



Specification

# SPECIFICATION

- Part No. : **AP.25C.07.0080A**
- Product Name : **25mm Two Stage GPS Active Patch Antenna Module**
- Features : 25mm\*25mm\*8mm (Ground Plane)  
80mm Ø1.13 I-PEX MHFI (U.FL)  
30dB LNA  
ROHS Compliant
- Photo :



## REVISION STATUS

Version	Date	Page	Revision Description	Prepared	Approved
01	Oct 1 <sup>st</sup> 2009	All	New Antenna	TWN Product Centre	Ronan Quinlan



## Specification

### 1.0 Introduction

The AP.25C has been designed for embedded (inside device) integration with GPS receiver modules, the AP.25C combines a 25\*25\*4mm advanced low profile ceramic patch antenna with a two stage LNA and ultra thin coaxial cable.

Taoglas active antenna modules utilise XtremeGain™ technology for the highest sensitivity in the industry.

### 2.0 Specification

#### Patch Antenna

Parameter	Specification
Frequency	1575.42 ± 1.023MHz
Gain @ Zenith	+5.0 dBic Typ. @ Zenith
Polarization	RHCP
Axialration	90°: 3.0dB max
Patch Dimension	25*25*4mm

#### LNA

Parameter	Specification
Frequency	1575.42 ± 1.023MHz
Gain	Typ 30dB
Output Impedance	50Ω
Output VSWR	2.0 Max
Noise Figure	Typ. 1.5dB (+25°C ± 5°C) 2.2dB Max. (+85°C)

#### Cable\* & Connector

Parameter	Specification
RF Cable	Coaxial Cable Ø1.13 ± 0.1mm, length 80 ± 3.0mm
Connector	IPEX MHFI (U.FL)



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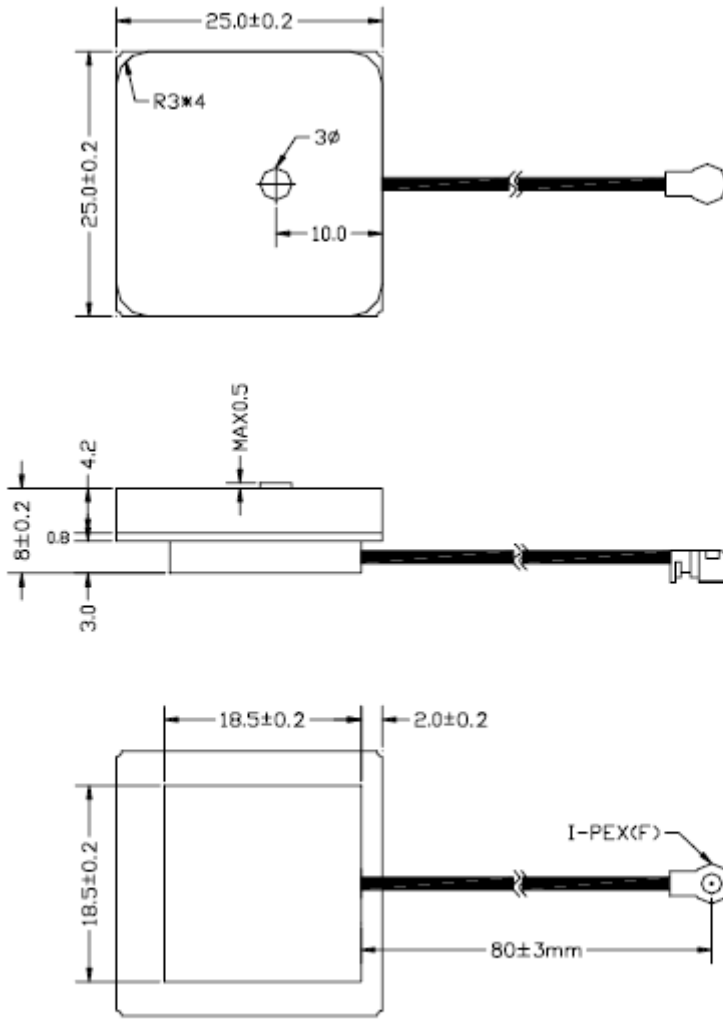
**Total Specification (through Antenna, LNA, Cable and Connector)**

Parameter	Specification
Frequency	1575.42 ± 1.023MHz
Gain	At 90° :35dBi Typ.
Output Impedance	50Ω
Polarization	RHCP
Output VSWR	Max 2.0
Operation Temperature	-40°C to + 85°C
Storage Temperature	-40°C to + 85°C
Relative Humidity	40% to 95%
Input Voltage	Min:2.5V Max:5.5V
Current Consumption	At 3.0V Typ. 13mA, Max. 16mA
	At 5.0V Typ. 18mA Max. 22mA
Antenna	25*25*8mm



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### 3.0 Technical Drawing



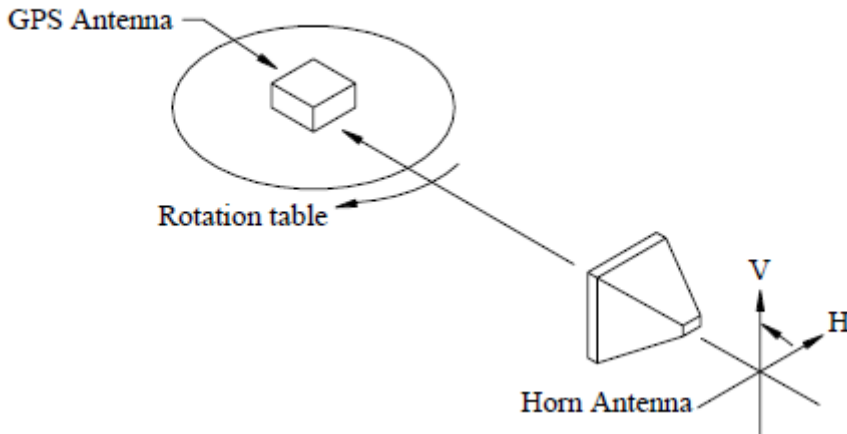
Unit:mm



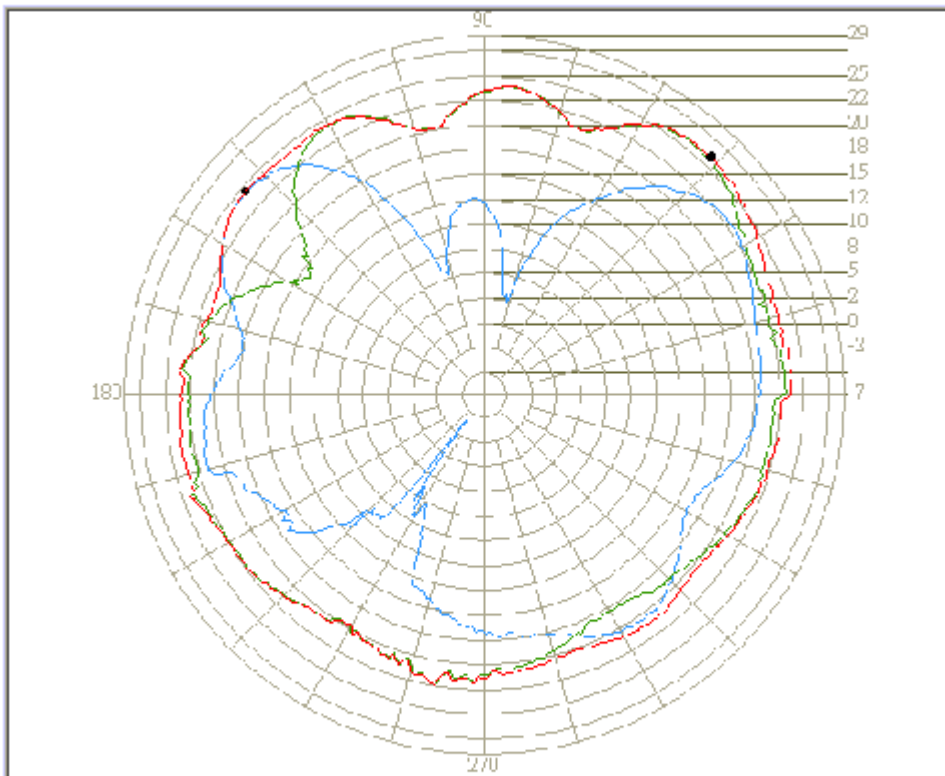
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# 4.0 Radiation Patterns

## H-Plan



## Antenna Pattern Measurement

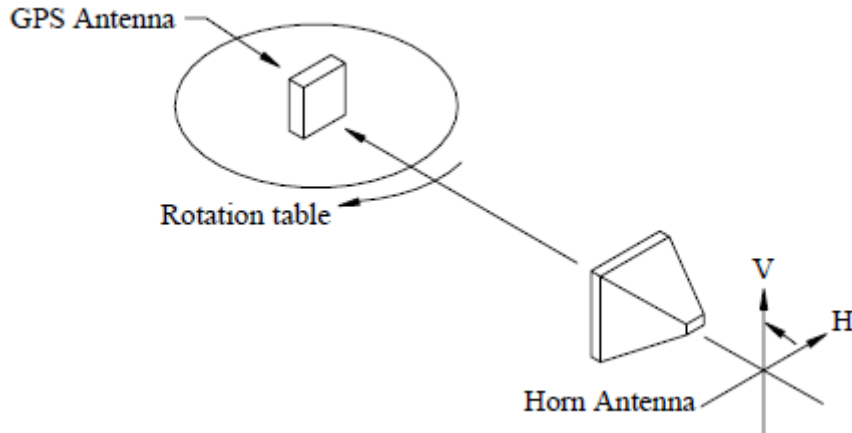


Model No	Test Node	Freq (MHz)	Source Polarization	Peak Gain (dBi)	Avg. Gain (dBi)	Peak Angle	Date
GA31 3KD	J1	1575	Horizontal	24.5E	19.13	135.72	2004.6/10
GA31 3KD	J1	1575	Vertical	25.82	22.00	46.40	2004.6/10
GA31 3KD	J1	1575	H-Plan	25.05	22.80	46.51	2004.6/10



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E-plan



Antenna Pattern Measurement

