



Datasheet

Circularly Polarized Passive GPS Embedded Ceramic Patch Antenna

Model: AIGC025

Description:

GPS/GLONASS/BeiDou Passive Patch Antenna

Operating Frequency: 1570-1580 MHz

Features:

Ceramic Patch Element

Dimensions: 18 x 18 x 2mm

Tuned for 18 x 18 mm Ground Plane

Low Axial Ratio

Adhesive Mount

RoHS Compliant



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 Global Site: www.aboosty.com  China Site: www.aboosty.cn

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FEATURES & BENEFITS

- 18x18x2mm Embedded Ceramic Patch Element
- Miniaturized, Multi-system Compatible
- Low Axial Ratio
- Adhesive Mount
- RoHS Compliant
- Covering Bands: GPS (L1) / Galileo (E1) / BeiDou (B1)

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

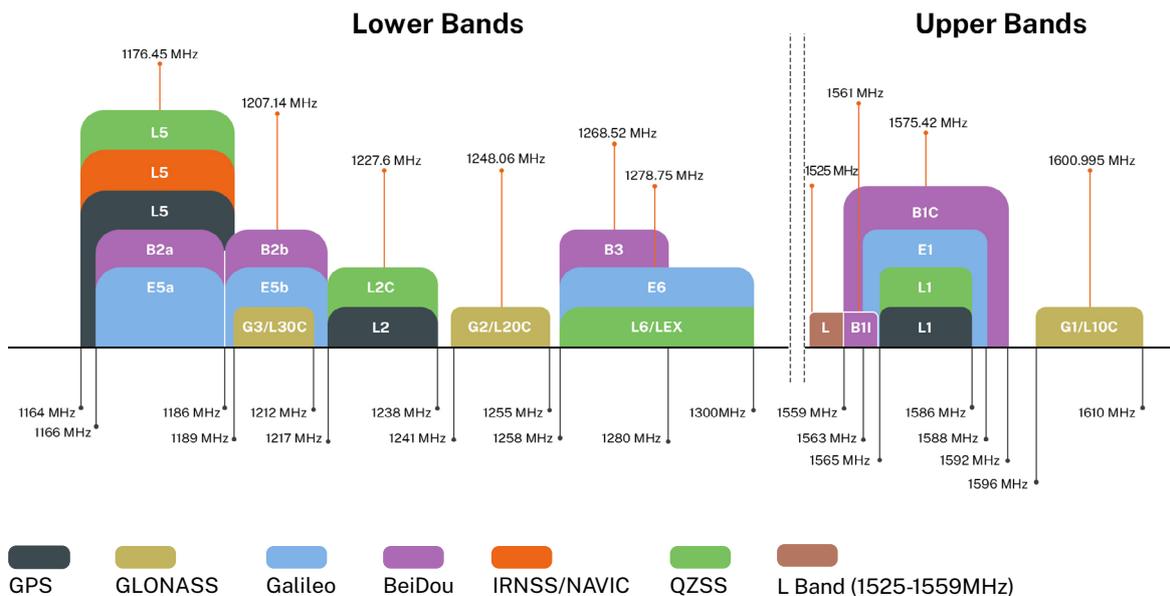
ORDER INFORMATION

Product Name	Circularly Polarized Passive GPS Embedded Ceramic Patch Antenna
Model	AIGC025
Dimensions	18x18x2mm
Weight	2.8g
Mounting	Internal/Embedded/Adhesive Mount
MOQ	500 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	
Frequency	1575±5 MHz
Bandwidth	10MHz
VSWR	<2
Peak Gain (dBi)	-3 (18×18mm ground plane)
Axial Ratio (dB)	<6
Polarization	RHCP
Radiation Pattern	Directional
Input Impedance	50 Ω

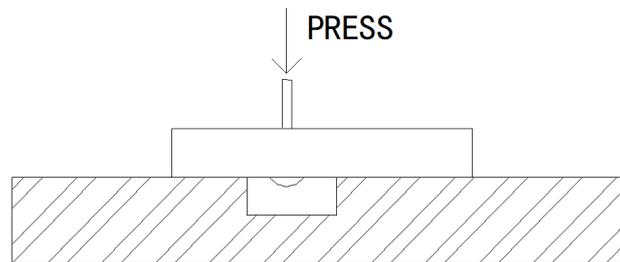
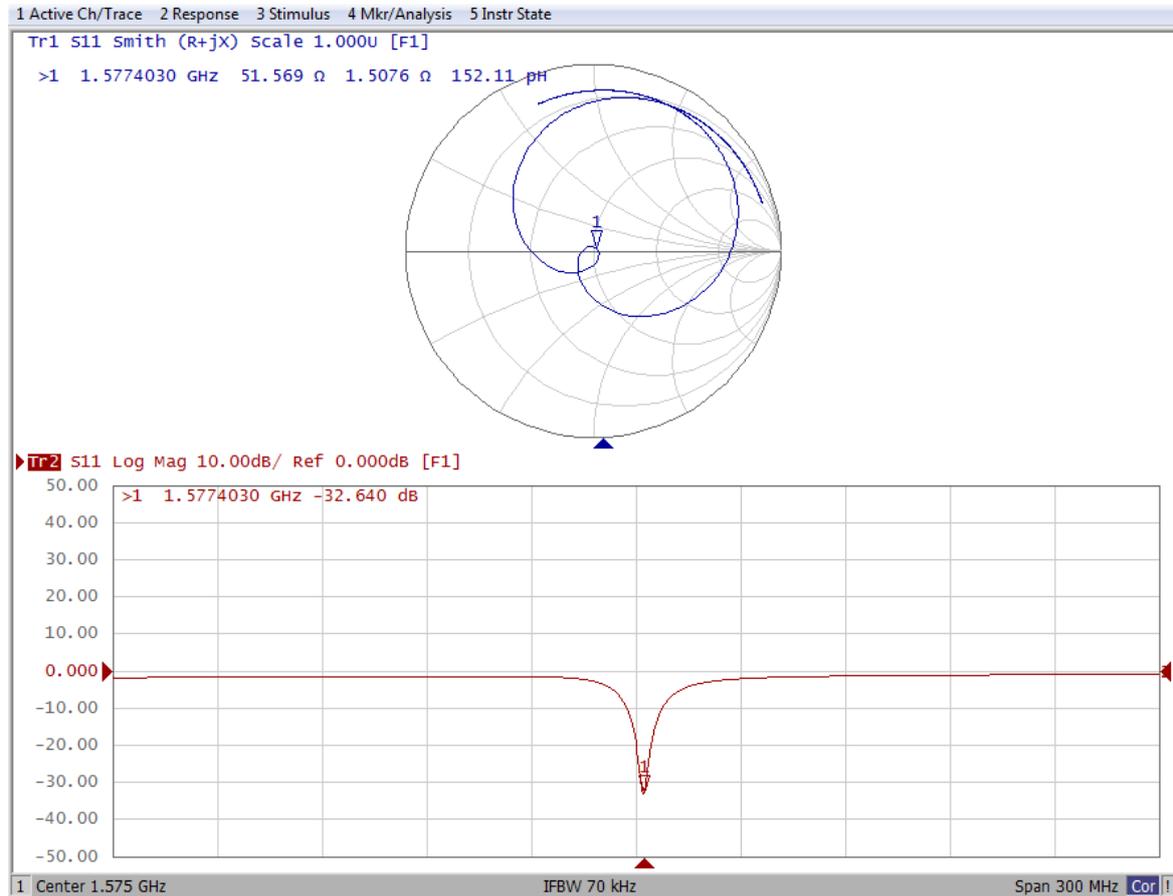
Environmental			
Operating Temperature	-40°C to +85°C		
Storage Temperature	-40°C to +90°C		
Relative Humidity	Non-condensing 65°C 95% RH		
Vibration	Wave Form: Random Vibration		
	Test Time: 30min/Axis		
	Direction: X, Y, Z Axis		
	PSD Break Points for 9.8 RMS (m/s ²)	Frequency (Hz)	50
	Acceleration ((m/s ²) ² /Hz)	0.38416	0.38416
RoHS Compliant	Yes		
All data were measured with a 18 x 18 mm ground plane. Application data might vary.			

ELECTRICAL PERFORMANCE

© Note

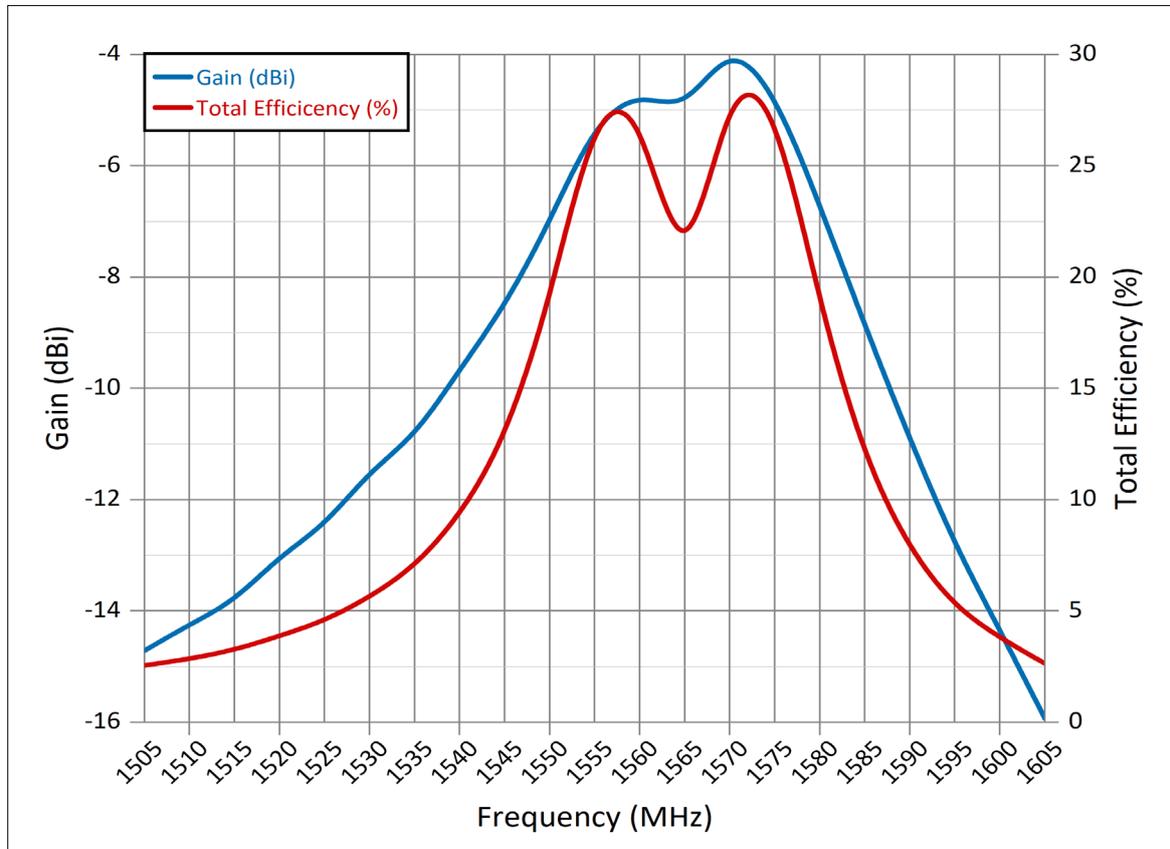
All data displayed in "ELECTRICAL PERFORMANCE" were measured with a 18 x18 mm ground plane.

S11



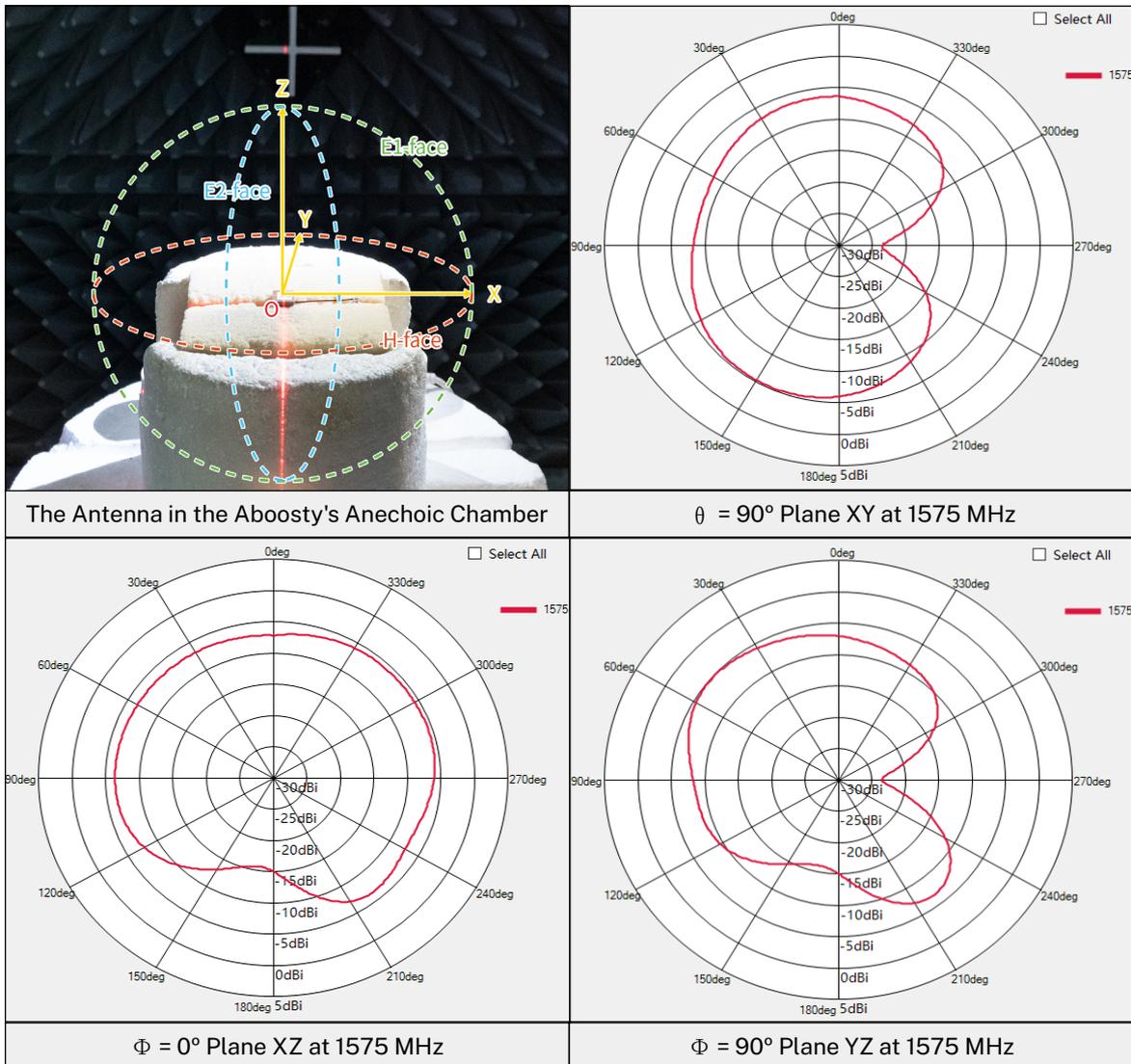
Item	Specification After Test (MHz)
Center Frequency Change	±2.0
-10dB Bandwidth Change	±2.0

Passive Gain (dBi) and Total Efficiency (%)

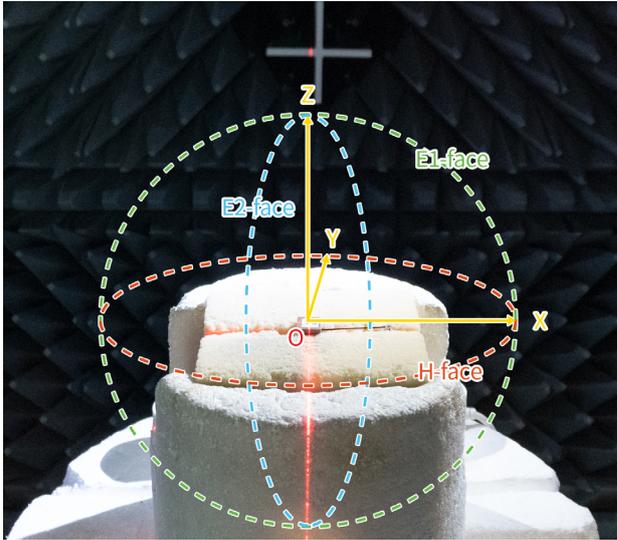


Freq (MHz)	Gain (dBi)	Efficiency (%)	Freq (MHz)	Gain (dBi)	Efficiency (%)
1505	-14.71	2.56	1560	-4.66	27.9
1510	-14.24	2.85	1565	-5.06	18.89
1515	-13.82	3.25	1570	-3.75	29.13
1520	-13.01	3.89	1575	-4.67	28
1525	-12.47	4.56	1580	-6.71	18.71
1530	-11.48	5.63	1585	-8.87	11.8
1535	-10.87	6.99	1590	-10.91	7.74
1540	-9.66	9.27	1595	-12.81	5.19
1545	-8.53	12.65	1600	-14.34	3.8
1550	-7.01	18.86	1605	-15.93	2.65
1555	-5.22	27.69			

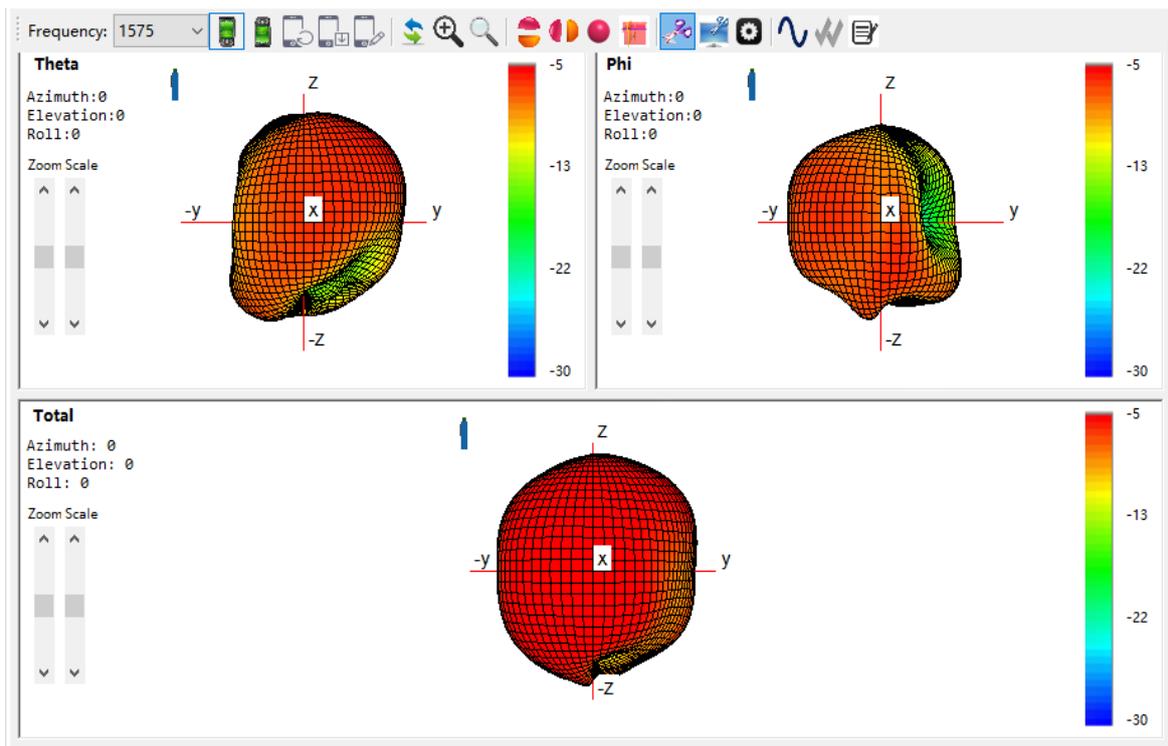
Active 2D Radiation Patterns (1575 MHz)



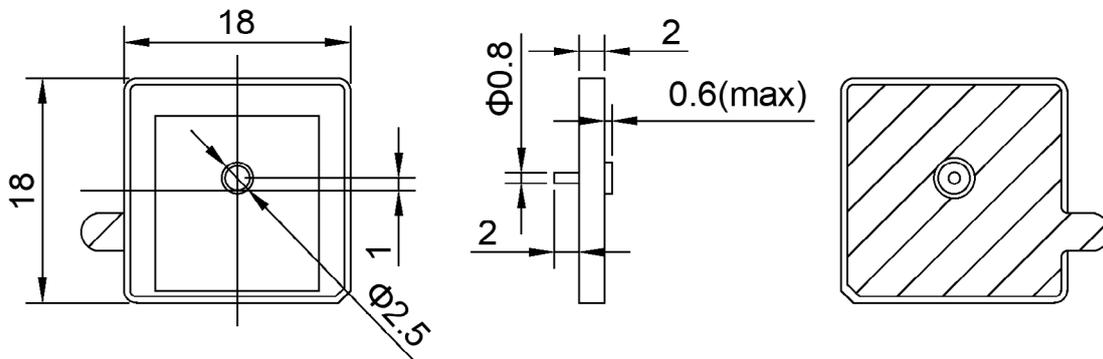
Active 3D Radiation Patterns (1575 MHz)



The Antenna in the Aboosty's Anechoic Chamber



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



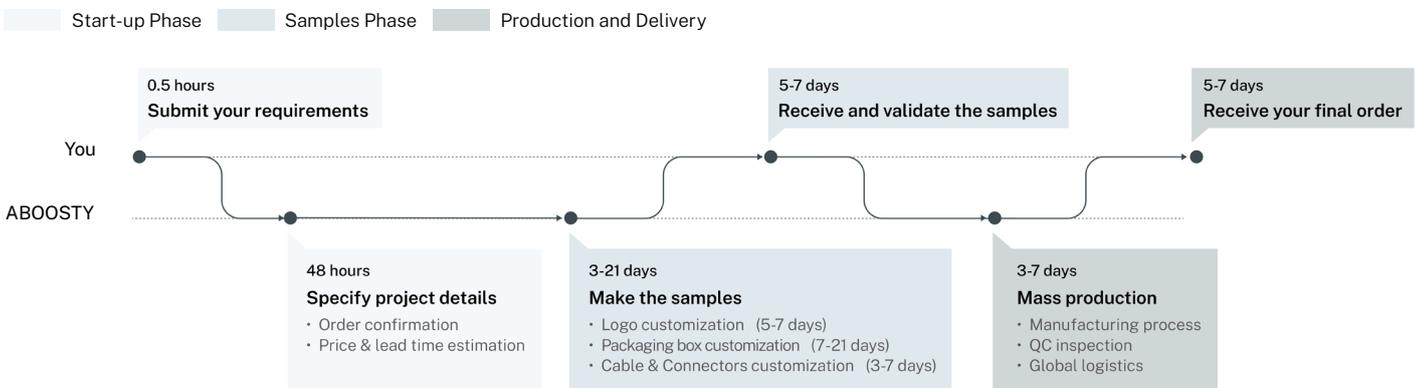
Professional team support & prompt reply within 24h

What We Provide

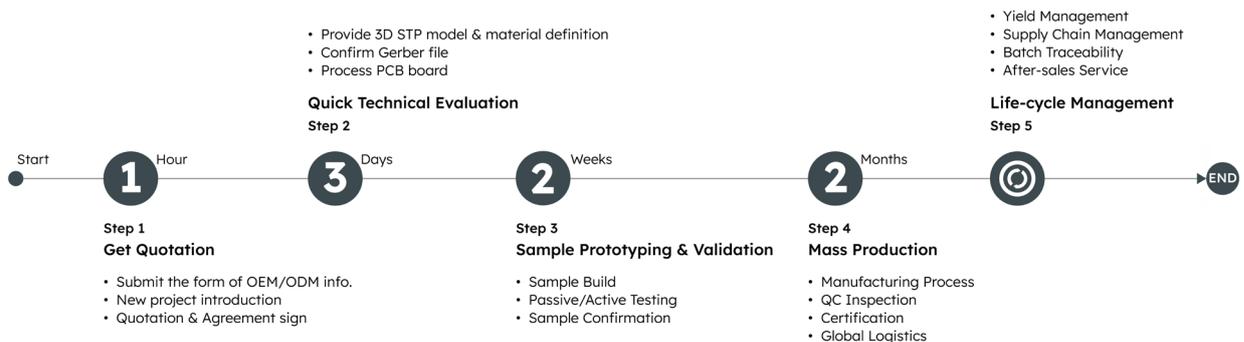
OEM/ODM Services	Light Customization	Deep Customization
	<ul style="list-style-type: none"> • Logo • Packaging • Cables & Connectors 	<ul style="list-style-type: none"> • In-depth tailoring for specific applications • Functional enhancements • Environmental adaptations • Vertical certifications • ...

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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