

# DATASHEET

<b>Type</b>	Combined Antenna
<b>Frequencies</b>	GSM (900 MHz) GPS (1575.42 MHz) GLONASS (1592 - 1610 MHz) DCS (1800 MHz) PCS (1900 MHz) WIFI / BLUETOOTH (2.4 GHz)
<b>Mounting</b>	Body Mount
<b>Part No.</b>	<b>2J866B</b> <b>2J866BG</b>
<b>Revision</b>	00





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## 1. PRODUCT SELECTOR

**2J866B**      GPS L1 version  
**2J866BG**    GPS/GLONASS version

## 2. SPECIFICATION

### 2.1. Electrical Specifications

#### Mobile (Cable 1)

Frequencies	GSM (900 MHz) DCS (1800 MHz) PCS (1900 MHz)
Impedance	50 Ohms
Polarization	Vertical
Gain	2.2dBi max.
VSWR	<2:1
Operating temperature	-40°C to +85°C

#### Navigation (Cable 2)

Frequencies	GPS (1575.42 MHz) or GPS/GLONASS (1592 - 1610 MHz)
Impedance	50 Ohms
Noise figure	1.15dB
Polarization	RHCP
LNA Gain	26dB at 3V, 27dB at 5V
VSWR	<1.2:1
Voltage supply	2.7V - 5.5V
Current	15mA - 25mA
Power (max.)	138mW
Operating temperature	-40°C to +85°C

#### Wifi (Cable 3)

Frequencies	WIFI / BLUETOOTH (2.4 GHz)
Impedance	50 Ohms
Polarization	Vertical
Gain	2dBi max.
VSWR	<2:1
Operating temperature	-40°C to +85°C

## 2.2. Connection Specifications

### 2.2.1. Default (recommended)

Cable 1 (Mobile):

Connector type: SMA male  
Cable: RG174U  
Cable length: 500 cm

Cable 2 (Navigation):

Connector type: MCX male  
Cable: RG174U  
Cable length: 500 cm

Cable 3 (Wi-Fi):

Connector type: SMA male  
Cable: RG174U  
Cable length: 500 cm

### 2.2.2. Optional

Suitable cables: RG174, RG316  
Cable length: min. 30 cm  
Suitable connectors: All connectors suitable for cables above

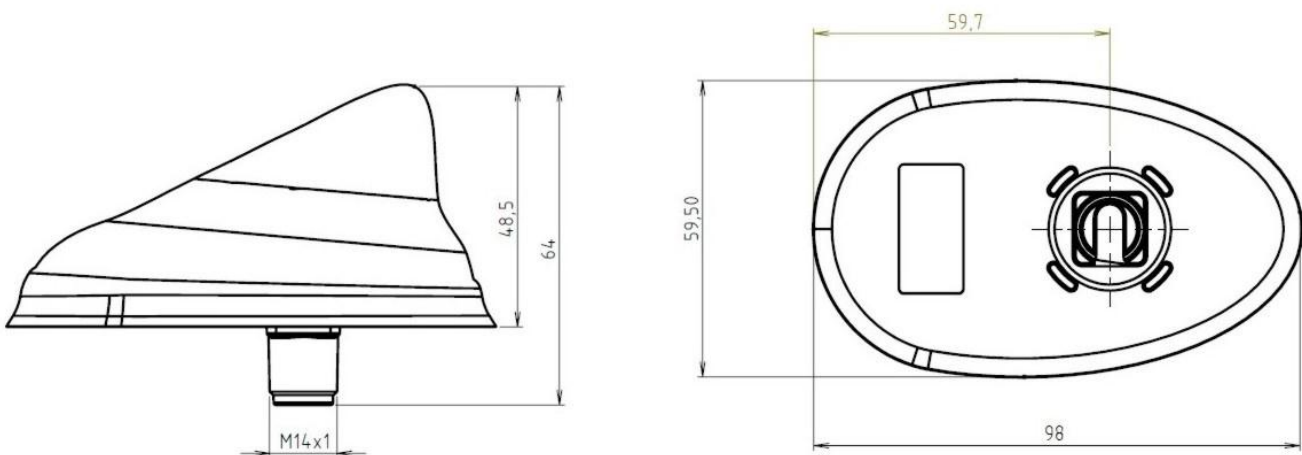
## 2.3. Mechanical Specifications and Dimensions

### 2.3.1. Mounting Type

- Body Mount

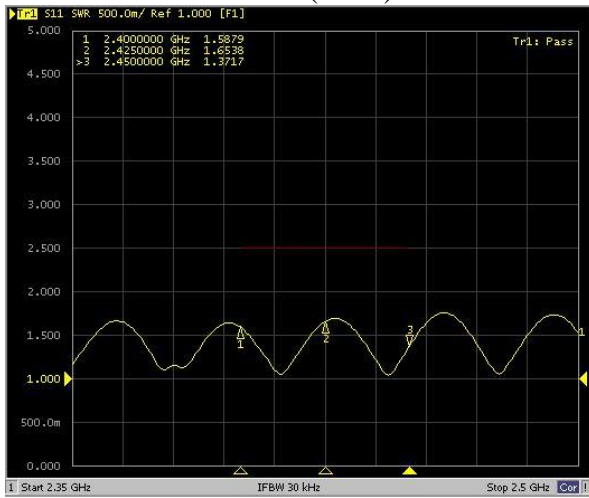
### 2.3.2. Body mount

Material: Lid: ABS / Base: Zamak / Gasket: TPE  
Max. dimensions: 65mm x 98mm x 58mm  
Weight: 246 g 'counted with default connection'  
Colour: Black (for different colours please ask our sales team)



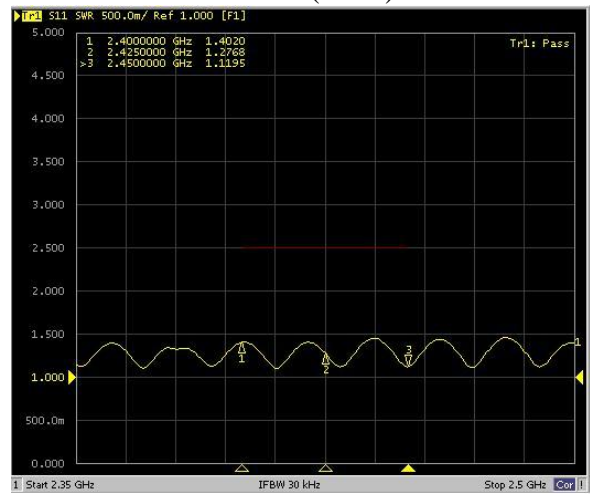
### 3. MEASUREMENT

VSWR (WiFi)



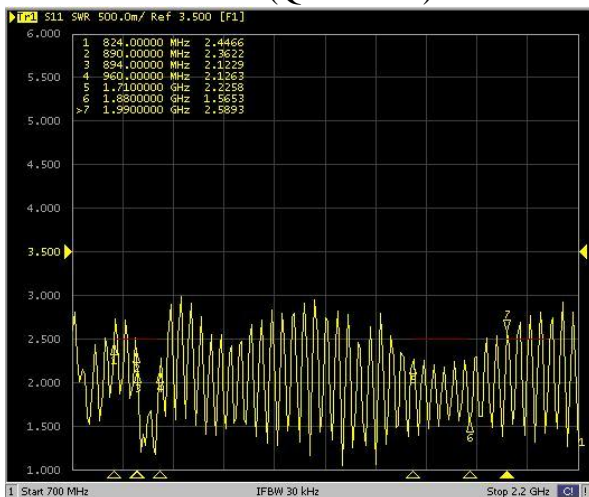
Tested with 3m cable length

VSWR (WiFi)



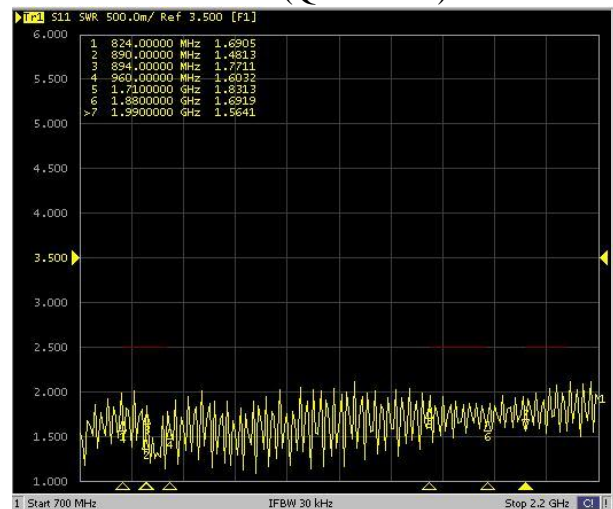
Tested with 5m cable length

VSWR (Quad Band)



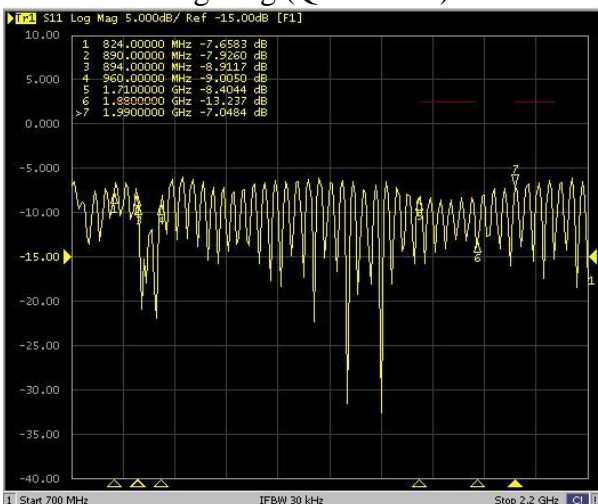
Tested with 3m cable length

VSWR (Quad Band)



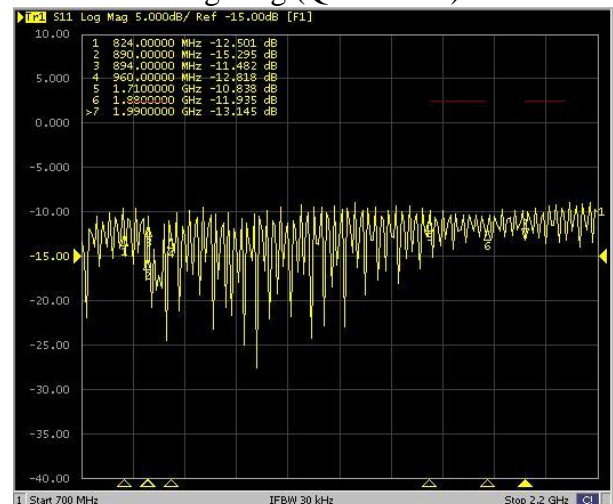
Tested with 5m cable length

Log Mag (Quad Band)



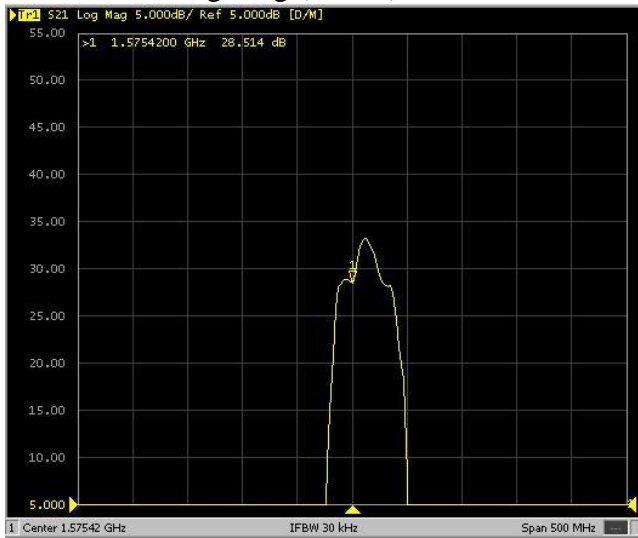
Tested with 3m cable length

Log Mag (Quad Band)



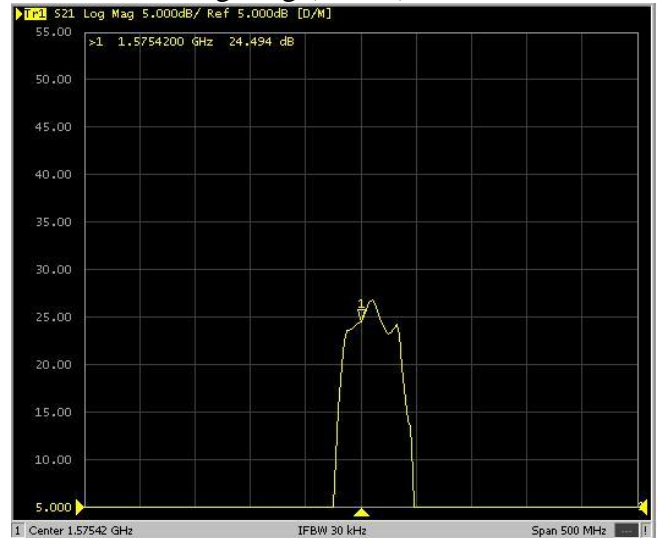
Tested with 5m cable length

Log Mag (GNSS) at 5V



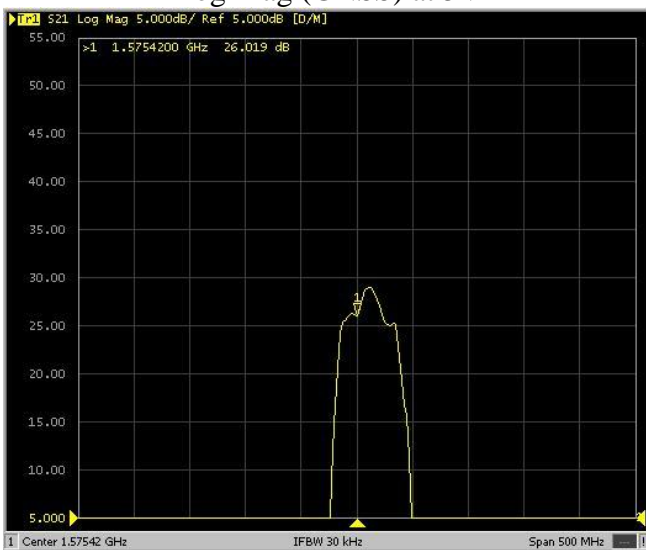
Tested with 3m cable length

Log Mag (GNSS) at 3V



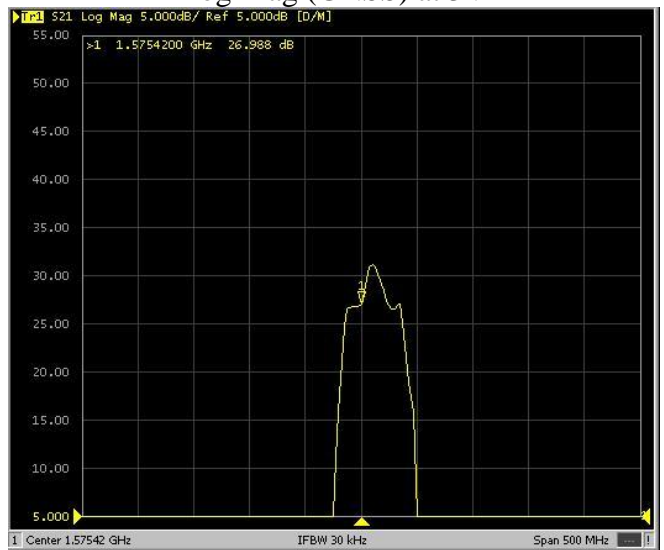
Tested with 5m cable length

Log Mag (GNSS) at 5V



Tested with 5m cable length

Log Mag (GNSS) at 3V



Tested with 3m cable length

## 4. IMAGES

