

GNSS - External Helical Antenna



AECC0502GB

Request Samples



Check Inventory



55.6 x Ø27.5 mm

RoHS/RoHS II Compliant

MSL Level = 1

Features

- Ultra- Low Profile
- Active GNSS
 - GPS : L1/L2
 - GLONASS : G1/G2
 - BEIDOU/Compass : B1/B2/B3
 - GALIELO : E1/E5b
- IP67 rated
- Easy installation using Connector

Applications

- IoT
- M2M
- Surveillance
- Autonomous Driving
- Fleet Management & Asset Tracking
- Telematics
- Smart Agriculture / Precision Farming
- Instrumentation

Product Image



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 01-03-20

ABRACON IS
ISO9001-2015
CERTIFIED

GNSS - External Helical Antenna



AECC0502GB

Request Samples



Check Inventory



55.6 x Ø27.5 mm

RoHS/RoHS II Compliant

MSL Level = 1

Part Number Builder

AECC0502GB □ - □

Color / UV Coating	
Code	Description
S (Standard)	Black without UV coating
A	Black with UV Coating
B	White without UV Coating
C	White with UV Coating

Connector Type	
Code	Connector Type
S (Standard)	SMA (M)
A	RP-SMA (M)
B	SMB (M)
C	N-Type (M)
D	TNC (M)
E	BNC (M)
F	MCX (M)
G	MMCX (M)

Example Configurations :

Part Number	UV Coating / Color	Connector Type
AECC0502GB S-S	No / Black	SMA (M) (Standard)
AECC0502GB A-A	Yes / Black	RP-SMA (M)
AECC0502GB C-C	Yes / White	N-Type (M)

Note :

- For the standard part number (AECC0502GB**S-S**), please refer to the packaging at the end of the document.
- For custom configurations (AECC0502GB□-□), MOQs, pricing and packaging changes may be applicable.



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 01-03-20

ABRACON IS
 ISO9001-2015
 CERTIFIED

GNSS - External Helical Antenna



AECC0502GB

Request Samples



Check Inventory



55.6 x Ø27.5 mm

RoHS/RoHS II Compliant

MSL Level = 1

Electrical Specifications

Parameter	Specification			Unit
	Min	Typ	Max	
Center Frequency	GPS	L1	1575.42	MHz
		L2	1227.60	
	GLONASS	G1	1602.00	
		G2	1246.00	
	BeiDou / Compass	B1	1561.10	
		B2	1207.14	
		B3	1268.52	
	Galileo	E1	1575.42	
		E5b	1207.14	
VSWR			2.0	
Polarization	RHCP			
Peak Gain			2	dBi
Impedance		50		Ω
Axial Ratio			3	dB
Horizontal Coverage		360		degree
LNA				
Gain	31	33	35	dBi
Passband Fluctuation		±2		dB
NF			1.5	dB
VSWR			2	
Supply Voltage (DC)	3		16	V
Current Consumption			35	mA

Mechanical Specifications

Parameter	Specification
Antenna Dimension	55.6 x Ø27.5 mm
Housing Material	PC + ABS
Mounting Type	Connector
RF Connector	SMA (M)



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 01-03-20

ABRACON IS
 ISO9001-2015
 CERTIFIED

GNSS - External Helical Antenna



AECC0502GB

Request Samples



Check Inventory

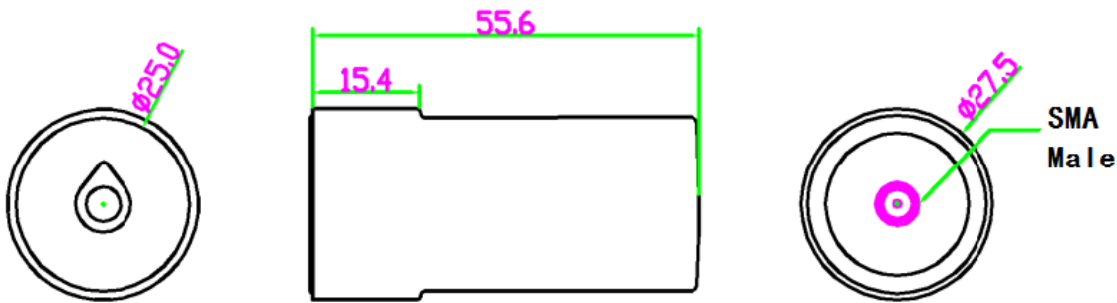


55.6 x Ø27.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
IP Rating	IP67
UL Rating	UL-94 V0
RoHS Compliance	Yes
PB Free	Yes
MSL	1
ESD Sensitive	Yes
Relative Humidity	Up to 95%
Vibration	10 ~ 55 Hz with 1.5 mm amplitude 2 hrs

Product Dimension



Unit : mm



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 01-03-20

ABRACON IS
ISO9001-2015
CERTIFIED

GNSS - External Helical Antenna



AECC0502GB

Request Samples

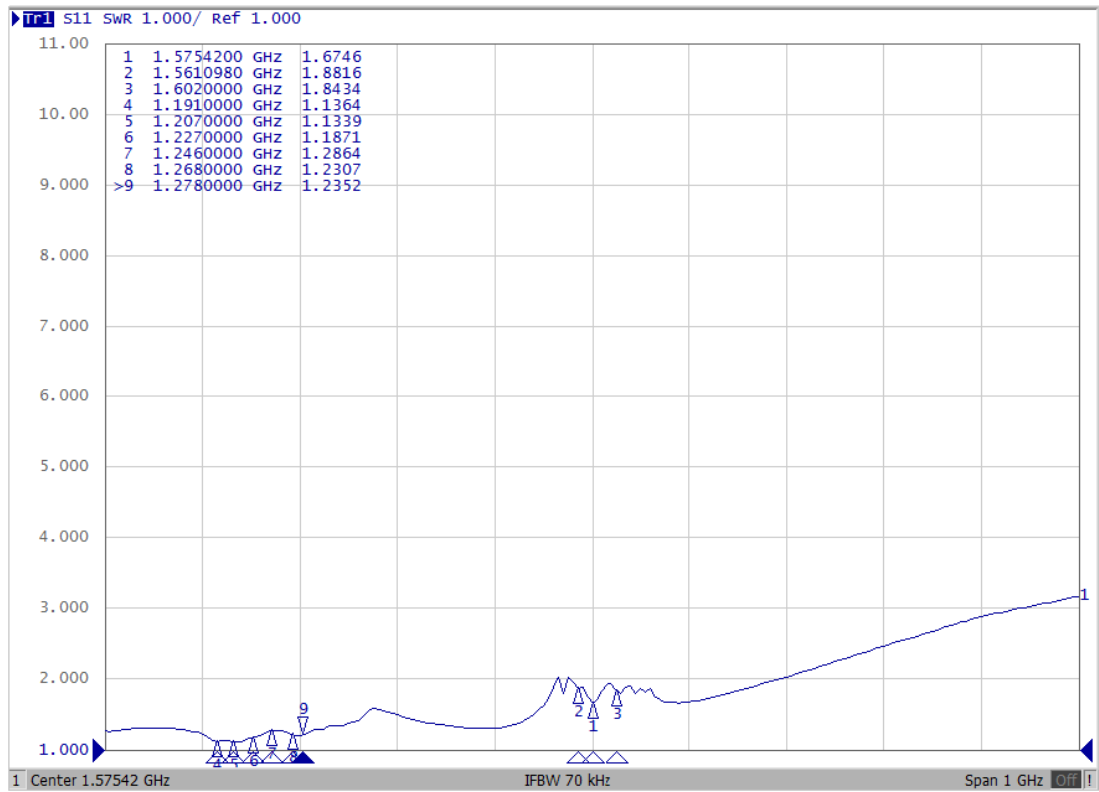


Check Inventory



55.6 x Ø27.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Test Measurement - VSWR



GNSS - External Helical Antenna



AECC0502GB

Request Samples



Check Inventory



55.6 x Ø27.5 mm

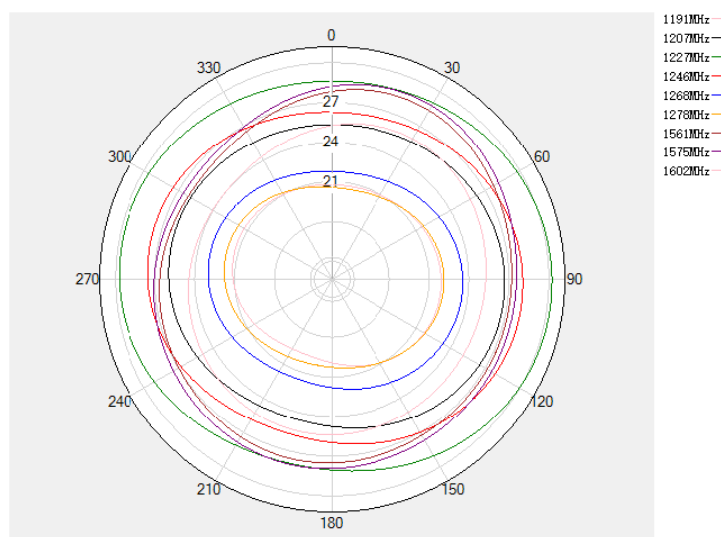
RoHS/RoHS II Compliant

MSL Level = 1

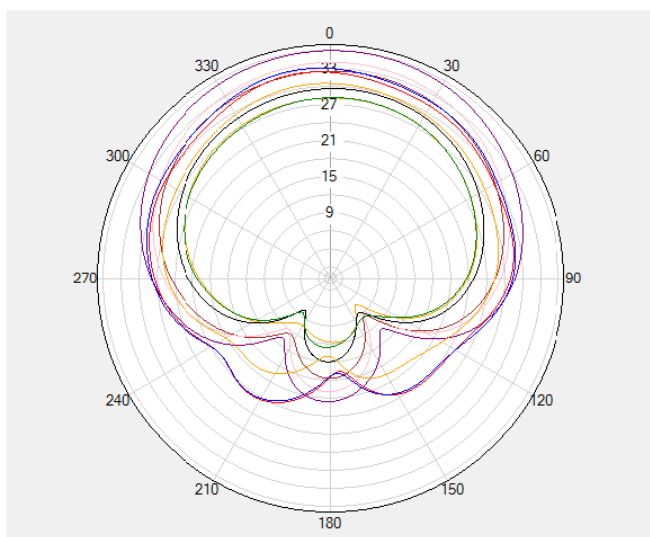
Radiation Characteristics

2D Pattern

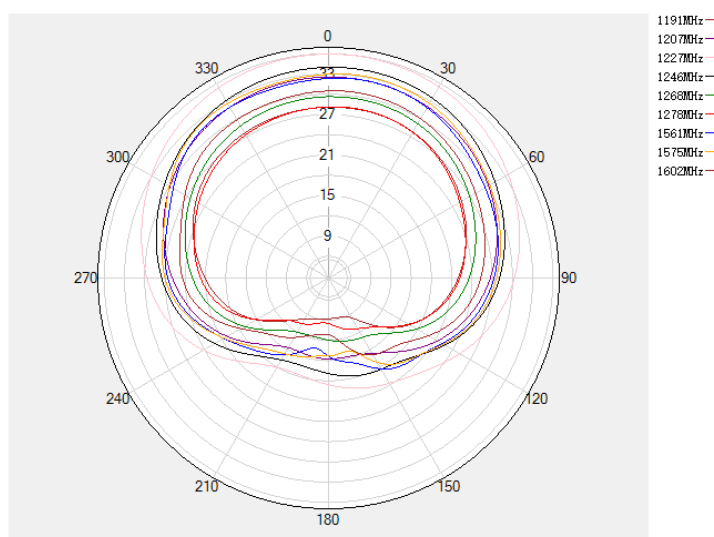
XY - Plane



XZ - Plane



YZ - Plane



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 01-03-20

ABRACON IS
ISO9001-2015
CERTIFIED

GNSS - External Helical Antenna



AECC0502GB

Request Samples



Check Inventory



55.6 x Ø27.5 mm

RoHS/RoHS II Compliant

MSL Level = 1

Packaging Information

Number of Antenna/ Carton : 72 pcs

Dimension of the Carton : 560 x 300 x 240 mm

Weight of 1 pc of Antenna : 35 g

Weight of the Carton : 3 kg

ATTENTION: Abracon LLC'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-dependent 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 LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 01-03-20

ABRACON IS
ISO9001-2015
CERTIFIED