

# ND-SV003

See Through Wall Radar



## System Overview



ND-SV003 See Through Wall Radar is specially designed for localization of living people behind walls or optically nontransparent obstacles during anti-terrorism operations, natural disaster rescue missions, avalanche recovery search, or locating people trapped in smoke filled rooms.

Based on its highlighted feature of long range, high resolution and strong penetrability, the ND-SV003 provides a best-in-class solution for government agencies, such as Police force, SWAT, Drug Enforcement Officers, Army, Navy, Air Force and Fire department.

## System Configuration

The system consists of the radar host, removable battery, battery charger and terminal PAD. The radar host is including transmitter module, receiver module and signal processing module for complete detection. The Terminal PAD is a tablet, which displays the target information inside the building. It can be operated remotely by a field engineer in a secondary location or attached to the radar host and operated as one unit.

## System Advantages

- Strong penetration  
It is able to penetrate a 50cm brick & concrete solid wall to detect the human target within 30m
- Real time  
It is able to detect and display multiple moving targets in real time
- High resolution  
 $\pm 5\text{cm}$  in distance,  $\pm 0.5\text{m}$  in position (depending on situations)
- Multiple targets two dimension positioning  
It is able to detect multiple moving and motionless targets with a clear two dimensional display
- Strong environmental suitability  
It is able to work all time & in all-weather conditions.  
The performance of the system is not impacted by rain, haze, snow, dust, smoke or darkness
- Strong remote expert support  
Wi-Fi PAD included for remote expert monitoring and analysis

## Technical Specifications

Radar system		UWB pulse radar	
Antenna type		Enhancement mode medium offset UWB antenna	
Central frequency		0.7-2.5GHz	
Penetrable material		Concrete, soil, rock, wood, cement, plaster, brick, reinforced concrete, adobe, drywall and other standard building materials	
Penetrability		Penetrate 50cm brick & concrete solid wall	
Through-wall penetrability	Wall thickness	50cm	
	Detection range	Stationary alive entity	
Remote control distance		≥150m in open space	
Detecting angle and detection range	Field angle	≥±60°	
	Horizontal area	≥5800m <sup>2</sup>	
	Cone-shape volume	≥48000m <sup>3</sup>	
Range resolution		±5cm	
Angular resolution		±2°	
Cross range		±0.5m@10m (depending on situations)	
Detecting mode		Simultaneous detection of static and living objects Multiple targets, two dimension positioning	
Number of target		≥5	
Medium offset mode		Air/wall/ruins	
GPS		Yes	
Overall dimension and weight	Component	Radar host	Terminal PAD
	Size	620mm*320mm*160mm	200mm*136mm*21mm
	Weight	5Kg	0.65Kg
	Working hour	≥8h	≥4h(per battery)
Operation system		Andriod 4.2.1	
Professional software		ND Defense SV series Software	
Operation temperature		-30℃ - 70℃	
IP grade		IP65	
Application area		Rescue, emergency treatment, public security	
Remote expert support		Yes	

All specification are subject to change without notice. Pictures for references only.

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