

Product Applications – Automotive



3D MID (LDS) PARTS

- Sensor Circuits
- Exterior Light Circuits
- Interior Light Circuits



ANTENNAS

- Cellular
- GNSS
- SDARS
- V2X



CABLES

- Control Panel/Meter Signal
- Internal Cable Harness
- EV High Current



WIRELESS CHARGING

- Integrated In-cabin Tx
- Retrofit In-cabin Tx



CONNECTORS

- High Current Connector
- EV Charging Plug



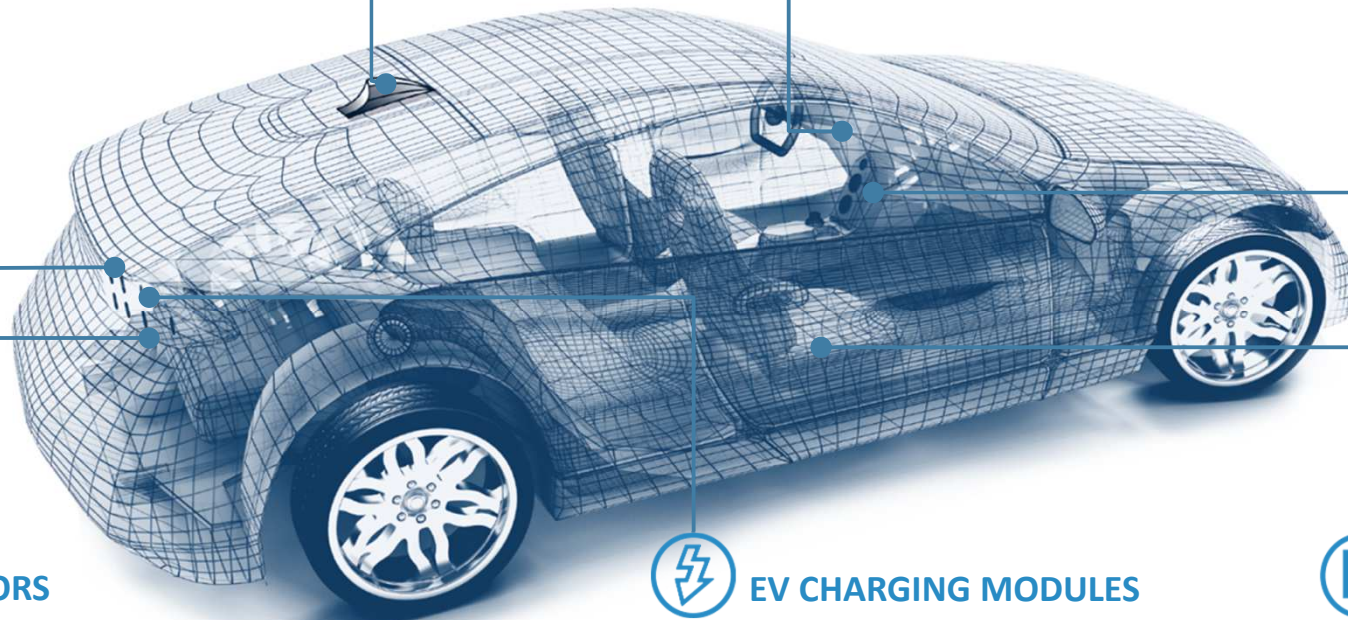
EV CHARGING MODULES

- Power Distribution Unit
- Battery Distribution Unit

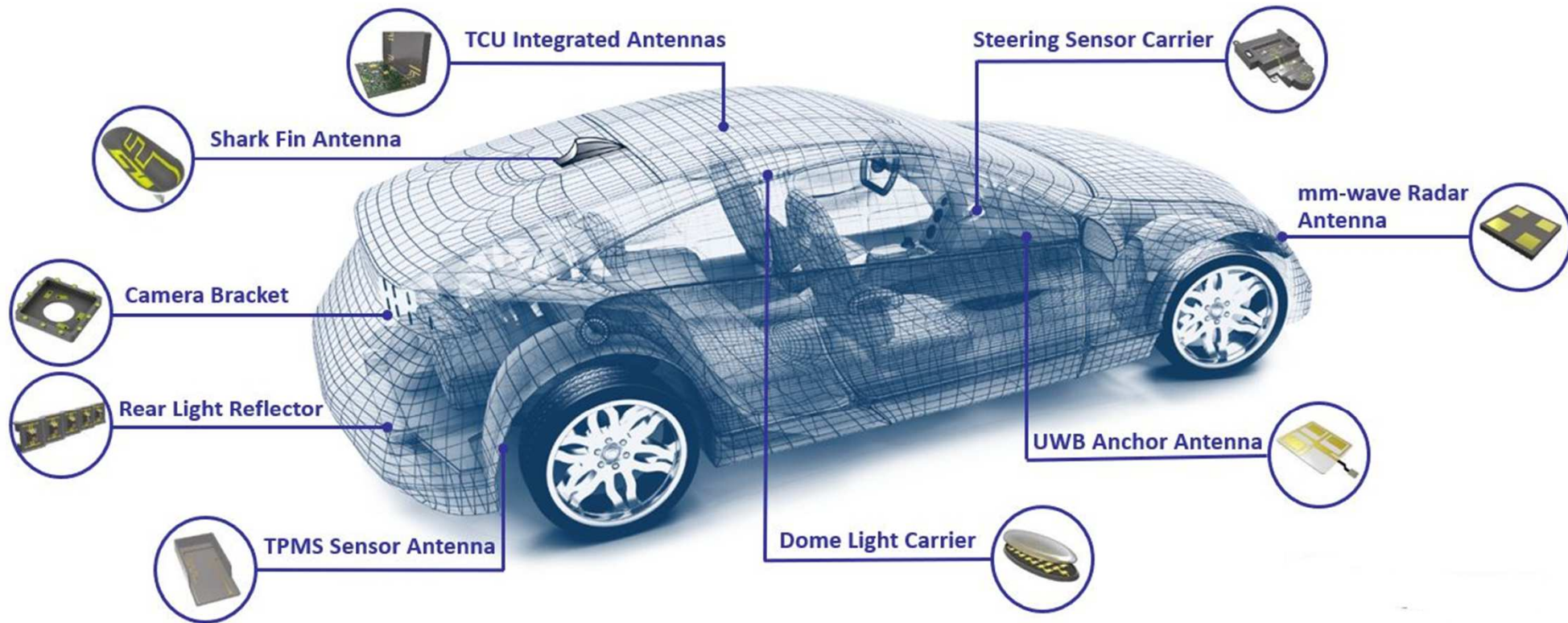


MIM PARTS

- Mechanisms
- Turbo Vanes



3D-MID Application Examples in Automotive



CHARGING

In-cabin Tx
In-cabin Tx

• EV Charging Plug

• Battery Distribution Unit

• Turbo Vanes

Products – Automotive

In-cabin Tx Charger

5 W

15 W



4G LTE Antenna



Passive Keyless Entry
Antenna



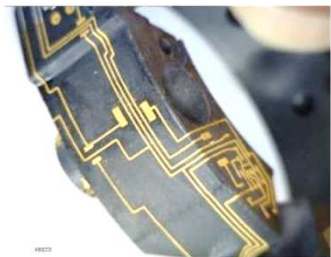
TCU Integrated Antennas



eCall LDS Antenna



Sensor Frame



Line width 120 μ m

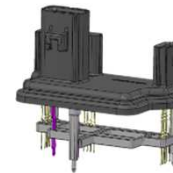
LDS Sharkfin
Antenna



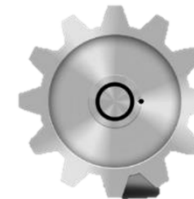
Internal
Assembly Harness



Customized
Connector



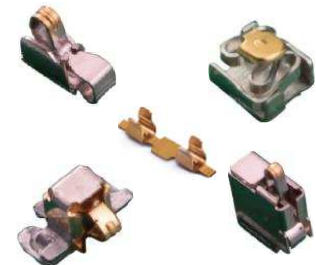
MIM Gear



Shield Cans



RF and DC SMT contacts



Example 3D-MID Module

- Twist shifter (1)
- Wireless charging (2)
- 3D-MID module (3) integrates following functions:
 - Capacitive switch
 - Antennas
 - LEDs
 - Electronic circuit
 - Connector

