BLUEBIRD

Fixed RFID Reader

FR900

Sleek, Refined Design

- Sleek, compact, and sophisticated design
- Fits well in any corporate office or public environment such as a retail store or hospital
- Compact form factor: 253 x 254 x 56 mm

Perfect Accuracy

- Dense Reader Mode provides high accuracy and prevents reader-to-reader interference
- High accuracy even in applications with metal and liquid
- EPC Class-1 Gen-2 V2 compliant

Durable in Rough Environment

- Performs in dusty environments with IP53 sealing

Low-Cost and Easy Deployment

- Power-over-Ethernet (PoE and PoE+) allows flexible, low cost, single-cable installation
- Easy to install in tight spaces

One Reader, Multiple Antennas

- One reader connects up to 8 antennas
- Flexible and cost-effective modular solution

High Speed Processor & Linux

- Powerful processor and flash memory
- Linux OS

- PoE INSTALLATION
- COST-EFFECTIVE
- LESS CABLE CLUTTER

- EASY TO USE
- EASY TO DEPLOY

- PERFECT ACCURACY

FR900 Applications

- Personnel Tracking
- Real-Time Inventory
- Anti-Theft Sensing
- Drug Management
- Asset Management
- Inventory Management
- Patient Monitoring

Product Overview

FR900

Specification

PHYSICAL	
Dimensions	253 x 254 x 56 mm
Weight	1.5kg
Visual Status Indicators	Multicolor LEDs : Power, Activity, Status, Fault, Ant 4-8
RF CHARACTERISTICS	
Max Receive Sensitivity	-84 dBm monostatic
Return Loss (min)	10 dB
Air Protocols	ISO 18000-63 (EPC Class 1Gen 2V2)
Frequency (UHF Band)	US: 902-928 MHz EU: 865-868 MHz JP1: 916-921 MHz, JP2: 916~923 MHz CN: 920.5-924.5 MHz Russian Federation: 866-868 MHz
Transmit Power Output	US : 6 dBm to +36 dBm (EIRP) at the antenna EU : 3 dBm to +33 dBm(ERP) at the antenna configurable in 1 dB steps (Max radiated power at antenna should be lower than 4W EIRP for US/Canada and 2W ERP for EU)
CONNECTIVITY	
Communications	10/100 BaseT Ethernet; USB Host & Client (Type A & B); DB9 1ea, RJ-45 1ea, HW Reset button, Function button (Optional) Wi-Fi and Bluetooth via dongle adapter
General Purpose I/O	4 inputs, 4 outputs optically isolated (Terminal Block)
Power Supply	POE / POE+ +24V DC Universal Power Supply
Antenna Ports	8 monostatic ports(Reverse Polarity TNC) circular or linear polarization; near and far field compatible
ENVIRONMENTAL	
Operating Temp.	-20° to +55° C / -4° to +131°F
Storage Temp.	-40° to +85° C / -40° to +185° F
Humidity	5-95% non-condensing
Sealing	IP53
Shock / Vibration	MIL-STD-810G

HARDWARE, OS AND FIRMWARE MANAGEMENT	
Processor	600 MHz Processor
Memory	256 MB RAM / 512 MB Flash
Operating System	Linux
Firmware Upgrade	USB storage device Web-based and remote firmware upgrade capabilities
Management Protocols	Bluebird Shell (SSH Protocol), RM Agent (MQTT Protocol)
Network Services	DHCP, HTTP, FTP, SFTP, SSH, NTP, mDNS, LLMNR, MQTT
Network Stack	IPv4 and IPv6
Security	Transport Layer Security Ver 1.2, FIPS-140SSL / SSH-based security
Host Interface	EPCglobal Low Level Reader Protocol (LLRP)
API Support	.NET, C and Java EMDK
Software Support (Bluebird)	Bluebird Universe™ for RFID
REGULATORY COMPLIANCE	
Safety	UL 60950-01, UL 2043, IEC 60950-1, EN 60950-1
RF / EMI / EMC	FCC Part 15,RSS 210, EN 302 208, ICES-003 Class B, EN 301 489-1/3 For Malaysia: 919-923MHz
SAR / MPE	FCC 47CFR2:OET Bulletin 65; EN 50364
Other	ROHS
WARRANTY	
Warranty	One year

EMPOWERING BUSINESSES WITH ACTIONABLE DATA

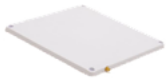
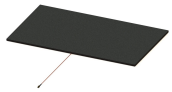
BUSINESS INTELLIGENCE DELIVERED BY HIGH-PERFORMANCE RFID SOLUTIONS FROM BLUEBIRD

Product Overview

FR900

FR900 Antennas



PRODUCT NAME	AN950	AN970	AN971	ANS960	ANS980
Concept	Mid Performance & Compact	High Performance & General Purpose	High Performance & Large Area	Circular Polarized UHF ANTENNA	Circular Polarized, High Gain ANTENNA
Used For	Warehouse - Stocks Transition (Fork lift) - Conveyors Retail Back-room - Inventory Management - Gates	Warehouse - Portals, Outdoor gates Retail Back-room - Inventory Management - Gates	Warehouse - Portals, Outdoor gates Retail Back-room - Inventory Management - Gates	Warehouse - Portals, Outdoor gates Retail Back-room - Inventory Management - Medical & Pharma Application	Warehouse - Portals, Outdoor gates - Shelving Appication Laundry Application Vehicle Tolling/Access

Antenna Product Specification

PRODUCT NAME	AN950 T	AN970	AN971	ANS960	ANS980
PHYSICAL					
Dimensions (L x W x D)	132 x 132 x 18 mm 5.2 x 5.2 x 0.7 in.	259 x 259 x 33.5 mm 10.2 x 10.2 x 1.3 in.	575 x 260 x 33.5mm 22.6 x 10.2 x 1.3 in.	250 x 250 x 14mm 9.85 x 9.85 x 0.55 in.	600 x 300 x 9mm 25.56 x 14.16 x 1.18 in.
Connectors	Type N, SMA RP-TNC,RP-SMA (Female)	Coax Pigtail, Rev TNC Male (others available)	N-type Female 2x or Configurable	SMA Female side Connceter	SMA Female side fly lead
Mounting Bracket	VESA support	VESA support	VESA support	VESA support	VESA support
Weight	0.37 Kg / 0.82lb	1.0Kg / 2.2lb	1.9kg / 4.2lb	0.75kg / 1.6lb	1.48kg / 3.3lb
Casing	Aluminium with white plastic cover	Aluminium with white plastic cover	UV Stable ASA, White	Flame retardant ABS	UV-Resistanct ABS
OPERATIONAL					
Frequency Range	865MHz ~870MHz / 902 ~928MHz	865MHz ~868MHz / 902 ~928MHz	865MHz ~868MHz / 902 ~928MHz	865MHz ~868MHz / 902 ~928MHz	865MHz ~868MHz / 902 ~928MHz
Gain	5.5 dBic	9 dBic	9 dBic	8.5 dBic	10.5 dBic
VSWR (Return Loss)	1.5:1	1.3:1	1.4:1	1.3:1	1.4:1
Front to Back Ratio	8 dB	20 dB	20 dB	-20 dB	-25 dB
Polarization	LHCP or RHCP	LHCP or RHCP	LHCP/RHCP	RHCP	RHCP
3db Beam Width	100°	70°	70°	68°	25° in XZ / 60° in YZ
Max Input Power	10 W	10 W	10 W	3 W	3 W
Axial Ratio	2 dB	1dB typical	1dB typical	1dB typical	2dB typical
ENVIRONMENTAL					
Operating Temperatures	-30° C to +70° C / -13° F to +158°F	-25° C to +70° C / -13° F to +158°F	-25°C to +70°C/ -13°F to +158°F	-20°C to +55°C/ -4°F to +131°F	-20°C to +55°C/ -4°F to +131°F
Sealing	IP67	IP54	IP67	IP67	IP54
Storage Temperatures	-40°C to +85°C/ -40°F to +185°F	-40°C to +70°C/ -40°F to +158°F	-40°C to +80°C/ -40°F to +176°F	-30°C to +65°C/ -22°F to +149°F	-30°C to +65°C/ -22°F to +149°F
Vibration	MIL-STD-810	IEC-68-2-6	IEC-68-2-6	MIL-STD-810G	
Humidity	IEC-68-2-30	MIL-Std 810G, METHOD 507.5, Procedure II-Aggravated	MIL-Std 810G, METHOD 507.5, Procedure II-Aggravated		

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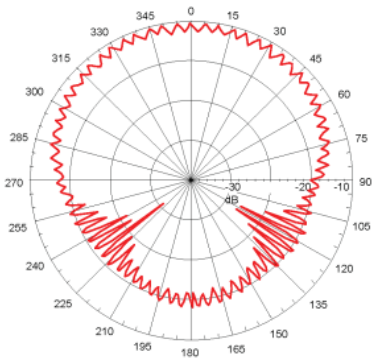
Product Overview

FR900

FR900 Antennas' Radiation Patterns

AN950



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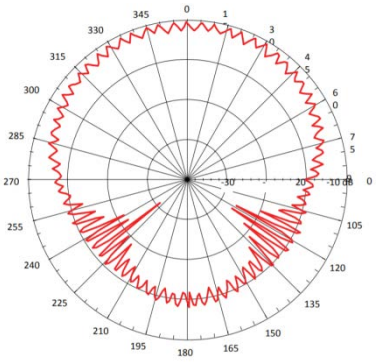

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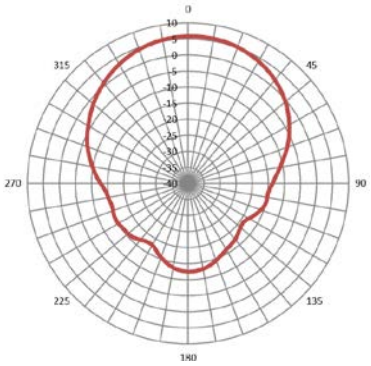
AN970



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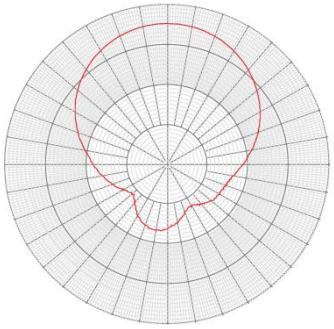

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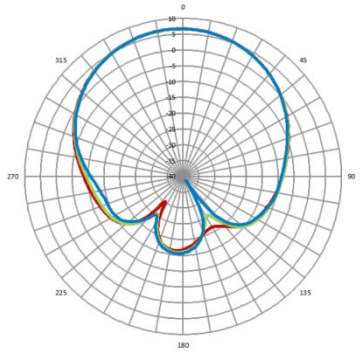

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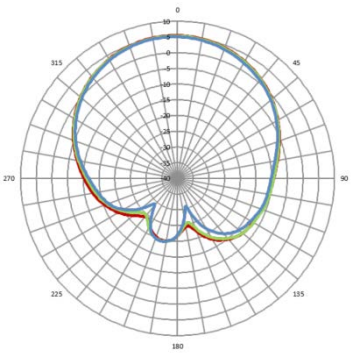

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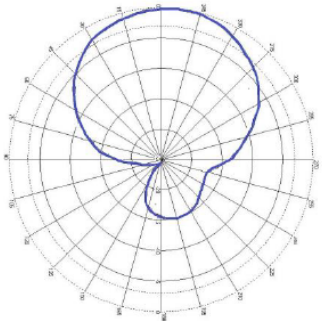
ANS960



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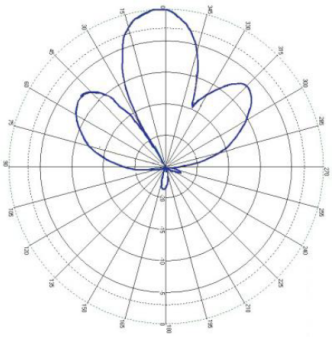
ANS980



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