LRAD CORPORATION

LRAD-RX™

PRODUCT SHEET

SYSTEM COMPONENTS

CAMERA

Employs a 26x optical zoom lens combined with a digital zoom function; allows you to zoom 312x.
The CCD features 600,000 (NTSC) or 740,000 (PAL) effective picture elements and an image stabilizer for stable shooting with high-resolution.

SEARCHLIGHT

Watertight Enclosure
7.5 million Candlepower-
Constructed of powder coated aluminum for protection against the elements.

THE LRAD-RX™ ADVANTAGE:

HIGH DIRECTIONALITY
- REDUCES THE RISK OF EXPOSING NEARBY PERSONNEL TO EXCESSIVE AUDIO LEVELS

HIGH DECIBEL OUTPUT
- CLEAR COMMUNICATION AND UNMISTAKABLE WARNING AT EXTENDED RANGES

REMOTE CAPABILITY
- TCP/IP ADDRESSABLE
- RESPOND TO A THREAT FROM A SAFE ENVIRONMENT

EASE OF INSTALLATION
- LOW POWER REQUIREMENTS
- ALL WEATHER CAPABILITY
- LIGHTWEIGHT

COST EFFICIENT
- INCREASED SECURITY COVERAGE
- REDUCED MANPOWER
- INCREASED OPERATIONAL EFFICIENCY
- INCREASED RESPONSE CAPABILITIES

REMOTE LONG RANGE ACOUSTIC DEVICE

LRAD-RX uses its directionality and focused acoustic output to clearly transmit critical information, instructions and warnings well beyond 3000 meters. Through the use of powerful voice commands and deterrent tones, large safety zones can be created while determining the intent and influencing the behavior of an intruder.

LRAD-RX can be operated remotely across an IP network enabling system operators to respond to potential threats from a safe environment while creating a complete unmanned perimeter security solution. LRAD-RX accepts intruder position information from other IP-enabled sensor systems to automatically find and track potential threats. LRAD-RX's large safety zone gives security personnel additional time and valuable information if an elevated intruder response becomes necessary.

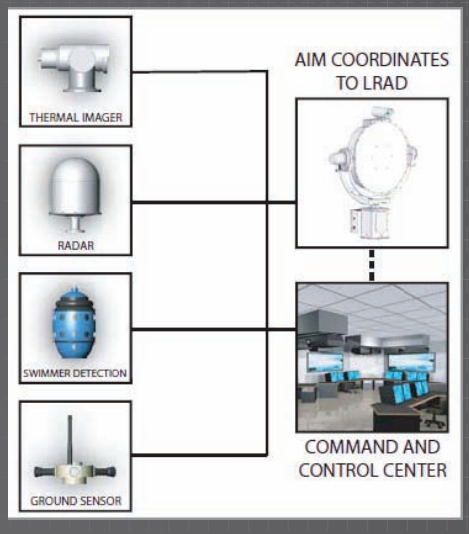
LRAD-RX features an emitter head, integrated camera, high-intensity searchlight (optional) and ATC's own robust full pan and tilt capability for precise aiming and tracking. Audio output from LRAD-RX is highly directional so nearby personnel and system operators are not exposed to excessive audio levels, while still providing exceptional voice intelligibility and tonal clarity over long distances.

LRAD-RX™

SYSTEMS INTEGRATION & SURVEILLANCE SOFTWARE

LRAD-RX can be integrated into a sensor network to locate and track a potential threat. This enables the command and control center to respond to the threat from a safe environment in a remote location. The coordinates obtained from the sensors can be transmitted to the LRAD-RX for precise aiming. This gives security personnel additional time and valuable information if an elevated intruder response becomes necessary. A full API is available for systems integrators.

The Graphic User Interface (GUI) provides a visual control interface for the user. This interface consists of a real-time video display and a graphical control interface for the LRAD-RX. The real-time video display shows the live video feed from the LRAD-RX, and is used to monitor and acquire targets for communication.



ACOUSTIC PERFORMANCE

Maximum Continuous Output	152 dB SPL at 1 meter
Beam Width	+/-15° @ 1.0 kHz/-3dB
Frequency Range	See frequency response curve below
Communications Range	Highly intelligible speech transmissions over 3000 meters; *Max range of 1250 meters over 88 dB of background noise.

ENVIRONMENTAL PERFORMANCE

Hot Operating Temperature	MIL-STD-810G, Method 501.5, Procedure II, Design type Hot, 60°C
Cold Operating Temperature	MIL-STD-810G, Method 502.5, Procedure II, Design type Basic Cold,-33°C
Rain	MIL-STD-810G, Method 506.5, Procedure I, Blowing rain
Salt Fog	MIL-STD-810G, Method 509.5
Shipboard Vibration	MIL-STD-167-1A
Shipboard Shock	MIL-S-901D, Class I, Shock grade B
Random Vibration	MIL-STD-810G, Method 514.6, Wheeled vehicles
SRS Shock	MIL-STD-810G, Method 516.6, Procedure I (Functional shock)
Hot Storage Temperature	MIL-STD-810G, Method 501.5, Procedure I, 70°C
Cold Storage Temperature	MIL-STD-810G, Method 502.5, Procedure I, -40°C
Operating Humidity	MIL-STD 810G, Method 507.5, Procedure II – Aggravated Cycle

MECHANICAL

Construction	Molded low smoke composite; 6061 Aluminum Stainless steel; 316 Stainless hardware
Positoner Velocity	60 degrees per second maximum, Adjustable speed for fine positioning
Range of Motion	420° non-continuous rotation (+/- 210°), +95° to - 95° tilt
Positioner Resolution	0.01 degrees

ELECTRICAL REQUIREMENTS

Power Consumption	Peak power consumption 1100 watts
Power Input	48 VDC input power (AC to DC power converter not included in base model)
Control Interface	Discrete inputs for power and communications, Stainless steel MIL-DTL-D38999 connectors
Communication Interface	Ethernet Interface with TCP/IP protocol, Graphical user interface available for Windows XP, 7/Vista based systems, Software development tools available

SAFETY

MIL-STD-1474D

ELECTROMAGNETIC COMPATIBILITY (EMC)

FCC Part 15 class A radiated and conducted emissions; MIL-STD-461E, CE

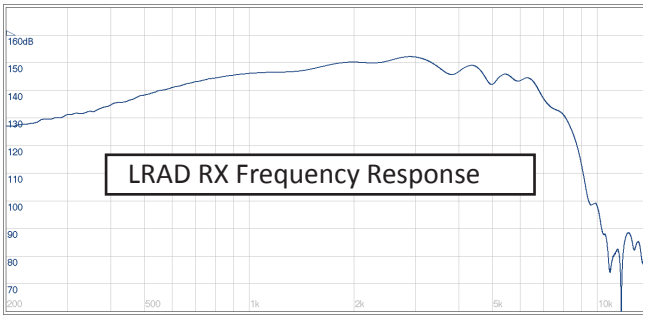
COLORS

Gray	Catalog No. LRAD-1000X-R-GRY-STD

INTEGRATED CAMERA

Lens	26x ZoomF=3.5 mm (WIDE) to 91 mm (TELE), F1.6 to F3.8"
Zoom movement speed	Optical WIDE/Optical TELE 4.0 sec
Angle of View (H)	42.0 degree (WIDE end) to 1.6 degree (TELE end)
Min. Illumination	0.7 lux/1/60 sec (NTSC), 0.05 lux/1/4 sec (NTSC)
Outdoor Enclosure	Watertight, solar shield, nitrogen filled

*6+ dB above background noise is based on field trials conducted by independent sources.



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