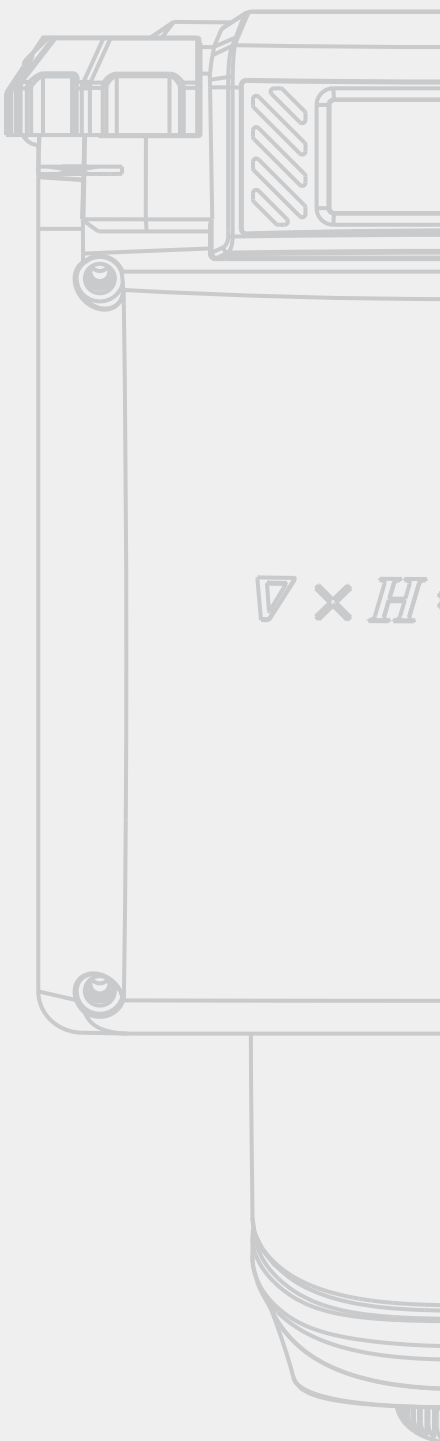


RODINBELL

Product Brochure



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Orca 50

Handheld Data Terminal



Iconic and Classic model

Orca 50 Air

Handheld Data Terminal



New air medium antenna technology

30% Performance improved



1. Advantages



High Performance Computing Platform

Powerful hardware configurations to ensure applications like massive data collection, 3D real-time display can be operated smoothly.



Android 6.0

Android 6.0 OS, keep optimizing and updating.



Top Class Materials

CNC aluminum, PC+ABS (SABIC) body with 1.1mm thickness tempered glass offer excellent strength + heat dissipation + electromagnetic shielding features. Soft material around the handle offers a comfortable grip.



Industrial Grade Components

Industrial and military grade components ensure stability and endurance in harsh environment.



Ultra Long Operating Time

Pistol style hot-swappable battery system makes backup battery more convenient to be restored, so that the operating time is unlimited.(extra batteries are available)



High-end UHF RFID Engine

Equipped with self-developed Rodinbell M-2600 module based on Impinj R2000 chip, offering the best performance and excellent multi-tag identification ability in the industry.



Outstanding Industrial Design

The idea was inspired by orca, and each single detail has been well refined. The appearance is compact, elegant and balanced, which makes the product eye-catching and impressive.



Excellent Mechanical Protection

Safety drop height 1.6m. With IP64 protection grade to resist dusts and splashes effectively.

2. Product view



Orca 50



Orca 50 Air

3. Performance comparison

Orca 50	
Size : 160mm*82mm*129mm	Weight : 640g
 Read Distance > 7m (The test label : Impinj E41b)	
Orca 50 Air	
Size : 167mm*82mm*129mm	Weight : 580g
 Read Distance > 10m (The test label : Impinj E41b)	

4. Product color



Beige



Black

5. Electrical Parameters

Mechanical parameters

Materials	CNC aluminum, PC + ABS (SABIC)
Dimensions	50/ 50 Air : 160/ 167*82*129mm Grip 111*38*47mm
Weight	50/50 Air : 640g/ 580g (battery included/standard version)

System Characteristics

Operating System	Android 6.0
CPU	Quad-core Cortex-A17 / 1.8 GHz
GPU	ARM Mali-T764/High performance 3D engine
RAM +ROM	2G+32G 4G+64G Optional✓
LCD	5.0 inches/ 1280*720 / IPS / 180°view angle
Touch Screen	1.1 mm thickness tempered glass/ 10- dot touch / operable with gloves
Hotswapping Battery Buttons	Pistol style hotswapping battery system
Power / Volume	3 ALPS buttons/ Operating force 2.5N / Operating life 1 million cycles
Scan Trigger	OMRON button / Operating force 1.27N/ Operating life 10 million cycles
Power	6,000mAh chargeable li-polymer battery
Card Slots	Nano SIM card slot*1 / TF card slot*1
USB Interface	Micro USB / MOLEX connector /Operating life 10,000 cycles
Audio	Large speaker stereo system
Vibration	Button style / 10mm diameter
Charge Indicator	Bicolor LED

Wireless Communications

WIFI	IEEE802.11b / g / n
Bluetooth	Bluetooth 4.0
4G	Supported Optional✓

Application Environment

Operating Temp	-20°- +60°
Storage Temp	-30°- +70°
Humidity	5%RH - 95%RH (non -condensing)
Protection Grade	IP64
Safety Drop Height	2 m / 6.56ft

Data Collections

1D Barcode	Optional✓
Engine	Motorola EM1350
Support	UPC/EA Symbol SE955N/Code128/ Code39/Code93/Code11/ Interleaved 2 of 5/ Discrete 2 of 5/ Chinese 2 of 5/Codabar/MSI/ RSS.etc.

2D Barcode	Optional✓
Engine	Zebra SE4750, NLS EM3396, EM3296
Support	Data matrix / QR Code / PDF417 / US Planet / UK Postal, etc.

UHF RFID	
Engine	Rodinbell M-2600 module based on Impinj Indy R2000 chip
Buzzer	Ø 12*9.5mm / 2300±300Hz
Protocol	EPC Global UHF Class 1 Gen 2 / ISO 18000-6C / ISO 18000-6B
Frequency	902-928MHz , 865- 868MHz Optional✓
Output Power	0~33dBm
Peak Inventory Speed	> 500 tags /s
UHF Antenna	50 : 3dBi ceramic antenna 50 Air : 4dBi air medium antenna
Read Distance	50 : > 7m 50 Air : > 10m
Supported Regions	US, Canada and other regions following US FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia

Camera	Optional✓ 13 megapixels/ automatic focus/ flashlight
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Global positioning system	GPS&GLONASS
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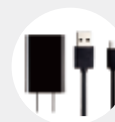
Accessories



Battery



Desktop charger



Charger and
Data cable



Hanging Lace

Orca 50 Lite

Handheld Data Terminal



1. Advantages



High Performance Computing Platform

Powerful hardware configurations to ensure applications like massive data collection, 3D real-time display can be operated smoothly.



Android 6.0

Android 6.0 OS, keep optimizing and updating.



Top Class Materials

Cast Aluminium, PC+ABS (SABIC) body with 1.1mm thickness tempered glass offer excellent strength + heat dissipation + electromagnetic shielding features. Soft material around the handle offers a comfortable grip.



Industrial-grade components + super long life cycle

Industrial-grade and military-grade components ensure stable operation in harsh environments. Over ten years of supply can be offered, which provides guarantee for the long term projects.



Ultra Long Operating Time

Pistol style hot-swappable battery system makes backup battery more convenient to be restored, so that the operating time is unlimited.(extra batteries are available)



High-end UHF RFID Engine

Equipped with self-developed Rodinbell M-2600 module based on Impinj R2000 chip, offering the best performance and excellent multi-tag identification ability in the industry.



Outstanding Industrial Design

The idea was inspired by orca, and each single detail has been well refined. The appearance is compact,elegant and balanced, which makes the product eye-catching and impressive.



Excellent Mechanical Protection

Safety drop height 1.6m. With IP64 protection grade to resist dusts and splashes effectively.

2. Electrical Parameters

Mechanical parameters			
Materials	Cast Aluminium+PC case		
Dimensions	167*82*129mm Grip 111*38*47mm		
Weight	615g (battery included)		
System Characteristics			
Operating System	Android 6.0		
CPU	Quad-core Cortex-A17 / 1.8 GHz		
GPU	ARM Mali-T764/High performance 3D engine		
RAM +ROM	2G+32G 4G+64G Optional✓		
LCD	5.0 inches/ 1280*720 / IPS / 180°view angle		
Touch Screen	1.1 mm thickness tempered glass/ 10- dot touch / operable with gloves		
Hotswapping Battery Buttons	Pistol style hotswapping battery system		
Power / Volume	3 ALPS buttons/ Operating force 2.5N / Operating life 1 million cycles		
Scan Trigger	OMRON button / Operating force 1.27N/ Operating life 10 million cycles		
Power	6,000mAh chargeable li-polymer battery		
Card Slots	Nano SIM card slot*1 / TF card slot*1		
USB Interface	Micro USB / MOLEX connector /Operating life 10,000 cycles		
Audio	Large speaker stereo system		
Vibration	Button style / 10mm diameter		
Charge Indicator	Bicolor LED		
Wireless Communications			
WIFI	IEEE802.11b / g / n		
Bluetooth	Bluetooth 4.0		
4G	Supported Optional✓		
Application Environment			
Operating Temp	-20°- +60°		
Storage Temp	-30°- +70°		
Humidity	5%RH - 95%RH (non -condensing)		
Protection Grade	IP64		
Safety Drop Height	2 m / 6.56ft		
Data Collections			
1D Barcode	Optional✓		
Engine	Motorola EM1350		
Support	UPC/EA Symbol SE955N/Code128/ Code39/Code93/Code11/ Interleaved 2 of 5/ Discrete 2 of 5/ Chinese 2 of 5/Codabar/MSI/ RSS.etc.		
2D Barcode	Optional✓		
Engine	Zebra SE4750, NLS EM3396, EM3296		
Support	Data matrix / QR Code / PDF417 / US Planet / UK Postal, etc.		
UHF RFID			
Engine	Rodinbell M-2600 module based on Impinj Indy R2000 chip		
Buzzer	Ø 12*9.5mm / 2300±300Hz		
Protocol	EPC Global UHF Class 1 Gen 2 / ISO 18000-6C / ISO 18000-6B		
Frequency	902-928MHz , 865- 868MHz Optional✓		
Output Power	0~33dBm		
Peak Inventory Speed	> 500 tags /s		
UHF Antenna	4dBi air medium antenna		
Read Distance	> 10m		
Supported Regions	US, Canada and other regions following US FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia		
Camera	Optional✓ 13 megapixels/ automatic focus/ flashlight		
Global positioning system	GPS&GLONASS		
Accessories			
			
Battery	Desktop charger Optional✓	Charger and Data cable	Hanging Lase

Orca 53

Handheld Data Terminal



Compact, robust, cost-effective

Orca 55

Handheld Data Terminal



Lighter and less power consumption



1. Advantages



High Performance Computing Platform

Powerful hardware configurations to ensure applications like massive data collection, 3D real-time display can be operated smoothly.



Android 6.0

Android 6.0 OS, keep optimizing and updating.



Industrial Grade Components

Industrial and military grade components ensure stability and endurance in harsh environment.



Ultra Long Operating Time

Pistol style hot-swappable battery system makes backup battery more convenient to be restored,so that the operating time is unlimited.(extra batteries are available)



Outstanding Industrial Design

The idea was inspired by orca, and each single detail has been well refined. The appearance is compact, elegant and balanced, which makes the product eye-catching and impressive.



Excellent Mechanical Protection

Safety drop height 1.2m. With IP64 protection grade to resist dusts and splashes effectively.

2. Product color

Orca 53



Beige



Black

Orca 55



Beige



Black

3. Electrical Parameters

Mechanical parameters	
Materials	Orca 53: CNC aluminum, PC + ABS (SABIC) Orca 55: PC
Dimensions	Orca 53: 150*122*70mm Orca 55: 141.7*70*122.9mm
Weight	Orca 53: 480g (battery included/standard version) Orca 55: 440g (battery included/standard version)
System Characteristics	
Operating System	Android 6.0
CPU	Quad-core Cortex-A17 / 1.8 GHz
GPU	ARM Mali-T764/High performance 3D engine
RAM +ROM	2G+16G 4G+64G Optional
LCD	4.7 inches/ 1280*720 / IPS / 180°view angle
Touch Screen	1.1 mm thickness tempered glass/ 5- dot touch / operable with gloves
Hotswapping Battery Buttons	Pistol style hotswapping battery system
Power / Volume	3 ALPS buttons/ Operating force 2.2N / Operating life 1 million cycles
Scan Trigger	OMRON button / Operating force 1.27N/ Operating life 10 million cycles
Power	6,000mAh chargeable li-polymer battery
Card Slots	Nano SIM card slot*1 / TF card slot*1
USB Interface	Micro USB / MOLEX connector /Operating life 10,000 cycles
Loud Speaker	Supported
Vibration	Button style / 10mm diameter
Charge Indicator	Bicolor LED
Wireless Communications	
WIFI	IEEE802.11b / g / n
Bluetooth	Bluetooth 4.0
4G	Supported Optional
Application Environment	
Operating Temp	-20°- +60°
Storage Temp	-30°- +70°
Humidity	5%RH - 95%RH (non -condensing)
Protection Grade	IP64
Safety Drop Height	1.2 m / 6.56ft

T-30

Back clip



1. Advantages



Top Class Materials

CNC aluminum, PC+ABS (SABIC) body offer excellent strength + heat dissipation + electromagnetic shielding features. Soft material around the handle offers a comfortable grip.



Bluetooth 5.0

Supports Bluetooth 5.0, faster transmission speed and longer connection distance.



Super stable fixed design of external equipment

The design of ultra-high stability mechanical knob is adopted to break the routine and ensure the high reliability of external equipment fixation.



High-end UHF RFID Engine

Equipped with self-developed Rodinbell M-2600 module based on Impinj R2000 chip, offering the best performance and excellent multi-tag identification ability in the industry.



Outstanding Industrial Design

The appearance is compact, elegant and balanced, which makes the product eye-catching and impressive.



Excellent Mechanical Protection

Safety drop height 1.6m. With IP64 protection grade to resist dusts and splashes effectively.



Industrial Grade Components

Industrial and military grade components ensure stability and endurance in harsh environment.



Ultra Long Operating Time

Pistol style hot-swappable battery system makes backup battery more convenient to be restored, so that the operating time is unlimited.(extra batteries are available)

2. Product View



3. Electrical Parameters

Mechanical parameters	
Materials	CNC aluminum, PC + ABS (SABIC)
Dimensions	162*138*78mm
Weight	520g (battery included/standard version)
System Characteristics	
Hotswapping Battery Buttons	Pistol style hotswapping battery system
Power	3 ALPS buttons/ Operating force 2.5N / Operating life 1 million cycles
Scan Trigger	OMRON button / Operating force 1.27N/ Operating life 10 million cycles
Power	6,000mAh chargeable li-polymer battery
USB Interface	USB TYPE C/Operating life 10,000 cycles
Audio	Large speaker stereo system
Charge Indicator	Bicolor LED
Application Environment	
Operating Temp	-20°- +60°
Storage Temp	-30°- +70°
Humidity	5%RH - 95%RH (non -condensing)
Protection Grade	IP64
Safety Drop Height	2 m / 6.56ft
Wireless Communications	
Bluetooth	Bluetooth 5.0
Data Collections	
1D Barcode	Optional✔
Engine	Motorola EM1350
Support	UPC/EA Symbol SE955N/Code128/ Code39/Code93/Code11/ Interleaved 2 of 5/ Discrete 2 of 5/ Chinese 2 of 5/Codabar/MSI/ RSS.etc.
2D Barcode	Optional✔
Engine	Zebra SE4750, NLS EM3396, EM3296
Support	Data matrix / QR Code / PDF417 / US Planet / UK Postal, etc.
UHF RFID	
Engine	Rodinbell M-2670-Air module based on Impinj Indy R2000 chip
Buzzer	Ø 12*9.5mm / 2300±300Hz
Protocol	EPC Global UHF Class 1 Gen 2 / ISO 18000-6C / ISO 18000-6B
Frequency	902-928MHz , 865- 868MHz Optional✔
Output Power	0~33dBm
Peak Inventory Speed	> 500 tags /s
UHF Antenna	4dBi air medium antenna
Read Distance	> 10m
Supported Regions	US, Canada and other regions following US FCC Europe and other regions following ETSI EN 302 208 China, Korea, Malaysia
Accessories	
   	
Battery Desktop charger Optional✔ Charger and Data cable Hanging Lace	

Lynx 20

Handheld Data Terminal



Simplicity wins, again.



1. Advantages



High Performance Computing Platform

Powerful hardware configurations to ensure applications like massive data collection, 3D real-time display can be operated smoothly.



Android 6.0

Android 6.0 OS, keep optimizing and updating.



Top Class Materials

CNC aluminum, PC+ABS (SABIC) body with 0.8mm thickness tempered glass offer excellent strength + heat dissipation + electromagnetic shielding features.



Industrial Grade Components

Industrial and military grade components ensure stability and endurance in harsh environments.



Magnetic Hotswapping Battery System

Pistol style hot-swappable battery system makes backup battery more convenient to be restored. 4,000mAh battery provides ultra long operating time.



Outstanding Industrial Design

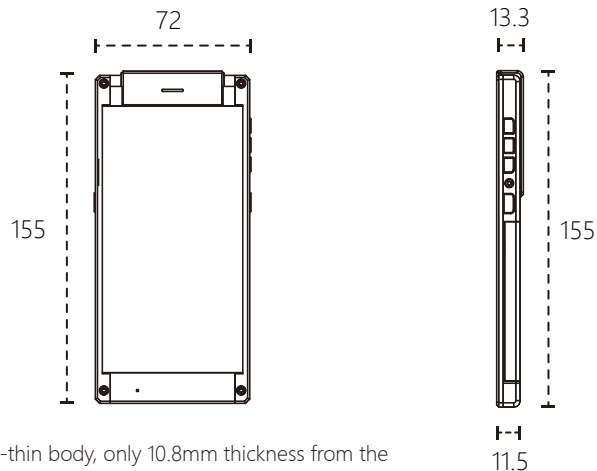
The idea was inspired by lynx, and each single detail has been well refined. The appearance is compact, elegant and balanced, which makes the product eye-catching and impressive.



Excellent Mechanical Protection

Safety drop height 1.2m. With IP64 protection grade to resist dusts and splashes effectively.

2. Dimensions (mm)



3. Electrical Parameters

Mechanical parameters

Materials	CNC aluminum, PC + ABS (SABIC)
Dimensions	155*72*13.3mm
Weight	260g (battery included/standard version)

System Characteristics

Operating System	Android 6.0
CPU	Quad-core Cortex-A17 / 1.8 GHz
GPU	ARM Mali-T764/High performance 3D engine
RAM +ROM	2G+16G 4G+64G Optional✓
LCD	5.0 inches/ 1280*720 / IPS / 180°view angle
Touch Screen	0.8 mm thickness tempered glass/ 5- dot touch / operable with gloves
Hotswapping Battery Buttons	Magnetic style hotswapping battery system
Power / Volume	3 ALPS buttons/ Operating force 2.5N / Operating life 1 million cycles
Scan Trigger*2	2 ALPS buttons/ Operating force 1.6N / Operating life 5 million cycles
Power	4,000mAh chargeable li-polymer battery
Card Slots	Nano SIM card slot*1
USB Interface	Micro USB / MOLEX connector /Operating life 10,000 cycles
Speaker	Supported
Microphone	Digital HiFi Microphone
Vibration	Supported
Charge Indicator	Bicolor LED

Wireless Communications

WIFI	IEEE802.11b / g / n
Bluetooth	Bluetooth 4.0
4G	Supported Optional✓

Application Environment

Operating Temp	-20°- +60°
Storage Temp	-30°- +70°
Humidity	5%RH - 95%RH (non -condensing)
Protection Grade	IP64
Safety Drop Height	1.2 m / 6.56ft

Data Collections

1D/2D Barcode Optional✓

Engine	Zebra SE4710
2D	Data matrix/QR Code/PDF417/ US Planet/ UK Postal, etc
1D	UPC/EA Symbol SE955N/Code128/ Code39/Code93/Code11/ Interleaved 2 of 5/ Discrete 2 of 5/ Chinese 2 of 5/Codabar/MSI/ RSS.etc.

UHF RFID

Engine	Based on PHYCHIPS PR9200
Protocol	EPC Global UHF Class 1 Gen 2 / ISO 18000-6C
Frequency	902-928MHz, 865- 868MHz Optional✓
Output Power	18~26dBm
Peak Inventory Speed	> 50 tags /s
UHF Antenna	1dBi circularly polarized antenna
Read Distance	> 1m (tested with Impinj E41b inlay)
Supported Regions	US, Canada and other regions following US FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia

Camera Optional✓	13 megapixels/ automatic focus/ flashlight
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Global positioning system	GPS&GLONASS
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Accessories



Battery



Desktop charger



Charger &
Data cable



Hanging Lace

Lynx 100

Rugged Tablet



1. Features



High Performance Computing Platform

Powerful hardware configurations to ensure applications like massive data collection, 3D real-time display can be operated smoothly.



Android 6.0

Android 6.0 OS, keep optimizing and updating.



Top Class Materials

CNC aluminum, PC+ABS (SABIC) body with 0.7mm thickness tempered glass offer excellent strength + heat dissipation + electromagnetic shielding features.



Industrial Grade Components

Industrial and military grade components ensure stability and endurance in harsh environments.



Ultra Long Operating Time

Hot-swappable battery system makes backup battery more convenient to be restored. 7,000mAh battery provides ultra long operating time.



Outstanding Industrial Design

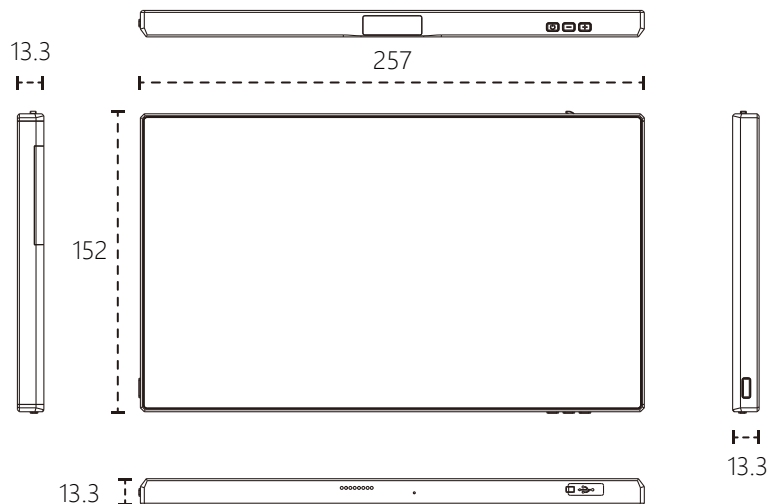
The idea was inspired by lynx, and each single detail has been well refined. The appearance is compact, elegant and balanced, which makes the product eye-catching and impressive.



Excellent Mechanical Protection

Safety drop height 1.2m. With IP64 protection grade to resist dusts and splashes effectively.

2. Dimensions (mm)



3. Electrical Parameters

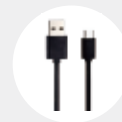
Mechanical parameters		Data Collections	
Materials	CNC aluminum	1D/2D Barcode Optional	
Dimensions	257(L)*152(W)*13.3(H)mm	Engine	Zebra SE4710
Weight	1000g (battery included/standard version)	2D	Data matrix/QR Code/PDF417/ US Planet/ UK Postal, etc
System Characteristics		1D	UPC/EA Symbol SE955N/Code128/ Code39/Code93/Code11/ Interleaved 2 of 5/ Discrete 2 of 5/ Chinese 2 of 5/Codabar/MSI/ RSS.etc.
Operating System	Android 6.0	UHF RFID	
CPU	Quad-core Cortex-A17 / 1.8 GHz	Engine	Rodinbell M-2600/ Based on Impinj Indy R2000
GPU	ARM Mali-T764/High performance 3D engine	Protocol	EPC Global UHF Class 1 Gen 2 / ISO 18000-6C/ ISO18000-6B
RAM +ROM	2G+16G 4G+64G Optional	Frequency	902-928MHz, 865- 868MHz Optional
LCD	10.1 inches/ 1920*1200 / IPS / 180°view angle	Output Power	0~33dBm
Touch Screen	0.7 mm thickness tempered glass/ 5- dot touch / operable with gloves	Peak Inventory Speed	> 500 tags /s
Battery	Detachable Li-ion battery with mechanical button	UHF Antenna	4.5dBi circularly polarized antenna
Buttons		Read Distance	> 10m (tested with Impinj E41b inlay)
Power / Volume	3 ALPS buttons/ Operating force 2.5N / Operating life 1 million cycles	Supported Regions	US, Canada and other regions following US FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia
Scan Trigger	1 ALPS buttons/ Operating force 1.6N / Operating life 5 million cycles	Camera	Front Camera: 13 megapixels/automatic focus Rear Camera: 13 megapixels/ flashlight/automatic focus Optional
Power	7,000mAh chargeable li-polymer battery	Global positioning system	
Card Slots	Nano SIM card slot*1 / TF card slot*1	GPS&GLONASS	
USB Interface	Micro USB / MOLEX connector /Operating life 10,000 cycles	Accessories	
Speaker	Supported		
Microphone	Digital HiFi Microphone		
Vibration	Supported		
Charge Indicator	Bicolor LED		
Wireless Communications			
WIFI	IEEE802.11b / g / n		
Bluetooth	Bluetooth 4.0		
4G	Supported Optional		
Application Environment			
Operating Temp	-20°- +60°		
Storage Temp	-30°- +70°		
Humidity	5%RH - 95%RH (non -condensing)		
Protection Grade	IP64		
Safety Drop Height	1.2m		



Battery



Charger



Data cable

EAA-001

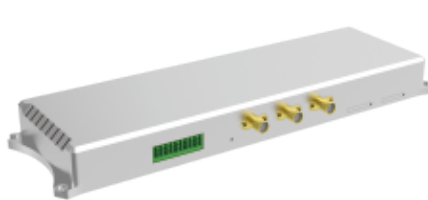
Embedded Computer



1. Advantages

Feature	Description
Based on Freescale Platform	Freescale IMX6DL(Dual)
Powerful OS Based	Linux 4.9.11
Multiple Communication Interface	Support Bluetooth 4.0 Support 2.4G/ 5G dual-band WIFI Support RS-232, RS-485 Communication Support 2G/3G/4G data service Optional✓ Support NB-IoT Optional✓ Support LoRa Optional✓ Support CANBus Optional✓
Online Upgrade	The OS kernel and APP can be updated online remotely.
POE Power	25W max, IEEE 802.3 supported. Optional✓
Wide Voltage	Wide voltage input range from DC9V to DC24V.
HDMI Output Supported	HDMI D Type interface, peak transmission speed 5GB/s. 1080P, 720P supported.
Micro USB OTG Interface	USB 2.0, Micro 5PIN OTG Support USB 2.0 standard peripherals
High-speed Internet Interface	Dual, Support 450M/ 100M/ 10M network adapter
GPIO	4 inputs, 4 outputs. Up to 8kV isolation voltage.
Classy Industrial Design	Compact and artistic design with CNC aluminum material.

2. Product View



Front view



Rear view



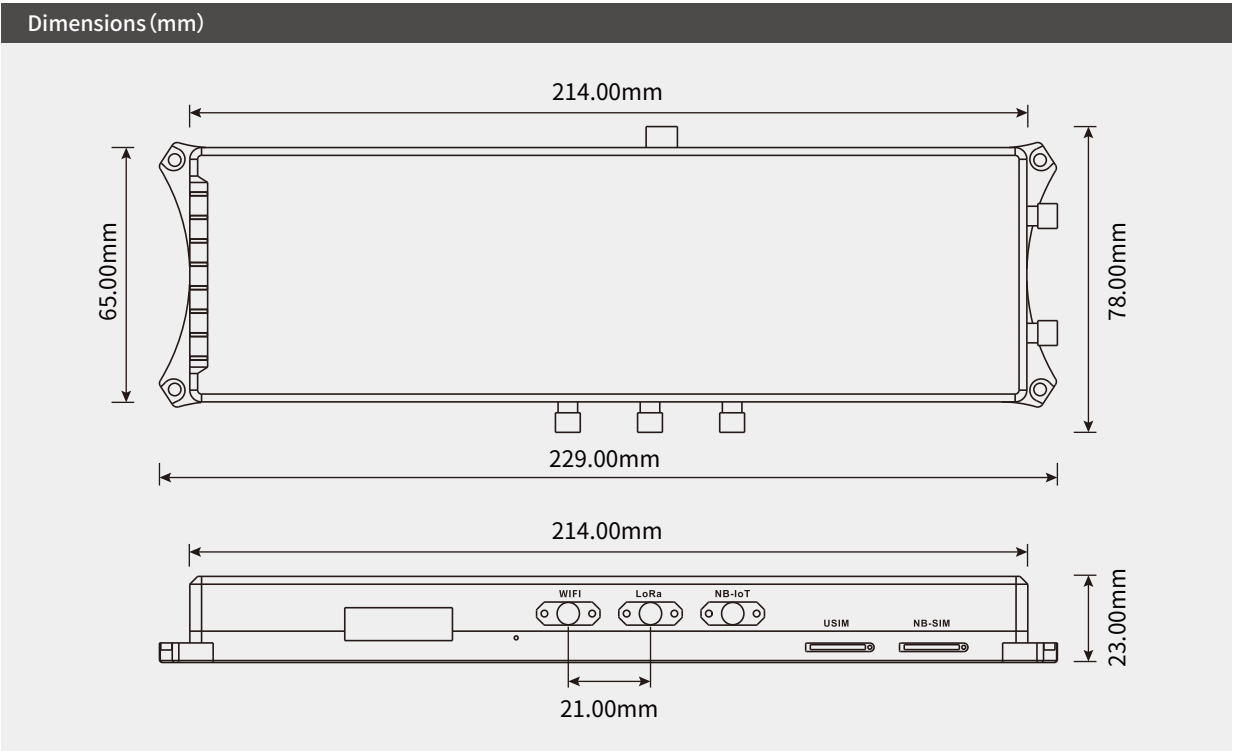
Top view



Bottom view

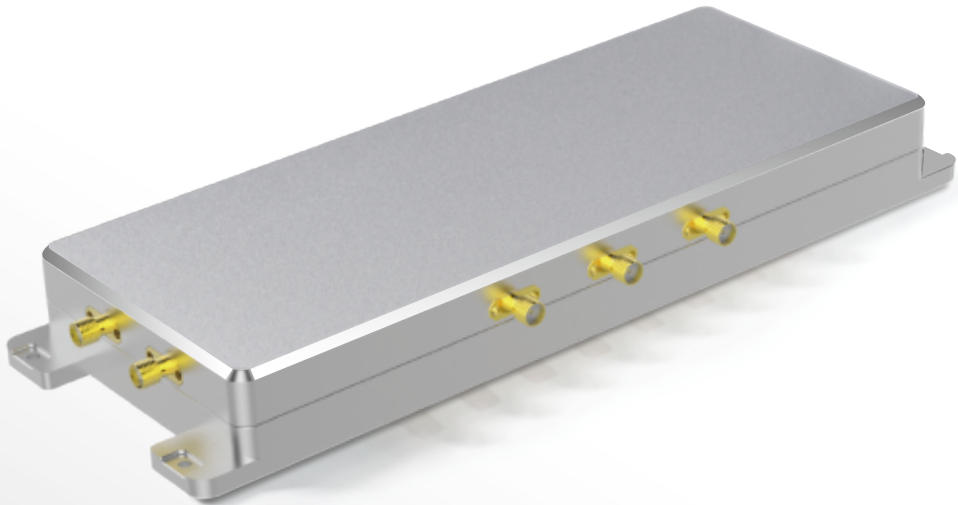
3. Electrical Parameters

Mechanical Parameters		Communications	
Material	CNC Aluminum	WIFI	SMA interface, Support 2.4G / 5G WIFI
Dimensions	229(L)*78(W)*23(H)mm	Bluetooth	Bluetooth 4.0
Weight	390g	Ethernet	Dual Support 450M/ 100M/ 10M network adapter
System Characteristics		Serial Interface	RS-232*3, RS-485
Operating System	Linux 4.9.11	Industrial bus	CANBus Optional✔
CPU	Freescale IMX6DL(Dual)	NB-IOT	Support Optional✔
RAM+ROM	1G+8G 2G+16G Optional✔	LoRa	Support Optional✔
USB Interface	USB 2.0, Micro 5PIN USB OTG supported	Application Environment	
Input Voltage	DC 9V~24V		
POE Power	25W maximum supports IEEE 802.3 protocol Optional✔		
Operating Current	300mA+/-5%@DC 12V Input		
GPIO	4 inputs, 4 outputs		
HDMI	HDMI D Type interface, peak transmission speed 5GB/s; 1080P/720P supported		
Online Upgrade	The OS kernel and APP can be updated online remotely.		



EAB-002

Embedded Computer



1. Advantages

Feature	Description
CPU	Hexa-core 64 bit processor (Dual-core Cortex-A72+Quad-core Cortex-A53) Frequency is up to 1.8GHz
GPU	Mali-T860MP4 GPU Supports OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11
NPU	1G independent RAM, computing power up to 3.0TOPs Supports multiple face recognition algorithms, Supports TensorFlow/Caffe Model
Multiple Communication Interface	Supports LTE data service, Bluetooth 5.0, Supports 2.4G/ 5G WIFI Supports 4 RS232 interfaces, 1 RS485 interface Supports CAN Bus Supports USB3.0
Gyroscope	Nine axis (Acceleration+Gyroscope+Magnetometer)
Cameras Interface	2 USB3.0 (Type-A) cameras interfaces , Supports dual 4K HD cameras input
HDMI	1 HDMI2.0 (Type-A) interface Supports 4K/ 60fps output
Classy Industrial Design	Compact and artistic design with CNC aluminum material.

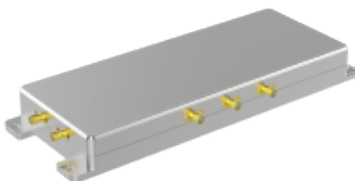
2. Product View



Front view



Rear view



Top view



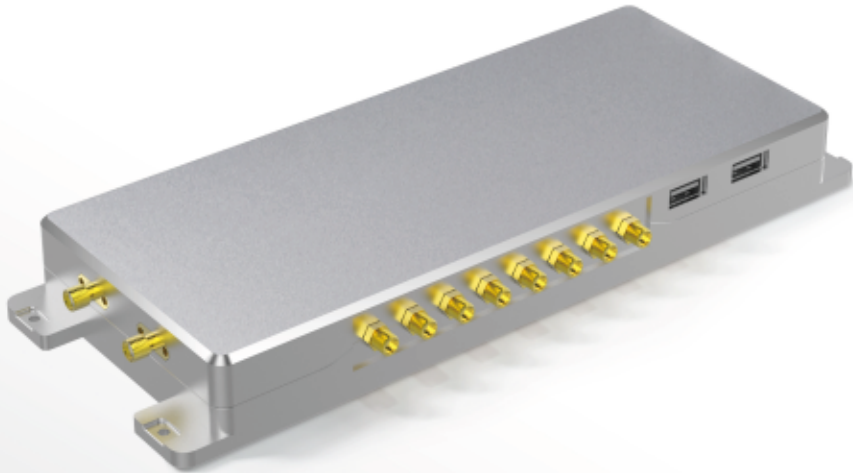
Bottom view

3. Electrical Parameters

Mechanical Parameters	
Material	CNC Aluminum
Dimensions	250(L)*94(W)*29(H)mm
Weight	600g
Communications	
WIFI	SMA interface, Supports 2.4G/ 5G WIFI
LTE	Supports LTE data service Optional✓
Bluetooth	Bluetooth 5.0
Ethernet	10/100/1000Mbps ethernet
USB	2 USB2.0 Hos (t Type-A) interfaces 2 USB3.0 Hos (t Type-A) interfaces 1 USB3.0 OTG (Type-C) interface
Serial Interface	4 RS232 interfaces, 1 RS485 interface
Industrial Bus	CAN Bus
Application Environment	
Operating Temp	-20°C~+85°C
Storage Temp	-40°C~+85°C
Humidity	5%RH - 95%RH (non-condensing)
Ingress Protection	IP53
Heat Dissipation	Air cooling
System Characteristics	
Operating System	Android 8.1
CPU	Hexa-core 64 bit processor (Dual-core Cortex-A72+Quad-core Cortex-A53) Frequency is up to 1.8GHz
GPU	Mali-T860MP4 GPU Supports OpenGL ES1.1/2.0/3.0/3.1 , OpenVG1.1, OpenCL, DX11
NPU	1G independent RAM computing power up to 3.0TOPs Supports multiple face recognition algorithms Supports TensorFlow/Caffe Model
RAM+ROM	2G+32G 4G+64G Optional✓
Input Voltage	DC 12V~24V
POE Power	60W
RFID antenna interface	8 SMA antenna interface
GPIO	4 inputs, 4 outputs, Up to 5Kv isolation voltage
HDMI	1 HDMI2.0 (Type-A) interface Supports 4K/ 60fps output
Cameras Interface	2 USB3.0 (Type-A) cameras interfaces Supports dual 4K HD cameras input
Gyroscope	Nine axis (Acdeleation+Gyroscope+Magnetometer)
Audio	1 Stereo audio output jack
SIM Card	1 Micro SIM slot
PSAM	1 Micro PSAM slot
SD Card	1 Micro SD3.0 slot
Online Upgrade	The OS kernel and APP can be updated online remotely

Spider AI

8-Port UHF RFID Fixed Reader



AI computing platform based on independent NPU

comprehensively improves the efficiency of face recognition, image processing and other algorithms.

1. Advantages

Feature	Description
CPU	Hexa-core 64 bit processor (Dual-core Cortex-A72+Quad-core Cortex-A53) Frequency is up to 1.8GHz
GPU	Mali-T860MP4 GPU Supports OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11
NPU	1G independent RAM, computing power up to 3.0TOPs Supports multiple face recognition algorithms Supports TensorFlow/Caffe Model
High-end UHF RFID Engine	Equipped with RodinBell self-developed UHF module based on Impinj R2000 chip, offering the best performance and excellent multi-tag identification ability in the industry.
Rich Communication Interface	Supports LTE data service, bluetooth 5.0, 2.4G/ 5G WIFI Supports RS232 & RS485 Supports CAN Bus Supports USB3.0
Gyroscope	Nine axis (Acceleration+Gyroscope+Magnetometer)
Camera Interface	2 USB3.0 (Type-A) camera interfaces Supports dual 4K HD cameras input
HDMI	1 HDMI2.0 (Type-A) interface Supports 4K/ 60fps output
Classy Industrial Design	Compact and artistic design with aluminum material.

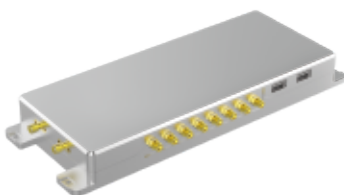
2. Product view



Top view



Bottom view



Side view (front)



Side view (back)

3. Electrical Parameters

Mechanical Parameters	
Material	Aluminum body
Dimensions	250(L)*94(W)*29(H)mm
Weight	650g
System Characteristics	
Operation System	Android 8.1
CPU	Hexa-core 64 bit processor (Dual-core Cortex-A72+Quad-core Cortex-A53) Frequency is up to 1.8GHz
GPU	Mali-T860MP4 GPU Supports OpenGL ES1.1/ 2.0/ 3.0/ 3.1, OpenVG1.1, OpenCL, DX11
NPU	1G independent RAM Computing power up to 3.0TOPs Supports multiple face recognition algorithms Supports TensorFlow/Caffe Model
RAM+ROM	2G+32G 4G+64G Optional
Input Voltage	DC 12V~24V
RFID Antenna Interface	8 SMA female antenna interfaces
GPIO	4 inputs, 4 outputs Up to 5Kv isolation voltage
HDMI	1 HDMI2.0 (Type-A) interface Supports 4K/ 60fps output
Camera Interface	2 USB3.0 (Type-A) cameras interfaces Supports dual 4K HD cameras input
Gyroscope	Nine axis (Acdeleration+Gyroscope+Magnetometer)
Audio	1 Stereo audio output jack
SIM Card	1 Micro SIM slot
PSAM	1 Micro PSAM slot
SD Card	1 Micro SD3.0 slot
Online Upgrade	Supported

UHF	
Engine	Based on Impinj Indy R2000 chip
Protocol	EPC Global UHF Class 1 Gen 2/ ISO 18000-6C/ISO 18000-6B
Frequency	902~928MHz 865~868MHz Optional
Output Power	0~33dBm
Peak Inventory Speed	>700 tags/s
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Sensitivity	< -85dBm
Tag RSSI	Supported
Antenna Detector	Supported
Supported Regions	US, Canada and other regions Following U.S. FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia
Communication Mode	
WIFI	SMA female, supports 2.4G/ 5G WIFI
LTE	Supports LTE data service Optional
Bluetooth	Bluetooth 5.0
Ethernet	10/ 100/ 1000Mbps ethernet
USB	2 USB2.0 Host (Type-A) interfaces 2 USB3.0 Host (Type-A) interfaces 1 USB3.0 OTG (Type-C) interface
Serial Interface	4 RS232 interfaces, 1 RS485 interface
Industrial Bus	CAN Bus
Application Environment	
Operating Temp	-20°C~+65°C
Storage Temp	-40°C~+85°C
Humidity	5%RH-954%RH (non-condensing)
Protection Grade	IP53
Heat Dissipation	Air cooling

Spider 8000

8-Port UHF RFID Reader



Linux/Android OS included.

Minimalist design challenges multiple interfaces.

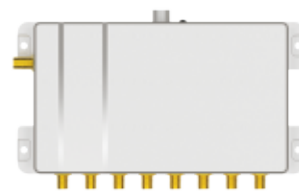
1. Advantages

Feature	Description
Impinj R2000 Built-in	Based on high performance Impinj Indy R2000 chip.
Based on Freescale Platform	Freescale IMX6DL(Dual)
Powerful OS Based	Linux 4.9.11
RAM+ROM	1G+8G 2G+16G Optional✓
Online Upgrade	The OS kernel and APP can be updated online remotely.
POE Power	25W max, IEEE 802.3 supported. Optional✓
Wide Voltage	Wide voltage input range from DC9V to DC24V.
HDMI Output Supported	HDMI D Type interface, peak transmission speed 5GB/s. 1080P, 720P supported.
Micro USB OTG Interface	USB 2.0 OTG , Micro USB interface. Compatible with USB 2.0 Peripherals.
Dual-Band WIFI Supported	SMA interface for external 2.4G/ 5G antenna.
Bluetooth	Support Bluetooth 4
High-speed Internet Interface	450M/ 100M/ 10M adaptive Ethernet.
GPIO	4 inputs, 4 outputs. Up to 8kV isolation voltage.
Dimensions	133(L) * 86(W) * 22mm(H)
Classy Industrial Design	Compact and artistic design with CNC aluminum material.

2. Product view



Isometric view (front)



Top view



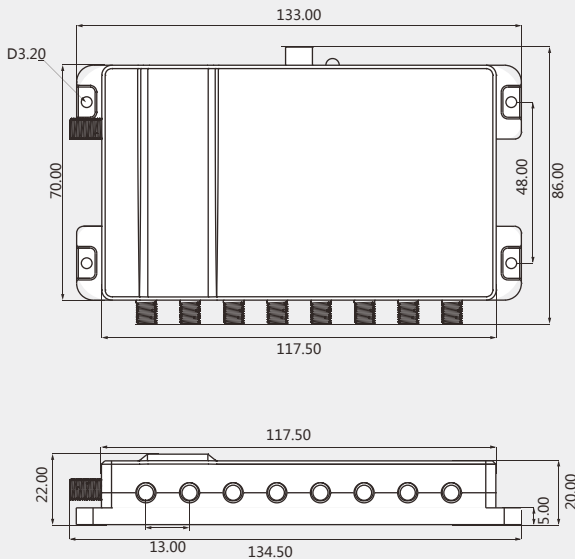
Isometric view (back)



Bottom view

3. Electrical Parameters

Mechanical parameters	
Material	CNC Aluminum
Dimensions	133(L)*86(W)*22mm(H)
Weight	0.3kg
System Characteristics	
Operating System	Linux 4.9.11
CPU	Freescale IMX6DL(Dual)
RAM+ROM	1G+8G 2G+16G Optional ✓
USB Interface	USB 2.0 , Micro 5PIN USB Support OTG function
Input Voltage	DC 9V~24V
POE Power	25W maximum supports IEEE 802.3 protocol Optional ✓
Operating Current	1.5A+/-5%@DC 12V Input
Ambient Temp Monitor	Supported
GPIO	4 inputs , 4 outputs
HDMI	HDMI D Type interface, peak transmission speed 5GB/s; 1080P/720P supported
Online Upgrade	Supported
Wireless Communications	
WIFI	SMA interface for external 2.4G / 5G antenna
Bluetooth	Bluetooth 4.0
Ethernet	450M/100M/10M adaptive ethernet
Application Environment	
Operating Temp	-20°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Humidity	5%RH-95%RH (non-condensing)
Protection Grade	IP53
Heat Dissipation	Air cooling

Data Collections	
UHF RFID	
Engine	Based on Impinj Indy R2000 chip
Buzzer	12*9.5mm / 2300±300Hz
Protocol	EPC Global UHF Class 1 Gen 2/ISO 18000-6C/ISO 18000-6B
Frequency	902~928MHz, 865~868MHz Optional ✓
Output Power	0~30.5dBm
Peak Inventory Speed	>700 tags/s
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Sensitivity	< -85dBm
Tag RSSI	Supported
Antenna Detector	Supported
Supported Regions	US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia
Dimensions (mm)	
 The technical drawing shows two views of the UHF RFID Fixed Reader. The top view shows a rectangular device with a width of 86.00 mm and a length of 133.00 mm. The front panel has a width of 117.50 mm and a height of 48.00 mm. The side view shows a height of 22.00 mm and a depth of 13.00 mm. The device has a D3.20 hole on the left side and a 70.00 mm dimension for the top section.	

Spider 8000 Pro

8-Port UHF RFID Reader

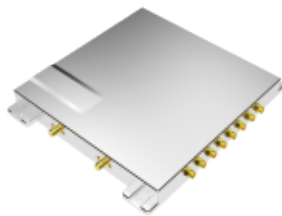


Linux/Android OS included. Minimalist design challenges multiple interfaces.

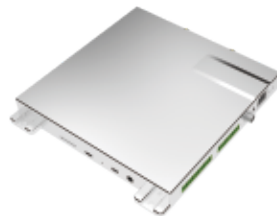
1. Advantages

Feature	Description
Impinj R2000 Built-in	Based on high performance Impinj Indy R2000 chip.
Based on Freescale Platform	Freescale IMX6DL(Dual)/ IMX6Q(Quad)
Powerful OS Based	Linux 4.9.11/ Android 7.0
RAM+ROM	2G+16G 4G+32G Optional✓
Online Upgrade	The OS kernel and APP can be updated online remotely.
POE Power	25W max, IEEE 802.3 supported. Optional✓
Power Supply Voltage	Wide voltage input range from DC9V to DC24V.
HDMI Output Supported	HDMI D Type interface, peak transmission speed 5GB/s. 1080P, 720P supported.
Micro USB OTG Interface	USB 2.0 OTG, Micro USB interface. Compatible with USB 2.0 Peripherals.
Dual-Band WIFI Supported	SMA interface for external 2.4G/ 5G antenna.
Bluetooth	Support Bluetooth 4.0
High-speed Ethernet	450M/ 100M/ 10M adaptive Ethernet.
2G/3G/4G Communication	2G/3G/4G data service supported.
GPIO	4 inputs, 4 outputs. Up to 8kV isolation voltage.
Classy Industrial Design	Compact and artistic design with CNC aluminum material.

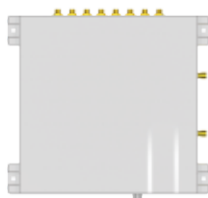
2. Product view



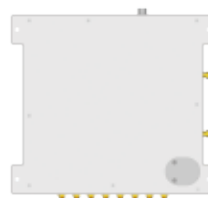
Isometric view (front)



Isometric view (back)



Top view



Bottom view

3. Electrical Parameters

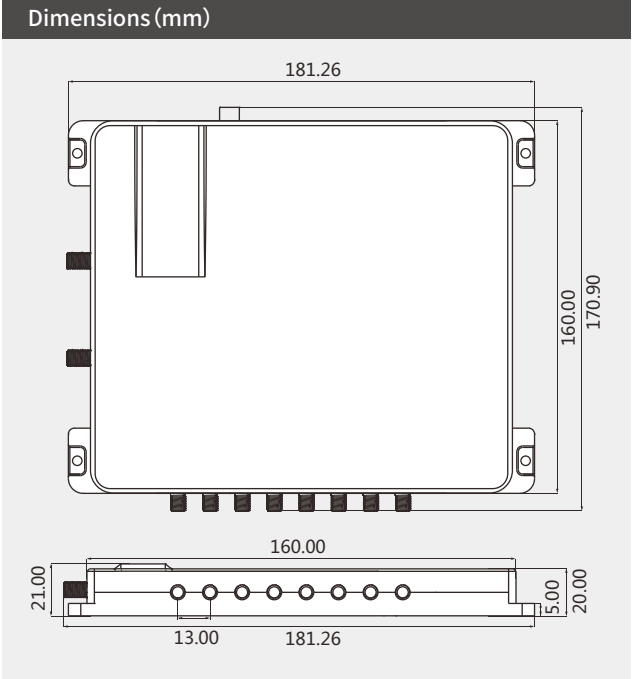
Mechanical parameters	
Material	CNC Aluminum
Dimensions	181.26(L)*160(W)*21mm(H)
Weight	1.2kg

System Characteristics	
Operating System	Linux 4.9.11/ Android 7.0
CPU	Freescale IMX6DL(Dual)/ IMX6Q(Quad)
RAM+ROM	2G+16G 4G+32G Optional
USB Interface	USB 2.0, Micro 5PIN USB OTG supported
Input Voltage	DC 9V~24V
POE Power	25W maximum supports IEEE 802.3 protocol Optional
Operating Current	1.5A+/-5%@DC 12V Input
Ambient Temp Monitor	Supported
GPIO	4 inputs, 4 outputs
HDMI	HDMI D Type interface, peak transmission speed 5GB/s; 1080P/720P supported
Online Upgrade	Supported

Wireless Communications	
WIFI	SMA interface for external 2.4G/ 5G antenna
Bluetooth	Bluetooth 4.0
2G/3G/4G	2G/3G/4G data service supported. Optional
Ethernet	450M/100M/10M adaptive ethernet
Serial Interface	RS-232*3, RS-485

Application Environment	
Operating Temp	-20°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Humidity	< 95% (+25°C)
Protection Grade	IP53
Heat Dissipation	Air cooling

Data Collections	
UHF RFID	
Engine	Based on Impinj Indy R2000 chip
Buzzer	12*9.5mm/ 2300±300Hz
Protocol	EPC Global UHF Class 1 Gen 2/ISO 18000-6C/ISO 18000-6B
Frequency	902~928MHz, 865~868MHz Optional
Output Power	0~33dBm
Peak Inventory Speed	>700 tags/s
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Sensitivity	< -85dBm
Tag RSSI	Supported
Antenna Detector	Supported
Supported Regions	US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 China Korea Malaysia



S-8600

4-Port UHF RFID Reader



Classic work, powerful function and stable performance

S-8800

8-Port UHF RFID Reader

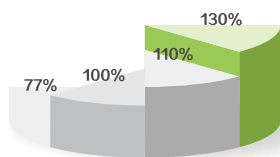


Classic work, powerful function and stable performance

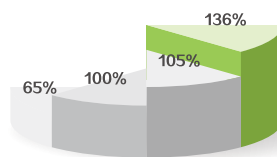
1. Advantages

- > Unique I-Search multi-tag identification algorithm
- > Based on high performance Impinj Indy R2000 chip
- > 18000-6B/C compatible, flexibly switch between protocols
- > Cast aluminum body, ensuring better heat dissipation
- > CPU status monitored by hardware.
Running for 24hours * 365 days without system halt

2. Anti-Collision Algorithm Comparison



100 Tags



200 Tags

Algorithm	Description
Standard fixed Q algorithm	• Standard 18000-6C algorithm.
	• The performance is reduced significantly when tag quantity gets larger.
	• The efficiency is not high when tag quantity is small.
Impinj dynamic Q algorithm	• The algorithm of Impinj.
	• It has a good efficiency for various tag quantities.
	• It sacrifices some performance for the sake of compatibility.
I-Search dynamic Q algorithm V1.0	• Based on Impinj dynamic Q algorithm.
	• The performance is optimized.
	• It's the algorithm for firmware version 6.6 or below.
I-Search dynamic Q algorithm V2.0	• Based on Impinj dynamic Q algorithm.
	• It's a brand new data structure, the performance of which is significantly improved for firmware version 6.7 or above.
	• The improvement of performance can be easily sensed after the first round of inventory especially when the tag volume increases.

3. Electrical Parameters

Electrical Parameters	
Dimension	S-8600 : 240(L)*180(W)*28(H)mm
	S-8800 : 198(L)*198(W)*26(H)mm
Weight	S-8600 : 1.2kg
	S-8800 : 1.3kg
Body Material	Die-cast aluminum
Input Voltage	DC 12V ~ 18V
Standby Mode Current	<80mA
Sleep Mode Current	<100uA
Max Operating Current	700mA +/-5% @ DC 12V Input
Operating Temperature	- 20 °C ~ + 85 °C
Storage Temperature	- 20 °C ~ + 85 °C
Humidity	5%RH - 95%RH (non -condensing)
Interface Protocol	EPC global UHF Class 1 Gen 2 / ISO 18000-6C / ISO 18000-6B
Spectrum Range	902MHz – 928MHz , 865MHz – 868MHz Optional✔
Supported Regions	US, Canada and other regions following U.S. FCC
	Europe and other regions following ETSI EN 302 208
	Mainland China, Taiwan, Korea, Malaysia
Output Power	0 – 33dBm
RF Connector	TNC/RP-TNC
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -85 dBm
Peak Inventory Speed	>700 tags/sec
Tag Buffer Capacity	1000 tags @ 96 bit EPC
Tag RSSI	Supported
Antenna Detector	Supported
Ambient Temp Monitor	Supported
Working Mode	Single/DRM
Host Communication	RS-232 or TCP/IP
GPIO	2 input optical coupling & 2 output coupling
Baud Rate	115200 bps/38400bps
Heat Dissipation	Air cooling

D-100/101

UHF RFID Desktop Reader



1. Advantages

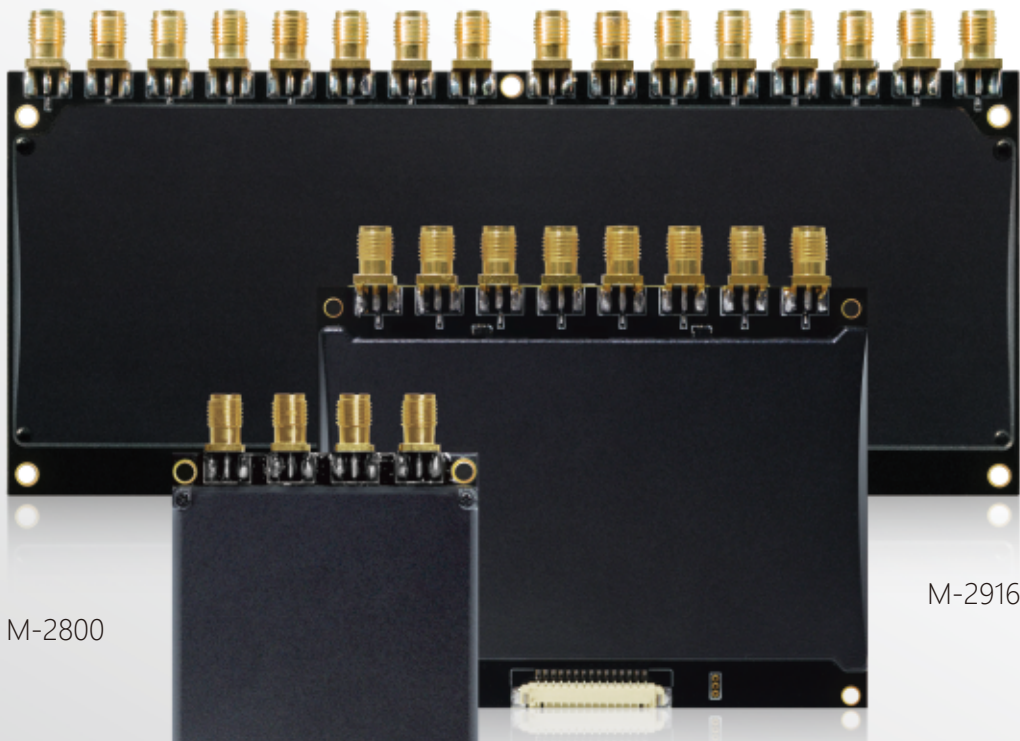
- > M-500 micro UHF RFID module inside
- > USB charge or independent 9V power supply supported
- > D-100 read distance: 80-300cm (tested with Impinj E41b inlay)
- > D-101 read distance: 10-50cm (tested with Impinj E41b inlay)
- > USB 2.0/ RS-232/ Wiegand 26/ Wiegand 34 supported

2. Electrical Parameters

Electrical Parameters	
Input Voltage	DC 3.5V – 5 V / 9V.
Standby Mode Current	<80mA.
Operating Current	180mA @ 3.5V (26 dBm Output,25°C). 110mA @ 3.5V (18 dBm Output,25°C).
Operating Temperature	- 20 °C - + 70 °C
Storage Temperature	- 20 °C - + 85 °C
Operating Humidity	< 95% (+ 25 °C)
Air Interface Protocol	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
Spectrum Range	902Mhz – 928Mhz, 865MHz – 868MHz (Optional)
Supported Regions	US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 China,Korea,Malaysia,
Output Power	18-26 dBm
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -70dBm
Peak Inventory Speed	> 50 pcs/s
Tag Buffer Size	200 pcs @ 96 bit EPC
Tag RSSI	Supported
Antenna	D-100 2dbi ceramic antenna Read range:80cm-200cm (Tested with Impinj E41b tag)
	D-101 0dbi ceramic antenna Read range:10cm-50cm (Tested with Impinj E41b tag)
Host Communication	USB 2.0, RS-232, Wiegand 26, Wiegand 34
Baud Rate	115200 bps (default and recommended), 38400 bps
Cooling	Air cooling

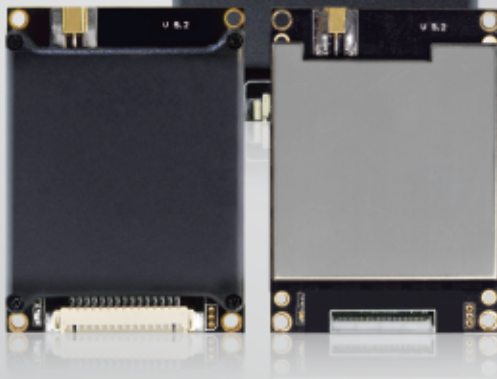
Indy R2000 Series

UHF RFID Module



M-2800

M-2916



M-2600

M-2600FPC

M-2900



1. Advantages

- > Unique I-Search multi-tag identification algorithm
- > Dual CPU architecture; tag inventory and data transfer are parallel and simultaneous
- > Multi-point surveillance for accurate operating system temperature
- > Dual backup output power correction to ensure accurate and controllable of RF output power
- > 18000-6B/C compatible, flexibly switch between protocols
- > CPU status monitored by hardware. Running for 24hours * 365 days without system halt
- > Based on UART command system; easy, fast and efficient to integrate

2. Anti-Collision Algorithm Comparison



Algorithm	Description
Standard fixed Q algorithm	• Standard 18000-6C algorithm.
	• The performance is reduced significantly when tag quantity gets larger.
	• The efficiency is not high when tag quantity is small.
Impinj dynamic Q algorithm	• The algorithm of Impinj.
	• It has a good efficiency for various tag quantities.
	• It sacrifices some performance for the sake of compatibility.
I-Search dynamic Q algorithm V1.0	• Based on Impinj dynamic Q algorithm.
	• The performance is optimized.
	• It's the algorithm for firmware version 6.6 or below.
I-Search dynamic Q algorithm V2.0	• Based on Impinj dynamic Q algorithm.
	• It's a brand new data structure, the performance of which is significantly improved for firmware version 6.7 or above.
	• The improvement of performance can be easily sensed after the first round of inventory especially when the tag volume increases.

3. Electrical Parameters

Electrical Parameters	
Operating Voltage	3.7V – 5 V
Standby Mode Current	<50mA (EN high level)
Sleep Mode Current	<100uA (EN high level)
Max Operating Current	1.2A +/-10%
Operating Temperature	- 20 °C - + 55 °C
Storage Temperature	- 20 °C - + 85 °C
Humidity	< 95% (+ 25 °C)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C ISO 18000-6B
Spectrum Range	902~928MHz , 865~868MHz Optional✓
Supported Regions	US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 China , Korea , Malaysia
Output Power	0 – 33dBm
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -85 dBm
Peak Inventory Speed	> 700 tags/sec
Tag Buffer Capacity	1000 tags @ 96 bit EPC
Tag RSSI	Supported
Antenna Detector	Supported
Ambient Temp Monitor	Supported
Working Mode	Single/DRM
Host Communication	Uart 3.3V
GPIO	2 inputs & 2 outputs
Max Baud Rate	115200 bps
Heat Dissipation	External radiator

M-2300

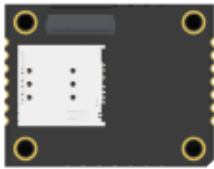
UHF RFID Module



1. Product View



Front (ceramic antenna)

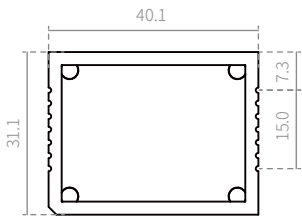


Front (ceramic antenna)

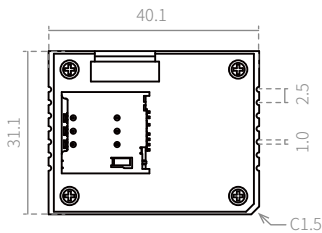


Side view

2. Dimensions (mm)



Front (ceramic antenna)



Front (ceramic antenna)



Side view

3. Interface Definition

Interface Type	Serial Number	Interface Name	Interface Definition
LCC	1	GND	Grounding
	2	BEEP	Buzzer Control
	3	IO4	GPIO Interface
	4	IO3	GPIO Interface
	5	EN	Power enable foot
	6	GND	Grounding
	7	+5V	Power input
	8	+5V	Power input
	9	GND	Grounding
	10	TXD	TTL serial port sending
	11	RXD	TTL serial port sending
	12	LED-OUT	LED status indicator pin
	13	ANT	Antenna Interface
	14	GND	Grounding

4. Electrical Parameters

Electrical Parameters	
Input Voltage	DC 4.5V ~ 5.5V
Standby Mode Current	< 150mA(EN High Level)
Sleep Mode Current	< 100μA (EN Low Level)
Operating Current	1.5A(Max)
Operating Temperature	-20°C~+85°C
Storage Temperature	-40°C~+85°C
Humidity	5%RH~95%RH(non -condensing)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / IISO 18000-6C
Spectrum Range	902 ~ 928MHz
Supported Regions	US, Canada and other regions following U.S. FCC China , Korea , Malaysia
Output Power	0~ 30dBm
Output Power Precision	+/- 1.5dB
Output Power Flatness	+/- 0.5dB
Receive Sensitivity	< -75 dBm
Peak Inventory Speed	> 200 tags/sec
Tag RSSI	Supported
Ambient Temp Monitor	Supported
communication interface	Uart 3.3V
Max Baud Rate	115200 bps

Attention:

1. Good heat dissipation design must be considered in module application

M-2360

UHF RFID-ANT Integrated Module



1. Advantages

- Excellent cooling design, all the heat-generating devices come with heat-conducting structure
- Internally integrated efficient and fast 18000-6c multi-label recognition algorithm
- Based on UART command system; easy, fast and efficient to integrate

2. Multi-label performance



Read Distance > **5M**

Peak Inventory Speed > **200** tags /s

3. Product view



Back (PCB)



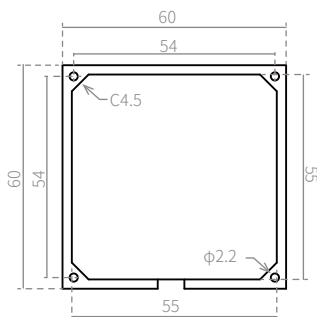
Front (ceramic antenna)



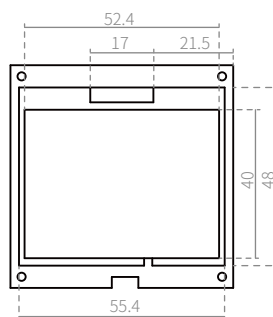
Side view

4. Dimensions (mm)

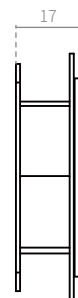
Any discrepancy, please defer to the real product instead.



Back (PCB)



Front (ceramic antenna)



Side view

5. Electrical Parameters

Electrical Parameters	
Input Voltage	DC 3.6v~4.2v
Standby Mode Current	<150mA (EN High Level)
Sleep Mode Current	<100uA (EN Low Level)
Operating Current	1.5A (Max)
Operating Temperature	-20°C~+85°C
Storage Temperature	-40°C~+85°C
Humidity	5%RH - 95%RH (non -condensing)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / IISO 18000-6C
Spectrum Range	902 ~ 928MHz, 865 ~ 868MHz Optional✔
Supported Regions	US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 China, Korea, Malaysia
Output Power	0~ 33dBm
Output Power Precision	+/- 1.5dB
Output Power Flatness	+/- 0.5dB
Receive Sensitivity	< -75 dBm
Peak Inventory Speed	> 200 tags/sec
Read Distance	> 5m (The test label: Impinj E41b)
Tag RSSI	Supported
Ambient Temp Monitor	Supported
Antenna	3dbi ceramic antenna
Communication interface	Uart 3.3V
GPIO	1input & 2outputs (3.3V TTL Level)
Max Baud Rate	115200 bps(default and recommended), 38400bps
Heat Dissipation	Air Cooling

Attention:

1. Please connect the module to heat sink when it continuously work at full load.
2. Power Supply Requirement: Taking a 3.7V lithium battery power supply for example, continuous power current should be no less than 2.5A , instantaneous power current should be no less than 3.5A.

M-2670

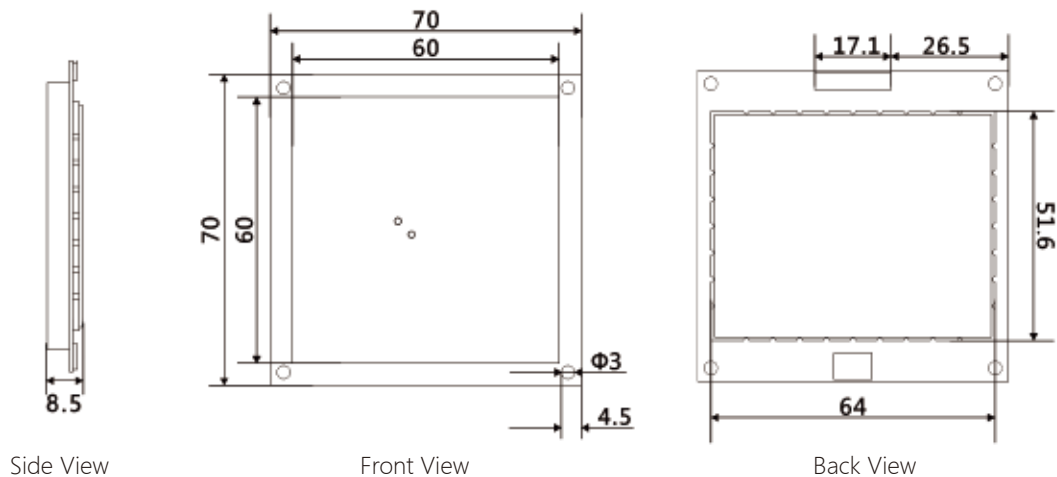
UHF RFID-ANT Integrated Module



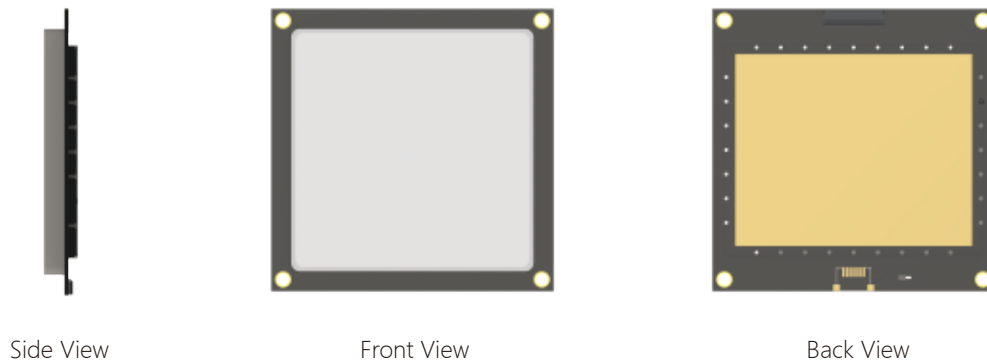
1. Advantages

- Unique I-Search multi-tag identification algorithm
- Based on high performance Impinj Indy R2000 chip
- Tailored for lithium battery, power supply could be as low as 3.2V
- Dual CPU architecture; tag inventory and data transfer are parallel and simultaneous
- Dual backup output power correction to ensure accurate and controllable of RF output power
- Excellent cooling design, all the heat-generating devices come with heat-conducting structure
- 18000-6B/C compatible, flexibly switch between protocols
- CPU status monitored by hardware. Running for 24hours * 365 days without system halt
- Based on UART command system; easy, fast and efficient to integrate

2. Dimensions (mm)



3. Product view



4. Electrical Parameters

Electrical Parameters	
Input Voltage	DC 3.2v~4.4v
Standby Mode Current	<50mA (EN High Level)
Sleep Mode Current	<100uA (EN Low Level)
Operating Current	1.2A+/-10%
Operating Temperature	-20°C~+85°C
Storage Temperature	-40°C~+85°C
Humidity	5%RH - 95%RH (non -condensing)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / IISO 18000-6C ISO 18000-6B
Spectrum Range	902 ~ 928MHz, 865 ~ 868MHz Optional ✓
Supported Regions	US, Canada and other regions following U.S. FCC
	Europe and other regions following ETSI EN 302 208
	China, Korea, Malaysia
Output Power	0~ 33dBm
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -85 dBm
Peak Inventory Speed	> 500 tags/sec
Tag Buffer Size	1000 tags @ 96 bit EPC
Tag RSSI	Supported
Antenna Detector	Supported
Ambient Temp Monitor	Supported
Antenna	3dbi ceramic antenna
Communication interface	Uart 3.3V
GPIO	1input & 2outputs (3.3V TTL Level)
Max Baud Rate	115200 bps
Heat Dissipation	Air Cooling

Attention:

1. Please connect the module to heat sink when it continuously work at full load.
2. Power Supply Requirement: Taking a 3.7V lithium battery power supply for example, continuous power current should be no less than 2.5A , instantaneous power current should be no less than 3.5A.

M-2670-Air

UHF RFID-ANT Integrated Module

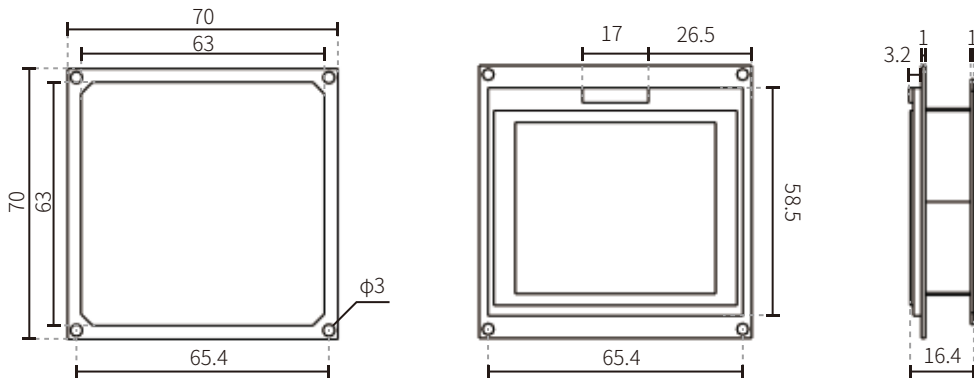


1. Advantages

- Impinj Indy R2000 chip as RF transceiver
- Unique I-Search multi-tag identification algorithm providing the highest efficiency
- Read distance above 10m (tested with Impinj E41b Inlay)
- Ultra-thin design for back components with only 2.2mm thickness
- CPU status monitored by hardware. Running for 24 hours * 365 days without system halt
- Using a new design concept -- air medium antenna technology, taking air as a signal transmission medium. The performance of reading distance and multi-tag identifications is 30% higher than the previous models
- Based on UART command system; easy, fast and efficient to integrate
- Enough surface for heat dissipation; with heat-conducting structure for all the heat-generating components, to ensure long time and stable running of modules.
- Communication interfaces are compatible with other INDY R2000 series models

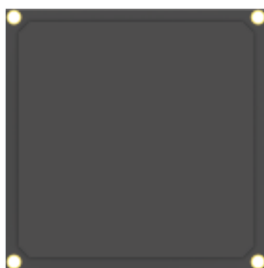
2. Dimensions (mm)

Any discrepancy, please defer to the real product instead.

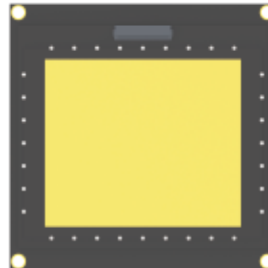


M-2670-Air dimensions

3. Product View



Front (ceramic antenna)



Back (PCB)



Side view

4. Electrical Parameters

Electrical Parameters	
Input Voltage	DC 3.9v~5.5v
Standby Mode Current	50mA (EN High Level)
Sleep Mode Current	<100uA (EN Low Level)
Operating Current	1.2A~2A (Group read labels, the number of labels > 300pcs)
Operating Temperature	-20°C ~ +65°C
Storage Temperature	-40°C ~ +85°C
Humidity	< 95% (+ 25°C)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / IISO 18000-6C, ISO 18000-6B
Spectrum Range	902 ~ 928MHz, 865 ~ 868MHz Optional ✓
Supported Regions	US, Canada and other regions following U.S. FCC
	Europe and other regions following ETSI EN 302 208
	China, Korea, Malaysia
Output Power	3~ 33dBm
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -85 dBm
Peak Inventory Speed	> 500 tags/sec
Tag Buffer Size	1000 tags @ 96 bit EPC
Tag RSSI	Supported
Antenna Detector	Supported
Ambient Temp Monitor	Supported
Antenna	4dbi air medium antenna
Communication interface	TTL Uart Interface
GPIO	1input & 2outputs (3.3V TTL Level)
Max Baud Rate	115200bps (default), 38400bps
Heat Dissipation	Air Cooling

Attention:

1. Please connect the module to heat sink when it continuously work at full load.

M-500

Micro UHF RFID Module



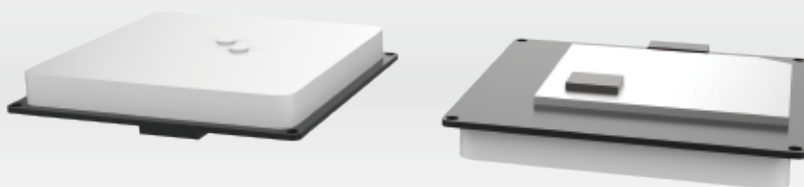
1. Advantages

- Phychips Pr9200 inside with outstanding performance and cost-effective value
- Ultra low power consumption without cooling concern
- Wide temperature design with low temperature drift coefficient
- Stable read distance up to 3m (tested with 2dBi circularly polarized antenna+ Impinj E41b inlay)
- Full compatible with different communication interfaces of INDY R2000 series products

Electrical Parameters	
Input Voltage	DC 3.5V ~ 5V
Standby Mode Current	< 50mA (EN High Level)
Sleep Mode Current	< 100μA (EN High Level)
Operating Current	180mA@3.5V(26dBm Output , 25°C)
	110mA@3.5V(18dBm Output , 25°C)
Operating Temperature	-20°C~+70°C
Storage Temperature	-20°C~+85°C
Operating Humidity	< 95% (+25°C)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C
Spectrum Range	902 ~ 928MHz, 865 ~ 868MHz Optional✓
Supported Regions	US, Canada and other regions following U.S. FCC
	Europe and other regions following ETSI EN 302 208
	China, Korea,Malaysia
Output Power	18 ~ 26dBm
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
RF Connector	I-PEX
Receive Sensitivity	< -70 dBm
Peak Inventory Speed	> 50 tags/ sec
Tag Buffer Size	200 tags @ 96 bit EPC
Tag RSSI	supported
communication interface	Uart 3.3V
GPIO	2 input 2 output (3.3V TTL Level)
Baud Rate	115200 bps(default and recommended), 38400bps
size	28 * 25 * 3.5mm
Cooling	Air cooling

M-540

UHF RFID-ANT Integrated Module



M-550/553

UHF RFID-ANT Integrated Module



M-550



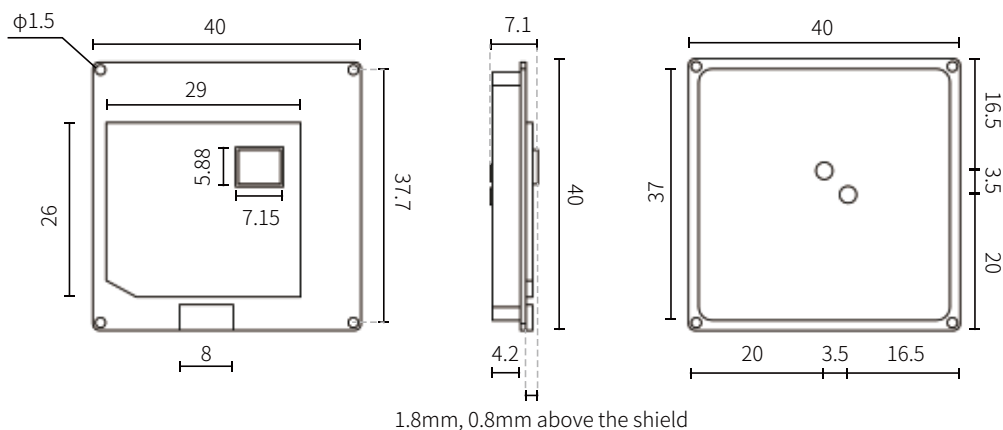
M-553

1. Advantages

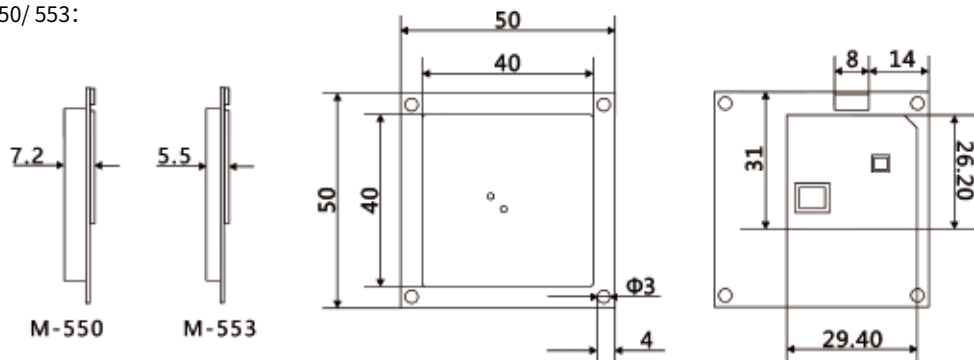
- > Phychips Pr9200 inside with outstanding performance and cost-effective value
- > 1.2mm ultra thin design for back components
- > Ultra low power consumption without cooling concern
- > Wide temperature design with very low temperature drift coefficient
- > Full compatible with different communication interfaces of INDY R2000 series products

2. Dimensions (unit: mm) Any discrepancy, please defer to the real product instead.

M-540:



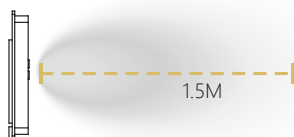
M-550/ 553:



3. Comparison (tested with Impinj E41b inlay)

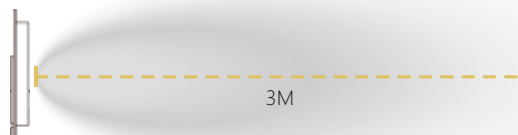
M-540

Size : 40*40*7.1mm
Weight : 40g



M-550

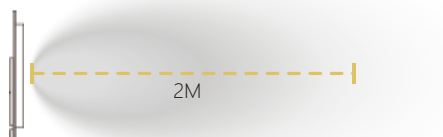
Size : 50*50*7.2mm
Weight : 60g



M-553

Size : 50*50*5.5mm

Weight : 35g



4. Electrical Parameters

Electrical Parameters	
Input Voltage	DC 3.5V ~ 5V
Standby Mode Current	< 50mA (EN High Level)
Sleep Mode Current	< 100μA (EN High Level)
Operating Current	180mA@3.5V(26dBm Output , 25°C)
Operating Temperature	-20°C~+70°C
Storage Temperature	-20°C~+85°C
Operating Humidity	5% RH ~ 95% RH (non-condensing)
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C
Spectrum Range	902 ~ 928MHz, 865 ~ 868MHz Optional✓
Supported Regions	US, Canada and other regions following U.S. FCC
	Europe and other regions following ETSI EN 302 208
	China, Korea, Malaysia
Output Power	18 ~ 26dBm
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -70 dBm
Peak Inventory Speed	> 50 tags/ sec
Tag Buffer Size	200 tags @ 96 bit EPC
Tag RSSI	Supported
Communication interface	Uart 3.3V
GPIO	1 input 2 output (3.3V TTL Level)
Baud Rate	115200 bps(default and recommended), 38400bps
Antenna	M-550: 2dBi ceramic antenna; M-540/ M-553: 1.5dBi ceramic antenna
Cooling	Air cooling



Shenzhen RodinBell Technology Co., Ltd. is one of the leading companies that offers products and solutions involved in industrial and commercial intelligent area.



Shenzhen RodinBell Technology Co.,Ltd.

Tel:0755-28225530 Fax:0755-89373021 Email: info@rodinbell.com Version:V5.0
Add: 905#,Block B,Xinghe WORLD,Wuhe Avenue,Longgang District,Shenzhen City,PRC

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