

OPPIOT
Craftsman's Spirit
RFID Industrial TAG
R&D - Manufacture - Quality

UHF Industrial Tag Solutions from OPP IOT Technologies Co., LTD.

OPPIOT concentrate on passive Industrial RFID tags since 2013. By constantly researching and improvement on technology, tags manufactured by OPPIOT provide accuracy performance in harsh environments, including in the presence of metal, corrosion, high temperature, etc.

OPPIOT has now become a leading manufacturer and global supplier of IOT solutions. It is well-known for tags with high performance, highly durable in inventory and supply chain managements. For instance, OPP130 with reading distance up to 30M, highly praised by clients. It not only solves the difficulty in large range asset tracking, but also improves the accuracy and efficiency. Likewise, the high temperature tag gives significant improvement in car manufacturing flow.

- Factory Pass ISO90001 certification.
- Custom solution designed to fit client's requirements.
- High-end equipment provide efficient rates and best quality.
- Quick production turnover.
- Professional technicians are capable of antenna design, you can always expect the incredible reading performance here.

OPPIOT dedicated into RFID industrial tags, we commit to launch solutions for auto-identification industrial management.

Just contact us, we are ready to be your UHF counselor at anytime.

Our Certification:



ISO9001 Certification



CE Certification



RoHS Certification



Reach Certification



Our Equipments:



Quality Control: All UHF tags are passed by Voyantic Tagsurance.



MICRO UHF METAL TAG

Smallest Size Diameter 5mm
Read Distance 100cm



UHF Metal tag Atom series:

D5mm, 5x3mm, D6mm, 6x3mm, 6x6mm, 8x3mm, 10x4mm, D10mm,
13x7mm, D16mm, 15x4mm, 18x8mm

Application:

Instrument tracking, Tool tracking, Medical device management, Source tagging, Surgical instrument management, Small asset tracking, IT and laptop tracking, embedded bolt identification, Weapons tracking.

PCB UHF Metal Tag Atom Series:

| Number | Picutre | IC Type | size (mm) | Hole | Read Range(on Metal) : (Fix Reader:ThingMagic M6-E, 36dBm/4W) | | Read Range(on Metal) : (Handheld Reader: OP9908, R2000, 33dBm/2W) | | Weight (g) |
|---------------|---------|---------------|-------------------------|-------|---|--------------------|---|--------------------|---------------|
| | | | | | US (902-928MHz) | EU (865-868MHz) | US (902-928MHz) | EU (865-868MHz) | |
| OPPD5 | | Alien Higgs-3 | Diameter 5mmxT4.0mm | no | 100cm | 90cm | 60cm | 55cm | 0.5g |
| OPP 060302 | | Alien Higgs-3 | 6x3mmxT3.0mm | no | 85cm | 80cm | 50cm | 45cm | 0.5g |
| OPP0603 | | Alien Higgs-3 | 6x3mmxT4.0mm | no | 90cm | 80cm | 50cm | 45cm | 0.5g |
| OPPD6 | | Alien Higgs-3 | Diameter 6mmxT4.0mm | 2mmx1 | 85cm | 75cm | 45cm | 45cm | 0.5g |
| OPP0606 | | Alien Higgs-3 | 6x6mmxT4.0mm | no | 110cm | 110cm | 80cm | 80cm | 0.5g |
| OPP0803 | | Alien Higgs-3 | 8x3mmxT3.0mm | no | 110cm | 120cm | 70cm | 85cm | 0.5g |
| OPP1004 | | Alien Higgs-3 | 10x4mmxT3.0mm | 2mmx1 | 135cm | 135cm | 90cm | 75cm | 0.5g |
| OPPD10 | | Alien Higgs-3 | Diameter 10mmxT3.0mm | 2mmx1 | 150cm | 130cm | 100cm | 95cm | 0.5g |
| OPP1307 | | Alien Higgs-3 | 13x7mmxT3.0mm | 2mmx2 | 250cm | 240cm | 170cm | 140cm | 0.7g |
| OPPD13 | | Alien Higgs-3 | Diameter 13mmxT2.0mm | 2mmx2 | 180cm | 150cm | 140cm | 120cm | 0.7g |
| OPPD16 | | Alien Higgs-3 | Diameter 16mmxT3.0mm | 2mmx2 | 260cm | 240cm | 160cm | 150cm | 1.3g |
| OPP1504 | | Alien Higgs-3 | 15x4mmxT2.0mm | 2mmx2 | 210cm | 220cm | 130cm | 150cm | 0.7g |
| OPP1806 | | Alien Higgs-3 | 18x6mmxT3.0mm | 2mmx1 | 260cm | 250cm | 200cm | 180cm | 1.2g |

*Supply OEM/ODM service.

PCB UHF Metal Tag Dolphin Series:

| Number | Picture | IC Type | size (mm) | Hole | Read Range(on Metal) : | | Read Range(on Metal) : | | Weight (g) |
|------------------|---|---------------|----------------------|-------|--|-----------------|--|-----------------|------------|
| | | | | | (Fix Reader:ThingMagic M6-E, 36dBm/4W) | | (Handheld Reader: OP9908, R2000, 33dBm/2W) | | |
| | | | | | US (902-928MHz) | EU (865-868MHz) | US (902-928MHz) | EU (865-868MHz) | |
| OPPD20 |  | Alien Higgs-3 | Diameter 20mmxT2.0mm | 2mmx2 | 320cm | 280cm | 240cm | 230cm | 1.0g |
| OPP2208 |  | Alien Higgs-3 | 22x8mmxT3.0mm | 2mmx2 | 450cm | 470cm | 260cm | 300cm | 1.3g |
| OPP2510 |  | Alien Higgs-3 | 25x10mmxT2.0mm | 2mmx2 | 325cm | 300cm | 250cm | 240cm | 1.3g |
| OPP2626 PPS Tag |  | Alien Higgs-3 | 26x26mmxT5.5mm | 4mmx2 | 260cm | 250cm | 150cm | 130cm | 6.5g |
| OPP3005 |  | Alien Higgs-3 | 30x5mmxT2.0mm | 2mmx2 | 310cm | 280cm | 210cm | 200cm | 0.8g |
| OPP3310 |  | Alien Higgs-3 | 33x10mmxT3.5mm | 2mmx2 | 420cm | 350cm | 280cm | 250cm | 3.0g |
| OPP3613 |  | Alien Higgs-3 | 36x13mmxT3.5mm | 2mmx2 | 470cm | 450cm | 270cm | 250cm | 3.5g |
| OPP4010 |  | Alien Higgs-3 | 40x10mmxT2.0mm | 3mmx2 | 450cm | 420cm | 300cm | 280cm | 1.8g |
| OPP4215 PTFE Tag |  | Alien Higgs-4 | 42x15mmxT2.1mm | 4mmx2 | 680cm | 700cm | 530cm | 550cm | 2.2g |

*Supply OEM/ODM service.

PCB UHF Metal Tag Everest Series:

| Number | Picutre | IC Type | size (mm) | Hole | Read Range(on Metal) : (Fix Reader:ThingMagic M6-E, 36dBm/4W) | | Read Range(on Metal) : (Handheld Reader: OP9908, R2000, 33dBm/2W) | | Weight (g) |
|---------------|---------|------------------|----------------|-----------|---|--------------------|---|--------------------|---------------|
| | | | | | US (902-928MHz) | EU (865-868MHz) | US (902-928MHz) | EU (865-868MHz) | |
| OPP5010 | | Alien Higgs-3 | 50x10mmxT1.0mm | 2mmx2 | 280cm | 250cm | 190cm | 170cm | 1.5g |
| OPP5213 | | Impinj Monza 4QT | 52x13mmxT3.5mm | 3mmx2 | 800cm | 820cm | 490cm | 510cm | 5.5g |
| OPP8008 | | Alien Higgs-3 | 80x8mmxT3.5mm | 3mmx2 | 650cm | 590cm | 340cm | 310cm | 5.0g |
| OPP7020 | | Alien Higgs-3 | 70x20mmxT3.6mm | 4mmx2 | 1000cm | 1030cm | 630cm | 660cm | 11.0g |
| OPP9020 | | Alien Higgs-3 | 90x20mmxT3.0mm | 3mmx2 | 1080cm | 1050cm | 650cm | 630cm | 12.0g |
| OPP7111 (FPC) | | Alien Higgs-3 | 71x11xT0.13mm | No | Global 900cm | | Global 530cm | | 0.2g |
| OPP130 | | Alien Higgs-3 | 130x42xT10.5mm | Long hole | 3000cm | 2800cm | 2200cm | 2200cm | 40g |

*Supply OEM/ODM service.

Read Distance: Up to 30 Meters **Long Distance Metal UHF TAG****OPP130****Functional Specifications:**

| | |
|--|---|
| RFID Protocol: | EPC Class1 Gen2, ISO18000-6C |
| Frequency: | (US) 902-928MHz, (EU) 865-868MHz |
| IC type: | Alien Higgs-3 |
| Memory: | EPC 96bits (Up to 480bits) , USER 512bits, TID64bits |
| Write Cycles: | 100,000times |
| Functionality: | Read/write |
| Data Retention: | Up to 50 Years |
| Applicable Surface: | Metal Surfaces |
| Read Range : | 30M - (US) 902-928MHz, 28M - (EU) 865-868MHz, On Metal |
| (Fix Reader:ThingMagic M6-E, 36dBm/4W) | 16M - (US) 902-928MHz, 14M - (EU) 865-868MHz, Off Metal |
| Read Range : | 22M - (US) 902-928MHz, 22M - (EU) 865-868MHz, On Metal |
| (Handheld Reader: OP9908, R2000, 32dBm/2W) | 11M - (US) 902-928MHz, 11M - (EU) 865-868MHz, Off Metal |
| Warranty: | 1 Year |

Physical Specification:

| | |
|-------------------|---------------------------------|
| Size: | 130x42mm |
| Thickness: | 10.5mm |
| Material: | PC |
| Colour: | Black (Red, Blue, Green, White) |
| Mounting Methods: | Adhesive, Screw |
| Weight: | 40g |

Environmental Specification:

| | |
|------------------------|--|
| IP Rating: | IP68 |
| Storage Temperature: | -30°C to +100°C |
| Operation Temperature: | -20°C to +80°C |
| Certifications: | Reach Approved, RoHS Approved, CE Approved |

High Temperature UHF Metal TAG**OPP4215***Withstands: 280°C for 50 minutes, 250°C for 150minutes***Functional Specifications:**

| | |
|--|---|
| RFID Protocol: | EPC Class1 Gen2, ISO18000-6C |
| Frequency: | (US) 902-928MHz, (EU) 865-868MHz |
| IC type: | Alien Higgs-4 |
| Memory: | EPC 128bits, USER 128bits, TID64bits |
| Write Cycles: | 100,000times |
| Functionality: | Read/write |
| Data Retention: | Up to 50 Years |
| Applicable Surface: | Metal Surfaces |
| Read Range : (Fix Reader: ThingMagic FU-M6-E, 36dBm/4W) | 680cm-(US) 902-928MHz, 700cm-(EU) 865-868MHz, on metal; 400cm-(US) 902-928MHz, 350cm-(EU) 865-868MHz, off metal. |
| Read Range : (Handheld Reader: OP9908, R2000, 33dBm/2W) | 530cm-(US) 902-928MHz, 550cm-(EU) 865-868MHz, on metal; 270cm-(US) 902-928MHz, 220cm-(EU) 865-868MHz, off metal. |
| Warranty: | 1 Year |

Physical Specification:

| | |
|-------------------|---|
| Size: | 42x15mm, (Hole: D4mmx2) |
| Thickness: | 2.1mm without IC bump, 2.8mm with IC bump |
| Material: | PTFE |
| Colour: | Black |
| Mounting Methods: | Adhesive, Screw |
| Weight: | 2.2g |

Environmental Specification:

| | |
|------------------------|---|
| IP Rating: | IP68 |
| Storage Temperature: | -55°C to +200°C (280°C for 50 minutes, 250°C for 150minutes) |
| Operation Temperature: | -40°C to +150°C (working 10hours in 180°C) |
| Certifications: | Reach Approved, RoHS Approved, CE Approved |

**Functional Specifications:**

| | |
|--|---|
| RFID Protocol: | EPC Class1 Gen2, ISO18000-6C |
| Frequency: | (US) 902-928MHz, (EU) 865-868MHz |
| IC type: | Alien Higgs-3 |
| Memory: | EPC 96bits (Up to 480bits) , USER 512bits, TID64bits |
| Write Cycles: | 100,000times |
| Functionality: | Read/write |
| Data Retention: | Up to 50 Years |
| Applicable Surface: | Metal Surfaces |
| Read Range : | 260cm - (US) 902-928MHz; 250cm - (EU) 865-868MHz, On metal |
| (Fix Reader:ThingMagic FU-M6-E, 36dBm/4W) | 130cm - (US) 902-928MHz; 120cm - (EU) 865-868MHz, Off metal |
| Read Range : | 190cm - (US) 902-928MHz; 150cm - (EU) 865-868MHz, On metal |
| (Handheld Reader: OP9908, R2000, 33dBm/2W) | 100cm - (US) 902-928MHz; 90cm - (EU) 865-868MHz, Off metal |
| Warranty: | 1 Year |

Physical Specification:

| | |
|-------------------|--------------------------|
| Size: | 26x26mm, (Hole: D4mmx2) |
| Thickness: | 5.5mm |
| Material: | PPS shell, PCB Antenna |
| Colour: | Black |
| Mounting Methods: | Adhesive, Screw, binding |
| Weight: | 6.5g |

Environmental Specification:

| | |
|-------------------------|---|
| IP Rating: | IP68 |
| Withstands Exposure To: | Fuel B, mineral oil, petroleum, salt mist, vegetable oil; |
| Storage Temperature: | -40°C to +150°C (230°C for 30 minutes, 180°C for 120minutes) |
| Operation Temperature: | -40°C to +100°C |
| Certifications: | Reach Approved, RoHS Approved, CE Approved |



Functional Specifications:

| | |
|--|--|
| RFID Protocol: | EPC Class1 Gen2, ISO18000-6C |
| Frequency: | Global 840Mhz to 960Mhz |
| IC type: | Alien Higgs-3 |
| Memory: | EPC 96bits (Up to 480bits) , USER 512bits, TID64bits |
| Write Cycles: | 100,000times |
| Functionality: | Read/write |
| Data Retention: | Up to 50 Years |
| Applicable Surface: | non Metal Surfaces |
| Read Range : (Fix Reader: ThingMagic FU-M6-E, 36dBm/4W) | Up to 9.0M, off metal |
| Read Range : (Handheld Reader: OP9908, R2000, 33dBm/2W) | Up to 5.0M, off metal |
| Warranty: | 1 Year |

Physical Specification:

| | |
|-------------------|---------|
| Antenna Size: | 71x11mm |
| Thickness: | 0.13mm |
| Material: | FPC |
| Colour: | |
| Mounting Methods: | |
| Weight: | 0.2g |

Environmental Specification:

| | |
|------------------------|--|
| IP Rating: | IP68 |
| Storage Temperature: | -40°C to +200°C |
| Operation Temperature: | -40°C to +100°C |
| Certifications: | Reach Approved, RoHS Approved, CE Approved |

Industrial PAD

OP9908



| Standard Parts | |
|------------------------------|--|
| General Specifications | |
| Operating system | Android 4.4 embedded OS |
| CPU | 1.2GHz |
| RAM | RAM 1G ,ROM 8G or RAM 2G, ROM 16G |
| Ports | One USB 2.0 port(OTG supports U Flash Disk, Mouse, 100M ethernet), one charging mouth, one TF card(128G), one SIM card |
| Protection Grade | |
| Industrial Protection Grade | IP65 |
| Drop Grade | Drop resistance from 1.2m |
| Wireless Communication | |
| Bluetooth | V4.0 |
| GPS | Built-in Beidou/GPS/GLONASS; supports A-GPS; External Beidou/GPS/GLONASS; supports RTCM 2.3 differential data |
| WIFI | Support IEEE 802.11b/g/n |
| 4G | FDD/WCDMA/GSM LTE_FDD B1/B3/B7 LTE_TDD B41/B40 WCDMA B1//B2/B5 GSM 900/1800/1900 |
| Physical Layer Parameter | |
| Display Screen | 4 inch LCD screen, 480x800 IPS screen, capacitive touch screen |
| Touch screen | Thicken tempered glass(thickness 1mm); supports 10 points touch and double-click for waking up |
| Keyboard | Physical keypad with 19 phiscal keys |
| Camera | 8.0 million pixels; support auto focus and fill-flash function. |
| Headset | Supports standard headset, Bluetooth headset; support Mike and receiver function |
| Vibration Function | Vibrating prompt function |
| Sensor | Supports light sensation, gyroscope, compass, gravity |
| Flashlight Function | Used for emergency lighting |
| Rechargeable Lithium Battery | 3.7V, 3800mAh |
| Handle Battery | 3.7V, 5000mAh |
| Standby | The standby current is less than 10mA |
| Dimension | 168mm*75mm*26mm |
| Weight | 350g |



| Standard Parts | |
|------------------------------|--|
| General Specifications | |
| Operating system | Android 4.4 embedded OS |
| CPU | 1.2GHz |
| RAM | RAM 1G ,ROM 8G or RAM 2G, ROM 16G |
| Ports | One USB 2.0 port(OTG supports U Flash Disk, Mouse, 100M ethernet), one charging mouth, one TF card(128G), one SIM card |
| Protection Grade | |
| Industrial Protection Grade | IP65 |
| Drop Grade | Drop resistance from 1.2m |
| Wireless Communication | |
| Bluetooth | V4.0 |
| GPS | Built-in Beidou/GPS/GLONASS; supports A-GPS; External Beidou/GPS/GLONASS; supports RTCM 2.3 differential data |
| WIFI | Support IEEE 802.11b/g/n |
| 4G | FDD/WCDMA/GSM LTE_FDD B1/B3/B7 LTE_TDD B41/B40 WCDMA B1//B2/B5 GSM 900/1800/1900 |
| Physical Layer Parameter | |
| Display Screen | 4 inch LCD screen, 480x800 IPS screen, capacitive touch screen |
| Touch screen | Thicken tempered glass(thickness 1mm); supports 10 points touch and double-click for waking up |
| Keyboard | Physical keypad with 19 phiscal keys |
| Camera | 8.0 million pixels; support auto focus and fill-flash function. |
| Headset | Supports standard headset, Bluetooth headset; support Mike and receiver function |
| Vibration Function | Vibrating prompt function |
| Sensor | Supports light sensation, gyroscope, compass, gravity |
| Flashlight Function | Used for emergency lighting |
| Rechargeable Lithium Battery | 3.7V, 3800mAh |
| Handle Battery | 3.7V, 5000mAh |
| Standby | The standby current is less than 10mA |
| Dimension | 168mm*75mm*26mm |
| Weight | 350g |

4-Port Enterprise UHF RFID Reader**OPM6A****The synopsis of the reader:**

The OPM6A is a low profile, high-performance 4-port RFID reader designed for both indoor and outdoor applications. Driven by ThingMagic's powerful Mercury6e UHF RFID reader module.

1.Tag / Transponder Protocols:

EPCglobal Gen 2 (ISO 18000-6C) with DRM
ISO 18000-6B (optional)
IP-X (optional)

2.Interface:

Four RP-TNC connectors

3.RF Power Output:

Separate read and write levels, command adjustable from 5 dBm to 31.5 dBm* (1.4W) with +/-0.5 dBm accuracy above +15 dBm

4.Frequency:

Pre-configured for the following regions:
FCC 902-928 MHz (Americas)
ETSI 865.6-867.6 MHz (EU)
KCC 917-920.8 MHz (Korea)
TRAI 865-867 MHz (India)
ACMA 920-926 MHz (Australia)
'Open' (Customizable) 865-869 MHz,
902-928 MHz

5.Connectors:

RJ45 (10/100 Base-T Ethernet)
9-pin serial connector, supporting RS232
GPIO interface

7.External DC Power:

12Vsupply voltage
Maximum DC power: 15 W

8.Environment:

Operating Temp: -20°Cto+70°C
Storage Temp: - 40°Cto+85°C
Humidity 5-95% non-condensing

9.Architecture:

Operating System: Linux 2.6.35

10.Performance:

Max Tag Read Rate:More than 750 tags/second using high-performance settings
Max Tag Read Distance: depend on tag
Max EPC ID Length: Up to 496 bits

11.Application Interface:

On reader API:MercuryOS C API
Host API:Java, C, .NET

The Mercury6e (M6e) embedded UHF RFID reader module offers world leading performance, form factor, and time-to-market advantages to OEM, Value Added Reseller, and Solution Provider customers. It is designed to the performance standards of full size readers, but is small and efficient enough to be used in mobile applications. The M6e supports 4 ports and will operate to a level of +31.5 dBm. Serial and USB interfaces are provided to support both board-to-board and board-to-host connectivity

UHF Antenna OPRFA915



Electrical Specifications

| | |
|------------------------|-----------------------|
| Model | OPRFA915 |
| Frequency Range(MHz) | 840/960 |
| Bandwidth MHz | 100 |
| Gain | 6dBi |
| Horizontal Beamwidth ° | Hor:65ert:58 |
| F/B Ratio | ≥23 |
| VSWR | ≤1.3 |
| Impedance | 50 Ω |
| Polarization | Circular polarization |
| Max. Power | 100W |
| Connector | SMA-K |

Mechanical Specifications

| | |
|---------------------------|----------------|
| Dimension mm | 140*120*20 |
| Weight KG | 0.4 |
| Rated Wind Velocity | 60 m/s |
| Reflector material | H Copper plate |
| Radome material | ABS |
| Operating temperaturec | -40 ~ 80°C |
| Suitable pole diameter mm | Φ40-Φ75 |



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