

## NSAR-800 Ultra Rugged Active RFID Reader/Writer



### Overview:

NephSystem Technologies' NSAR-800 Ultra Rugged (IP67 rating) and ultra-long range active RFID reader/writer operates in global and open radio frequency band of 2.45GHz. NSAR-800 uses a built in Omni-directional antenna allowing it to identify NephSystem's NSAT series of regular active tags up to 180 meters (600 feet). The reading range of the reader can also be adjusted by software to ensure reliable identification. With NephSystem's heavy duty active tags (model: NSAT-704), the reading distance could be up to 1500 meters (4900 feet) in an outdoor environment. NSAR-800 is also capable of writing up to 512 bytes of user data onto specific NSAT tags (Model: NSAT-701C and NSAT-706).

By using advanced 0.13um CMOS IC technology, NSAR-800 features with high-recognition, ultra-long reading range, ultra-low power consumption, high- reliability & expandability, etc. With its ultra-rugged/compact design (IP67 rating), NSAR-800 is ideal for deployment in a wide variety of indoor and outdoor applications, such as Personnel Tracking/Monitoring, Warehouse Management, High Value Asset Tracking, Hospital, Schools, Vehicle/Train Tracking, Parking Management, Manufacturing, Shop Floor, Toll, etc.

NSAR-800 is also equipped with built-in and software controllable digital dry-contact relay channels, capable of controlling other peripherals such as gates, sirens, garage doors, etc.

NSAR-800 main features of ultra-rugged, water-proof and low cost capabilities make it easy to be expanded for most of rugged applications. NephSystem's NSAR-800 2.45GHz active RFID reader is one of the toughest and longest ranges of RFID devices on the market.

### Main Features:

- Ultra-Rugged and seamless design (IP67 graded)
- Super long reading distance
- Gain adjustable through software (0~1500 meters adjustable)
- Built-in antenna design (no additional/external antenna required)
- Low cost
- Software controllable digital I/O
- Built-in Ethernet (TCP/IP) and RS232 interfaces
- High speed data throughput (up to 200 simultaneous tag detection)
- Water/Dust proof, reference to relevant military standards
- CE/FCC/RoHS Certified
- Free SDK and demo utility



### NephSystem Technologies

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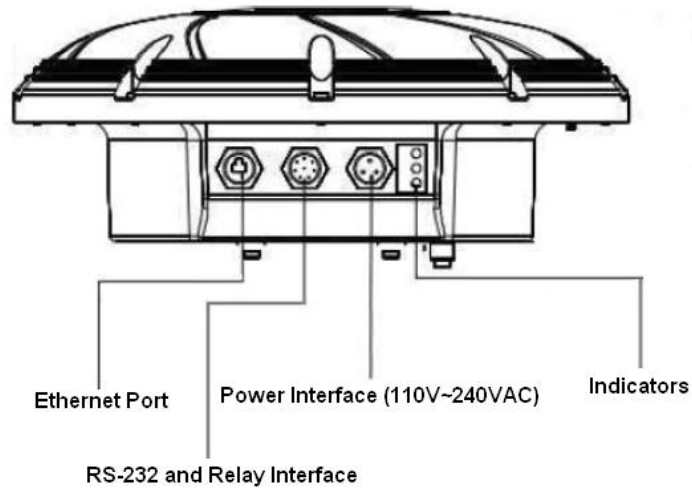
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## Specifications:

Operating Frequency	2.400-2.4835GHz
Modulation	GFSK
Sensitivity	-95dBm
Communication Rate	1Mbps
Communication Interfaces	1 × RS-232 port and 1 × 10/100M Ethernet (RJ45) port
I/O Capability	Built-in software controllable relay channel
Reading Range	software adjustable 0 ~ 1500m (tags dependent)
Multi-Detection	Up to 200 tags per second
Identification Accuracy	>99.99%
Beep Control	Built-in software controllable buzzer
Water/Dust proof	IP67 rating
Power Consumption	300mW
Power Supply	Global 110V~240VAC input
Power Isolation	1kV
Dimensions	Φ 33cm ×12cm (Φ13.0 inches × 5.0 inches)
Weight	1.5kg (3.3 pounds)
Operating Temperature	-40°C ~ +70°C (-40°F ~ 158°F)
Storage Temperature	-40°C ~ +80°C (-40°F ~ 176°F)
Humidity	5% ~ 95% (non-condensing)
Certificates	CE/FCC/RoHS



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