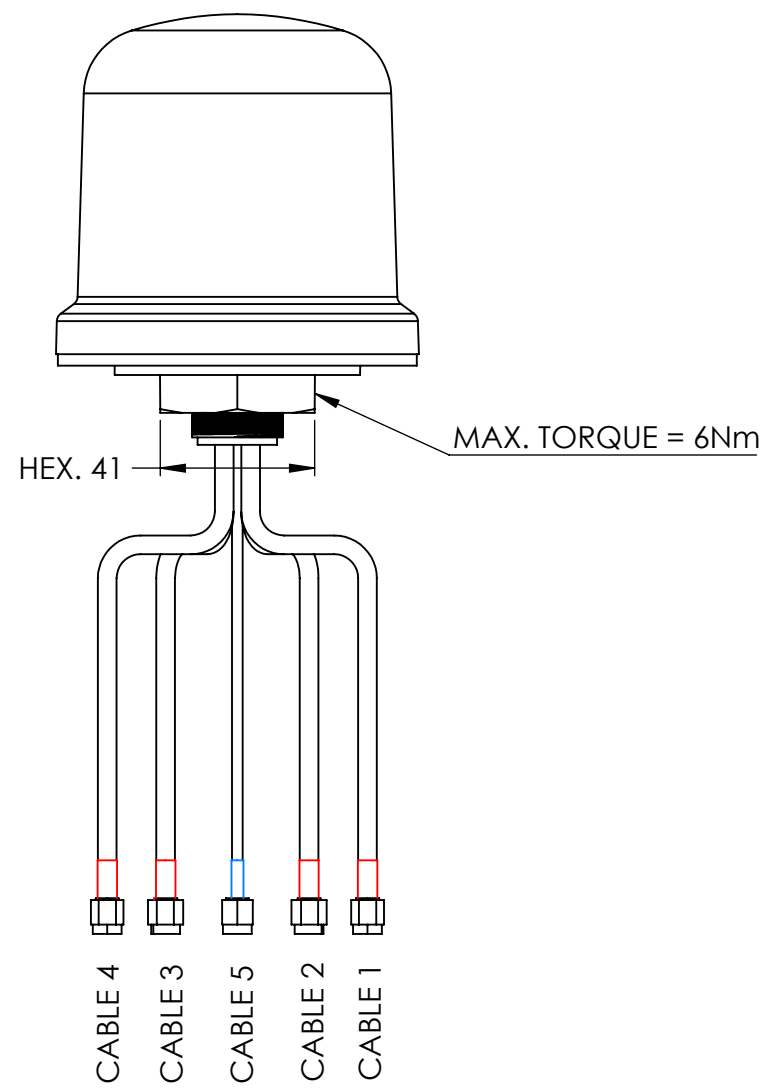
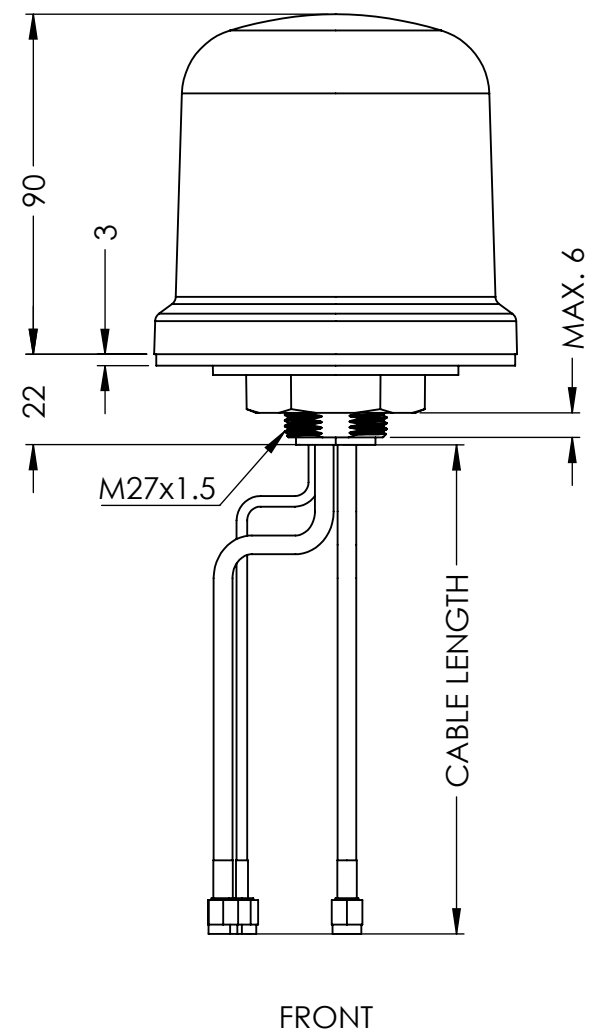


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NOTES:

1. FREQUENCY:
 - CABLE 1, 2, 3, AND 4 (CELLULAR / LTE): 698-960 MHz, 1710-2170 MHz, 2500-2700 MHz
 - CABLE 5 (GPS/GLONASS): 1575.42 MHz, 1598-1610 MHz
2. DIMENSIONS ARE AFTER MOUNTING
3. CUSTOMIZABLE CABLE AND CONNECTOR TYPE
4. MOUNTING TYPE: SCREW MOUNT
5. MAX. MOUNTING THICKNESS: 6mm
6. MATERIALS:
 - RADOME: ASA
 - RADOME COLOR: BLACK or WHITE
 - ANTENNA BASE: ASA
7. OPERATING TEMPERATURE: -40° C ~ +85° C
8. STORAGE TEMPERATURE: -40° C ~ +85° C
9. CERTIFICATES: IP67, IP69, IK09

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-11-17	JET



100-00213 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: LL195 CABLE 2: LL195 CABLE 3: LL195 CABLE 4: LL195 CABLE 5: LL100	300 CM 300 CM 300 CM 300 CM 300 CM	SMA-MALE GOLD SMA-MALE GOLD SMA-MALE GOLD SMA-MALE GOLD SMA-MALE GOLD	BLACK

ITEM 100-00213 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-11-17	JET

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM
TOLERANCES:
FRACTIONAL: ±
ANGULAR: MACH ± .5° BEND ±
ONE PLACE DECIMAL ± 1.0
TWO PLACE DECIMAL ± .50

INTERPRET GEOMETRIC TOLERANCING PER:

THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

MAXTENA, INC

TITLE: 100-00213 NETZ 5 IN 1 MIMO

SIZE B DWG. NO. 117-00542-01 REV A

CAGE CODE: 5KQH7 SCALE: NONE SHEET 1 OF 1