

Pulse Electronics' Wireless Solution for Robotics

12/3/24



Pulse Wireless Solution Overview for Robotics

■ Position/Navigation System

- Antenna: Ceramic patch/chip
- Series: GNSS passive/active type/UWB



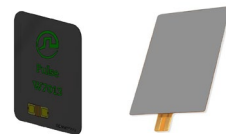
■ Wireless charge coil

- Frequency [KHz]: 125
- Power: >100W
- Efficiency: > 80%
- Charge distance: 8mm



■ Short-range communication

- NFC antenna
- Frequency range: 13.56MHz
- Antenna type: FPC/PCB+ Ferrite



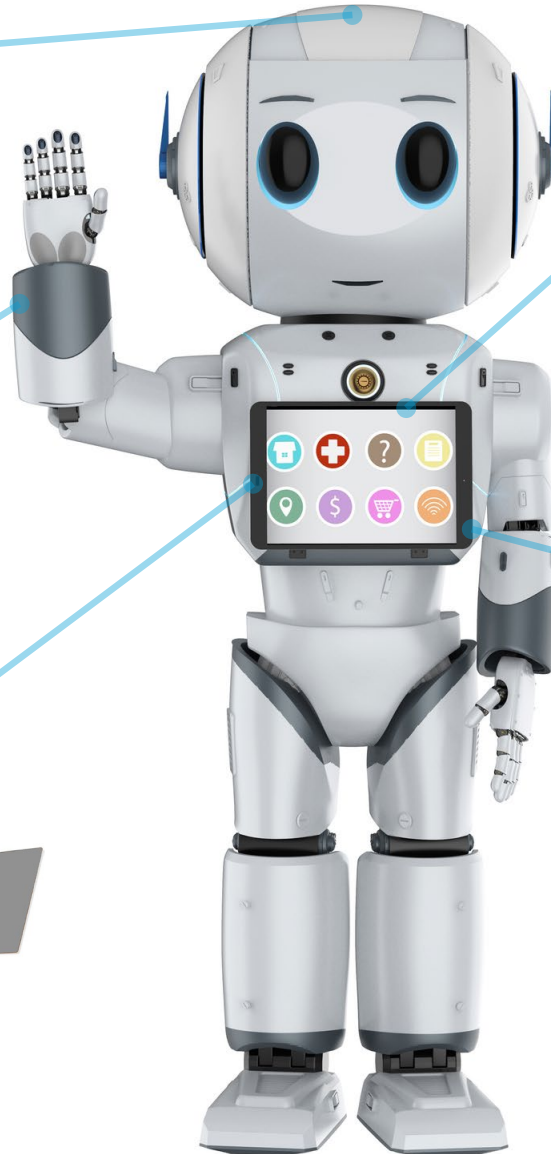
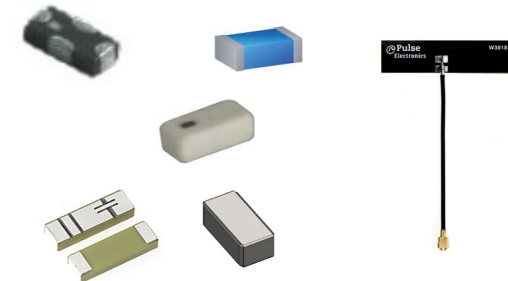
■ Communication networking

- Antenna: Composite PCB/ FPC+ cable/Metal stamping
- Series: 5G-FR1/ LTE4G/Lora
- RF Component: LTCC LPF/BPF/DPX/TPX
- Series: 5G-N77/N79/ LTE/Lora



■ WIFI/BT networking

- Antenna: Chip/FPC+ cable
- Series: WIFI2.4/5G/6E
- RF Component: LTCC BPF/DPX
- Series: WiFi 2.4/5/6E



Pulse Wireless Solution Overview for Robotics



■ Field mower

□ Antenna

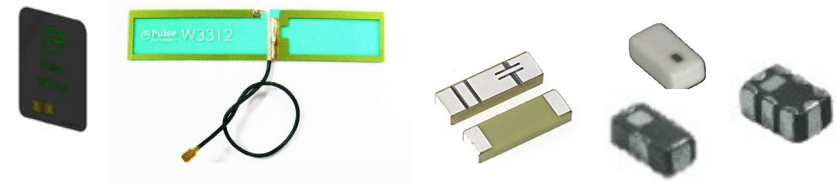
- LTE4G : 698-960/1710-2690MHz
- Lora: 433/470-510/863-873/902-928MHz
- WIFI/BT: 2400-2500MHz/4900-7125MHz
- NFC: 13.56MHz
- GNSS/RKT: L1+L2+L5
- WPC: 125KHz
- Type: FPC + cable/PCB/ceramic/FPC+ Ferrite/External RTK
- RF Component: LTCC LPF/BPF/DPX/TPX
- Series: 5G-N77/N79/ LTE/Lora



■ Robert Cleaner

□ Antenna

- LTE4G : 698-960/1710-2690MHz
- Lora: 433/470-510/863-873/902-928MHz
- WIFI/BT: 2400-2500MHz/4900-7125MHz
- NFC: 13.56MHz
- GNSS: L1
- UWB: 6.5-8GHz
- WPC: 125KHz
- Type: FPC + cable/PCB/ceramic/FPC+ Ferrite/GPS Patch
- RF Component: LTCC LPF/BPF/DPX/TPX
- Series: 5G-N77/N79/ LTE/Lora



Application	Series	Type	Description	Pulse Parts Number	Remark
Commuciation network	Antenna	Composite PCB	698-2700/40*7*3mm	W3796	Available
		FPC+cable	5G NR/116*30*0.1mm	W3435B0100	
		FPC+cable	698-2700/61*20*0.4mm	BTPA0061204G0C4Axx	
		Ceramic chip	ISM868/915MHz/10*3.2*1.5mm	W3014	
		FPC+cable	ISM868/915MHz/75*15mm	W3312B0100	
		Stick Type	824-960/1710-2170MHz/50*12mm	W1910-M	
		LPT Type	5G NR/96*41mm	LPT600/71DMN	
	RF Component	LTCC, LPF	698~960MHz ,1.0 * 0.5 mm	LPF1005LRRKR0709L	
		LTCC, LPF	698~960MHz ,1.6 * 0.8 mm	LPF1608LWCNR0709L	
		LTCC, LPF	1400~2690MHz ,1.6 * 0.8mm	LPF1608LKRBR1827L	
		LTCC, BPF	3300-4200MHz ,1.0 * 0.5 mm	BPF1005LRPKR3750A	
		LTCC, BPF	3300-4200MHz ,1.6 * 0.8 mm	BPF1608LRPBR3750L	
		LTCC, BPF	4400~5000MHz ,1.0 * 0.5 mm	BPF1005LRQLR4700A	
		LTCC, BPF	4400~5000MHz ,1.6 * 0.8 mm	BPF1608LRAAR4700L	
		LTCC, BPF	5150~5950MHz ,1.6 * 0.8 mm	BPF1608LRPSR5000L	
		LTCC, DPX	3300~3800/4400~5925MHz ,2.0 * 1.2 mm	DPX2012LKWCR3600L	
		LTCC, DPX	617~960/1427~2750MHz ,2.0 * 1.2 mm	DPX2012LKWPR0920A	
		LTCC, TPX	617~960/1427~2690/4400~5000MHz ,2.5 * 2.0 mm	TPX2520LKTHR0913L	
WIFI/BT networking	Antenna	Ceramic chip	BT/Zigbee/WIFI2.4G/3216	ANT3216LL00R2400A	Available
		Ceramic chip	BT/Zigbee/WIFI2.4G/3216	W3008C	
		Ceramic chip	BT/Zigbee/WIFI2.4G/5320	ANT5320LL45R2400A	
		Ceramic chip	WIFI dual band/10*3.2*1.5mm	W3006	
		FPC+cable	WIFI2.4+5G/42.6*8.6mm	W3917B0100	
	RF Component	LTCC, BPF	2400~2500MHz ,1.0 * 0.5 mm	BPF1005LRABR2400L	
		LTCC, BPF	2400~2500MHz ,1.6 * 0.8 mm	BPF1608LRAGR2400L	
		LTCC, DPX	2400~2500/5150~7125MHz ,1.6 * 0.8 mm	DPX1608LKE7R2460A	
Short range commucaition	Antenna	FPC+cable	13.56MHz/43*34mm	W7000	Available
		FPC+ Ferrite	13.56MHz/35*50*0.3mm	W3579	
		FPC	13.56MHz/25*25mm	W7021	
Position/Navigation System	Antenna	Passive Patch	GNSS/25*25*4mm	ANT2525B00FTGNSSS	Available
		Active Patch	GNSS/30*30*8mm	GPSGB2530	
		RKT	L1+L2+L5/190*82.4mm	SWA4418	
		Ceramic chip	6.5-8GHz/3.2*1.6*1.1mm	ANT3216LL00R6580A	
WPC	Antenna	Coil+ Ferrite	QI Standard A11 Single Transmit	SWM1350	Available
All parts can be customized per the customer's requirement/specification.					



YAGEO GROUP

Built into Tomorrow

Thank you! 謝謝你!

in X @ f

WWW.YAGEO.COM