

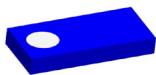
**Leading Innovator of  
Automotive Antenna Solutions**

*Customized & Catalog Antenna  
Products for*  
**4G/5G-FR1/GNSS/WiFi-6E/WPC.**



## EMBEDDED AND INTERNAL ANTENNAS FOR AUTOMOTIVE APPLICATIONS

Pulse embedded technologies results in robust board-mounted antenna designs making them exceptionally suitable solutions for small hand-held automotive solutions such as key-fobs, GPS tracking, NFC, BLE and Zigbee communication, security cameras, and WiFi applications. Pulse's internal FPC and PCB antennas are often connected by a cable and connector and can be customized and optimized for your automotive application. Common locations for these antennas can be fixed inside the mirror, under the dash, inside your wireless or tracking device, in the door handle, inside the radio and more.



**SMALLEST 2.4GHz antenna**  
ANT1608LL14R2400A  
1.6x0.8x0.4mm



**GPS, GLONASS PATCH:**  
W3223 - 25x25x4mm, Pin feed  
W3224 - 18x18x4mm,  
ANT2835BSOWTGNL5S -  
GNSS-L5 - 35x35x8mm



**ISM Coils**  
W3126 - 315 MHz  
and W3127 - 433MHz



**FPC Multi-bands**  
W3915 (3G/GPS)  
W6114B0100 - 2x2 MiMo 5G-  
FR1/WiFi-6E



**Ceramic Chips**  
W3006, W3078, W3095



**PCB antenna**  
W3315B0100 and W3593B0100  
NFC/BLE: W5100, W5101

# EXTERNAL AND OUTDOOR ANTENNAS FOR AUTOMOTIVE APPLICATIONS

Pulse manufacture a diverse line of outdoor automotive antennas. Our ruggedized, built-to-last antennas cover frequencies 136 MHz to 7.1 GHz, including multi-bands, 5G-FR1, Wi-Fi, GNSS (GPS) and also wireless power charging coils. Most antennas are available in a variety of mounting styles including NMO, direct, glass, and magnetic mounts, and in many different form factors such as low profile, stealth blade, low profile transit, and whips. Pulse is a leader in automotive aftermarket antennas and has been a main supplier to large Automotive OEM's for decades.

## Multi-Band Modules : 5G-FR1/LTE/GNSS, WiFi



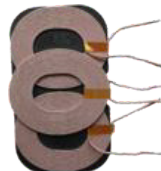
**LPT600/71 Series**  
5G-FR1, WiFi-6E  
All Key Mounting  
Options Available  
No Ground Plane  
Version Available



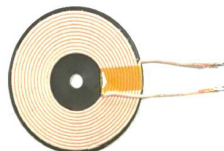
**Jaguar Series**  
5GGNSSLPMB401  
5G-FR1, WiFi-6E, GNSS  
Low profile - adhesive mount



**Panther Series**  
PAN5G62311DM  
5G-FR1, WiFi-6E, GNSS  
Direct Mount  
Custom Configuration Available



**WMRT399A-0**



**WMRT149A-1**

**Magnetic coil TX and RX Anti-freeze plate and coil**  
High efficiency with/without ferrite  
Ultrathin and compact design

QI international Standard compliant



**Low Profile Vehicle**  
SLPT698/2170DMN (LTE)  
SLPT2400/5900DMN (Dual WiFi)



**Shark Fin Series**  
SKF5G62311DM  
5G-FR1, WiFi-6E, GNSS  
Smallest in market



**Twin Castle Series**  
TWC94411DM  
4x4 MiMo 5G,FR-1,  
4x4 MiMo WiFi-6E, GNSS

## CUSTOMIZATION

Choose Pulse for World Class design, test and manufacturing of high reliability antennas systems to give you the best connectivity between you, your car and the World!

## Other Great Products from Pulse Electronics



**Embedded Antennas Ceramic/Helical/FPC/Stamped**

Embedded ceramic chip and patch, composite, Helical, FPC and Stamp metal antennas for effective miniaturization and simplicity



**3D Antennas LDS/LAP/FluidANT**

Get Inspired of 3D Shapes by using LDS, LAP & FluidANT antenna design and manufacturing process.



**Internal Antennas FPC/PCB/NFC/WPC/LCP Antennas**

Pre-optimized performance with common plastic housing. Compact dimensions and adhesive mount. Providing high efficiency solutions of NFC and WPC compliance



**External/ In-Building Antennas**

Reliable blade/ stick antennas for routers & gateways. Cutting edge design and performance proven DAS antennas for in-building wireless and public-safety.



**IPD RF Components - LTCC**

LTCC based BPF, LPF, Balun, Diplexer, Triplexer, Balanced BPF, and Coupler



**Outdoor Antennas**

Weather proof portable and fixed outdoor antennas for portable radio and data collecting purposes.



**Vehicular Antennas**

Extensive ruggedized, tamper-proof and aesthetically pleasing legacy Larsen and multiband antennas for public safety, transportation, and other applications.



**Cable & Mounting Solutions**

Support NMO and various mounting types with custom cable types and connector selections.