TRON FUTURE

T.RADAR PRO

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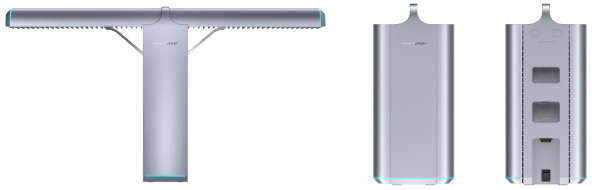
S-116A / S-132A

The S-116A and S-132A is a family of state-of-the-art software-defined all-digital 4D AESA pulsed Doppler radar. It is the only mil-grade radar of its kind which can be folded, transported, installed, and operated by a single operator. Each S-116A and S-132A can be a cooperative node in ESTMS® networked radar platform for sophisticated air defense and joint missions.



MAIN ADVANTAGES:

- Lightweight and small transportation size for quick reaction.
- Requires only one trained operator with quick setup time(< 10 minutes typically).
- Superior performance against low signature targets (RCS, Velocity, Altitude) .
- Joint mission capability – both “ team player and lone wolf “.
- ESTMS open platform connecting hundreds of radars for joint radar/EW operations.
- High reliability with built-in test functions for ease of maintenance.
- Automatic handles hundreds of targets through advanced tracking algorithms.
- Advanced clutter processing tailored for Asian terrain and urban environments.
- SWaP-C superiority, unprecedented affordability for mass deployment.
- Upgradable target feature recognition beyond4D, optional Machine learning and Micro-doppler functions.

MAXIMUM DETECTION RANGE

S-116A ■ **S-132A** ■

10 sec volumetric search time

Threat RCS （m²）

	S-116A	S-132A
0.03	5.4 km	9.1 km
0.01	4.1 km	6.9 km

Threat RCS （m²）

	S-116A	S-132A
0.03	5.6 km	9.4 km
0.01	4.3 km	7.2 km

KEY FEATURES

- All-digital Active Electronically Scanned Array (AESA) antenna, GaN amplifiers
- Element-level Digital Adaptive Beam Forming, Multibeam Scanning
- All-Digital Radar Signal Processing
- Electronic Counter Countermeasures (ECCM), Emission Control (EMCON).
- UAV intrusion warning for restricted area.
- Capable of tracking RCS 0.01m² drones in complex environments.
- Hemispheric surveillance when three radars are deployed as a system.
- Track and Search of more than 128 targets.
- Open architecture for camera, ADS-B, AIS etc. integration.

SPECIFICATIONS

Model Name	S-116A	S-132A
Radar Frequency	S-Band, 2.9~3.1 GHz	
Max. Signal Bandwidth	50 MHz	
Foldable	Yes	Project Based
Peak Radiated Power (Watt)	160 W	320 W
Max. Power Consumption	400 W	700 W
Single Radar Azimuth Coverage	120° (max)	
Azimuth Tracking Errors	0.8°	0.4°
Single Radar Elevation Coverage	120° (max)	
Tracking Update Rate	1 Hz	1 Hz
Minimum Range Resolution	< 5 m	
Minimum Range	100 m	
AESA Weight (without pedestal)	14 kg	< 25 kg
Dimensions (extended) a × b × c × d × e(cm)	102.6 × 27.2 × 6.4 × 50 × 14.4	182.6 × 27.2 × 6.4 × 90 × 14.4
Dimensions (folded) b × f × g (cm)	27.2 × 57 × 29	27.2 × 97 × 29
Max. Target Velocity	> 100 m/s, Programmable	
Velocity Resolution	1m/s, Programmable	
MTBF	> 30,000 hours	
Water Rating	IP64	

Enhanced Surveillance and Track Management System

Software Overview

High-end algorithm and real-time monitoring

The ESTMS is used to monitor every movement of the flying object. From aircraft to birds, even the smallest RCS 0.01m^2 target can be clearly detected. The system will automatically adjust the scanning range and frequency by optimal scheduling algorithm,, and the intuitive and smooth operation experience will help you perform monitoring tasks with ease.

Smart Replay

The smart replay function greatly accelerates your search efficiency by quickly cropping key clips by ID and timeline, and interactive replay to recreate what happened in great detail.

Customizable scenes at your fingertips

Create and manage custom alert areas easily with intuitive and convenient scene creation tools for precise settings at the click of a button.

Authority and Security

Whether you are a senior manager or an operator, ESTMS provides a complete permission setting and identity verification mechanism. At the same time, ESTMS is built on the top cloud software architecture to ensure that your data is safe and secure.

Cross-device integration

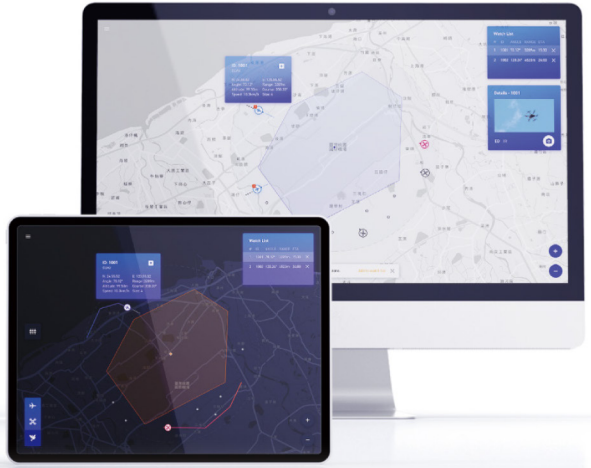
ESTMS integrates the advanced and complete war room into your handheld device, so you can get the most real-time surveillance information from anywhere, on any device.

Intuitive operation, extraordinary experience

ESTMS intuitive interface design, simple yet exciting, anyone can quickly get started.

System requirements

ESTMS is predominantly browser-based software, which means it can be run on all full desktop operating systems (Windows, MacOS, Linux, iOS, Android, etc), as well as Chrome OS.



Browsers and operating systems

ESTMS uses WebGL (Web Graphics Library) to handle rendering. This has very low graphical requirements which means it runs well on most modern browsers.

The minimum browser requirements are:

Chrome 63+ | Firefox 58+ | Safari 11.1+ | Microsoft Edge 79+

The minimum operating system (OS) requirements are:

Windows 8.1 or late | iOS 11.4 or later

Android 7.0 or later | Apple MacOS 10.12 (macOS Sierra) or later

Any Linux OS that supports the browsers mentioned above

Any Chrome OS that supports the browsers mentioned above

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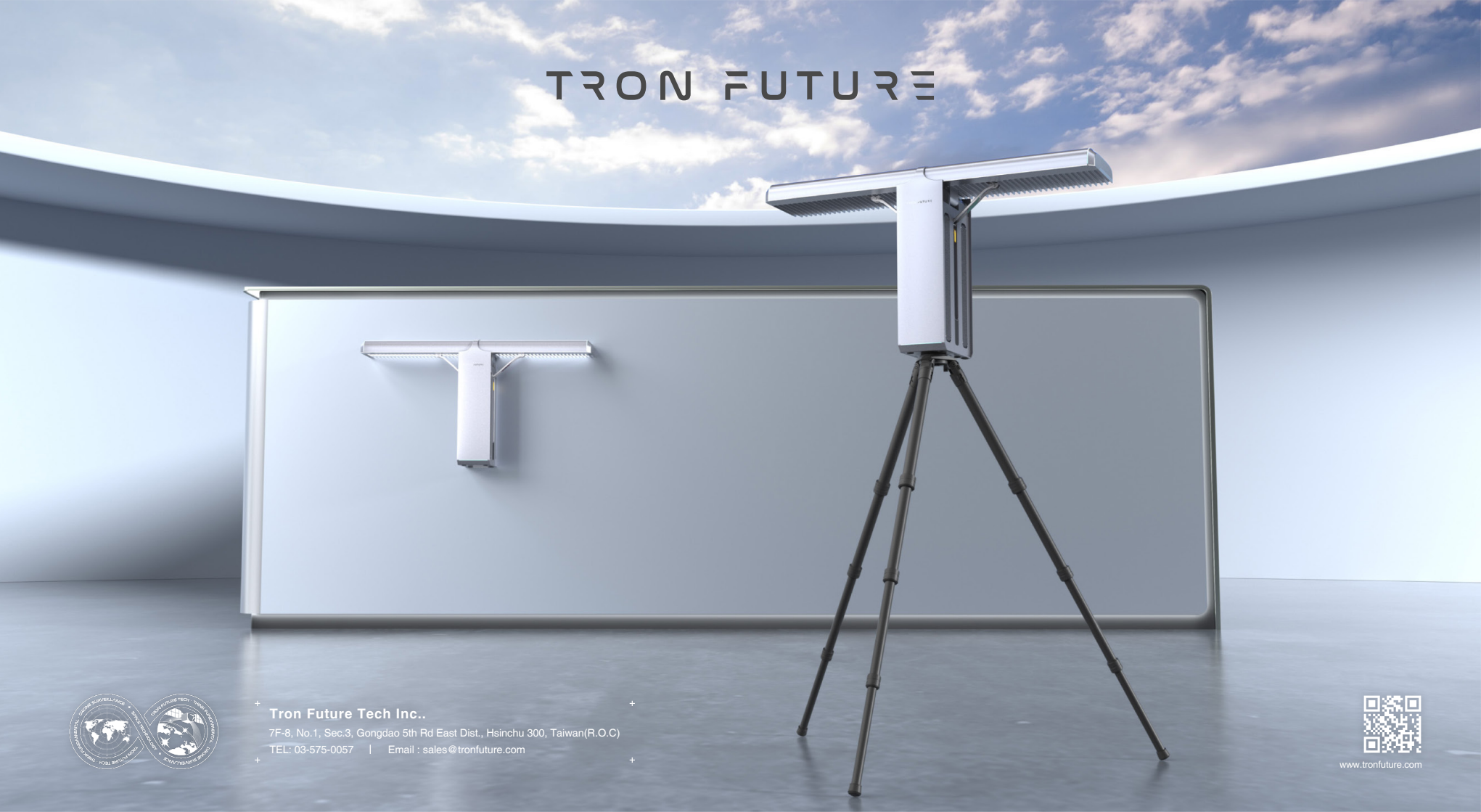

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