



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Combined Antenna Module - Body Mount



Ø 77.3mm x 66.5mm

**APAMPSBJ-144**

RoHS/RoHS II Compliant

MSL level: Not Applicable

## FEATURES:

- Active GPS and Multiband External Antenna,
- Covering Active GPS / GLONASS (1592 - 1610 MHz)
- Cellular: AMPS (850 MHz), GSM (900 MHz), DCS (1800 MHz), PCS (1900 MHz),
- 3G (UMTS 2.1 GHz)
- WiFi / Bluetooth (2.4GHz)
- LTE (791-960/1710-2690 MHz)
- 2 coaxial output feeds; active GNSS and Other bands
- IP67, IK09, IP69K approved
- Body Mount attachment
- LNA Gain: 23dB at 3V, 24dB at 5V
- Cellular Gain: 2dBi
- Cellular VSWR < 2.5:1
- RoHS/RoHS II compliant
- 2J Technology

## TYPICAL APPLICATIONS:

- Vehicle GPS/GLONASS, Cellular and UMTS (3G and LTE)
- Vehicle Cellular Routers

## STANDARD SPECIFICATIONS:

### Mobile (Cable1)

Parameters	Min.	Typ.	Max.	Units	Note
Receiving Frequency	791		960	MHz	4G/LTE
	1710		2960	MHz	4G/LTE
		850		MHz	AMPS
		900		MHz	GSM
		1800		MHz	DCS
		1900		MHz	PCS
		2.1		GHz	3G-UMTS
		2.4		GHz	BLUETOOTH
VSWR			2.5:1		
Polarization Model	Linear				
Impedance		50		Ω	
Gain			2	dBi	
Power Handling		25		W	
Operating Temperature	-40		+85	°C	

### Navigation (Cable 2)

Parameters	Min.	Typ.	Max.	Units	Note
Receiving Frequency	1572		1610	MHz	GPS+GLONASS
Impedance		50		Ω	
VSWR			1.5:1		
Noise figure	1.2			dB	
Polarization Model	RHCP				
Ceramic Patch Gain	2		3	dBi	@ zenith
Operating Temperature	-40		+85	°C	



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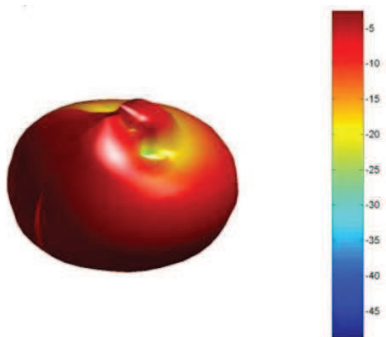
## Low Noise Amplifier (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
DC Voltage	2.7		5.5	V	
Gain			23	dB	@ 3.0V
			24	dB	@ 5.0V
Current	15		25	mA	
Power			138	mW	
Operating Temperature	-40		+85	°C	

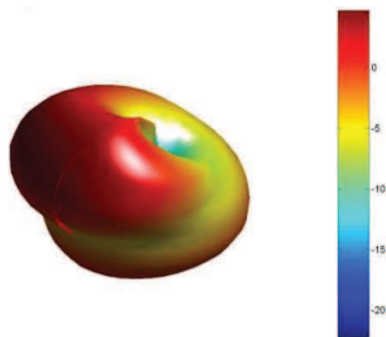
## MEASUREMENTS

### Radiation Patterns Azimuth 45° and Elevation 45°

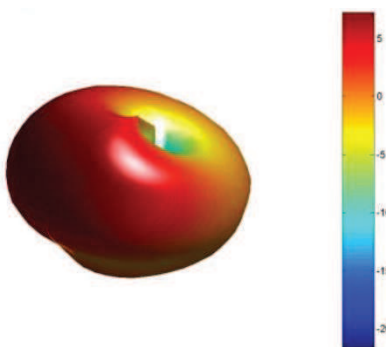
Frequency=798MHz Az=45 EL=45



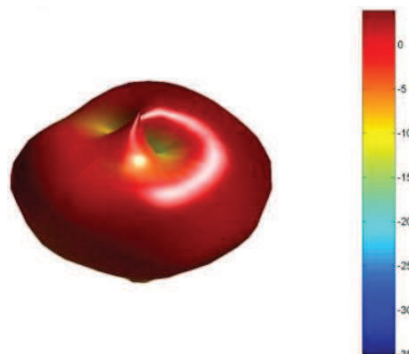
Frequency=853MHz Az=45 EL=45



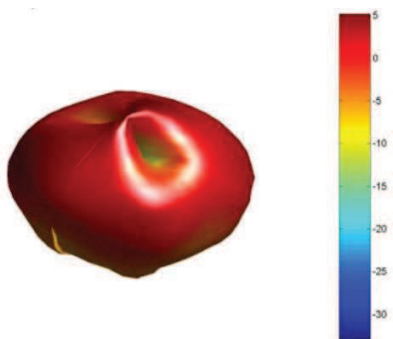
Frequency=897MHz Az=45 EL=45



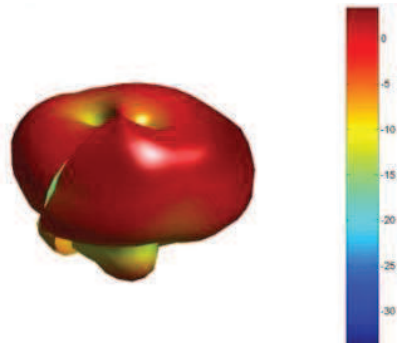
Frequency=1799MHz Az=45 EL=45



Frequency=1909MHz Az=45 EL=45



Frequency=2107MHz Az=45 EL=45



# Combined Antenna Module - Body Mount

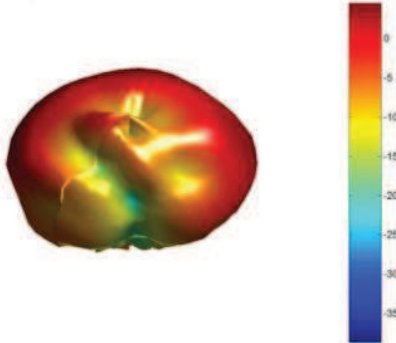
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RoHS/RoHS II Compliant

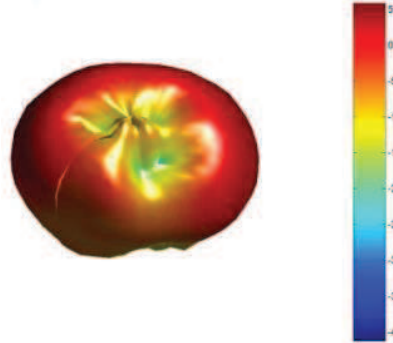


## MEASUREMENTS

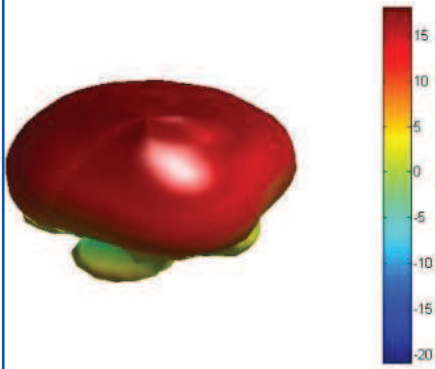
Frequency=2404MHz Az=45 EL=45



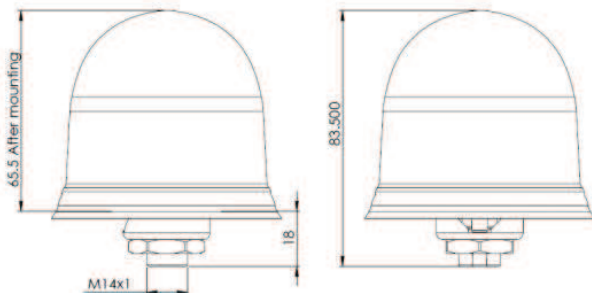
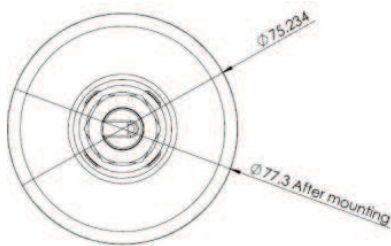
Frequency=2602MHz Az=45 EL=45



Frequency=1575.42MHz Az=45 EL=45



## OUTLINE DIMENSION:



Parameters	Description
RF Connector	LTE (Cable 1) - SMA male GNSS (Cable 2) - SMA male
Weight	150g
Cable Type	Cable 1 – RG174U Cable 2 - RG174U
Cable Length	15cm
Lid	ABS
Base	Zamak
Gasket	TPE
Color	Black
Certificates	IP67, IK09, IP69K
Ceramic Patch Size	24x24x4mm

Dimension: mm

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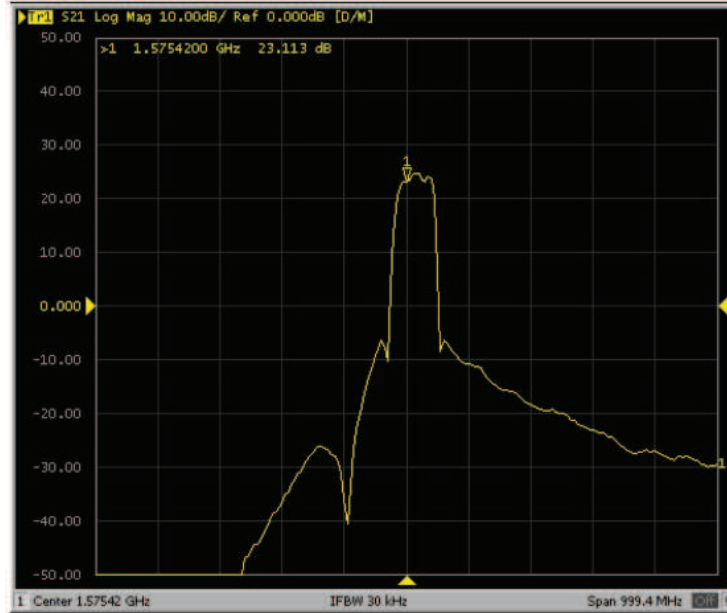
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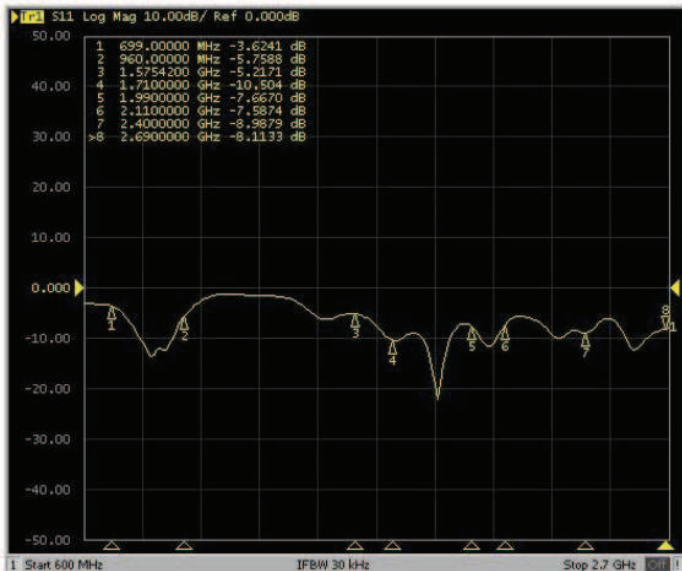
## GNSS Log Mag - 1575.42MHz



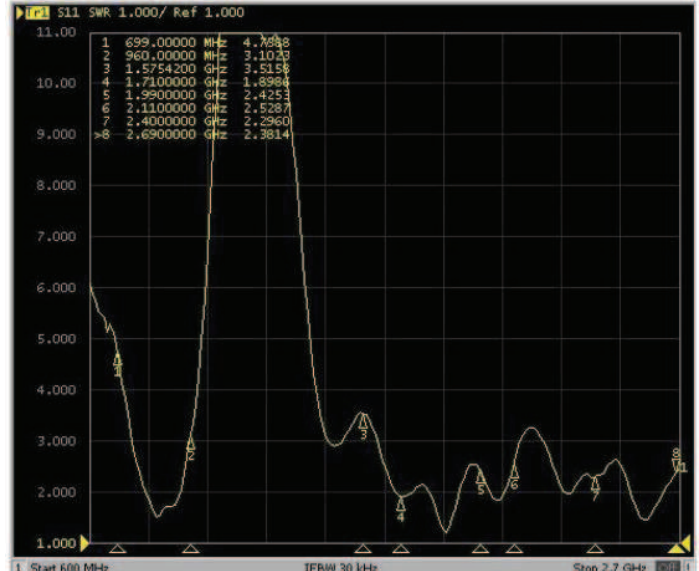
### Gain at 3.0V

Note: Measurements made with Antenna mounted on 20x20cm metal ground plane, with a 15cm cable RG174 used for testing.

## LTE Responses



LTE S11 (Log Mag)



LTE S11 (VSWR)

Dimension: mm

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## PACKAGING:

- Each antenna is packaged in a 140x120x81mm size box.
- Each 20 boxes are packaged in one 465x310x250mm size box.
- Each 30 boxes are packaged in a 590x390x230mm size box.



## CAUTION:

- (1) Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
- (2) Do not expose the component to open flame.
- (3) This specification applies to the functionality of the component as a single unit. Please insure the component is thoroughly evaluated in the application circuit.

## NOTE:

- 1) The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
- 2) ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
- 3) In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
- 4) When changing your production process, please notify ABRACON immediately.
- 5) ABRACON Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. ABRACON's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from ABRACON Corporation is required. Please contact ABRACON Corporation for more information.
- 6) All specifications and Marking will be subject to change without notice.

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