

# GPS/3G External Antenna Specification

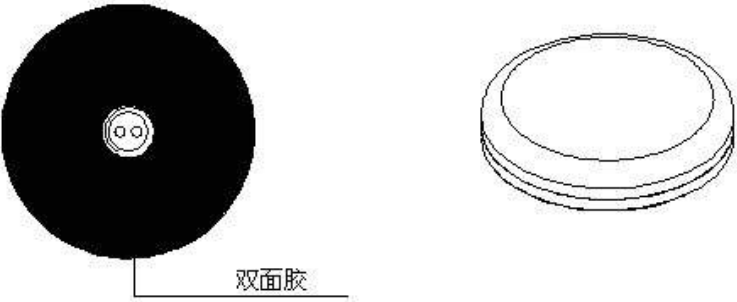
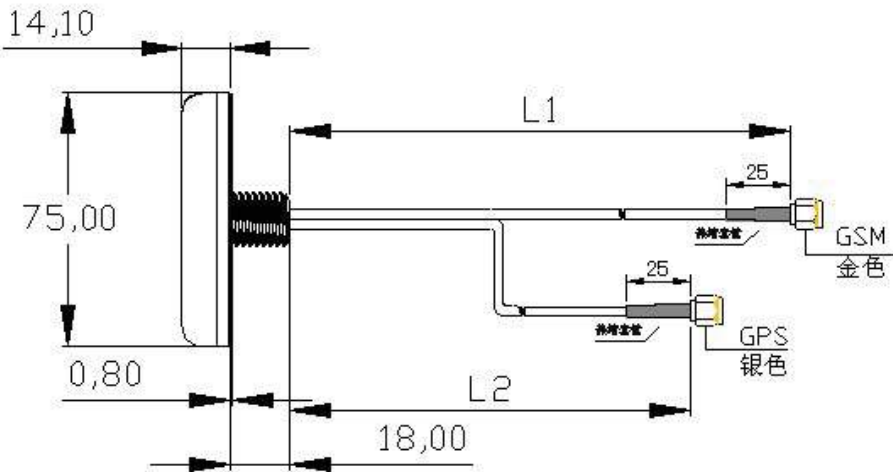


Antenna	
Frequency Range	1575.42MHz±1.02 MHz
V.S.W.R	1.5:1
Band Width	> 10 MHz
Impedence	50 ohm
Gain	5dBic Based on 7×7cm ground plane
Polarization	RHCP
LNA	
Frequency Range	1575.42MHz±1.02 MHz
DC Voltage	2.7V/3.0V/3.3V/5.0V/3.0V to 5.0V/other

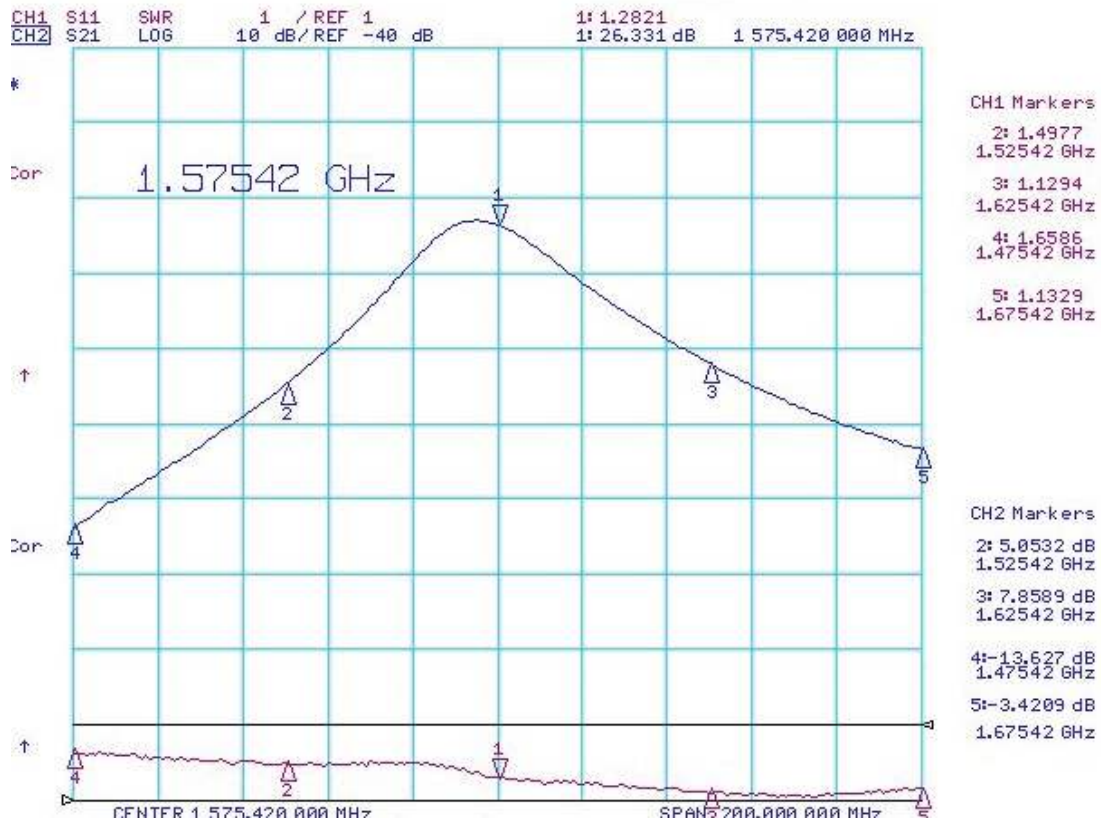
<b>Gain (Typical)</b>	27dB (Without cable +25°C±10°C)
<b>Output VSWR (Typical)</b>	2.0
<b>Noise Figure (MAX)</b>	1.5(+25°C ± 10°C)
<b>DC current (Typical)</b>	10.5mA
<b>GSM part</b>	
<b>Working Frequency</b>	824MHz-960MHz 1710MHZ-1990MHZ 1900-2170Mhz
<b>V.S.W.R</b>	2:1
<b>Impedence</b>	50 ohm
<b>Peak Gain</b>	1dbi@900MHZ 1dbi@1800MHZ 1.5dbi@1900MHZ 1.5dbi@2000MHZ
<b>Azimuth</b>	Omni-directional
<b>Polarization</b>	Linear Polarization
<b>Material</b>	
<b>Antenna</b>	Dielectric Ceramics
<b>PCB</b>	FR4
<b>Shielding</b>	Tinplate
<b>RF Cable</b>	L1=2000/3000/5000 or other
<b>RF Connector</b>	SMA/MCX/FAKRA or other
<b>Assemblage</b>	Ultrasound Welding
<b>Thickness (Typical)</b>	15mm

Testing Conditions	
Working Temp	-25°C~+65°C
Storage Temp	-45°C~+85°C
Vibration	Sine sweep 1g(0-p)
	10~55~10Hz each axis

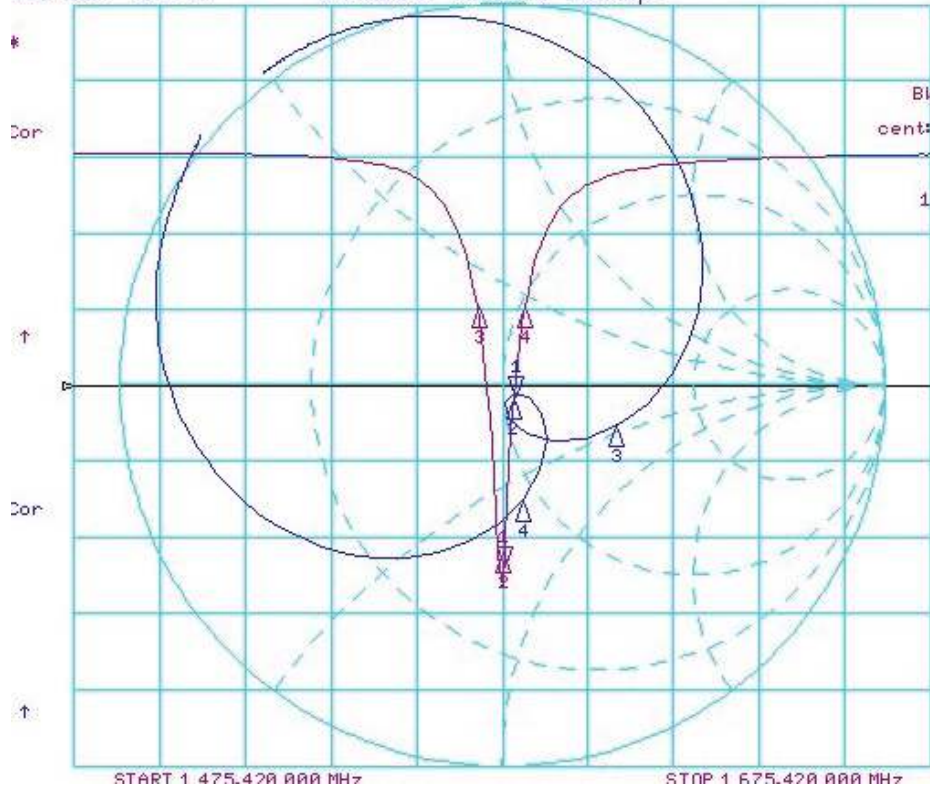
**Size drawing**



# Lna Test Plans



CH1 S11 LOG 5 dB/REF -15 dB 1:-26.914 dB 1 575.420 000 MHz  
 CH2 S11 1 U FS 1: 53.152  $\Omega$  -3.4277  $\Omega$  29.472 pF



CH1 Markers  
 Min  
 BW: 10.883025 MHz  
 cent: 1575.070393 MHz  
 Q: 144.73  
 1 loss: -26.914 dB

CH2 Markers  
 2: 52.396  $\Omega$   
 -4.2578  $\Omega$   
 1.57507 GHz  
 3: 88.371  $\Omega$   
 -22.117  $\Omega$   
 1.56962 GHz  
 4: 44.883  $\Omega$   
 -31.143  $\Omega$   
 1.50051 GHz