

# Multiband Antenna Module

## APAMPSLJ-142

RoHS/RoHS II Compliant



92.0 x 52.0 x 157.0 mm

MSL level: Not Applicable

### FEATURES:

- Active GPS & Multiband External Antenna
- Covering Active GPS / GLONASS (1592 - 1610 MHz)
- Cellular: AMPS (850 MHz) / GSM (900 MHz) /DCS (1800 MHz)
- TETRA (380 - 500 MHz) / CDMA (450MHz)
- WIFI / Bluetooth (2.4 GHz)
- Car Fin Type body mount
- 3 coaxial separate output feeds
- LNA Gain: GPS/GLONASS 27dB at 5V
- Cellular Gain 3dBi (max), TETRA Gain 2dBi (max)
- VSWR GSM/TETRA <2.1, GNSS <1.2:1
- RoHS/RoHS II compliant

### TYPICAL APPLICATIONS:

- GPS / GLONASS
- TETRA Public Safety
- Vehicle Cellular and 3G / WiFi Routers
- WiFi/Bluetooth
- Mobile broadband

### STANDARD SPECIFICATIONS:

#### Antenna

Parameters	Min.	Typ.	Max.	Units	Note
Receiving Frequency	1572		1610	MHz	GPS/GLONASS
	380		500	MHz	Tetra
	824		894	MHz	AMPS
	880		960	MHz	GSM900
	1710		1880	MHz	GSM1800
	1850		1990	MHz	GSM1900
	1920		2170	MHz	GSM2100
	2400		2497	MHz	WLAN/Bluetooth
Gain		2.2		dBi	Cell
		2		dBiC	GPS
		2		dBi	Tetra
VSWR			1.2:1		GPS/GLONASS
			3.5:1		GSM
			2:1		Tetra
Polarization Model	RHCP				GPS/GLONASS
	Vertical				GSM/Tetra
Impedance		50		$\Omega$	
Operating Temperature	-40		+85	°C	

#### Low Noise Amplifier (GPS)

Parameters	Min.	Typ.	Max.	Units	Note
DC Voltage	2.7		5.5	V	
LNA Gain			24	dB	
Current	15		25	mA	
Operating Temperature	-40		+85	°C	

# Multiband Antenna Module

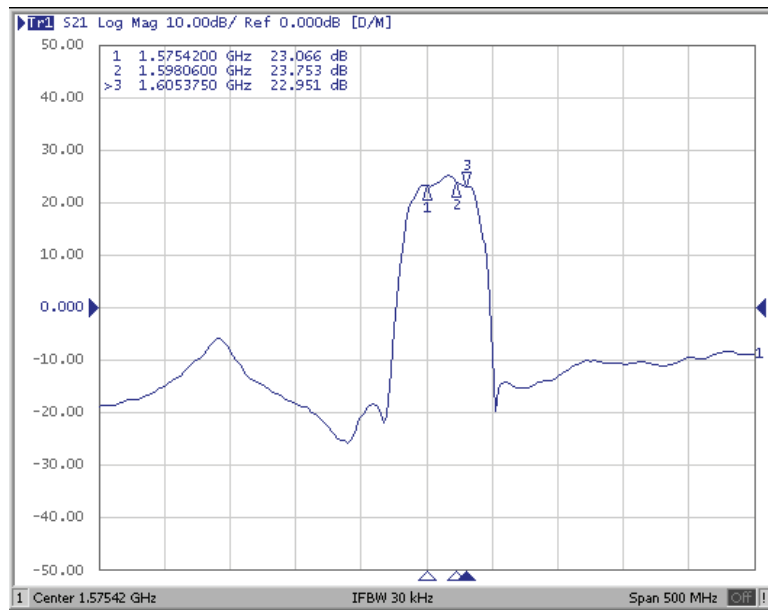
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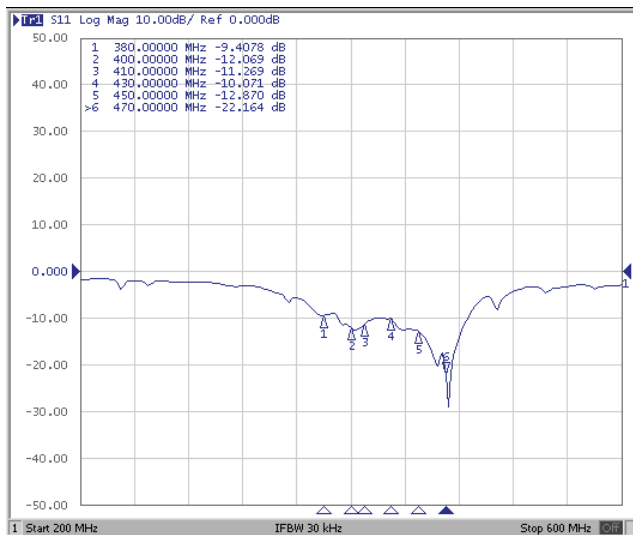
## Antenna's Impedance and Return-Loss Characteristics

### GNSS

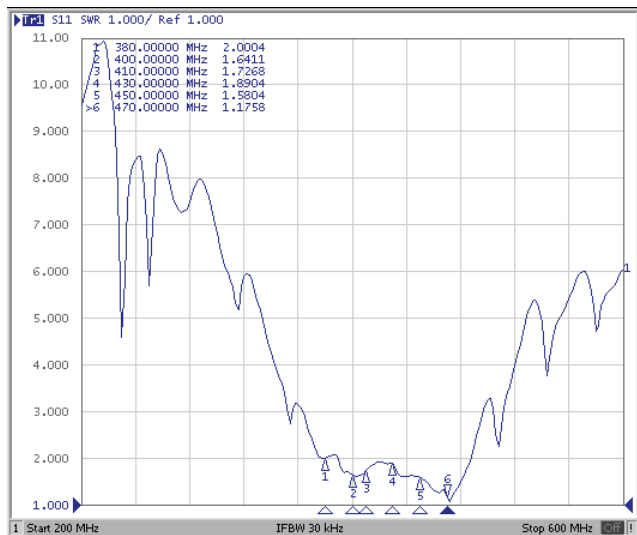


GPS gain (S21) at 3V

### Tetra



Log Mag (S11)



VSWR (S11)

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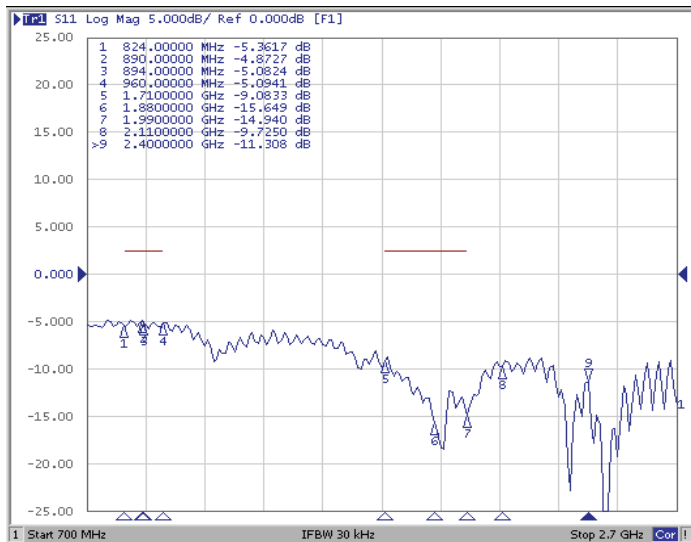
RoHS/RoHS II Compliant



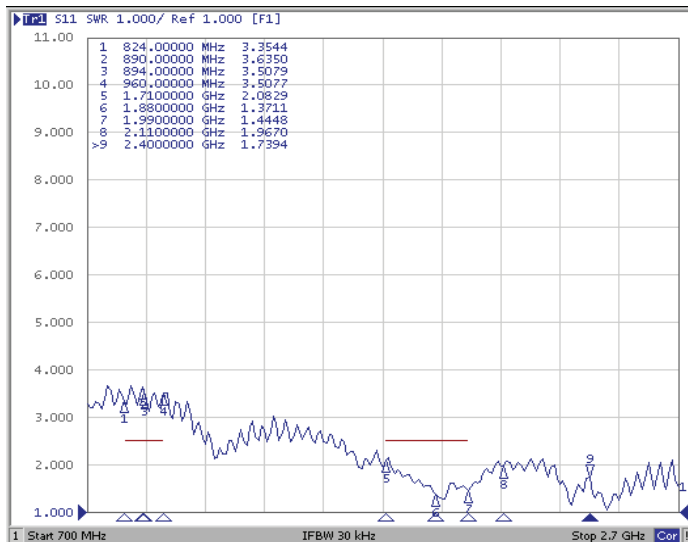
92.0 x 52.0 x 157.0 mm

## Antenna's Impedance and Return-Loss Characteristics

### Cell

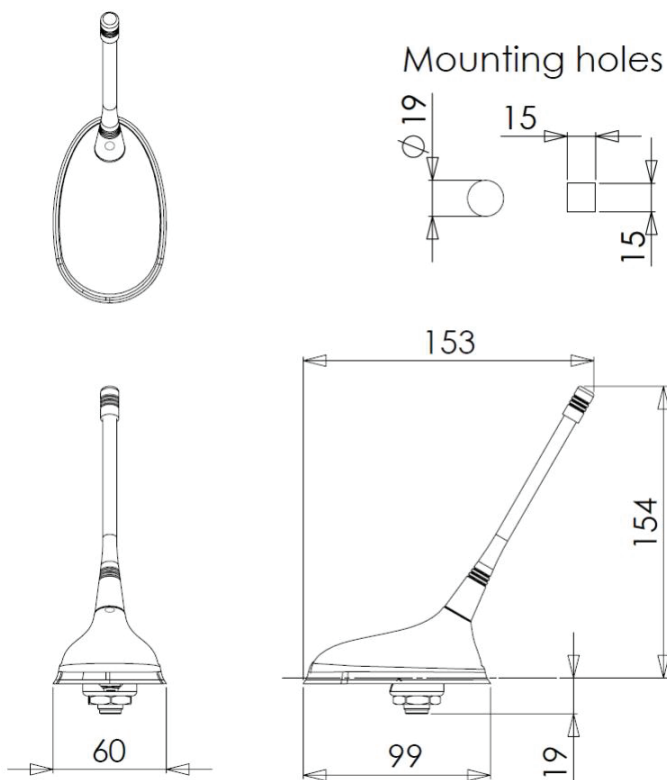


Log Mag (S11)



VSWR (S11)

## OUTLINE DRAWING:



Parameters	Description
RF Connector	SMA male-GPS/GLONASS
	FME female-GSM
	SMA male-TETRA
Weight	250 g
Cable Type	2 x RG174 (GNSS and GSM) 1 x RG58 (Tetra)
Cable Length	250cm

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## ➤ PACKAGING:

Each antenna is individually packed in a 115x300mm poly bag. 50pcs is the suggested quantity per 470x350x210mm 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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ABRACON IS  
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