

**INDERA MX-3AH** is an X-band naval radar system featuring solid-state FMCW (Frequency-Modulated Continuous-Wave) technology with very low transmit power and frequency agility, making **INDERA MX-3AH** a true Low-Probability-of-Intercept (LPI) radar. **INDERA MX-3AH** is the third generation in the **INDERA MX** radar series with improved hardware and software implementations. It utilizes state-of-the-art hardware technology and advanced signal processing techniques which lead to superior capability in detection of surface targets.

**INDERA MX-3AH** is equipped with tracking software **MATA**<sup>®</sup> (MARitime Tracking Aid) to include ARPA functionality, AIS, ECDIS, GPS and compass, enabling **INDERA MX-3AH** to serve as an independent stand-alone on-board navigation system.

**INDERA MX-3AH** is a quiet naval radar which allows you to see without being seen...

### FEATURES

- X-band naval LPI radar
- Solid-state FMCW technology
- 5 Watt max. transmit power
- Frequency agility
- ARPA functionality using **MATA**<sup>®</sup>
- North-up, head-up, course-up, true motion
- Integrated electronic chart ECDIS
- Integrated AIS, GPS and compass
- Stand-alone navigation capability
- Doppler FFT processing



### SPECIFICATIONS

#### ANTENNA

Type	Dual TX-RX reflector antenna
Feed	Microstrip patch array
Gain	23 dBi
Beamwidth	1.6° (hor.), 20° (vert.)
1 <sup>st</sup> side lobes	< -20 dB
TX-RX isolation	> 65 dB
Rotation speed	20 rpm max.
Length	169 cm

#### TRANSCEIVER

Carrier freq.	X-band
Bandwidth	60 MHz
PRF	2 kHz
Freq. agility rate	2 kHz (sweep-to-sweep)
Transmit power	Surveillance mode: 5 W max. LPI mode: 2 W – 1 mW
Max. range	20 nm @ 5 W transmit power
ESM range	< 1.5 nm @ 1 W transmit power*
RX noise figure	1.7 dB
ADC resolution	14 bits
Range cells	512 cells
Processing	Range FFT, Doppler FFT, CFAR
OS	Windows / Linux

\*Tested with ESM DR3000ULC @ -70 dBm sensitivity

#### DISPLAY / ARPA

Display unit	19" Color VGA (1280 x 1024 pixels)
Color schemes	Navy, daylight, red, green, amber, default
Range scales	0.25,0.5,0.75,1,1.5,2,3,4,6,8,10,12,14,16,20 nm
Range resolution	0.9 meter max., 72 meter min.
Number of rings	Customizable (20 rings max.)
Azimuth mode	North-up, head-up, course-up, true motion
#EBL / VRM	2 lines / 2 markers
#Guard zone	4 zones
Acquisition	Automatic or manual of 200 targets max.
Tracking	Automatic or manual of 200 targets max.
Vector prediction	Speed & direction prediction within 100 minutes
Past position	20 past positions of targets at intervals of 1 minute
CPA/TCPA limits	0.1 to 15 nm / 0 to 120 minutes
Chart overlay	Electronic chart system ECDIS S-57 / S-63

#### PHYSICAL CHARACTERISTICS

Dimensions	169 cm (length) x 58 cm (width) x 107 cm (height)
Total weight	170 kg (outdoor unit)
Wind load	70 kts relative wind speed

#### OTHERS

Bearing data	Digital encoder
Peripherals	AIS, GPS, compass, NMEA 0183 interface

#### RADAR & COMMUNICATION SYSTEMS