

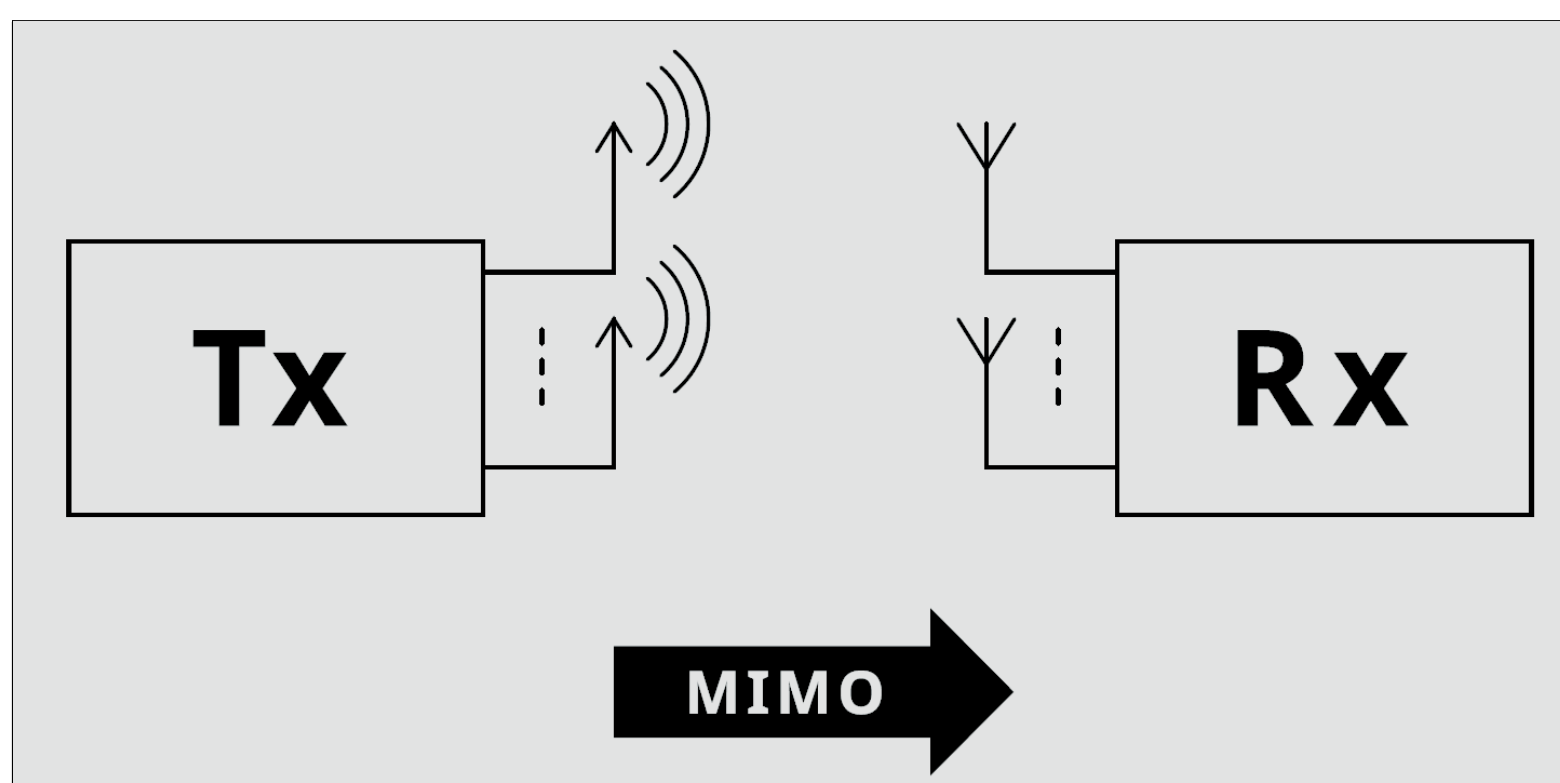


## 5G/LTE MIMO WATERPROOF ANTENNA

Everything can be transformed to IoT with 5G

### PERFORMANCE

5G wireless communication under diverse outdoor conditions. One device with 2 built-in antennas for 2x2 MIMO communication.



#### WHAT IS MIMO?

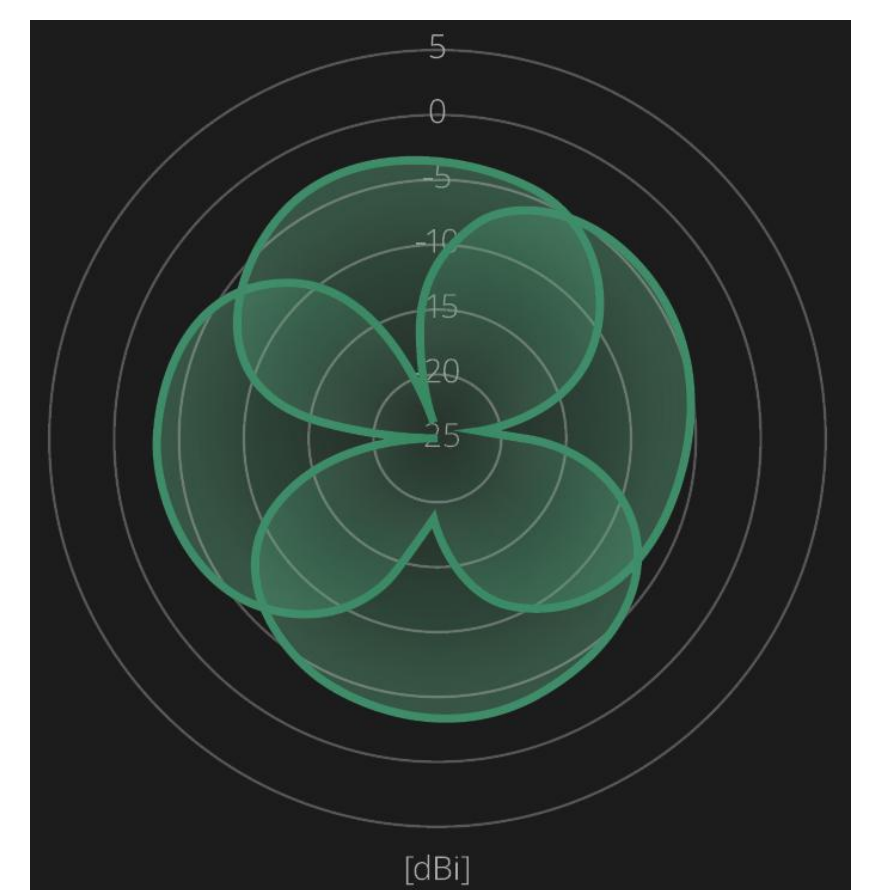
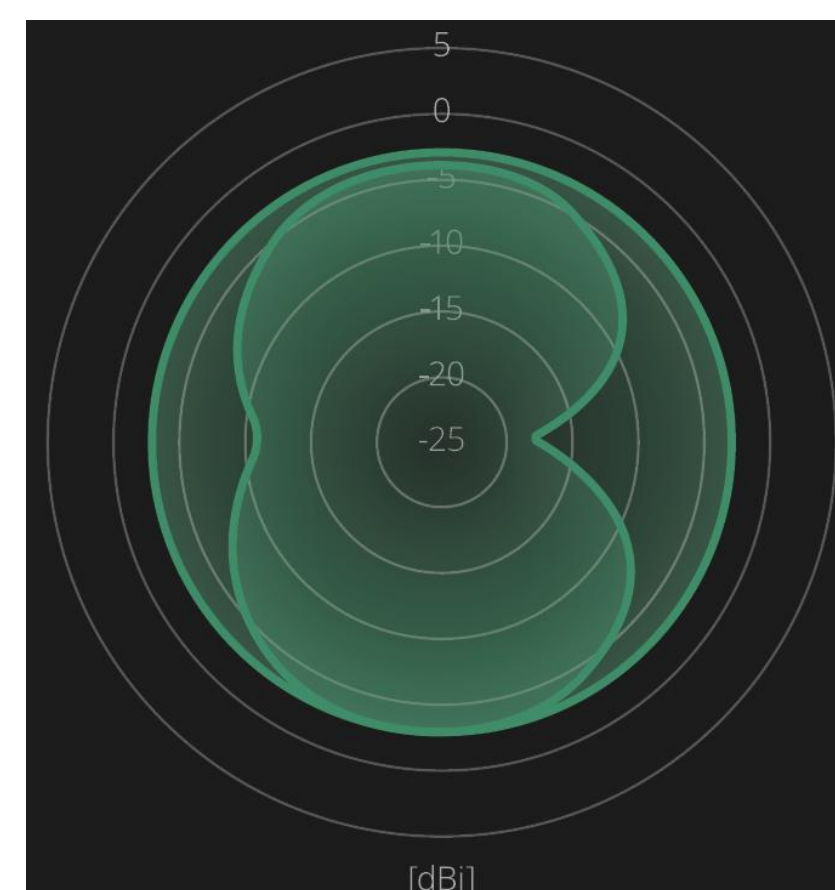
**MIMO = Multiple-input and Multiple-output**

Smart antenna technology using multiple antennas for improved communication performance. Represented by "the number of receiving antennas x the number of transmitting antennas. "



Top view

Front view



#### Reception performance

Radiation pattern covers all directions

### INSTALLATION

High reception and transmission performance enables flexible mounting of the antenna such as vertical installation with a bracket or wall mounting.

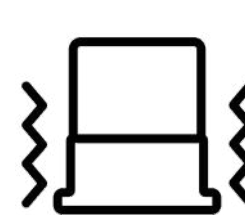
Vertical (with bracket)



Wall mounting

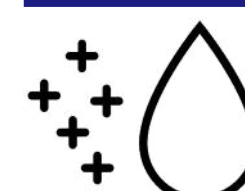


#### Resistant to large vibrations



A bracket designed to perfectly fit the antenna contributes to stable communication performance. Installable on construction or agricultural machines.

#### Installable outdoors



Installable outdoors thanks to waterproof and dustproof features equivalent to IP67.

#### Installable for transportation



Our expertise as an automobile antenna manufacture made it possible to produce antennas with high antenna gain, wide bandwidth, weather resistance and installability in any type of vehicle.





## GNSS L1/L2/L5/L6/L Band

Multi frequency compatible

### PRODUCTS FEATURES

#### ◆ Supports all major GNSS bands such as GPS, GLONASS, Galileo, etc

##### L1: 1559MHz ~ 1606MHz

GPS L1	1574MHz ~ 1576MHz
Galileo E1	1573MHz ~ 1577MHz
GLONASS L1	1597MHz ~ 1606MHz
Beidou B1	1559MHz ~ 1563MHz

##### L2: 1197MHz ~ 1249MHz

GPS L2	1226MHz ~ 1228MHz
GLONASS L2	1242MHz ~ 1249MHz
BeiDou B2b	
Galileo E5b	

##### L5: 1164MHz ~ 1188MHz

GPS	L5
BeiDou	B2a
Galileo	E5a

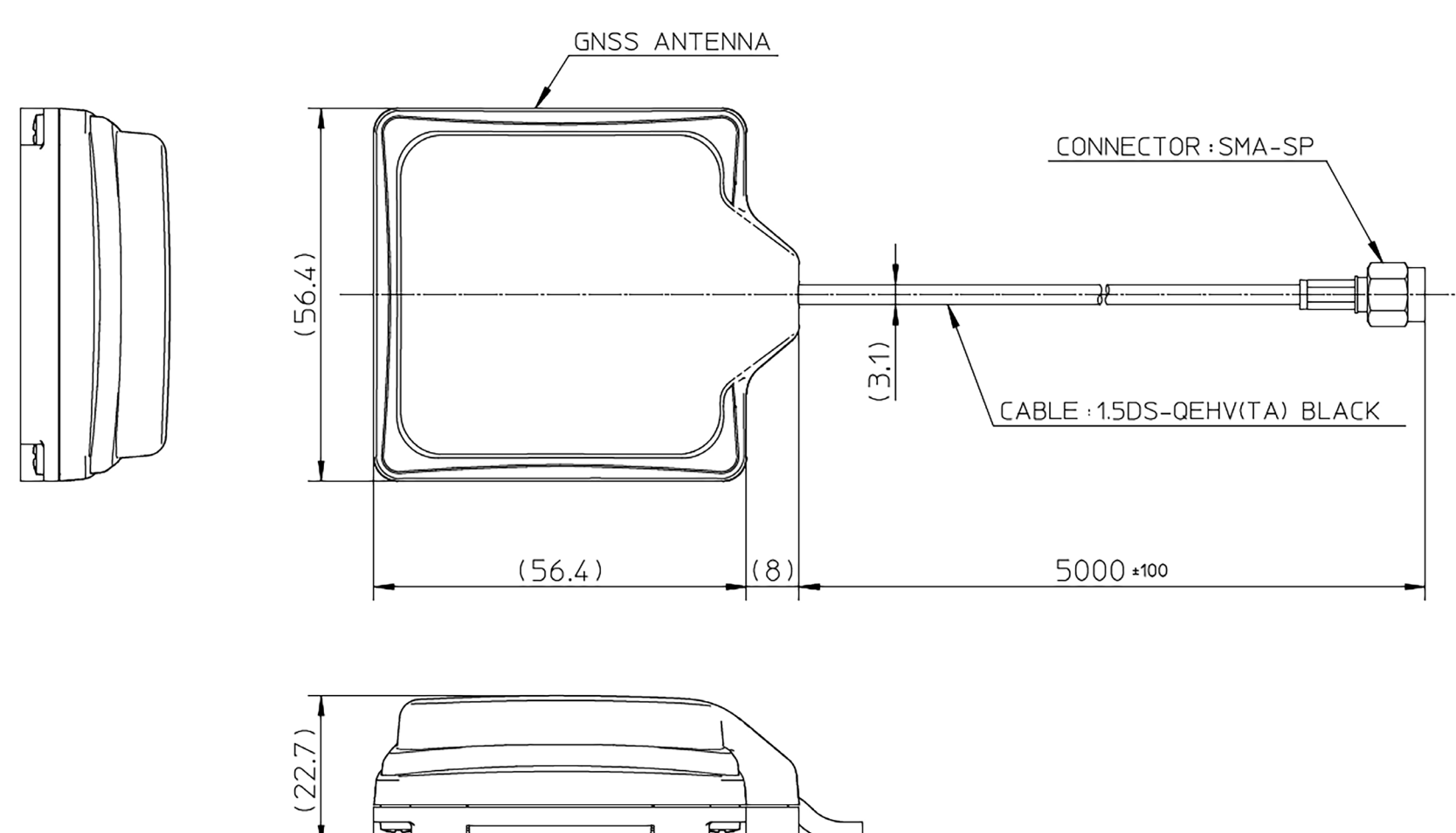
##### L6: 1273MHz ~ 1283MHz

QZSS	L6
Galileo	E6

##### L Band: 1525MHz ~ 155MHz

#### ◆ Miniaturization achieved despite being an antenna compatible with 5 frequencies ✕ Same size as YOKOWO dual frequency (L1/L2 or L1/L5)

##### Dimensions



#### ◆ Advanced reception performance





# IP ANTENNA (TEL-TEL-GNSS(L1), 2×2 MIMO, 4G/5G)

Compact and high performance for telecommunication

## PRODUCTS FEATURES

- ◆ Realization of TEL and GNSS broadband using our patented
- ◆ Minimization of Noise



## PERFORMANCE

TEL	Frequency Range	699MHz ~ 5GHz
	Polarization	Linear Polarization
	Efficiency	699 - 960MHz : Min. -9.0dB 1710 - 2690MHz : Min. -6.0dB 3300 - 5000MHz : Min. -8.0dB
	VSWR	Max. 4.0
GNSS	Receiving Frequency Range	GPS, Galileo: 1575.42 ±2.046MHz GLONAS: 1597.807 ~ 1605.6305MHz Compass(BeiDou): 1561.098 ±2.046MHz
	Receive Polarization	Right-hand Circular Polarization
	Total Gain	Min.20dBic (Zenith Direction, Except Cable and Connector)
	Noise Figure(LNA)	Max.3.0dB(+25℃ )
	Out-of-band Attenuation Characterristics(LNA)	1560MHz ~ 50MHz: Min.25dB 1605MHz ~ 50MHz: Min.25dB
	Output VSWR	Max.2.0
	Power Supply Voltage Range	2.7 ~ 5.5V
	Current Consumption	10~30 mA

Mechanical Spec	Weight	About 70g(Except Bracket, Cable,Connector)
	Mounting Method	Resin Bracket
Environmental Characteristics	Operational Temperature Range	-40 ~ +85℃
	Strage Temperature Range	-40 ~ +85℃
Size(L x W x T)		80x60x15(mm)