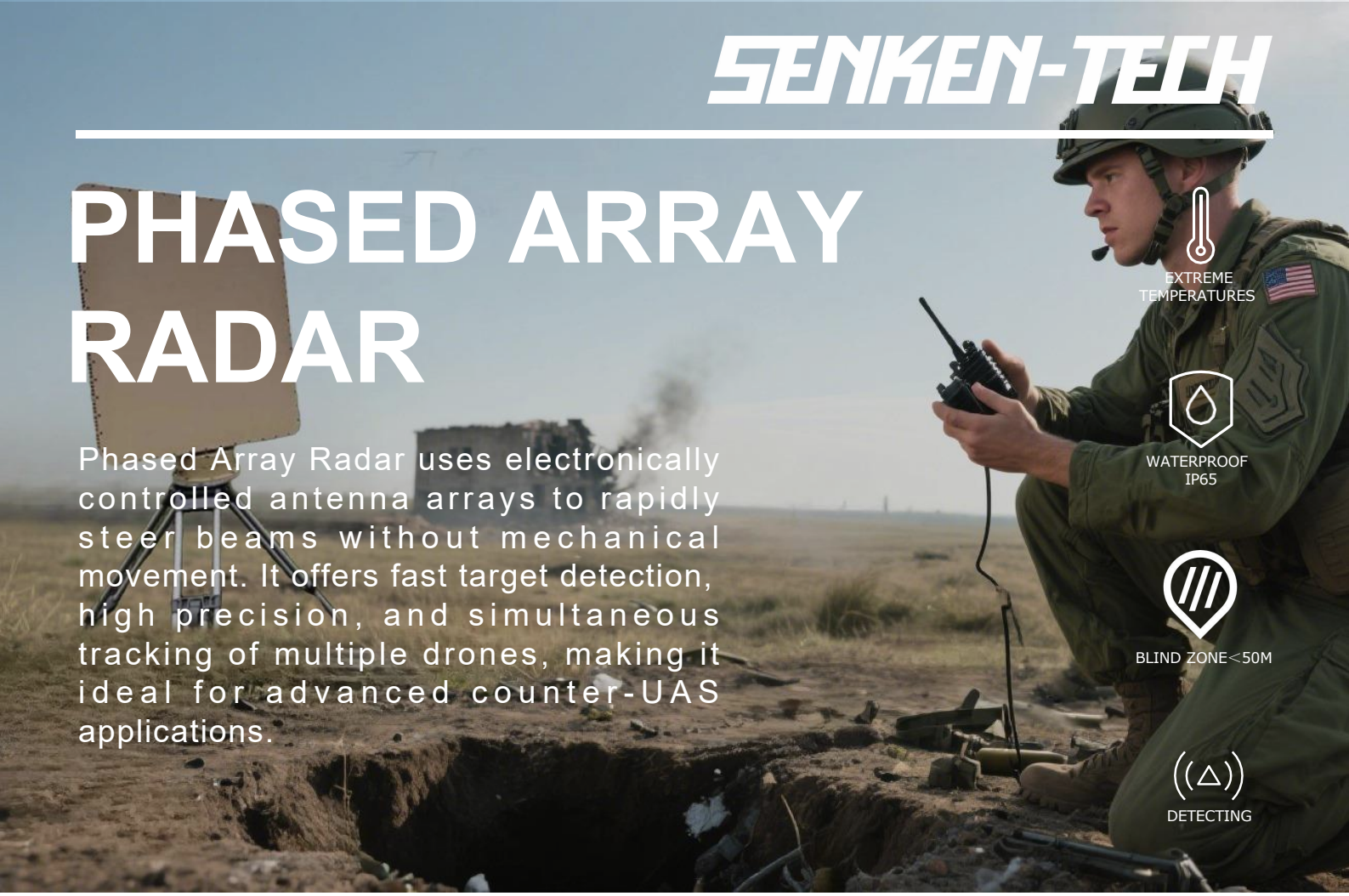
PHASED ARRAY RADAR

Phased Array Radar uses electronically controlled antenna arrays to rapidly steer beams without mechanical movement. It offers fast target detection, high precision, and simultaneous tracking of multiple drones, making it ideal for advanced counter-UAS applications.



DISTINCTIVE ADVANTAGES

Radar Coverage Altitude

Up to 3000 meters.

Blind Zone

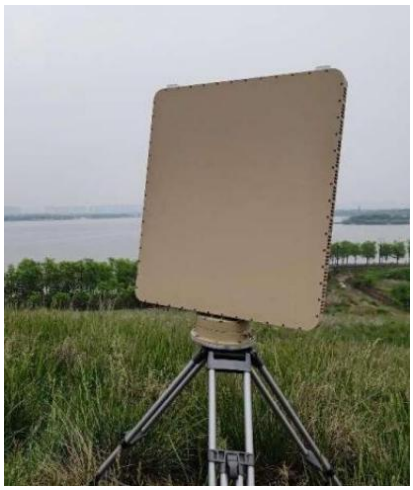
<50 meters.

Simultaneous Detection Capacity

≥1000 targets.

Excellent Anti-interference Capability

Does not trigger alarms from common clutter.



PHASED ARRAY RADAR

The X-Band Surveillance Radar operates at 10.0–10.2 GHz with azimuth mechanical scanning and elevation digital beamforming (DBF), providing full 360° horizontal and -5° to 60° vertical coverage up to 3,000 meters altitude. It can detect small drones up to 8 km, personnel up to 12 km, and helicopters or vehicles up to 20 km, simultaneously tracking over 1,000 targets with azimuth and elevation accuracy of 0.3° and range accuracy of 5 meters. The radar supports radial velocity detection from 1–150 m/s (upgradeable to 2–300 m/s), features strong anti-clutter performance, and operates reliably in harsh environments from -40 to +55°C with IP65 protection. With a rotation speed of 30–60 RPM, low power consumption (<350 W, DC 30–52 V), compact dimensions of 600 × 800 × 85 mm, a weight of ≤35 kg, and Gigabit Ethernet connectivity, it offers a high-performance, durable, and versatile solution for drone and target surveillance.

VERTICAL COVERAGE
5~60°

HORIZONTAL COVERAGE
360°

RANGING ACCURACY
≤5m(RMS)

COMMUNICATION INTERFACE
GIGABIT ETHERNET

Specifications

	H10
Operating Frequency	X-band: 10.0–10.2 GHz
Operating Mechanism	Azimuth Mechanical Scanning with Elevation Digital Beamforming Architecture
Vertical Coverage	-5~60°
Horizontal Coverage	360°
Radar Coverage Altitude	≤3000 meters
Detection Range	>8 KM(Drone, RCS=0.01㎡) >12KM(People, RCS=0.5㎡) >20KM(Helicopters, Vehicles, and Other Targets, RCS=5㎡) (Angular Measurement Accuracy: horizontal ≤0.3°, vertical ≤0.3°)
Ranging Accuracy	≤5m(RMS)
Blind Zone	<50 meters
Antenna Rotation Speed	Standard Mode: 30 RPM(180°/s) High Speed Mode: 60 RPM(360°/s), optional
Simultaneous Tracking Targets	>1,000
Detected Radial Velocity	1~150m/s(180°/s) 2~300m/s(360°/s), optional
Power Consumption	<350W
DC Power Supply	30~52V
Operating Temperature	40~+55℃, 104°F~131°F

* Depending on the RF environment & line of sight
* Please email us for more information