




# SPECIFICATION SHEET

## FM/AM+WIFI+GPS&BD Combination Antenna

<b>MESSERS.</b>	
<b>DESCRIPTION</b>	<b>FM/AM+WIFI+GPS&amp;BD Combination Antenna</b>
<b>PART No.</b>	<b>FES-130G0</b>

ACCEPTANCE		
PREPARED	CHECKED	APPROVED
/	/	/

SUPPLIER		
PREPARED	CHECKED	APPROVED
		
10/02	10/02	10/02

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**◆ REVISION HISTORY**

NO	DATE	REVISION	NOTE	AUTHORS
1	2024.10.02	00	First Draft	LEE.

## ◆ APPLICATION

- |                                 |                                    |
|---------------------------------|------------------------------------|
| ▪ FM/AM RADIO                   | Automotive segment                 |
| ▪ Location information          | Unmanned Aerial Vehicle Navigation |
| ▪ Telematics and Navigation     | Autonomous vehicles                |
| ▪ Satellite Realtime Navigation | Vehicle Tracking                   |
| ▪ Logistics and Shipping        | Wireless Networks                  |

## ◆ KEY FEATURES

- FM/AM ANTENNA, WIFI ANTENNA, GPS/BEIDOUQZSS/Galileo/L1
- 3 x 1 Combination Antenna
- WIFI Gain: 2.0dBi / FM/AM Gain:20/12dBi(12V)
- Frequency : 2480~2483.5MHz , 520KHz~1629KHz/76~108MHz
- Active GNSS Gain  $28 \pm 2$ dB
- GPS Voltage Range 2.2V~5.0V



**◆ FM/AM , WIFI ELECTRICAL SPECIFICATION**

ITEM		SPECIFICATIONS
FM/AM Antenna	Frequency Range	520KHz~1629KHz/76~108MHz
	Polarization	Linear
	Gain	20/12dBi
	V.S.W.R(min)	< 2.5
	Supply Voltage	12.0V
WIFI Antenna	Frequency Range	2400-2483.5MHz
	Polarization	Linear
	Gain	3.0dBi(Zenith)
	V.S.W.R	< 2.5
	Impedance	50Ω

**◆ GPS ELECTRICAL SPECIFICATION**

ITEM		SPECIFICATIONS
GPS Antenna	Frequency	GPS /BEIDOU/QZSS/Galileo L1
	Polarization	RHCP Right-hand-circulator
	Axial Ratio	≤3dB
	V.S.W.R	≤2.0
	Peak Gain	2.0dBi(Zenith)
	Impedance	50Ω
GPS LNA	Gain	28 ± 2.0dB
	Noise Figure	≤2.0
	Supply Voltage	2.2-5.0V
	Current Consumption	≤15mA Typ.
	V.S.W.R	≤2.0

**◆ ENVIRONMENTAL SPECIFICATION**

ITEM	SPECIFICATIONS
Operating Temperature	-40°C~+85°C
Storage Temperature	-40°C~+85°C
Relative Humidity	65°C, 95%RH
Waterproof Rating	IP65

RoHS Compliant

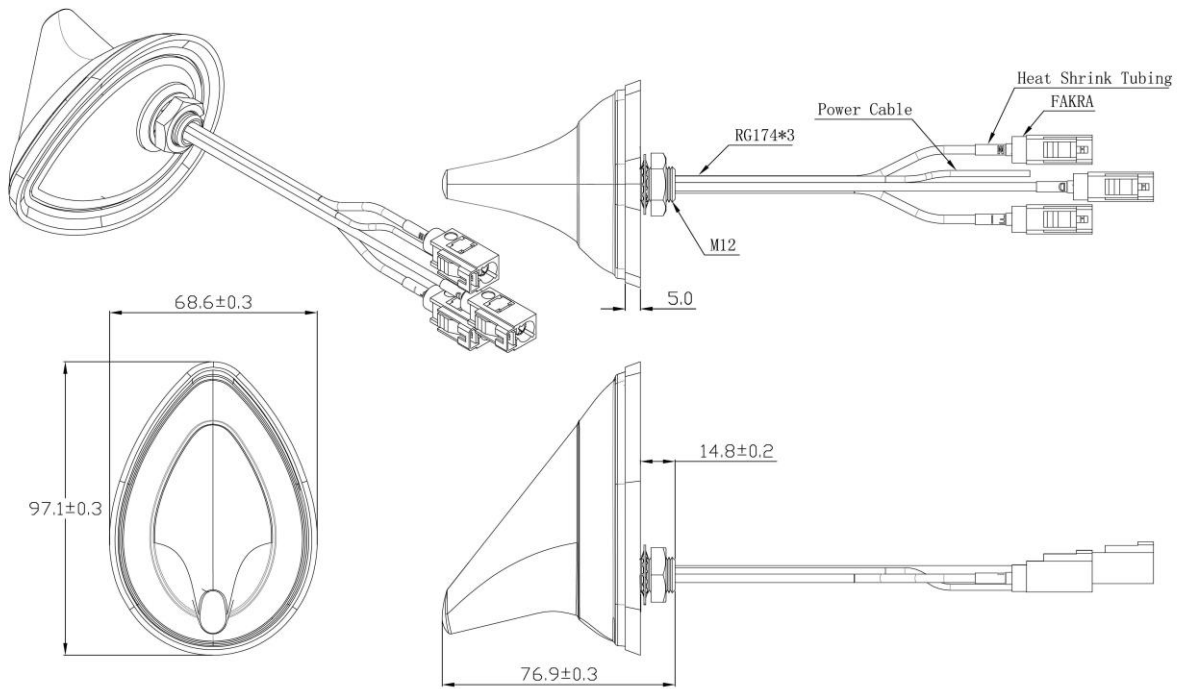
**◆ MECHANICAL SPECIFICATION**

ITEM	SPECIFICATIONS
Dimensions	97.1x68.6x62.1mm
Cable	RG174 or others
Connector	SMA(M) or others
Radome	ABS
Mounting Method	Screw

**❖ GNSS FREQUENCY BAND**

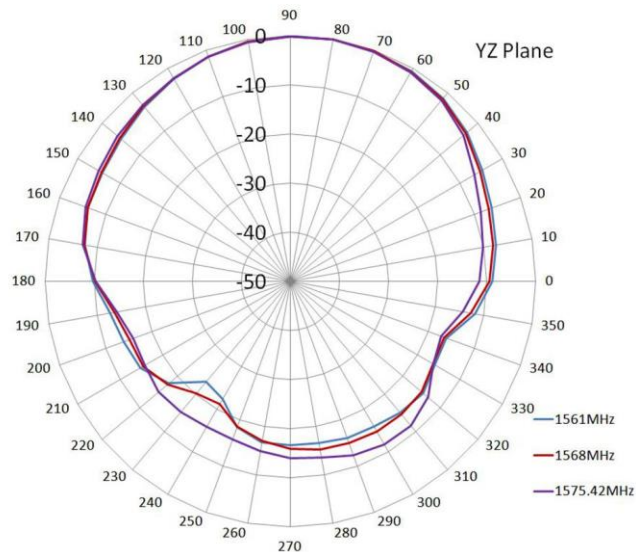
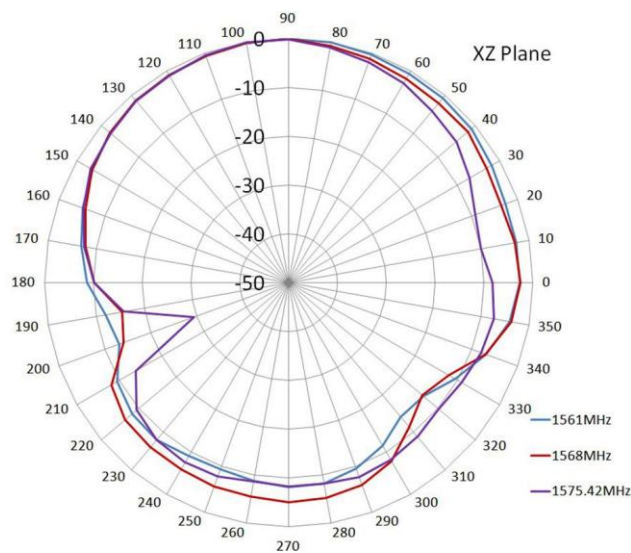
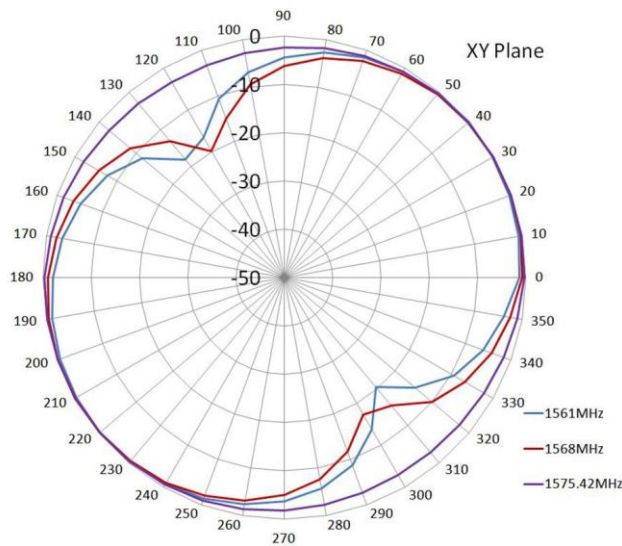
GPS/GNSS FREQUENCY BAND					
GPS /QZSS	L1	L2	L5	L6	
	1575.42MHz	1227MHz	1176MHz	1278MHz	
GLONASS	G1	G2	G3		
	1602MHz	1248MHz	1207MHz		
GALILEO	E1	E5a	E5b	E6	
	1575.42MHz	1176MHz	1202MHz	1278MHz	
BEIDOU	B1	B2a	B2b	B3	
	1561MHz	1176MHz	1207MHz	1268MHz	
SBAS	L1	G1	L5	G2	G3
	1575.42MHz	1602MHz	1176MHz	1248MHz	1207MHz
L-BAND IRNSS	L-BAND	IRNSS			
	1542MHz	1176MHz			

◆ ANTENNA DIMENSION



Unit: mm

◆ Radiation Pattern(GPS)



◆ Radiation Pattern(WIFI)

