



Explanation of Part Number

WPANTMG 124 1 1 050 10 A XX
 (1) (2) (3) (4) (5) (6) (7) (8)

Example configuration above = 12x4mm GPS patch size
 Standard 2.3-5.5V opr. Voltage
 Standard 1.13mm coaxial cable
 Standard 50mm cable length
 Standard IPEX MHF connector
 P/No. Revision "A"
 XX – Customer code



Note: See last page of datasheet for part number configuration options

Application

- The WPANTMG Series GPS LNA antenna module is typically used in a variety of size options as an embedded GPS active antenna in applications such as ruggedized personal navigation devices (PND's), SMART phones, handsets, notebooks and embedded vehicle/GPS tracking applications for direct connection to GPS chipset/modules.
- Please contact sales@wp-wireless.com with your specific application requirements.

Patch Passive Electrical Properties

Item	Property Value	
Nom. Operating Frequency [MHz] (Typ)	1575.42MHz +/-1.023MHz	
Bandwidth ([MHz] (Typical)	5MHz @ -10dB Return Loss	
Nominal Impedance [Ω]	50 Ohms	
VSWR (referenced to 50Ω) (Max)	2.0:1	
Patch Gain at Zenith [dBiC] (Check patch size for performance)	MG254	+ 5.0 dBiC (typ)
	MG252	+ 4.5 dBiC (typ)-
	MG184	+ 3.5 dBiC (typ)
	MG182	+ 1.0 dBiC (typ)
	MG154	+ 1.0 dBiC (typ)
	MG152	- 1.0 dBiC (typ)
	MG126	+ 1.0 dBiC (typ)
	MG124	+ 0 dBiC (typ)
	MG122	- 3.0 dBiC (typ)
	MG104	- 5.0 dBiC (typ)
MG102	- 8.0 dBiC (typ)	
Polarization	RHCP	
Gain @ 10 deg elevation (Typ) (Check patch size for performance)	MG254	- 1.0 dBiC (typ)
	MG252	- 3.0 dBiC (typ)-
	MG184	- 4.0 dBiC (typ)
	MG182	- 5.5 dBiC (typ)
	MG154	- 7.0 dBiC (typ)
	MG152	- 9.0 dBiC (typ)
	MG126	- 7.0 dBiC (typ)
	MG124	- 8.0 dBiC (typ)
	MG122	- 11 dBiC (typ)
	MG104	- 13 dBiC (typ)
MG102	- 16 dBiC (typ)	
Axial Ratio (Typ)	3.0dB (typ)	



Electrical Properties

Item	Property Value
Center Frequency	1575.42 ± 1.023 MHz
Gain	27 dB typ
Noise Figure	1.5 dB typ
Output V.S.W.R (max)	2.0:1
Voltage	2.3 ~ 5.5V
Current (typ)	6.6mA @2.5V (typ) 8.6mA @3V (typ) 9.6mA @4V (typ) 11mA @5V (typ)

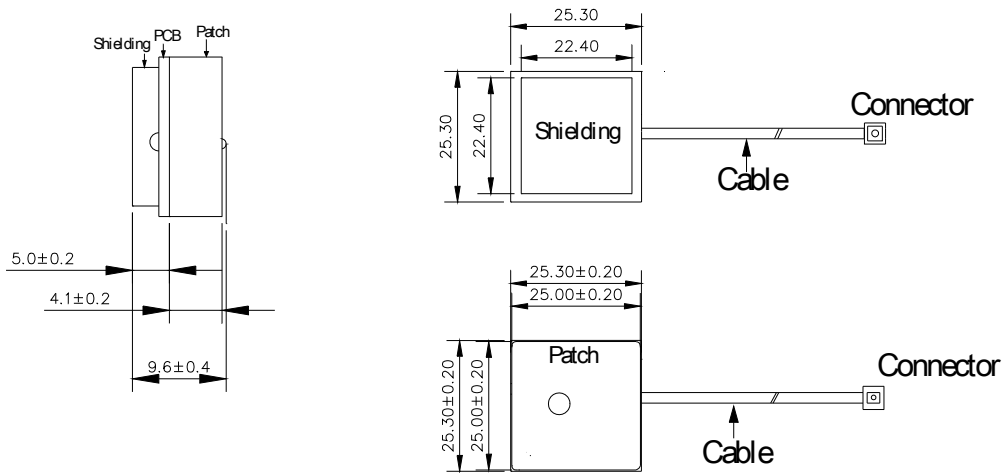
Mechanical/Environmental Properties

Item	Value
Operating Temperature	-20°C to +90°C
Storage Temperature	-40°C to +90°C
Hazardous Materials	RoHS compliant
Overall Dimensions (patch/PCB/shield can)	MG254 MG252 MG184 MG182 MG154 MG152 MG126 MG124 MG122 MG104 MG102 See Drawing for Information

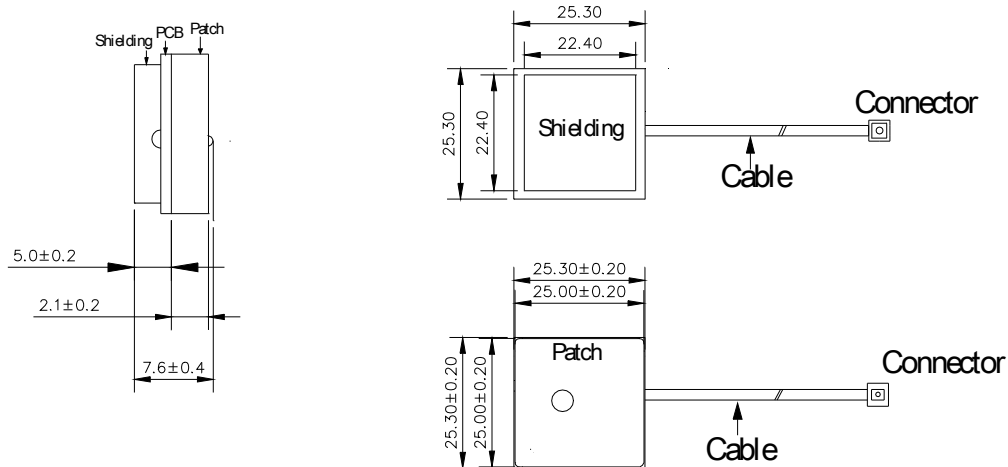


Physical Dimension Outline Drawings

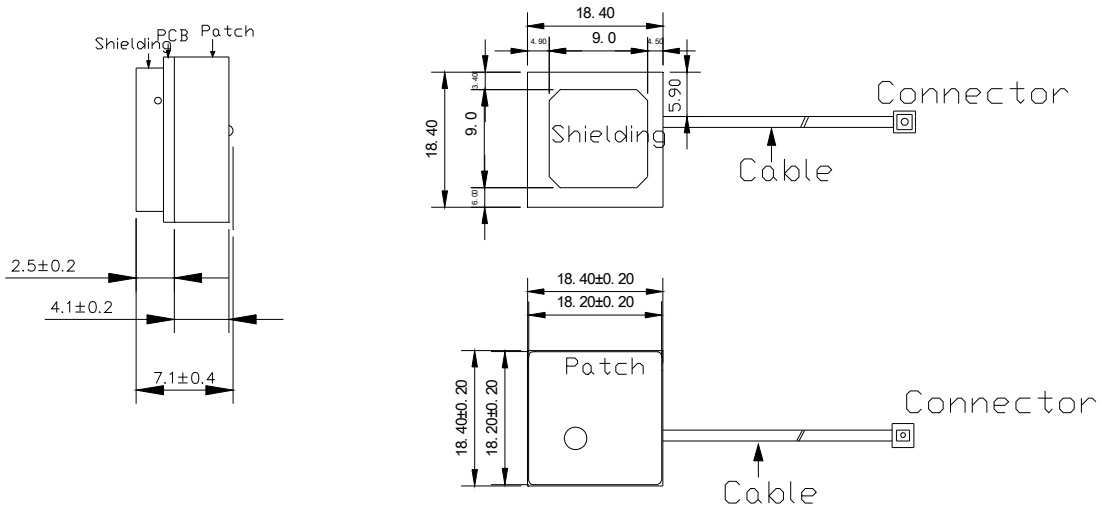
(Please contact sales@wp-wireless.com if your required model/size is not shown below)



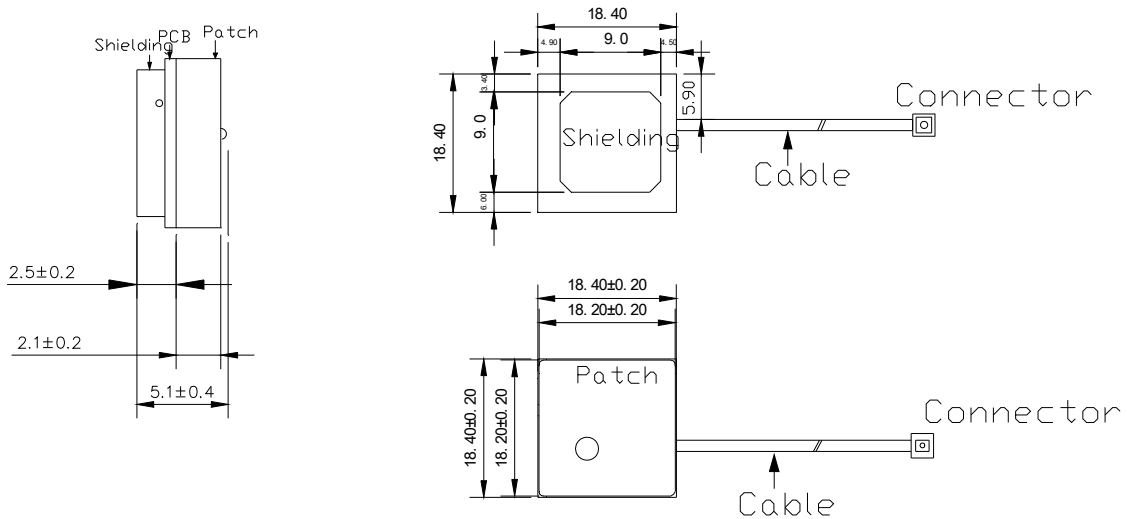
Model No: WPANTMG254



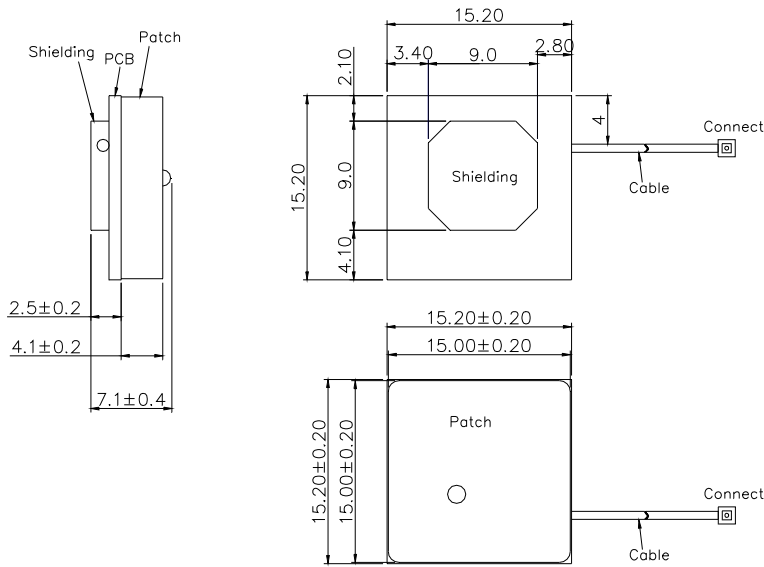
Model No: WPANTMG252



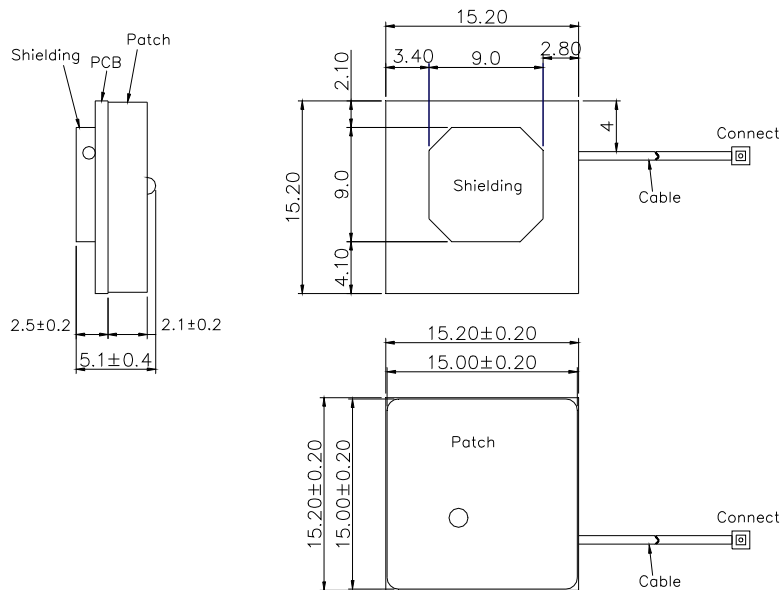
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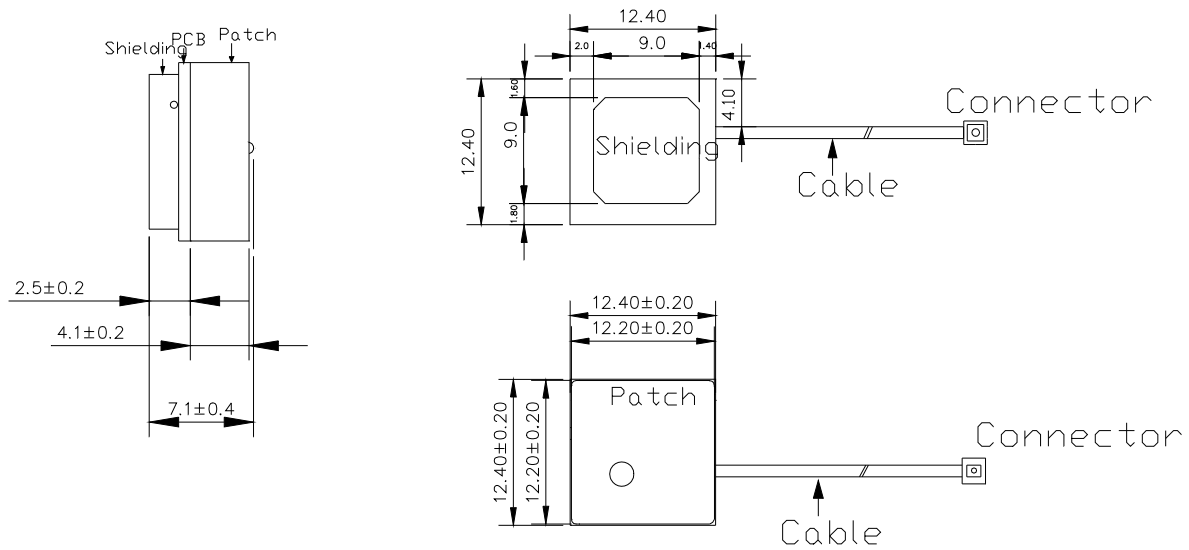
Model No: WPANTMG182



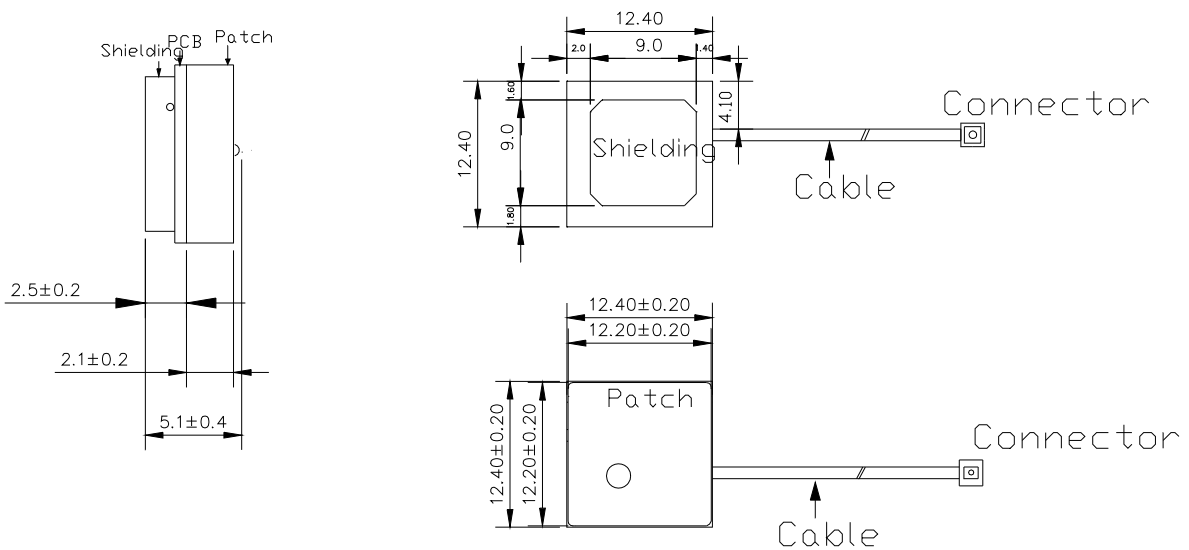
Model No: WPANTMG154



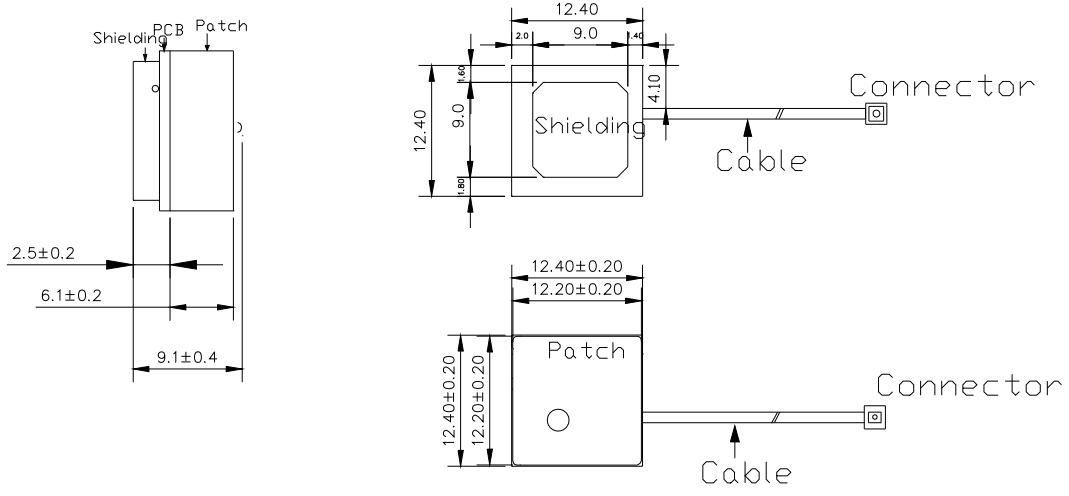
Model No: WPANTMG152



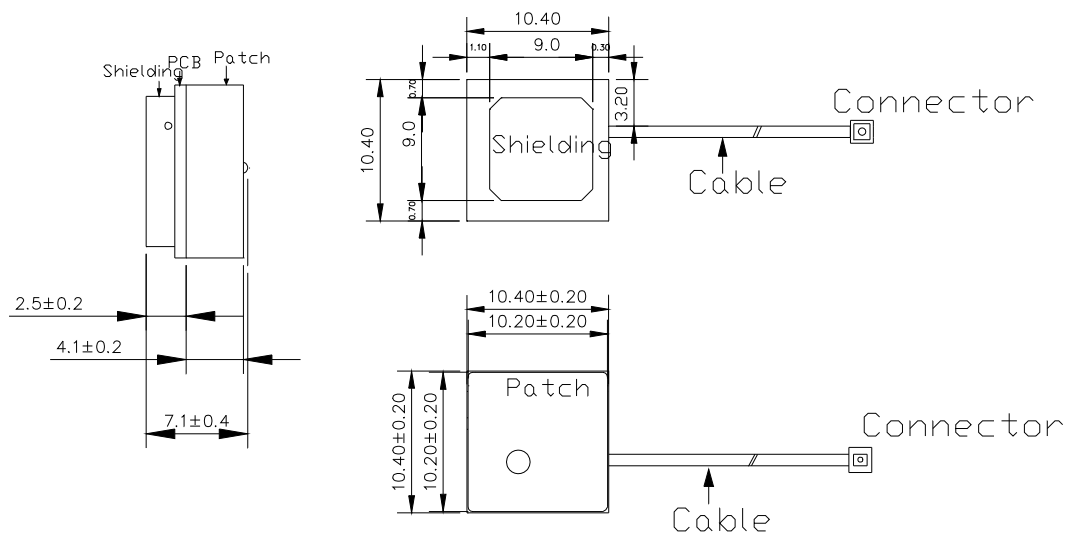
Model No: WPANTMG124



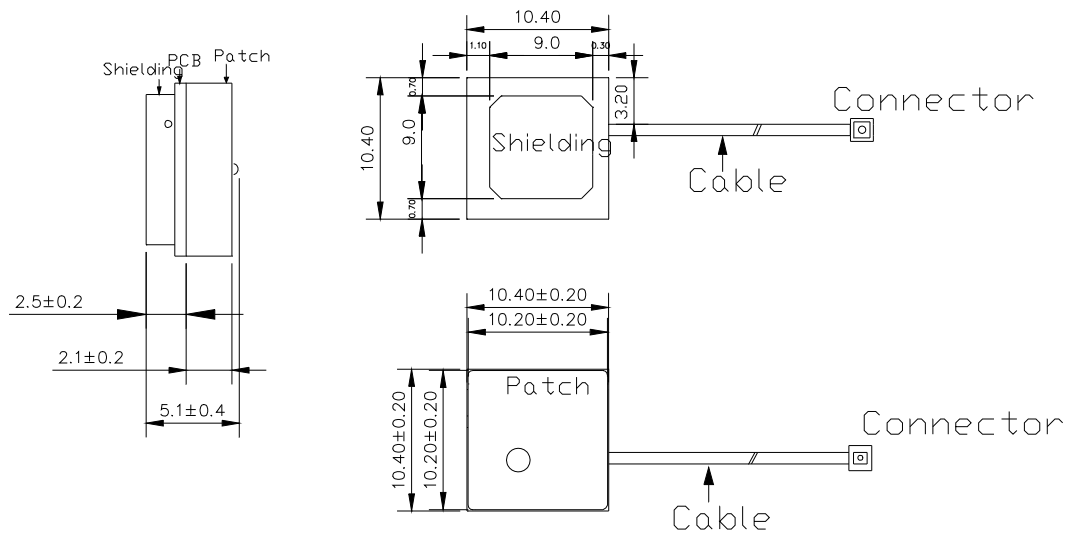
Model No: WPANTMG122



Model No: WPANTMG126



Model No: WPANTMG104



Model No: WPANTMG102



Part Number Configuration Options

WPANTMG 124 1 1 050 10 A XX
(1) (2) (3) (4) (5) (6) (7) (8)

(1) Product Series

WPANTMG: GPS antenna module

(2) GPS Patch dimensions (not all sizes listed may be available, contact sales@wp-wireless.com for your requirements)

254: 25x25x4mm 126: 12x12x6mm

252: 25x25x2mm **124: 12x12x4mm** (per example above)

184: 18x18x4mm 122: 12x12x2.5mm

182: 18x18x2mm 104: 10x10x4mm

154: 15x15x4mm 102: 10x10x2.5mm

152: 15x15x2mm

(3) Operating voltage

N: 0V (no LNA)

1: 2.3V to 5.5V (standard with LNA)

2: 3.0V +/-0.3V (alternate with LNA)

(4) Cable Type

N: No cable

1: 1.13mm micro-coaxial cable (standard)

(5) Cable Length in mm

050: 50mm (standard)

(6) Connector Type

NC : No connector (a pigtail will be provided where cable is selected)

01 : SMA Plug 06 : MCX RA Plug

02 : SMA RA Plug 07:MMCX Plug

03 : SMB Plug 08: MMCX RA Plug

04 : SMB RA Plug 09: NBC Plug

05 : MCX Plug **10: IPEX (MHF) (standard)**

(7) Revision

A: 1st revision

B: 2nd revision

C: 3rd revision

(8) Customer code

XX: Specified by WP Wireless