

Pulse Electronics' Solution Overview for Vehicular Applications

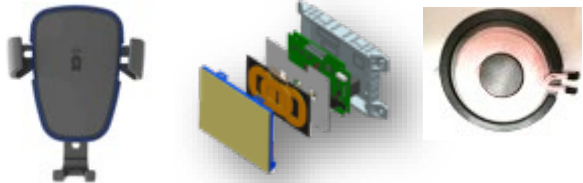
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Pulse Wireless Solution Overview for Vehicular Applications

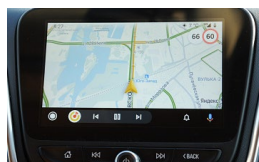
■ Wireless Charge Coil

- Frequency [KHz]: 100
- Inductance (uH) : 11.5+/-10%
- AC Resistance (mΩ) : 80mΩ Max
- Efficiency : for 5W>72%; for 10W>80%;for 15W>83%
- Demo: IDT 9242&9221



■ Infotainment / Navigation System

- GNSS:GPS/GLONASS/BeiDou/Galileo/BT/Wi-Fi



■ SDARS Audio

- Antenna: Patch type
- Series : 2300(2320-2345MHz)



■ Telematics Control Unit (TCU)-Navigation

- Antenna: Patch type
- Series: GNSS, GNSS L/L2, GNSS L1/L5
- Size: 18184 / 25252/ Stacked Patch 1825, 2535
- Special requirement: Axial Ratio: AR <5



■ Wireless Remote Starter

- 868-915MHz



■ Key Fob & Anchor module

UWB

- Antenna: Chip type
- Series : 6580(6.2-8.2GHz)
- RF Components : Band Pass Filter
- Series : 6580(6.2-8.2GHz)

BLE

- Antenna: Chip type
- Series : 2400(2400MHz)

ISM

- 433, 315,
- LDS or FPC
- Customized integrated antenna



■ Security System- Anti theft

- ISM868/915, 2G/3G/4G/5G-FR1



■ W-BMS

- ISM 2.4GHz Mesh



■ T-box/I-Box

- Antenna: Integrated stamped metal/ Multiport combo type
- Series: 5G-FR1/ LTE, Wi-Fi 6E, GNSS L1/L2/L5
- Panther & Armadillo R-10 certified

■ E-Call

- 2G/3G/ 4G LTE



■ Short-Range Communications

- DSRC/RFID/NFC/V2V/V2X



■ Rearview Mirror

- 3G/ 4G LTE/ 5G NR



■ TPMS

- Antenna: Chip/ Stamped metal type
- Series : 0433(433MHz), 2400(2400MHz)



■ EV Charging Station

- Antenna: Chip antenna or Multiport antenna
- Series : 0315(315MHz), 0433(433MH), 2400(2400MHz) or 5G FR1/4G LTE/ WiFi6E/GNSS



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Application	Series	Type	Description	Pulse Parts Number	Remark
WPC	Antenna	Coil+ Ferrite	QI Standard A11 Single Transmit	SWM1350	Available
		Coil+ Ferrite	QI Standard A13 Triple Transmit	SWM1390	
Navigation/TCU/Infotainment	Antenna	Ceramic Patch	GNSS/25*25*4mm	ANT2525B00FTGNSSS	Available
		Ceramic Patch	GNSS/18*18*4mm	ANT1818B00FT1575S	
		Active Patch	GNSS/30*30*8mm	GPSGB2530	
		External Active	L1+L5/60*48*19mm	W4065	
		Ceramic chip	WIFI2.4/BT/3216	W3043	
		FPC+cable	WIFI 2.4+5G/35*8.5mm	W3918B0100	
Wireless Heating	Antenna	Stealth blade	LTE4G/109*26mm	W1991	Available
Side Mirror-LTE	Antenna	Stealth blade	LTE4G/110*26mm	W6100	Available
Key Fob&Anchor module	Antenna	Ceramic chip	UWB/3216	ANT3216LL00R6580A	Available
		Ceramic chip	UWB/1608	ANT1608LL00R6580A	
		Ceramic chip	WIFI2.4/BT/2012	ANT2012LL00R2400A	
		Ceramic chip	433/1204	ANT1204LL20R0433V	
		FPC+cable	UWB/35.6*35.6*3mm	SWA428U	
	RF Component	Band Pass Filter	BPF/2012	BPF2012LKAMR6580A	
Short-Range/Communication	Antenna	FPC+Ferrite	NFC/90*16mm	W3800	Available
		Ceramic chip	V2X/V2V/3216	W3004	
	RF Component	Band Pass Filter	BPF/1608	BPF1608LRPRR5000L	
All parts can be customized per the customer's requirement/specification.					

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Application	Series	Type	Description	Pulse Parts Number	Remark
T-box/I-Box	Antenna	Metal stamping	LTE4G/51.3*12.7*16.9mm	W3470	Available
		Composite PCB	LTE4G/40*7*3mm	W3796	
		Multiport-combo	5G-FR1+WiFi-6E+GNSS L1+L2	SKF5G62311DM	
		Multiport-combo	2*MiMo LTE+3*MiMo WiFi+GNSS	PAN62311DM	
		Multiport-combo	5G FR1/ WiFi /GNSS Low Profile	ARM5G62311DM	
SDARS Audio	Antenna	Ceramic Patch	2320-2345MHz/18*18*4mm	ANT1818B003T2300S	Available
		Ceramic Patch	2320-2345MHz/25*25*4mm	ANT2020B00FT2300S	
TPMS	Antenna	Ceramic chip	BLE/BT/3216	ANT3216LL11R2400A	Available
		Ceramic chip	ISM433/12*4mm	ANT1204LL20R0433A	
		Ceramic chip	ISM315/12*4mm	ANT1204F002R0315A	
	RF Component	Band Pass Filter	LPF/2012	LPF2012LM50R0433A	
W-BMS	Antenna	Ceramic chip	WIFI2.4/3216	ANT3216LL00R2400A	Available
		Composite PCB	WIFI2.4/3216	W3151	
Security System	Antenna	Helical	ISM315/35.5*9.9mm	W3126	Available
		FPC+ cable	LTE4G/115*20mm	W3907B0100	
Battery Charge	Antenna	Metal Stamping	LTE4G/48*9.5*12mm	W3456	Available
		Ceramic chip	GNSS/7*1.6*1.1mm	W3000	
		Ceramic chip	WIFI2.4+5G/10*3.2*1.6mm	W3006	
		Multiport-combo	LTE4G*2+WIFI*2+GNSS	W1866	
		Multiport-combo	LTE*1+WIFI*1	W1865	

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