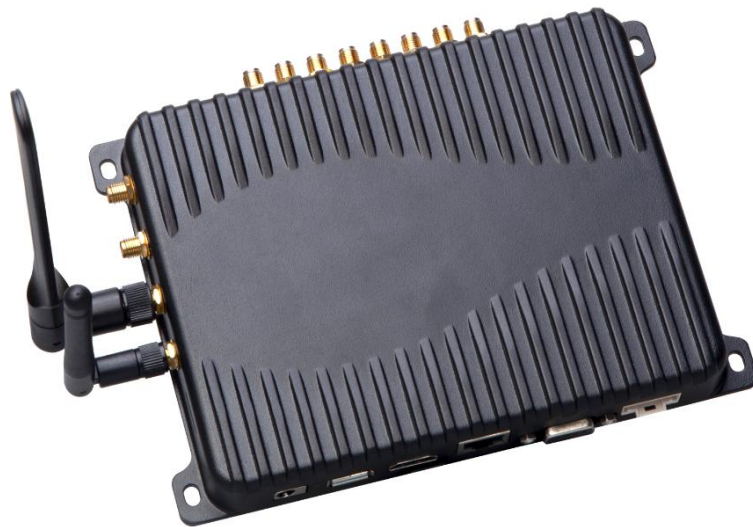


Ex10 Android OS Fixed Reader(8-Port)



Model: RRU7189AOS-SC

Size: 180mm×135.5mm×25mm

Weight: 558g

GENERAL DESCRIPTION

RRU7189AOS-SC is designed on IMPINJ E710 chip with Gen2 Extension ready. It maximizes anti-collision capability and embeds Android 10 OS platform with abundant peripheral interfaces. It is best choice for high-end RFID system in fields such as warehousing, logistics, apparel, production lines and retail.

FEATURES

- Independent intellectual property rights (IPR) protected design;
- 865~868MHz/902~928MHz frequency band(frequency customization optional);
- Impinj E710 based design, fully supports EPC CLASS1 G2 protocol tag;
- Capable for both Frequency Hopping Spread Spectrum (FHSS) transmission and fixed-frequency transmission;
- Supports RSSI;
- Maximum inventory speed* up to 1000pcs/s;
- SMA sockets for 16 external antennae ;
- 8 cores 64-bit ARM Cortex-a55 (UIS8581E) processor based, multi-network system intelligent LTE Cat4 module, 1.6G basic frequency, PowerVR Fentale GE8322 high-performance graphics engine and NEON multimedia processing engine;
- Android10.0 OS;
- Memories: 2GB LPDDR3 + 16GB EMMC / 4GB LPDDR3 + 64GB EMMC (optional);
- Supports 4G networks (capable with all network modes) with main and secondary 4G antenna ports;
- Supports Bluetooth 4.0;
- Supports GPS positioning;
- HDMI D Type port, supports up to 5GB/s transmission speed and 1920x1080P HD video signal output;
- Supports USB 2.0 OTG;
- Supports 100M / 10M auto-negotiation network ports;
- Supports RS232 interface;
- Low power consumption design, single +9V ~ 24V power supply;
- Supports multi-channel isolated GPIO ports (4 inputs and 4 outputs), isolated voltage $V_{RMS} > 3kV$;
- Supports firmware online update, and SDK is provided for secondary development;
- Compact design with IP43 standards, capable for various applications.

CHARACTERISTICS

● Absolute Maximum Rating

ITEM	SYMBOL	VALUE	UNIT
Supply Voltage	VCC	30	V
Operating Temperature	T _{OPR}	-20~+65	°C
Storage Temperature	T _{STR}	-40~+85	°C
Humidity	H	<95% (+25°C)	%RH

● Electrical and Mechanical Specification

Under T_A = 25°C, VCC = +13.6V unless otherwise specified.

1. Electrical characteristics

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Supply Voltage	VCC	9	13.6	24	V
Current Consumption	I _c		1.5	2.5	A

2. UHF RFID parameters

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
RF working frequency	Freq		865~868(ETSI) 902~928(FCC)		MHz
RF output frequency	Prf	5		33	dBm
Receiver sensitivity	Sr		-87		dBm

3. Mobile communication parameters

PARAMETER	SYMBOL	DESCRIPTION
Frequency band	Fb	LTE-FDD: B1 B3 B5 B8 LTE-TDD: B34 B38 B39 B40 B41 WCDMA: B1 B8 GSM/EDGE: 900/1800 MHz
Transmission power	TPrf	Class 4(2W) Class 1(1W) Class 3(0.25W):Pmax< 23dBm
Data rate	Dbr	LTE Downlink: 150Mbps LTE Uplink: 50Mbps HSDPA: 42.2Mbps HSUPA: 11.5Mbps TD-HSDPA: 2.8Mbps
SIM card	SC	SIM/USIM card, rated voltage: 1.8V, 3V

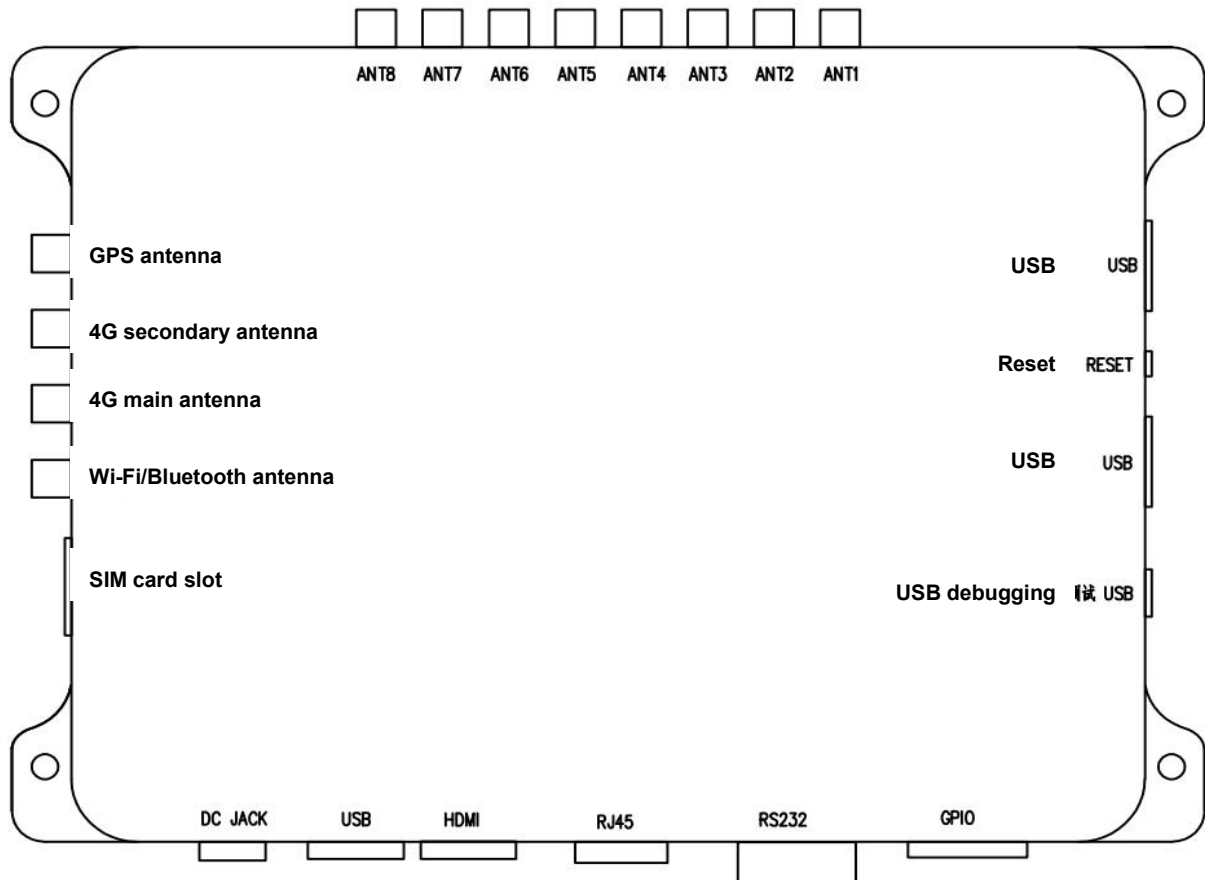
4. Wi-Fi / Bluetooth parameters

PARAMETER	DESCRIPTION
Wi-Fi	Wireless standards: 2.4/5GHz 802.11 b/g/n/a Security: WPA WPA/WPA2 Output power: Pmax <20dBm
Bluetooth	Bluetooth characteristics: V2.1+EDR, 3.0+HS, V4.0+HS Receiver sensitivity: GFSK -94dBm, DQPSK -93dBm, 8-DPSK -87.5dBm

5. GPS parameters

PARAMETER	DESCRIPTION
GPS	Frequency: 1575.42MHz Carrier to Noise Ratio(CNR): 41db/Hz Sensitivity: -163dBm

INTERFACE



1. GPS antenna
2. 4G network secondary antenna
3. 4G network main antenna
4. Wi-Fi / Bluetooth antenna

5. 4G network SIM card slot

6. DC power supply jack

PIN	SYMBOL	DESCRIPTION
Central	PWR	+9V ~ +24V DC
Outer	GND	Ground

7. USB port

8. HDMI port

9. TCP/IP network port (RJ45)

10. RS232 serial COM port (DB9 Female)

ITEM	SYMBOL	DESCRIPTION
1	NC	Reserved
2	TXD	Serial COM transmitter
3	RXD	Serial COM receiver
4	NC	Reserved
5	GND	Signal ground
6	NC	Reserved
7	NC	Reserved
8	NC	Reserved
9	NC	Reserved

11. GPIO port

12. Debugging / download USB port

13. USB port

14. System reset button

15. USB port

16. SMA antenna ports (ANT1 ~ ANT8)

Remark:

1. Specifications are subject to change, please pay attention to our latest one.

2. Shenzhen RoyalRay Science and Technology Co., Ltd. reserves the right to the final interpretation of the above terms.