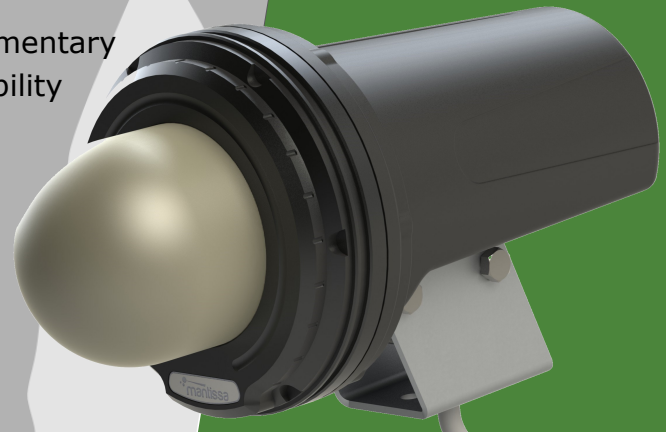## INNOVATIVE MINIATURE RADAR SENSORS

The importance and need of securing critical infrastructures is becoming a major concern throughout the world. However, existing surveillance solutions are either very costly or suffer from a too high probability of false alarms and misdetections. Mantissa's innovative small, lightweight, low-cost advanced sensors are the solution. Mantissa's sensors provide unparalleled surveillance performance during day or night, in any weather or visibility conditions. This solution is provided at a cost that is lower than competitive technologies.

The MSHRS-300X sensors divide the scene to thousands of small slices. For every target which is detected in these slices, range and velocity are calculated and immediately transferred to the command and control center. Suspicious targets are further analyzed by a unique processing algorithm that can distinguish between human and nonhuman targets. The security solution which combines Mantissa's advanced sensors can reduce dramatically operational costs while increasing overall security level.

Advantages

Mantissa's smart sensors are the optimal complementary solution for continuous surveillance in all weather or visibility conditions. The sensor advantages include:

- ◇ Plug & Play Radar
- ◇ Immediately active (less than 1 sec)
- ◇ Very light
- ◇ Battery power option
- ◇ Accurate target positioning
- ◇ Ideal for twisting perimeter
- ◇ Also for indoors
- ◇ All weather

MSHRS-300X

"Radar in a Box" solution

Mantissa is the first to offer innovative security solutions based on millimeter waves miniature radar sensors. The **MSHRS-300X** model is used for close-to-the-fence intruder detection. This product is primarily designed for critical infrastructure protection. Mantissa's low cost sensors that operate indifferently day or night in any weather condition, can complement and enhance camera-based security solutions, thus providing superb detection capabilities with little to no false alarms.

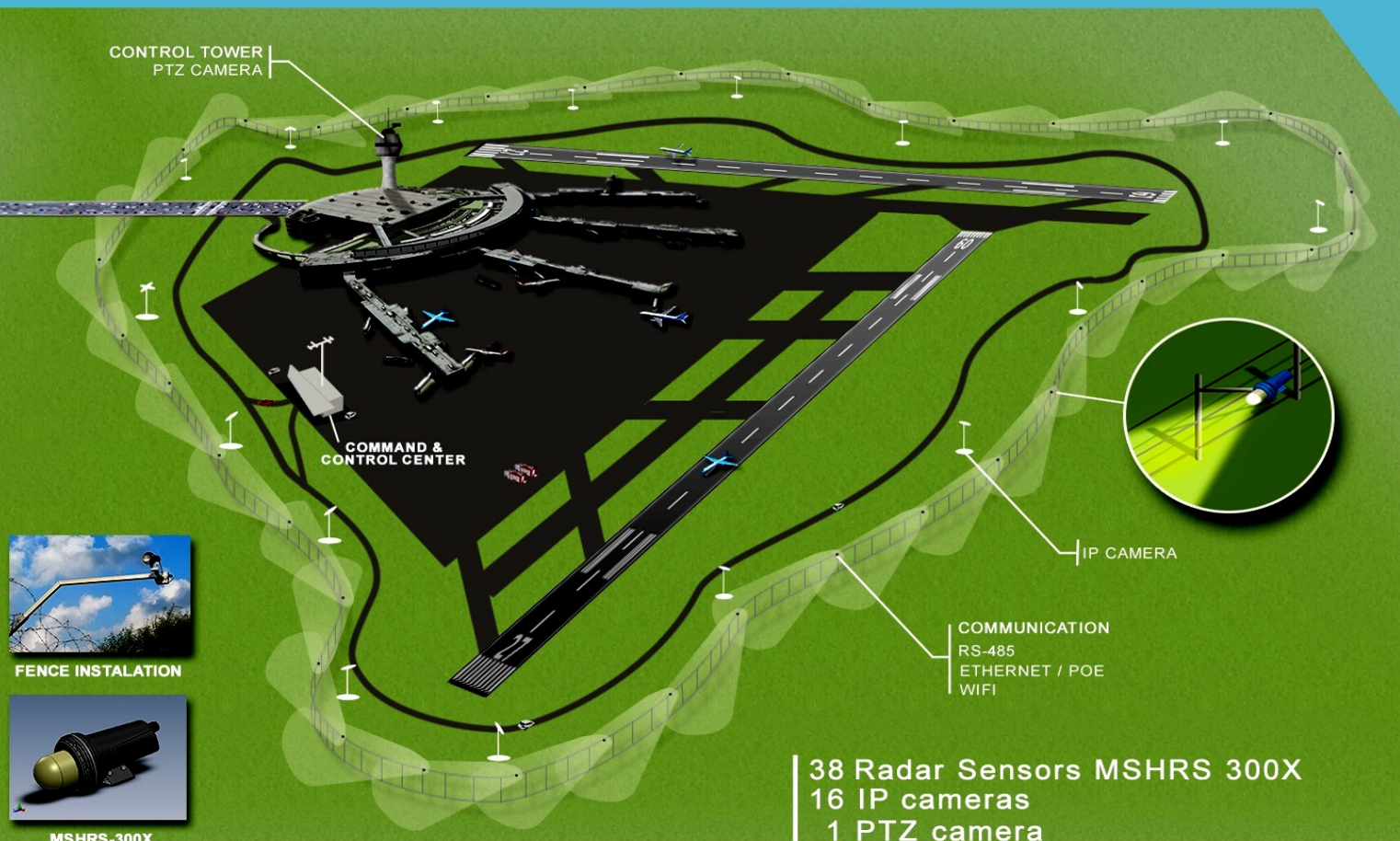Mantissa's sensors define the next generation standard for perimeter security.

Parameter	MSHRS 300X
Type of sensor	Ultra Hi-Res. Radar
Max range for vehicle	250 m
Max range for man	170 m
Range accuracy	0.1 m
Angle coverage	12° X 6°
Frequency	E band
Input power	7.5 Watts
Input voltage	9-36 VDC
Weight	610 g.
Size	L=180 mm ϕ=98 mm
Interfaces	RS485, USB, IP, WiFi, "Dry Contact"
Environmental	IP66
Operating temperature	-40^0C to 60^0C
Certifications	ICNIRP, CE 301489

*IP & WiFi using external adapter

RADAR BASED PRIMETER SECURITY SYSTEM

CONTROL TOWER
PTZ CAMERA

COMMAND & CONTROL CENTER

IP CAMERA

COMMUNICATION
RS-485
ETHERNET / POE
WIFI

FENCE INSTALATION

MSHRS-300X

38 Radar Sensors MSHRS 300X
16 IP cameras
1 PTZ camera