

GPS Active Internal Patch

APAM1866YA18

RoHS/RoHS II compliant

MSL level: N/A



18.0 x 18.0 x 7.0mm

FEATURES:

- Compact Size
- Easy to Install
- RoHS Compliant

TYPICAL APPLICATIONS:

- Automotive Navigation, Marine buoys
- Personal Tracking
- Surveying equipment, Cell phone, Laptop
- Healthcare and medical monitoring devices, PND, PDA

STANDARD SPECIFICATIONS:

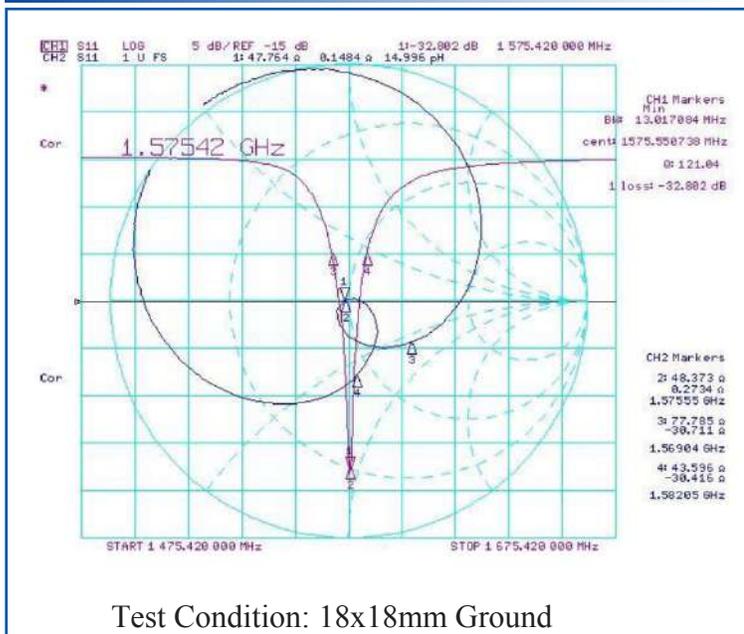
Antenna

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency	1575.42± 1.023			MHz	
Bandwidth	8			MHz	
Gain		2.5		dBic	(Peak gain on 70*70mm Ground Plane facing Zenith.)
VSWR @ Center Frequency		2.0			
Polarization Model	RHCP				(Right Hand Circular Polarization)
Impedance	50			Ω	
Working Temperature	-40		+85	$^{\circ}\text{C}$	
Storage Temperature	-40		+85	$^{\circ}\text{C}$	

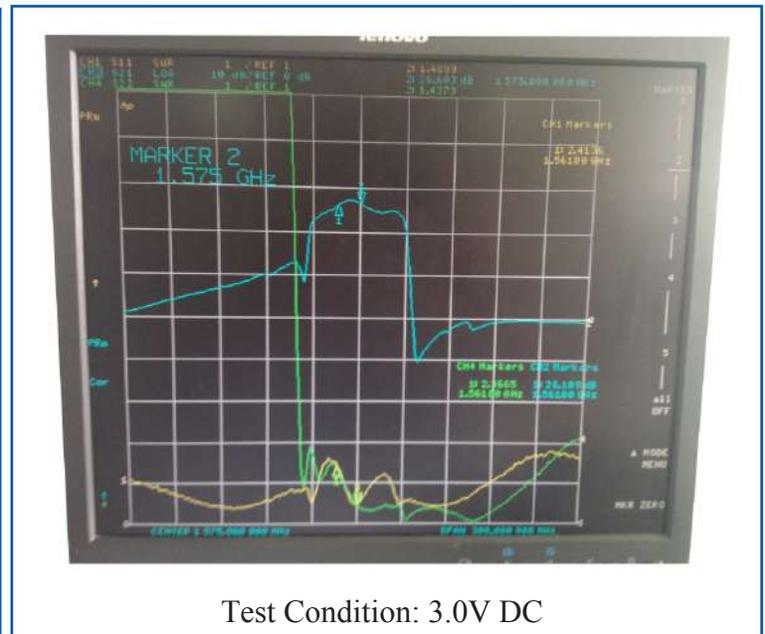
Low Noise Amplifier (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
Center Frequency	1575.42± 1.023			MHz	
DC Voltage	2.70	3.0	3.30	V	
Gain	24	27	30	dB	(Without cable +25 $^{\circ}\text{C}$ ± 10 $^{\circ}\text{C}$)
Output VSWR			2.0		
Noise Figure			2.0	dB	
DC current	11	13	15	mA	(At 3.0V)
Outband Rejection (Absolute value)	20			dB	f0 + 100 MHz
	30			dB	f0 - 100 MHz

SMITH CHART



GPS LNA GAIN PLOT



GPS Active Internal Patch

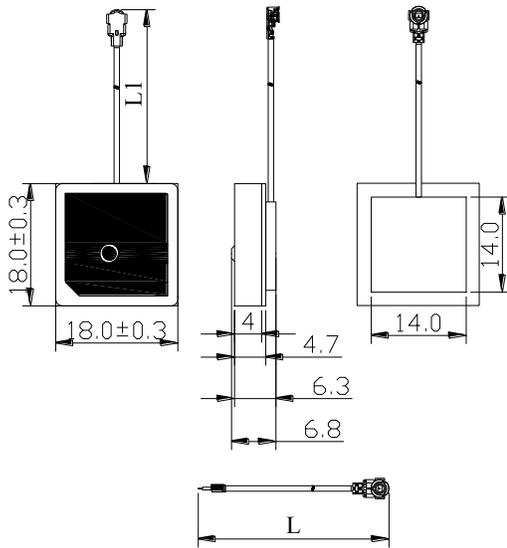
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18.0 x 18.0 x 7.0mm

OUTLINE DIMENSION:



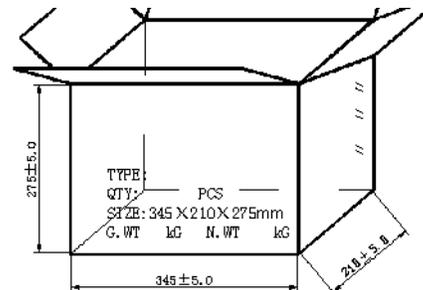
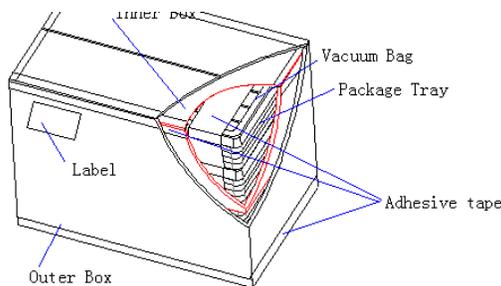
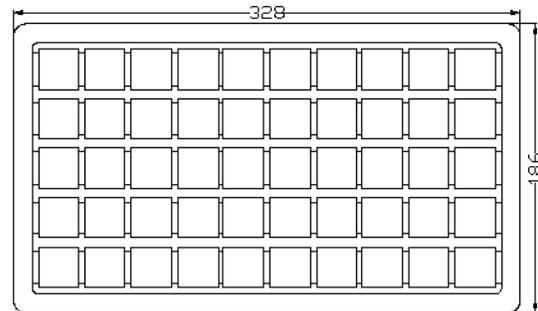
Description	Material
Antenna Type	Dielectric Ceramics
PCB	FR4
Shielding	Tinplate
RF Cable	φ1.13±0.1mm, L1=200mm±3mm, L=205mm±3mm
RF Connector	I-PEX

Tolerance: ±0.2mm

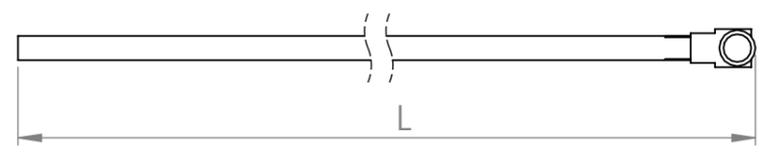
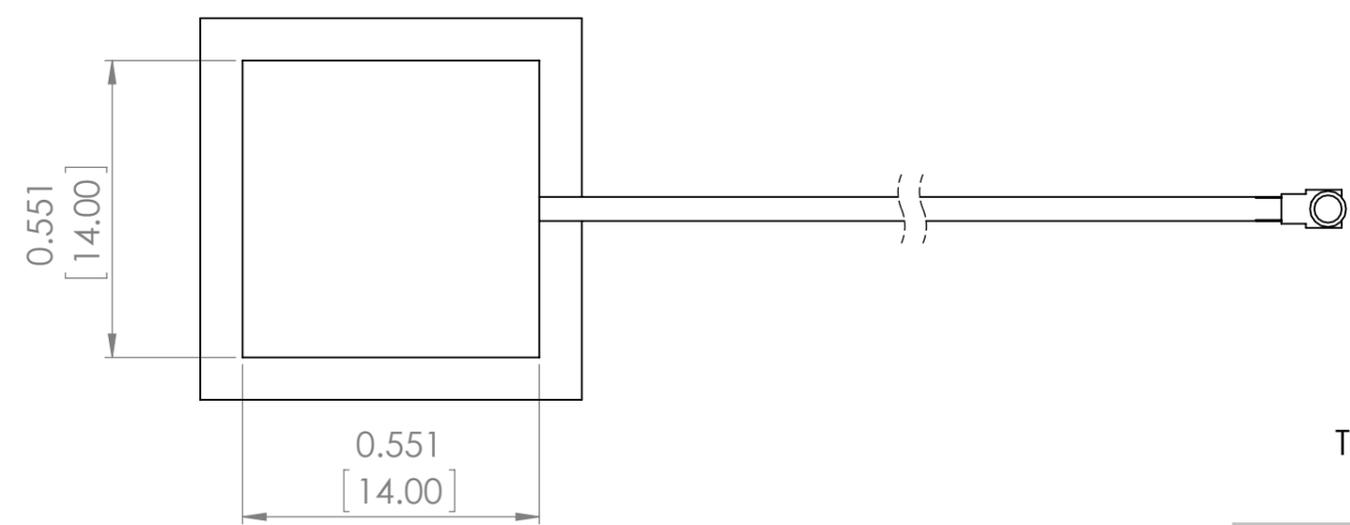
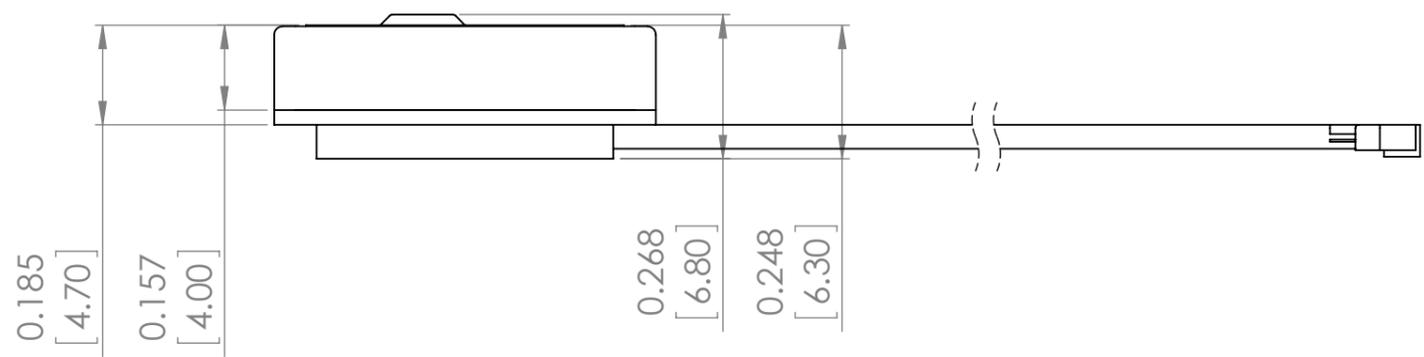
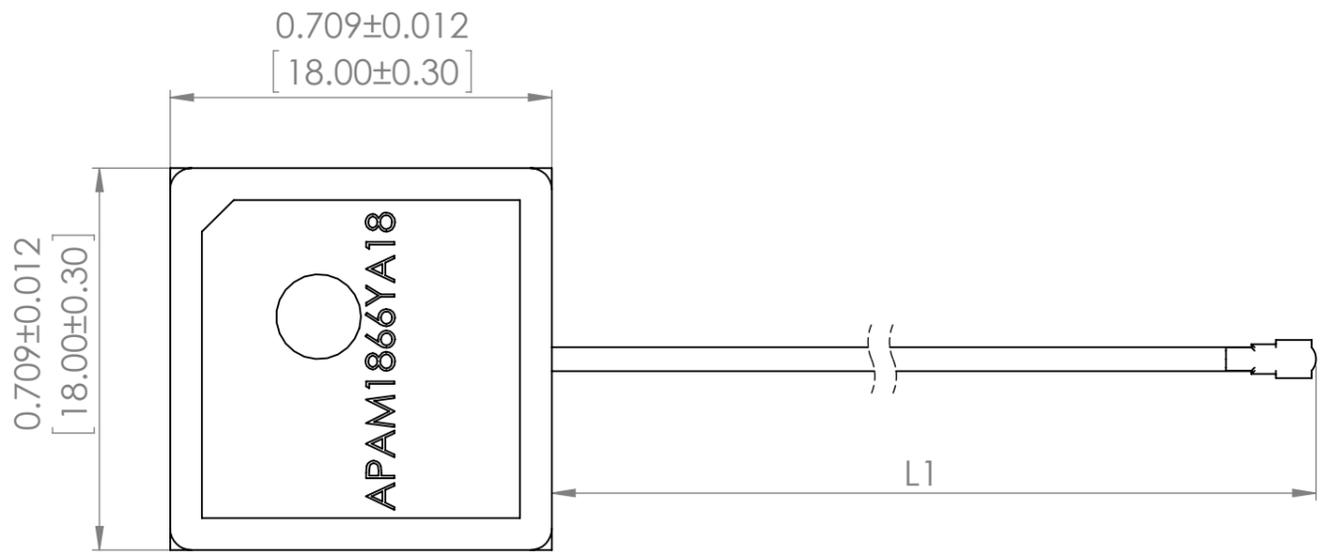
Unit: mm

PACKAGING

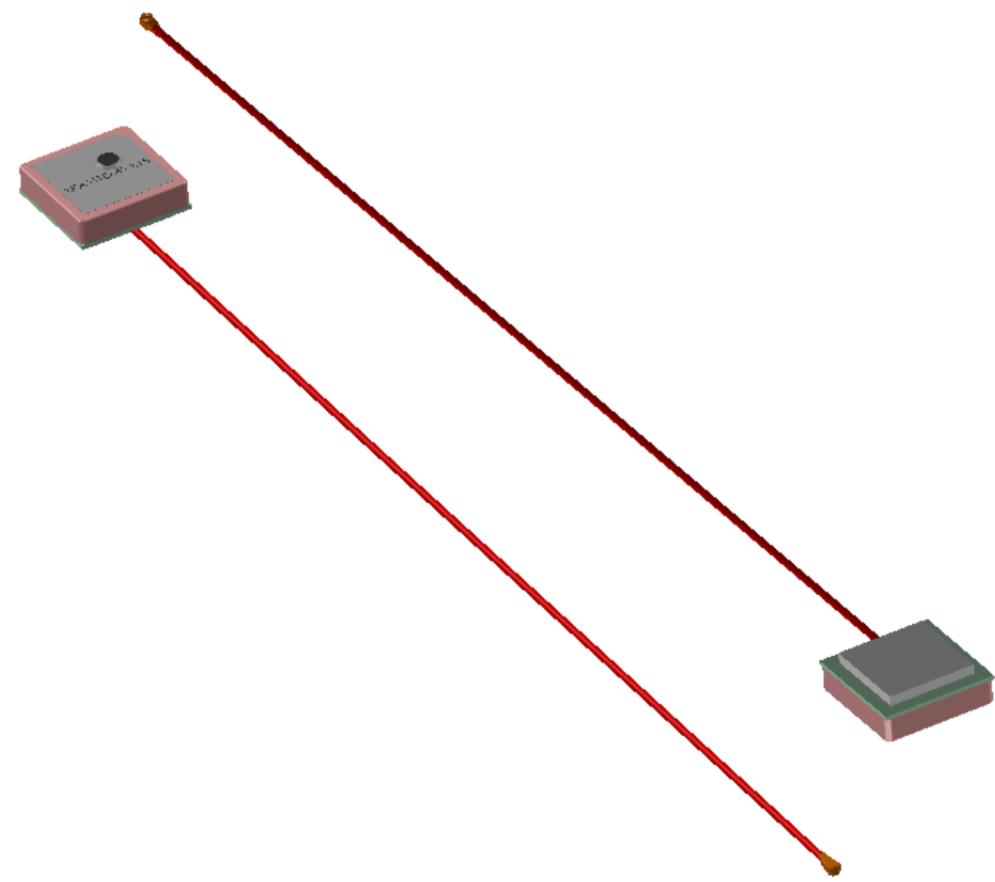
Package Type	Quantity
MOQ	150 pcs
Tray	30 pcs/tray
Vacuum Bag	5 tray per Vacuum bag (150pcs per bag)
Outer Box	4 bags = 600 pcs/carton



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DESCRIPTION	MATERIAL
Antenna Type	Dielectric Ceramics
PCB	FR4
Shielding	Tinplate
RF Cable	9851SC0032-002, $\phi 1.13 \pm 0.1$ mm, L1=200mm, L=205mm
RF Connector	I-PEX
Thickness	7.0mm Max



Tolerance: ± 0.2 mm

TOP PACKAGE MARKING IS FOR ILLUSTRATION PURPOSES ONLY

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCH(MM) SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:				FINISH:	DEBUR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION -
DRAWN	NAME	SIGNATURE	DATE			 30332 Esperanza, Rancho Santa margarita, California 92688	
CHK'D	XXXXXX					TITLE: Internal GPS Antenna	
APP'VD						DWG NO.	A3
MFG					MATERIAL:	APAM1866YA18	
Q.A					WEIGHT:	SCALE:3:1	SHEET 1 OF 1