

Antenna Selector Guide by Protocol

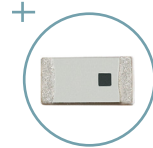
Offering antennas in a wide variety of protocols including WiFi, Bluetooth/BLE, 4G/LTE, 2G/3G, LPWA, and GPS. Chip, active and passive patch, and active and passive external antennas offer broad form factors with augmented gain. Custom antenna designs, test services and simulation support is available.

Protocols

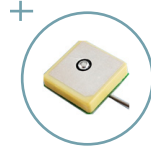
Abracon offers a wide range of antennas spanning several protocols including 4G/LTE, 2G/3G, WiFi/Bluetooth/BLE/ZigBee, ISM, LPWA/LoRa/Sigfox, GPS/GLONASS/GNSS (Navigation), and satellite communications.

Key Metrics

When selecting the optimal antenna, key metrics to focus on include: size, gain, efficiency, range, polarization, and mounting. Ask an Abracon representative about our newly released Antennas for IoT applications.



AMCA31-2R450G-S1F
Miniature Chip Antenna
Provides an average -1dBi of gain over 2405 MHz to 2495MHz in a compact 3.2x1.6x1.2mm and is ideal for IoT and wearables using Bluetooth, WiFi or Zigbee protocols.



APAM1866YA18
GPS Active Patch Antenna
Gain of 2.0dBic and LNA gain of 28dB with a footprint of 18.0 x 18.0 x 7.0mm. Applications include automotive navigation, surveying, and RTLS.



APAMPSLJ-140
External Active Multiband Antenna
Covers all the 4G/LTE bands in addition to GPS, GLONASS, 3G, and WiFi/Bluetooth. Ideal for gateways, routers, access points, M2M, RTLS, and location tracking.

Patch Antenna Tuning Service

Abracon offers an Antenna Optimization service for customers wishing to maximize the performance of the antenna in their application.

The antenna service includes:

- A complete test report with center frequency and gain measurements.
- Recommendations for custom part numbers for production, if applicable.

Contact your local representative for additional information on achieving the highest performance from your antennas.

Protocol	Antenna Type	Abracon Series or PN	Description	Dimensions (mm)	Features	Applications
2G/3G	Chip	ACAJ-109-T	Multiband Antenna	24.0 x 5.5 x 4.4	Passive Penta-Band (824MHz - 2170MHz) Covering GSM850, GSM900, DCS, PCS, & UMTS	GSM850/900MHz, DCS, PCS, UMTS, Embedded applications, M2M
	External	APAMPS-103	GSM Antenna	78 x 25 x 3.8	High Reliability/ Sensitivity Compact Size	GSM, GPRS, CDMA, UMTS, Vehicle Monitoring, RTLS, M2M
4G/LTE	External	APAMPSLJ-140	Multiband Antenna	196.0 x 38.0 x 13.8	Passive Multiband Blade Antenna (699MHz - 2690MHz) 4G/LTE, 3G, + GPS & GLONASS + WiFi/Bluetooth	Terminal Antenna for 2G / 3G / 4G and Cellular Gateways + WiFi, Wireless Routers, LTE, M2M
WiFi/Bluetooth/ ZigBee/BLE ISM	Chip	AMCA31-2R450G-S1F-T AMCA72-2R470G-S1F-T	WLAN/Bluetooth Antenna	3.2 x 1.6 x 1.2 7.0 x 2.0 x 1.0	Gain 0.5dBi (Peak) Power Handling 3W Max	WiFi (2.445GHz), Headsets, Ear pieces, industrial and home automation, wearables, VR/AR, set-top box
	External	APAMS-121 APAMB-J-135 APAMB-J-145	Dualband WiFi Antenna	86.0 x Ø10.0 54.4 x Ø10.0 Ø77.3 x 36.5	2.5GHz/5GHz Compact Size, Easy to install	Bluetooth/WiFi combo, routers, access, points, automation
	Patch	APAE868R2540JBDB2-T APAE915R2540ABDB1-T	868MHz EU 915MHz NA	25.0 x 25.0 x 4.0	RHCP Polarization Low VSWR	RTLS, logistics, inventory management, Industrial automation, gateway, access point
LPWA/ISM	Chip	ACAJ-110	Dualband Chip Antenna	9.0 x 3.0 x 1.2	Linear polarization with omnidirectional pattern Compact Size	LoRa/SigFox, Instrumentation, low power radio links, sensor networks, gateway, access point
GPS/GNSS (Navigation)	Passive Patch	APAE1575R1840AADB7-T APAE1590R2540AKDB1-T	Passive GPS Patch Antenna	18.0 x 18.0 x 4.0 25.0 x 25.0 x 4.0	Compact Size, pin type feed Low VSWR, RHCP Polarization	Navigation, surveying, health and medical monitoring
	Active Patch	APAMPGJ-141 APAM1268JLO2v2.0 (GPS only)	GPS/GLONASS Internal Active Patch	25.0 x 25.0 x 8.6 12.0 x 12.0 x 6.8	Internal Module with Pre-Filter and LNA Gain block High LNA Gain	Automotive Navigation, Tracking Systems, GPS, Geo Location, RTLS, navigation, tracking
	External Active	APAMPG-117 APAMP-111 (GPS only)	GPS+GLONASS Active Antenna	44.0 x 14.5 38.3 x 35.0 x 13.5	High gain of 5 dBic LNA Gain of 30 dB/31dB	
Satellite Communications	Patch	APAE1621R2540ABDD1-T	Iridium Patch Antenna	25.0 x 25.0 x 4.0	Gain of 4dBi Pin type feed	Global Mobile Satellite Voice and Data, global voip systems