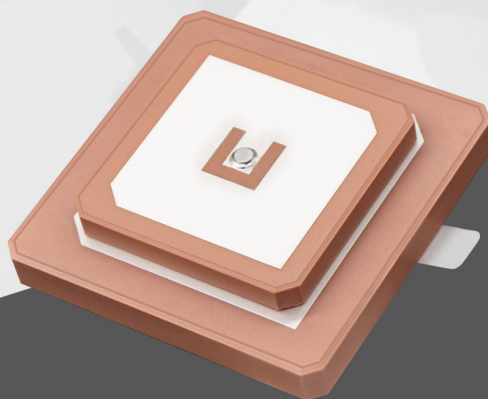




Datasheet

Circularly Polarized Passive GPS Embedded Ceramic Patch Antenna

Model: AIGC052

PN: M04-0104840R0A

Description:

GPS/GLONASS/BDS Stacked Patch Dual Feed Antenna

Operating Frequency: 1227-1575 MHz

Features:

Ceramic Patch Element

Dual Feed, 2-Pin Configuration

Dimensions: 35 x 35 x 4 + 25 x 25 x 3 mm

Tuned for 35 x 35 mm Ground Plane

Low Axial Ratio

Adhesive Mount

RoHS & Reach Compliant



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🌐 Global Site: www.aboosty.com 🇨🇳 China Site: www.aboosty.cn

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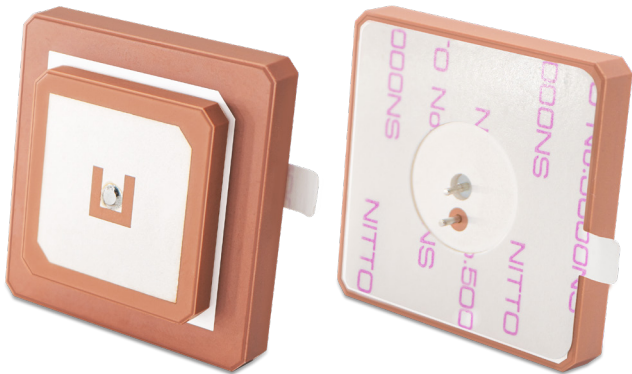
FEATURES & BENEFITS

- Ceramic Patch Element
- Compact, Multi-system Compatible
- Dual Feed, 2-Pin Configuration
- Low Axial Ratio
- Adhesive Mount
- Customization Available
- RoHS & Reach Compliant
- Covering Bands: GPS L1, L2

APPLICATIONS

- Satellite Navigation Receivers
- Geodetic Surveying and Mapping
- Channel Surveying and Mapping
- Precision Agriculture
- Marine Surveying
- Asset and Fleet Tracking
- Oil, Gas, and Mining Industries
- M2M Applications
- Hand-held/Portable Devices

ANTENNA IMAGE AND MOUNTING



3M adhesive backing
for easy mounting.

ORDER INFORMATION

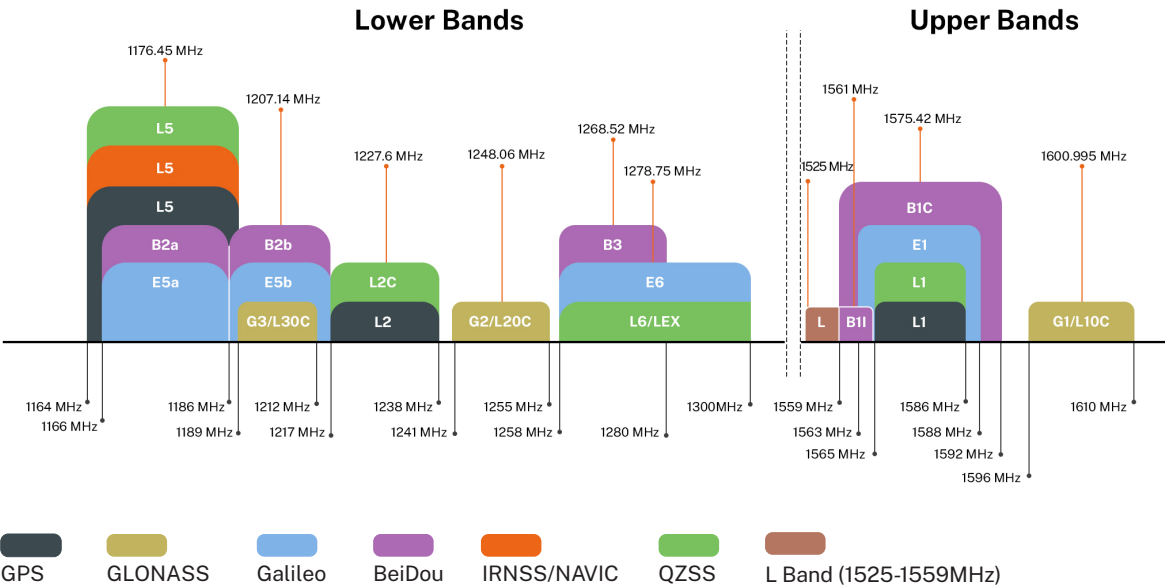
Product Name	Circularly Polarized Passive GPS Embedded Ceramic Stacked Patch Antenna
Model	AIGC052
Part Number	M04-0104840R0A
Dimensions	35 x 35 x 4, 25 x 25 x 3 mm
Weight	27.6 g
Mounting	Internal/Embedded/Adhesive Mount
MOQ	250 pcs
Custom Options	Logo, Packaging, Cable and Connectors



GNSS FREQUENCY BANDS

GNSS Frequency Bands Covered					
GPS	L1	L2	L5		
	●	●	○		
GLONASS	G1	G2	G3		
	●	●	○		
Galileo	E1	E5a	E5b	E6	
	●	●	○	○	
Bei Dou	B1I	B1C	B2a	B2b	B3
	●	●	○	○	○
QZSS (Regional)	L1	L2C	L5	L6	
	●	●	○	○	
IRNSS(Regional)	L5				
	○				
SBAS	L1/E1/B1	L5/B2a/E5a	G1	G2	G3
	●	○	○	○	○

*SBAS systems: WASS(L1/L5), EGNOS(E1/E5a), SDCM(G1/G2/G3), SNAS(B1,B2a), GAGAN(L1/L5), QZSS(L1/L5), KAZZ(L1/L5).





REFERENCE GUIDE

Antenna		
Center Frequency	1227 ± 5.0 MHz	1575.42±5 MHz
Frequency Band	L2	L1
Return Loss (dB)	≥ 13	≥ 14
Peak Gain (dBi)	1.1	1.16
Axial Ratio (dB)	<2	
Polarization	RHCP	
Radiation Pattern	Directional	
Input Impedance	50 Ω	

Environmental				
Operating Temperature	-40°C to +75°C			
Storage Temperature	-40°C to +85°C			
Relative Humidity	40% to 95%			
Vibration	Wave Form: Random Vibration			
	Test Time: 30min/Axis			
	Direction: X, Y, Z Axis			
	PSD Break Points for 9.8 RMS (m/s ²)	Frequency (Hz)	50	300
		Acceleration ((m/s ²) ² /Hz)	0.38416	0.38416
RoHS Compliant	Yes			
All data were measured with a 35 x 35 mm ground plane. Application data might vary.				

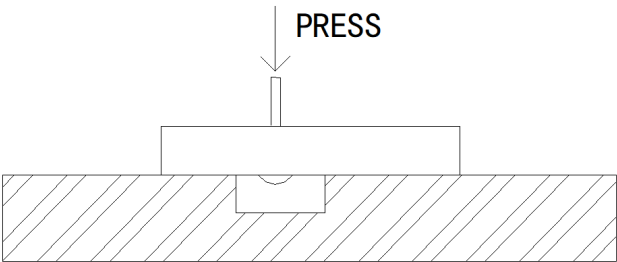
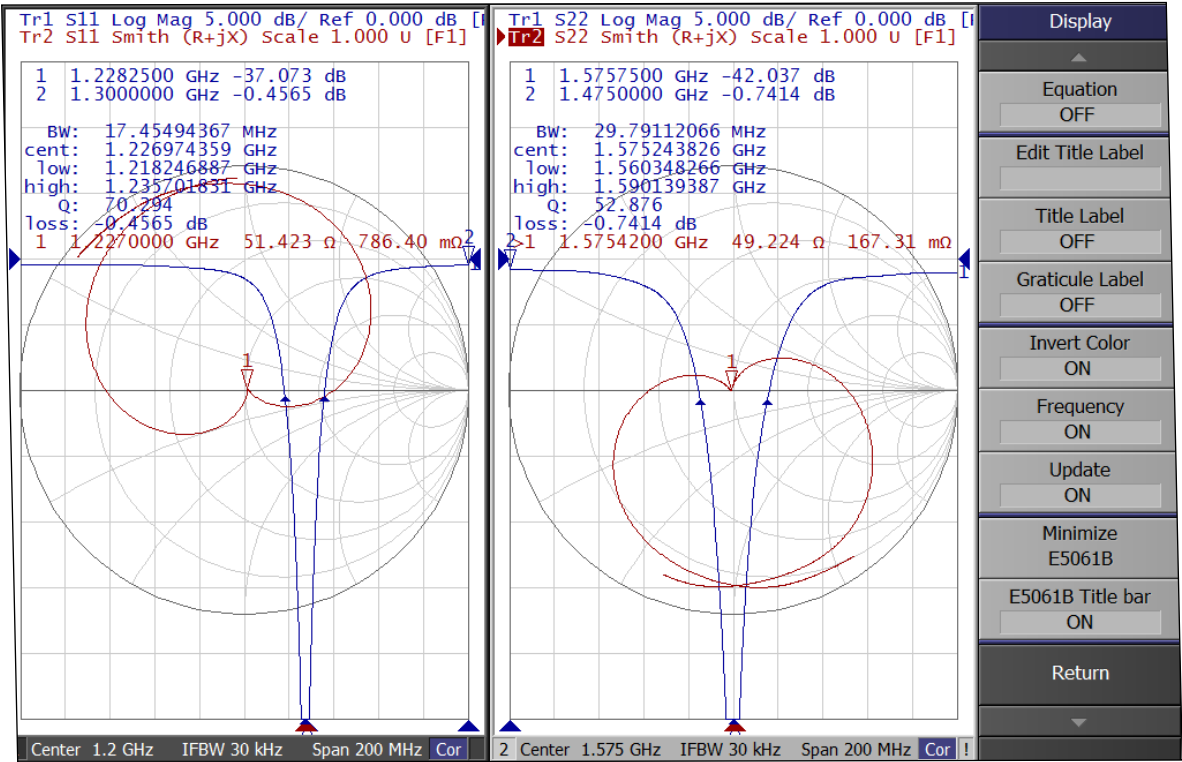


ELECTRICAL PERFORMANCE

⦿ Note

All data displayed in "ELECTRICAL PERFORMANCE" were measured with an Ø80 mm ground plane.

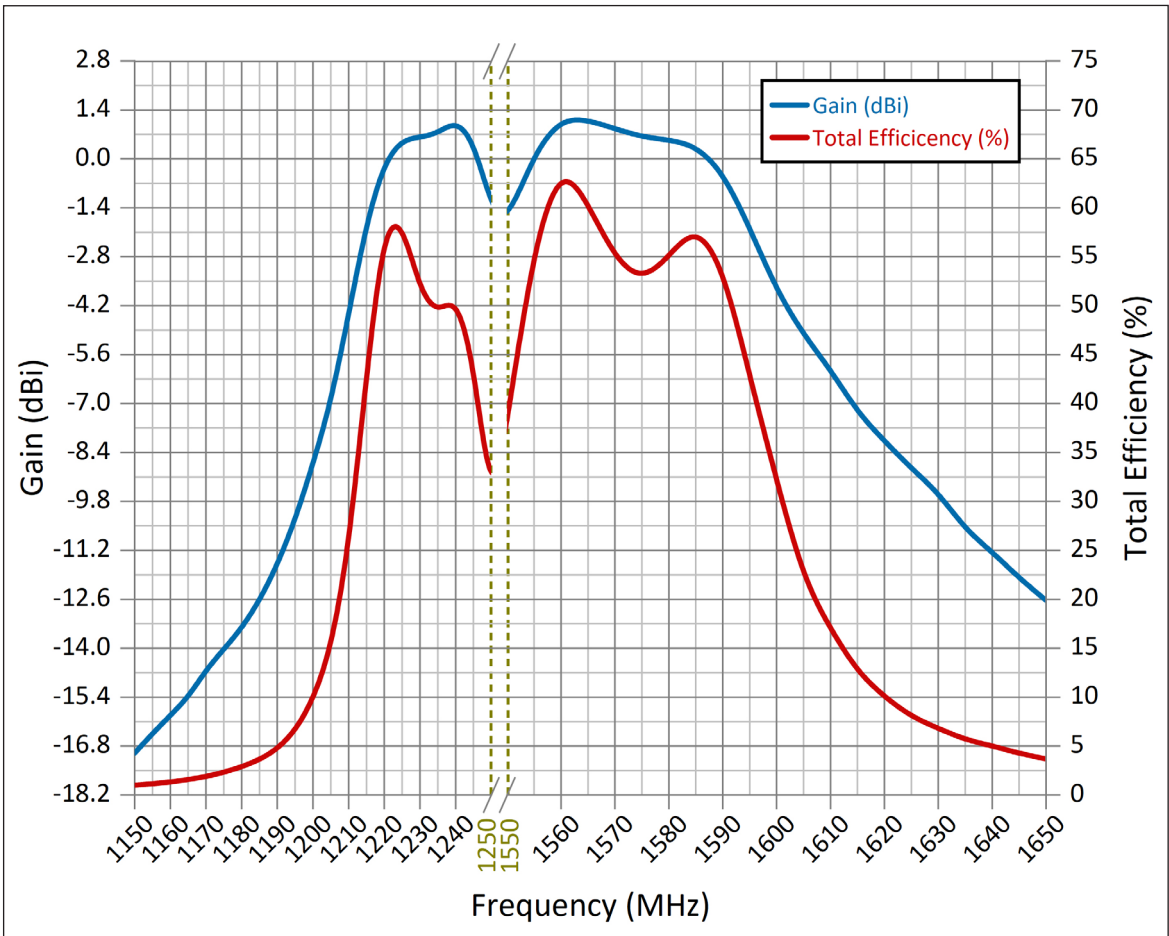
S11



Item	Specification After Test (MHz)
Center Frequency Change	±2.0
-10dB Bandwidth Change	±2.0

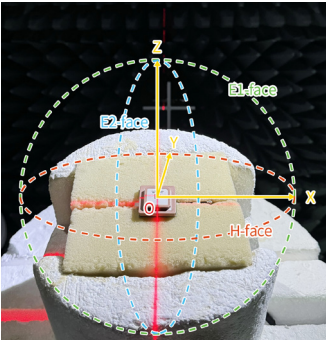


Passive Gain (dBi) and Total Efficiency (%)

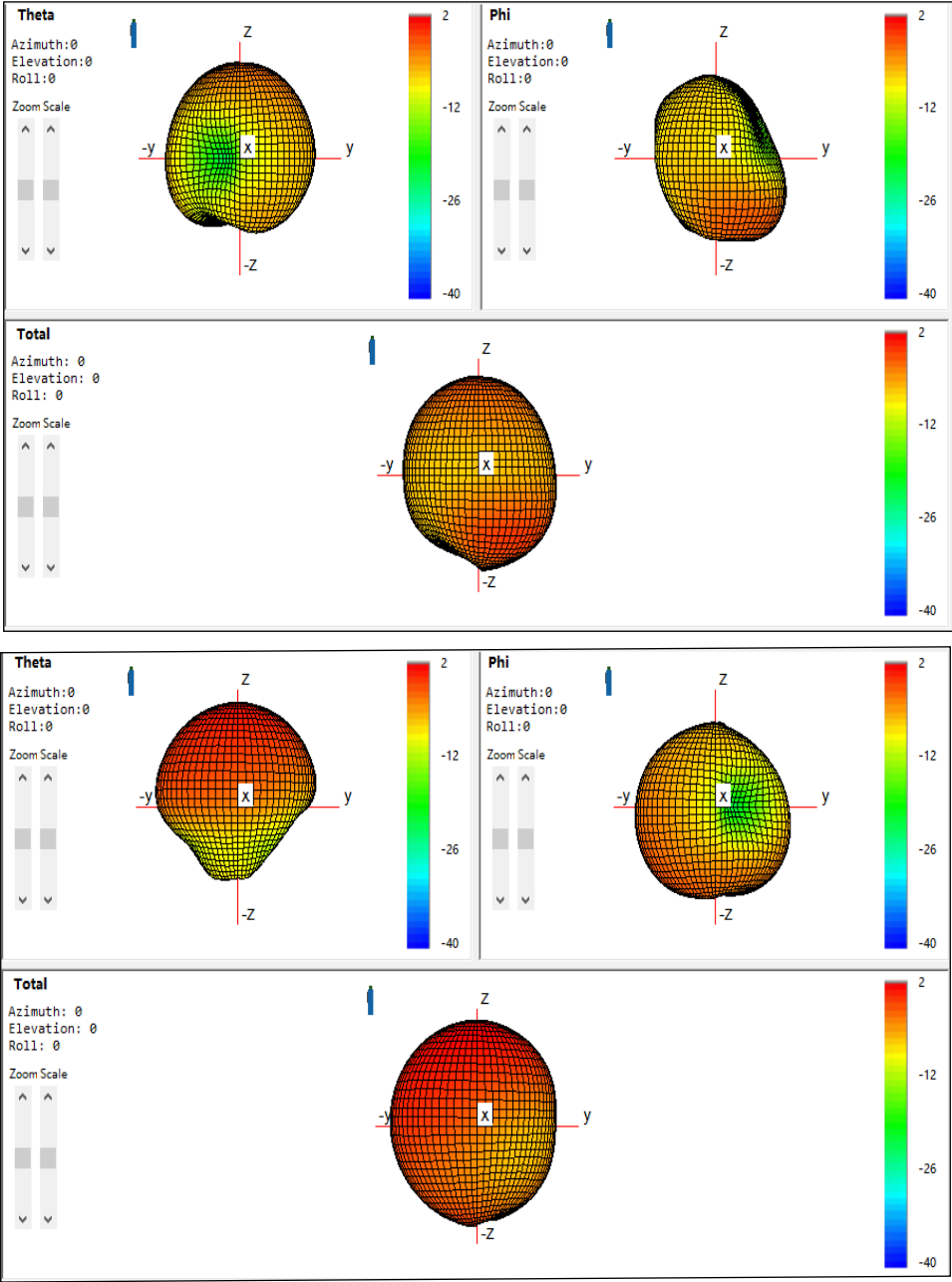


Freq (MHz)	Gain (dBi)	Effi. (%)	Freq (MHz)	Gain (dBi)	Effi. (%)	Freq (MHz)	Gain (dBi)	Effi. (%)
1150	-17	0.99	1220	-0.1	58.26	1585	0.38	58.24
1155	-16.44	1.15	1225	0.55	58.65	1590	-0.37	54.1
1160	-15.92	1.34	1230	0.62	51.45	1595	-1.98	42.77
1165	-15.41	1.57	1235	0.73	49.17	1600	-3.76	32.16
1170	-14.62	1.89	1240	1.1	51.05	1605	-5.03	22.04
1175	-14.03	2.31	1245	0.54	44.43	1610	-6.03	16.96
1180	-13.43	2.88	1250	-1.39	28.95	1615	-7.25	12.58
1185	-12.63	3.61	1550	-1.84	38.25	1620	-8.07	10.03
1190	-11.62	4.7	1555	0.17	56.24	1625	-8.86	8.01
1195	-10.33	6.53	1560	1.16	64.56	1630	-9.54	6.81
1200	-8.72	9.71	1565	1.11	60.43	1635	-10.6	5.64
1205	-6.97	14.88	1570	0.86	54.84	1640	-11.25	5.03
1210	-4.44	25.15	1575	0.63	52.48	1645	-11.99	4.24
1215	-1.82	43.09	1580	0.54	55.06	1650	-12.63	3.7

3D Radiation Patterns (L1 and L2 Band)



The Antenna in the Aboosty's Anechoic Chamber

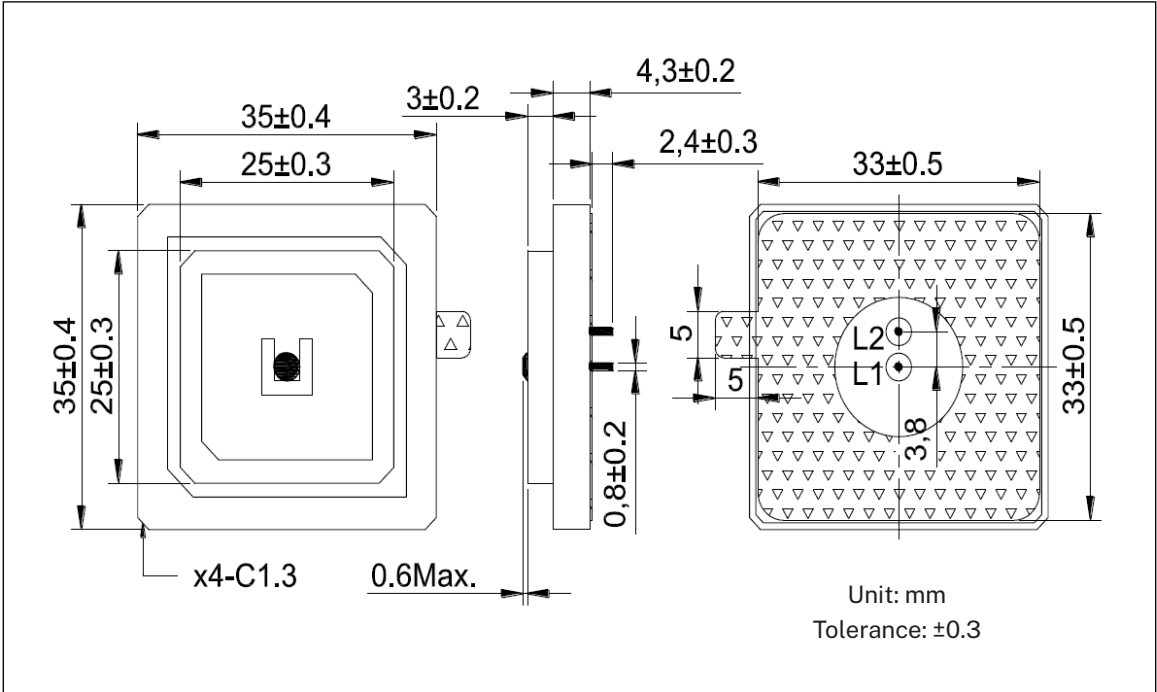


3D at 1227 MHz

3D at 1575 MHz



MECHANICAL DIMENSIONS



ABOOSTY WELCOME ALL ANTENNA OEM/ODM PROJECTS

Why Choose ABOOSTY



10+ years in antenna R&D, production, and OEM/ODM



MES system supported factory; 50M+ units annual output capacity



Factory directly competitive price



Quick price and lead time estimate



Innovative and patented design solutions



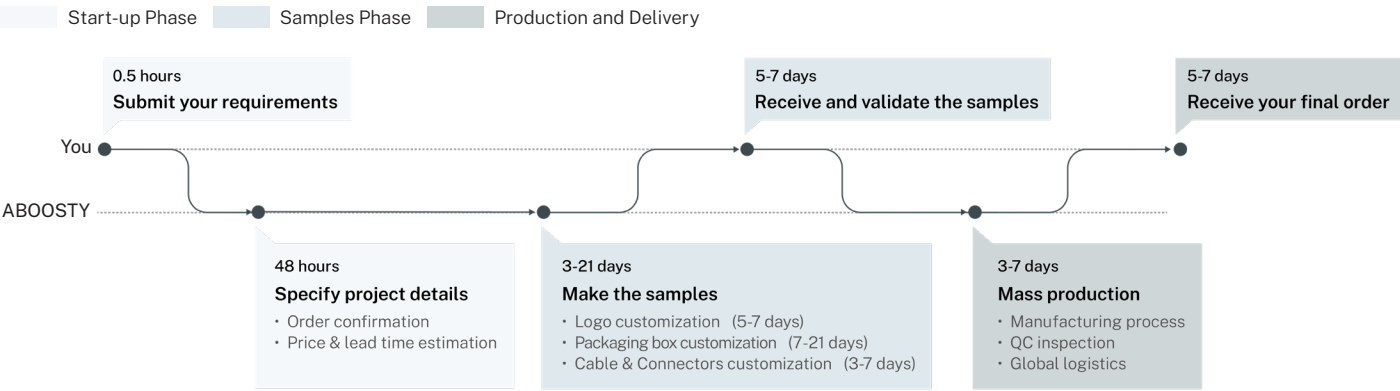
Professional team support & prompt reply within 24h

What We Provide

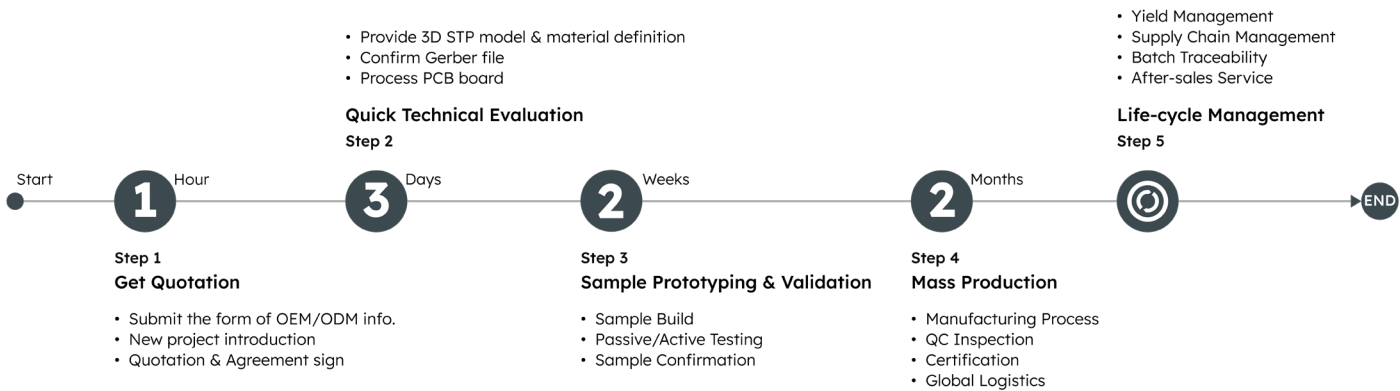
OEM/ODM Services	Light Customization	Deep Customization
	• Logo • Packaging • Cables & Connectors	• In-depth tailoring for specific applications • Functional enhancements • Environmental adaptations • Vertical certifications • ...

Custom Process

Light Customization Process



Deep Customization Process



Note: You can let us handle the PCB prototyping or do it yourself. Choosing self-prototyping may add 2 to 5 weeks to the timeline.

Boost Your Signal
with Our Antennas

ABOOSTY

A Globally Leading Manufacturer and Supplier of
Multi-band Combination Antennas

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