

# NephSystem NSAT Series Active RFID Tags

## Overview:

The NephSystem Technologies' NSAT Series of 2.45GHz Active RFID heavy duty tags are active tags that continuously transmit unique ID numbers, which can be detected and decoded by NephSystem' NSAR series of active readers. They use advanced 0.13um CMOS IC technology and provide ultra-low power consumption, ensures longer battery life (up to 6 years) at higher rates of transmission. The NSAT tags' unique anti-collision feature allows for a simultaneous read of up to 200 tags and up to 1500 meters reading distance with NephSystem's NSAR series of active readers. The NSAT tags use industrial PVC housing that allows them to work under any harsh environment (IP50 or IP67 rated). NSAT Series tags are ideally suitable for varied appellations, such as Valuable Asset Tracking, Security Management, Security or Personnel Tracking, Shop Floor, Automotive Tracking and Security, Military Asset Tracking, Cargo and Container Tracking, Transportation and Logistics, Airline unit load devices, Construction and Heavy Machinery, etc.

## Main Features:

- ❖ Exclusive low-power consumption design, up to 6 years of life time
- ❖ Unique 8-character long tag ID
- ❖ Industrial PVC housing, water/dust proof
- ❖ IP50 or IP67 Rated
- ❖ Ultra long reading distance, up to 1500 meters or 4900 feet (tags dependent) in outdoor environment



NSAT-701 Personnel Tag



NSAT-702 Small Asset Tag



NSAT-703 Key Fob Tag



NSAT-704 Heavy Duty Asset Tag



NSAT-705 Temperature Sensor Tag



NSAT-706 Asset Writeable Tag w/ LED & Buzzer



NSAT-707 Micro Strap Tag



NSAT-708 Wristband Tag

## NephSystem Technologies

Delta BC, V4L 2A6, Canada

Phone: +1 604-9489289

Fax: +1 604-9489607

www.nephsystem.com



# NephSystem NSAT Series Active RFID Tags

## Specifications:

	<b>NSAT-701</b>	<b>NSAT-702</b>	<b>NSAT-703</b>	<b>NSAT-704</b>	<b>NSAT-705</b>	<b>NSAT-706</b>
Output Power	-18dBm ~ 0dBm	-18dBm ~ 0dBm	-20dBm ~ 0dBm	2dBm ~ 18dBm	-18dBm ~ 0dBm	-18dBm ~ 0dBm
Sensitivity	-85dBm	-85dBm	-85dBm	-93dBm	-85dBm	-85dBm
Reading Range	Up to 180m	Up to 150m	Up to 100m	Up to 1500m	Up to 150m	Up to 80m
Water/Dust proof	IP67	IP50	IP64	IP67	IP67	IP67
Battery Life	5 years	4 years	4 years (Replaceable)	6 years	5 years	2 years
Power Supply	750mAh lithium battery	550mAh lithium battery	450mAh lithium battery	1600mAh lithium battery	800mAh lithium battery	850mAh lithium battery
Dimensions (L×W×H)	8.6cm×5.5cm×0.2cm	6.5cm×3.5cm×0.2cm	5.2cm×3.1cm×1.1cm	12cm×5.0cm×1.5cm	11cm×3.5cm×1.0cm	8.8cm×4.2cm×0.9cm
Weight	20g	16g	25g	82g	22g	32g
LED & Buzzer	N/A	N/A	N/A	N/A	N/A	Built-in
Extended User Memory	512 bytes-NSAT-701C	N/A	N/A	N/A	N/A	Built-in 512 bytes

### To be continued ...

	<b>NSAT-707</b>	<b>NSAT-708</b>
Output Power	-6dBm	-6dBm
Sensitivity	-85dBm	-85dBm
Reading Range	Up to 80m	Up to 100m
Water/Dust proof	IP50	IP68
Battery Life	3 years	4 years
Power Supply	450mAh replaceable lithium battery	550mAh lithium battery
Dimensions (L×W×H)	∅29mm × 8mm	250mm × 31mm × 15mm
Weight	7g	40g
LED & Buzzer	N/A	N/A
Extended User Memory	N/A	N/A
Operating Frequency	2.400-2.4835GHz	
Modulation	GFSK	
Communication Rate	1Mbps	
Identification Accuracy	>99.99%	
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)	
Shock Resistance	10 ~ 2000Hz, 20mm/15g, Triaxial	
Reliability	MTBF ≥ 1*100000 h	
Certificates	CE/FCC/RoHS	

## NephSystem Technologies

Delta BC, V4L 2A6, Canada

Phone: +1 604-9489289 Fax: +1 604-9489607

www.nephsystem.com

