

2J4400P (DATASHEET)

Type	Combined antenna
Frequencies	AMPS (824-894 MHz) GSM (900 MHz) GPS (1575.42 MHz) DCS (1800 MHz) PCS (1900 MHz) 3G (UMTS 2.1 GHz)
Mounting	Glass Mount
Revision	01





1. SPECIFICATION

1.1. Electrical Specifications

Mobile (Cable 1)

Frequencies	AMPS (824-894 MHz) GSM (900 MHz) DCS (1800 MHz) PCS (1900 MHz) 3G (UMTS 2.1 GHz)
Impedance	50 Ohms
Polarization	Horizontal
Gain	GSM: 2 dBi typ.
VSWR	<2:1
Power handling	35W
Note	10k detection resistor GSM

Navigation (Cable 2)

Frequencies	GPS (1575.42 MHz)
Impedance	50 Ohms
Noise figure	1.15 dB typ
Polarization	RHCP
LNA Gain	23dB at 3V; 25dB at 5V
Voltage supply	2.7 V - 5.5 V
Current	15mA - 25 mA
Power (max.)	138 mW max.

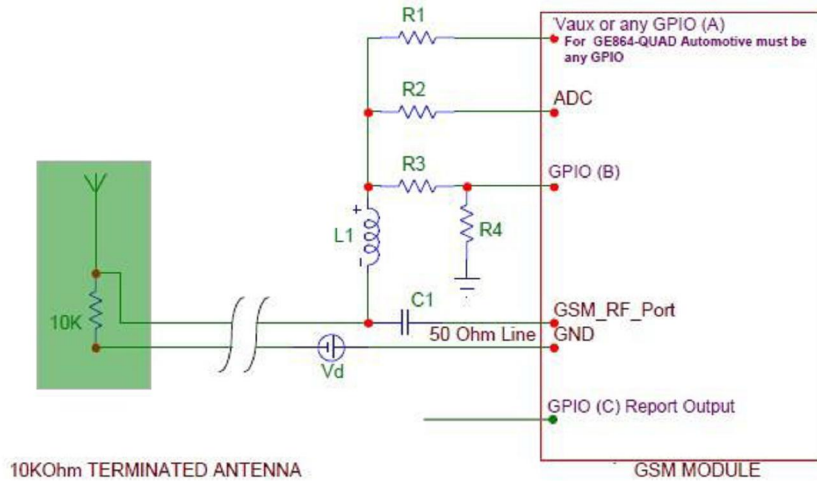
1.2. General Specifications

IP rating	IP67 (TBC)
Operating temperature	-40°C to +85°C

1.3. Connection Specifications

Cable 1 (Mobile):

Connector type: FME female
 Cable: RG174U
 Cable length: 30 cm



GSM Antenna is terminated with 10k Ohm resistor what can be used in application where you need check if antenna is connected, or if there is open circuit. On the picture below you can see example of connecting antenna into that circuit.

Cable 2 (Navigation):

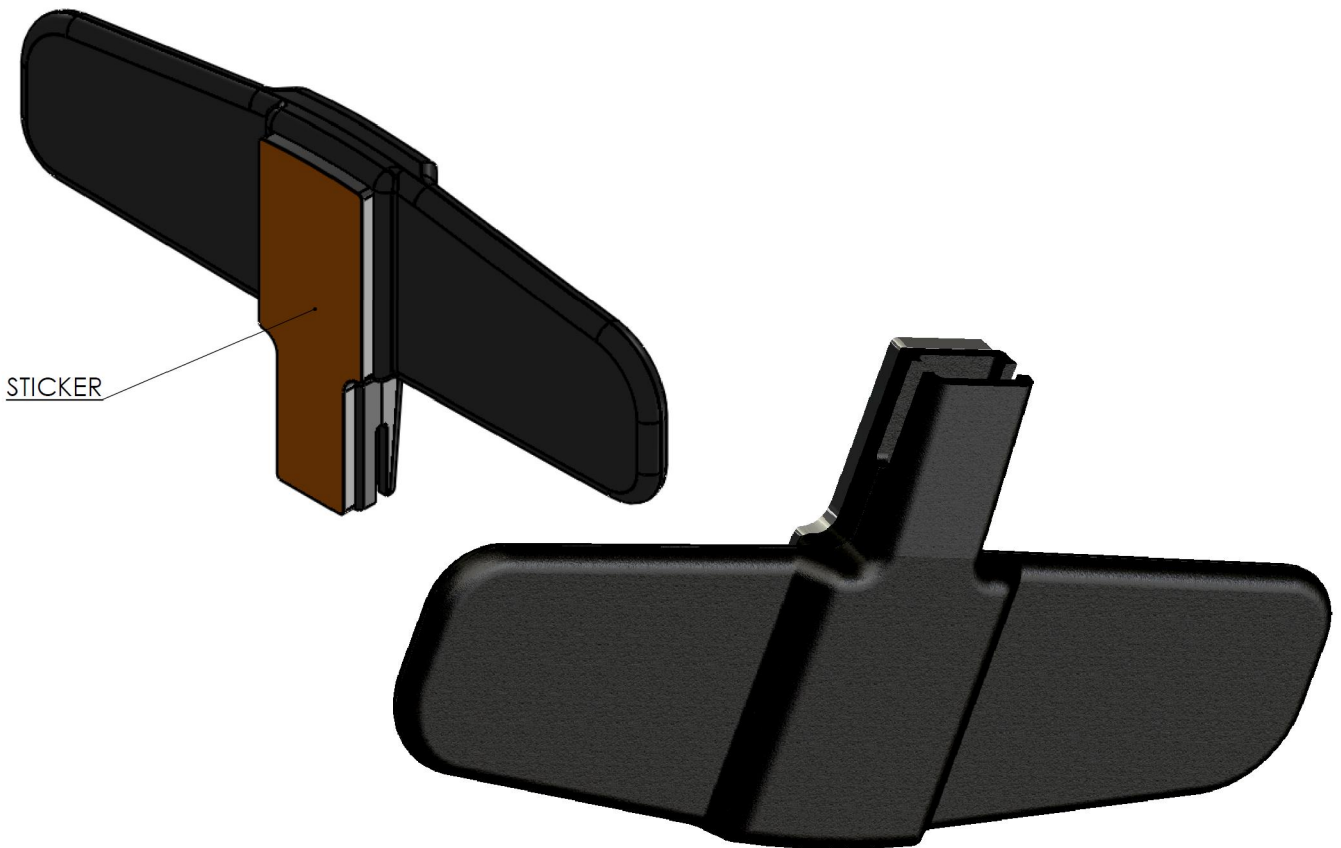
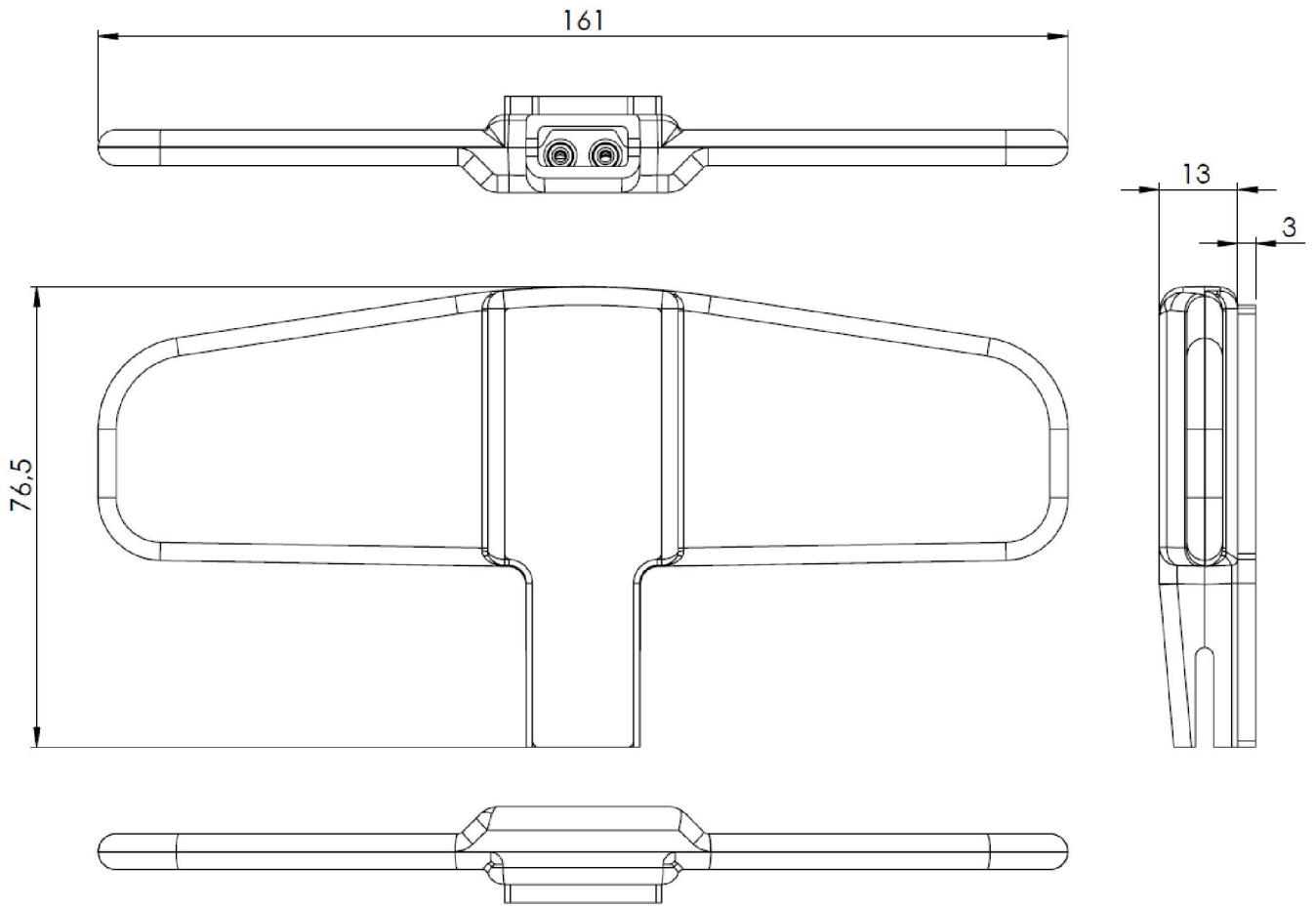
Connector type: SMA male
 Cable: RG174U
 Cable length: 30 cm

For different cable length and connector type ask our sales team.

1.4. Mechanical Specifications and Dimensions

1.4.1. Glass Mount

Material: ABS
 Max. dimensions: 16mm x 76,5mm x 161mm (H x W x L)
 Weight: 75 g 'weight counted with connection above'
 Colour: Black (for different colours please ask our sales team)



2. MEASUREMENT

GSM: Antenna S11

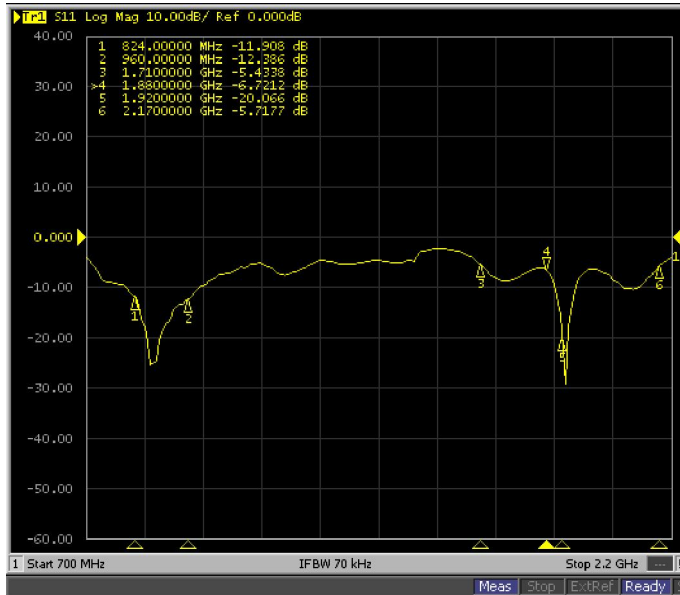


Fig 1 – GSM S11 with 0.2m RG174 Coaxial Cable

Antenna S21 Gain (Forward Direction)

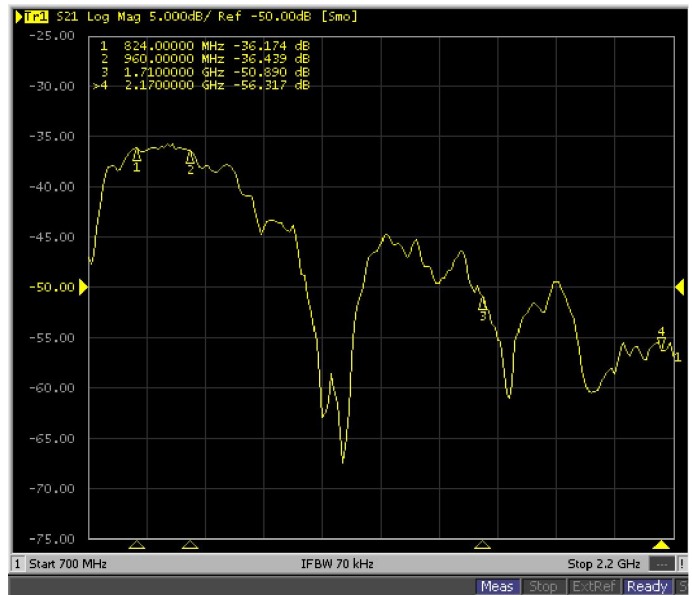


Fig 3 – GSM S21 Forward Direction (Away from vehicle)

GSM: Antenna S11

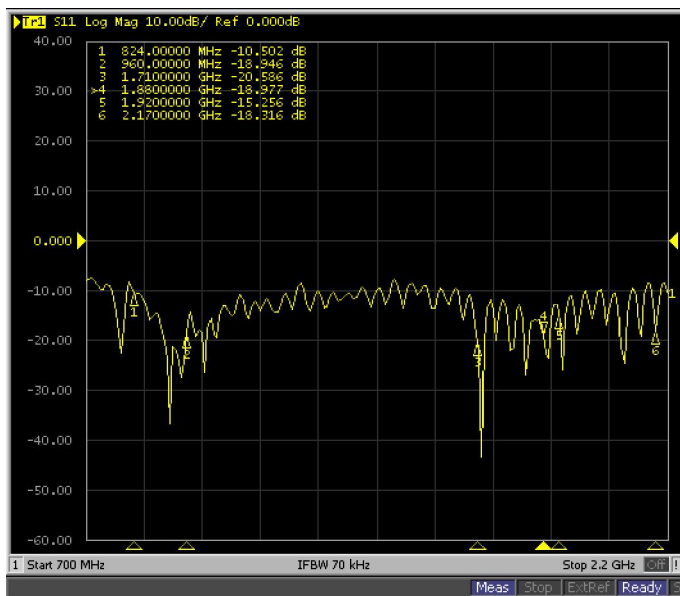


Fig 2 – GSM S11 with 2.5m RG174 Coaxial Cable

Antenna S21 Gain (Backward Direction)

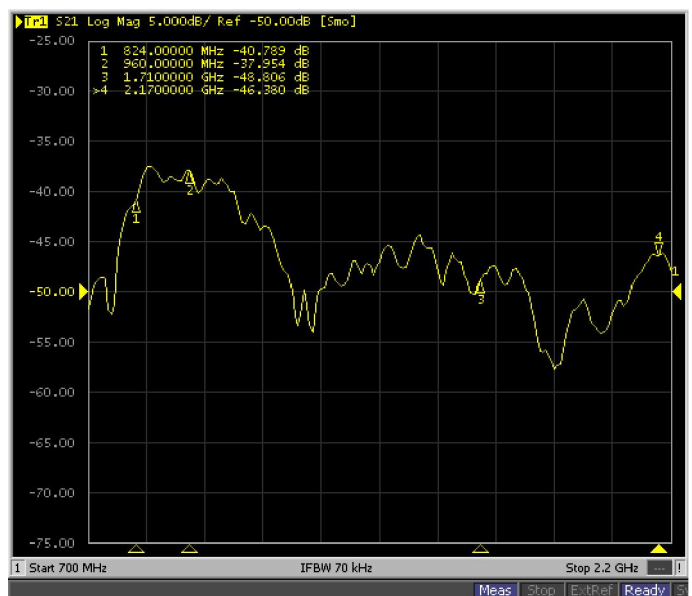


Fig 4 – GSM S21 Backward Direction (Inside vehicle)

GPS: Filter + LNA

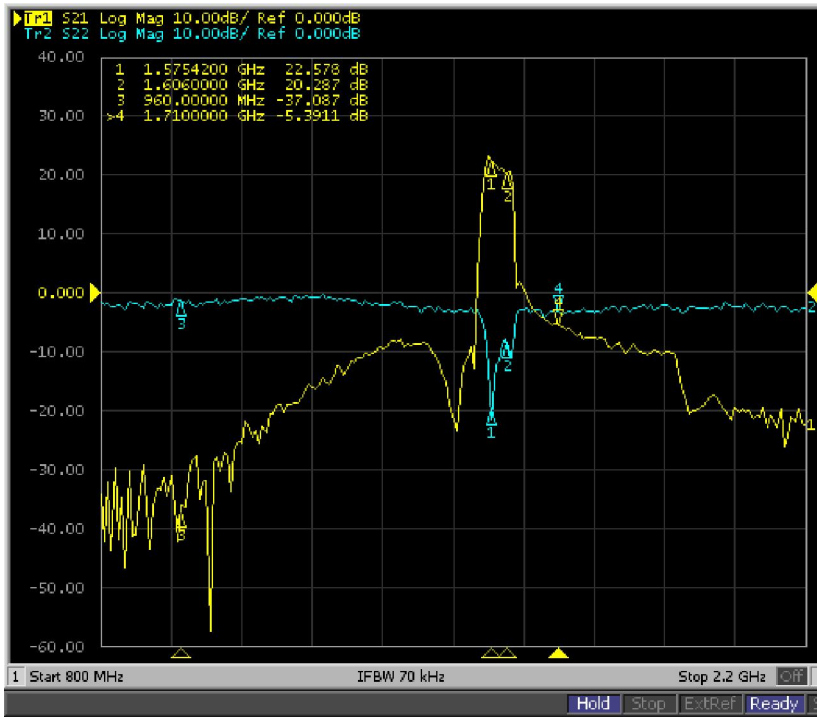


Fig 5 - Yellow LNA+Filter S21; Blue LNA+Filter S22 (O/P) [3V]

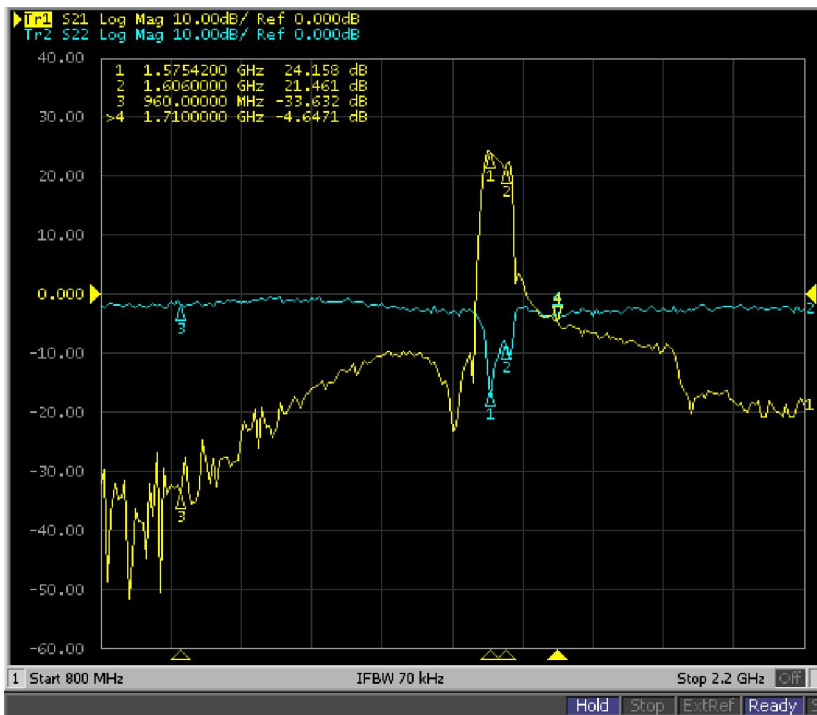


Fig 6 - Yellow LNA+Filter S21; Blue LNA+Filter S22 (O/P) [5V]

3. PICTURES

