

SPECIFICATION

Model No. : **SGP.18c**

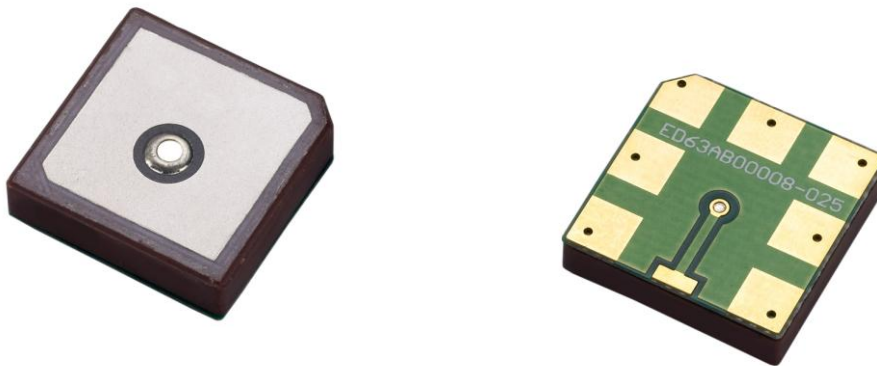
Part No. : **SGP.1575.18.4.C.02**

Product Name : **GPS SMT Patch Antenna**

Features : 18mm*18mm*4.5mm
1575MHz Centre Frequency
Patent Pending

RoHS ✓

Photo :



1.0 Introduction

This ceramic GPS patch antenna is based on smart **XtremeGain™** technology. It is mounted via SMT process and has been selected as optimal solution for the 45*45mm ground plane.

2.0 Key Antenna Performance Indicators

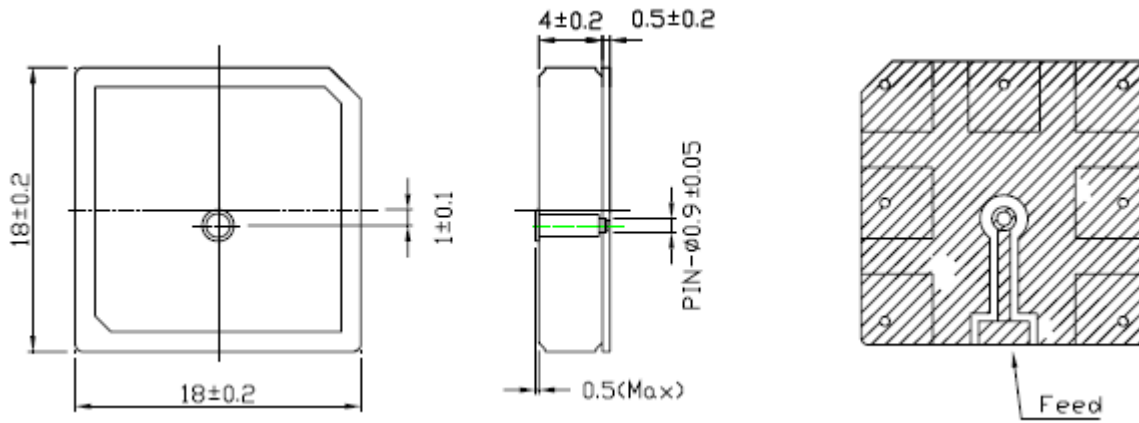
Original Patch Specification tested on 45mm ground plane

No	Parameter	Specification	Notes
1	Range of Receiving Frequency	1575.42 MHz ± 1.023 MHz	
2	Center Frequency	1575.42 ± 3MHz	With 45mm ² ground plane
3	Bandwidth	5MHz min	Return Loss ≤ -10 dB
4	VSWR	1.5 max	
5	Gain at Zenith	+1.0 dBic typ.	
6	Gain at 10° elevation	-3.0 dBic typ.	
7	Axial Ratio	4.0 dB max	
8	Polarization	RHCP	
9	Impedance	50 Ohms	
10	Frequency Temperature Coefficient (Tf)	0 ± 20ppm / °C	-40°C to +85°C
11	Operating Temperature	-40°C to +85°C	

****Changes in user groundplane and environment will offset centre frequency**

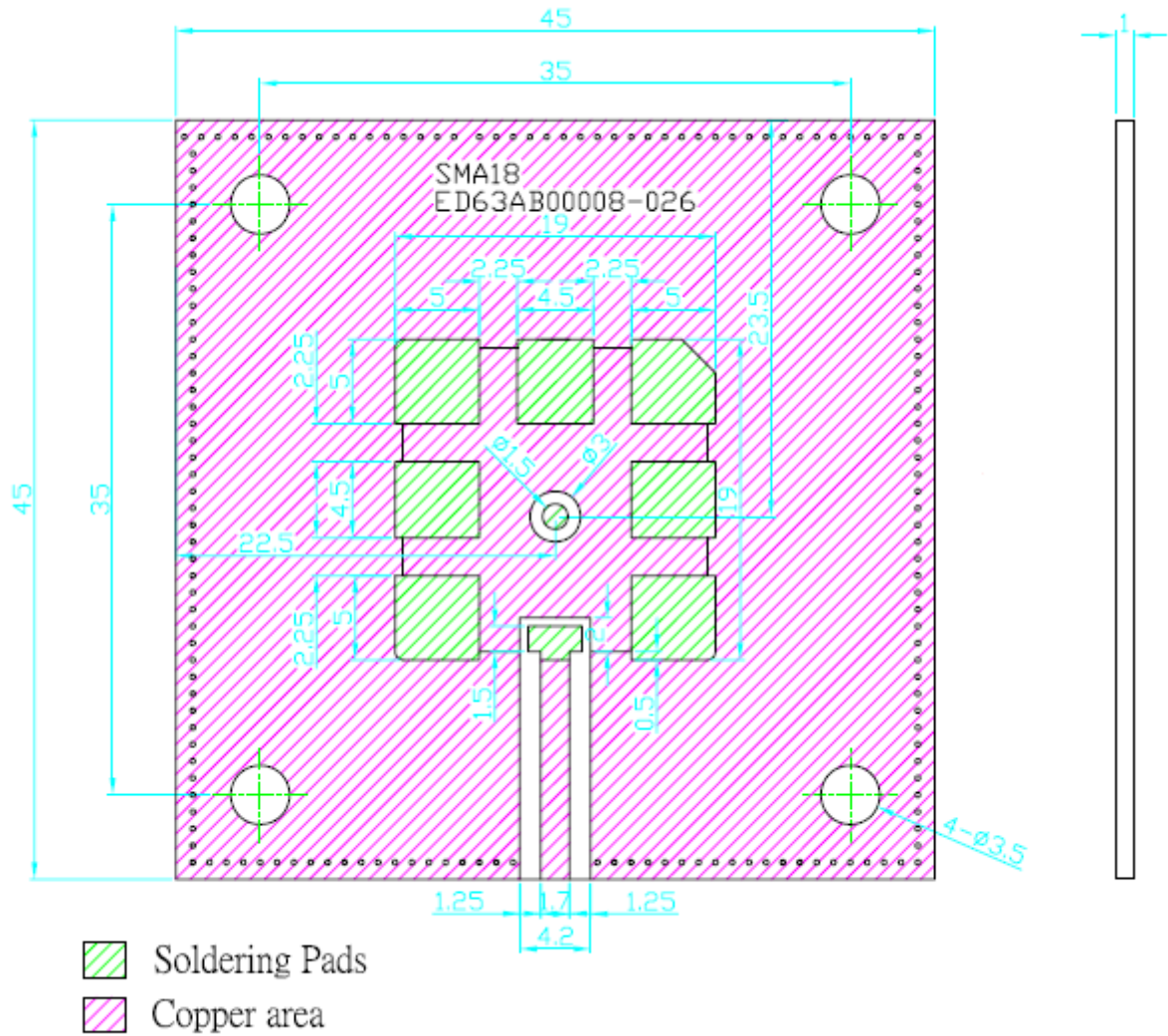
3.0 Mechanical Specifications

3.1 Dimensions and Drawing

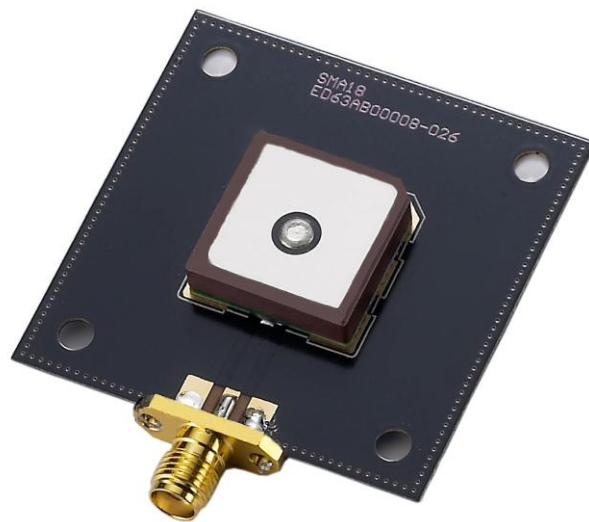
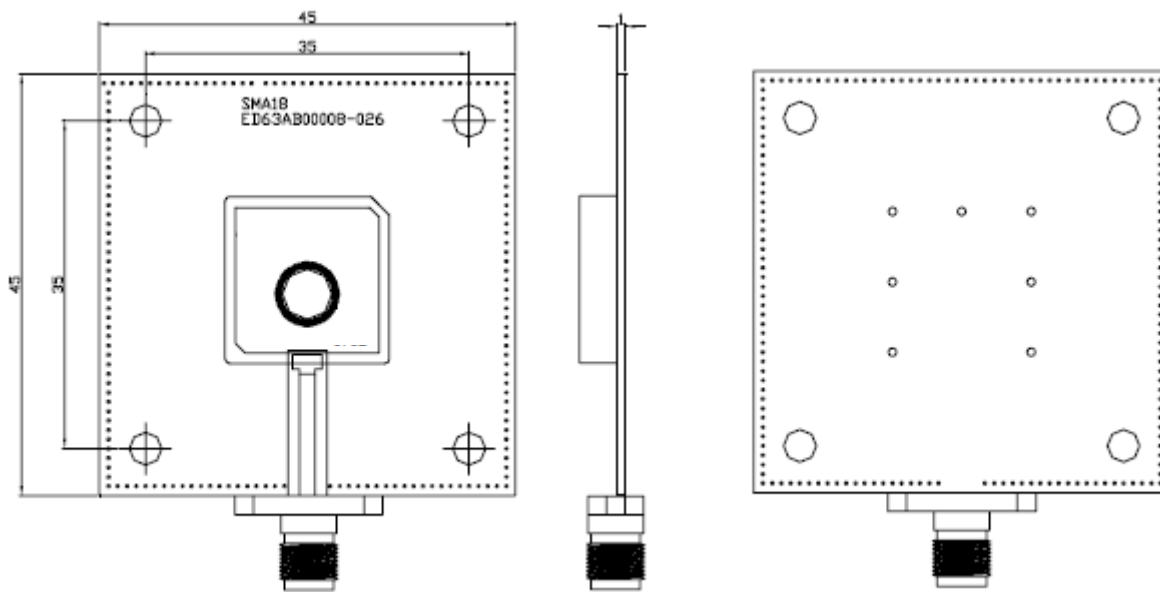


3.2 Antenna footprint (view from underneath)

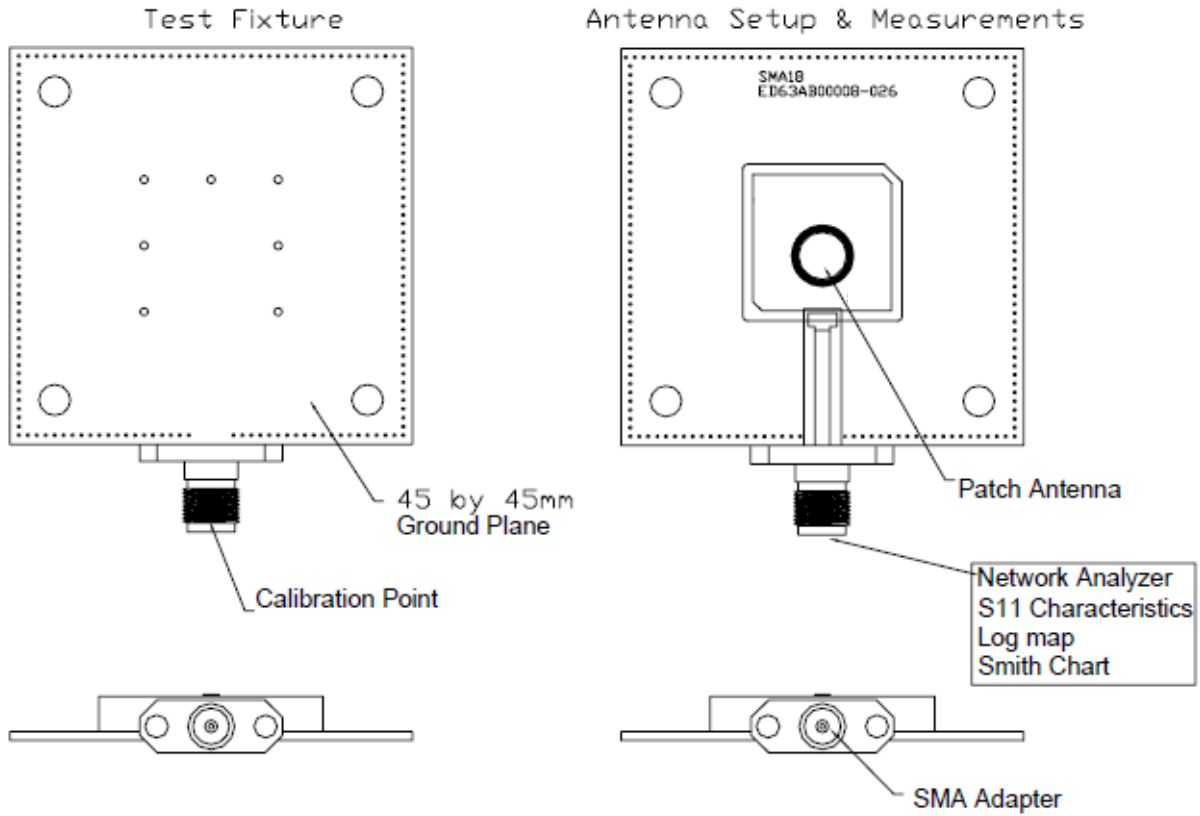
Please note: solder mask has been added to all areas except gold solder areas (green highlighted areas), this will prevent Feed points connecting to ground of main PCB



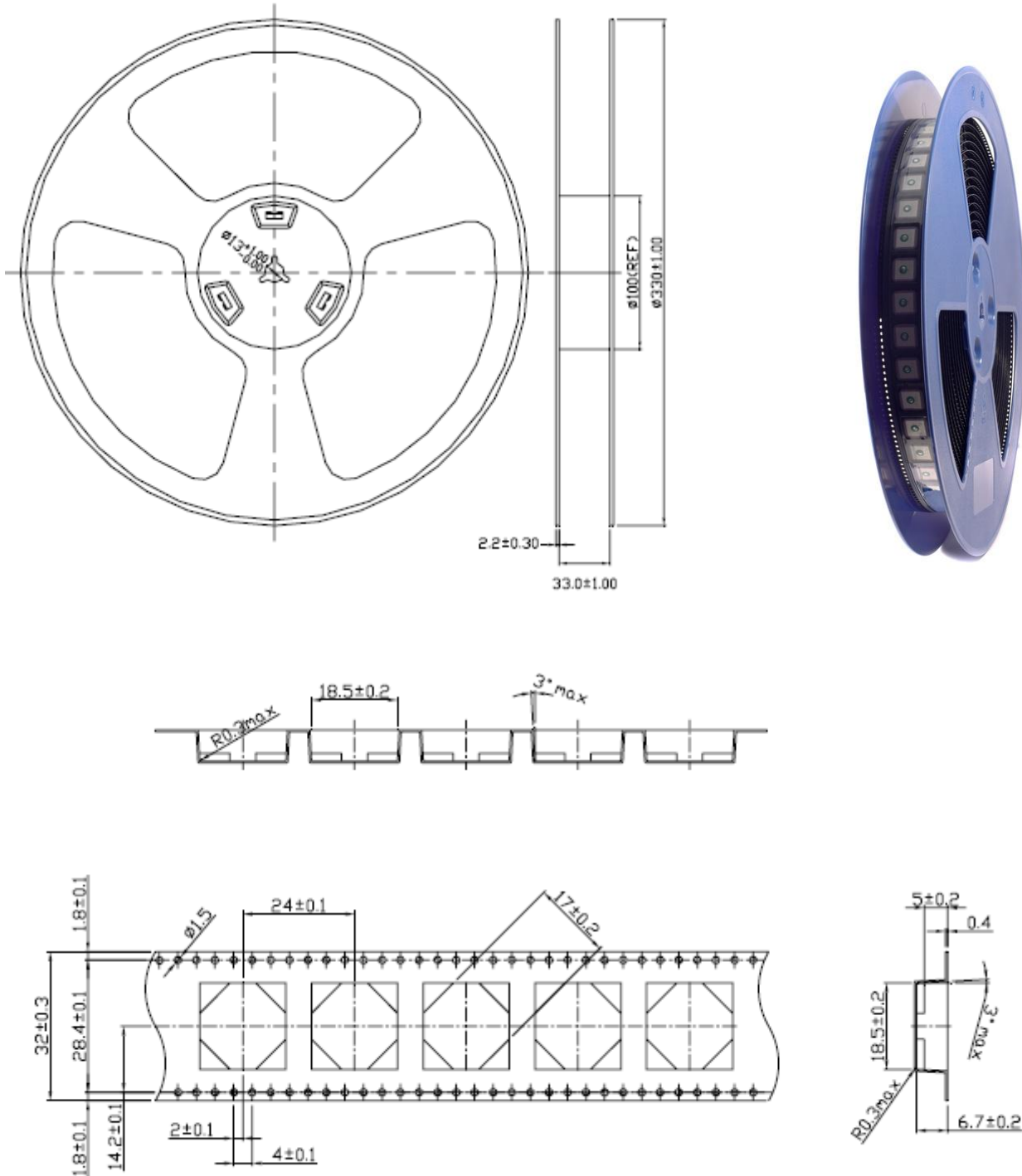
3.3 Test Jig and Dimension



3.4 Test Fixture set up and measurements



3.5 Delivery Mode



4. Smith Chart

