

# Radar

## Black-box radar system

Big ship radar for small ships!

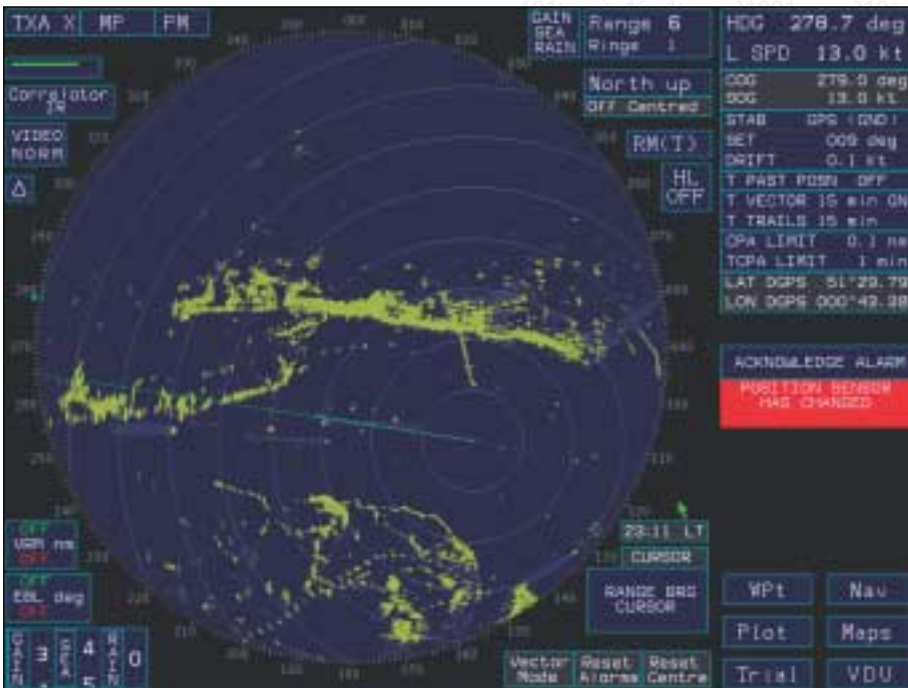
The Kelvin Hughes MANTA Black Box Radar is an X-band ARPA Radar System. It brings big ship radar technology within reach of the smaller vessel operator.

Employing similar software to that used on supertankers, passenger vessels and warships all over the world, the full award winning functionality of Kelvin Hughes radars is now available at small ship prices!

The Black Box principle is compatible with a wide range of TFT Flat-Screens, providing a very flexible and customised solution.

## Features

- Compact Radar system for non-type approved applications
- Complies with all ITU Emissions Regulations
- With 50 target ARPA functionality
- Will operate with a wide choice of off-the-shelf TFT displays
- Ideal for vessels with limited space or requiring common screens
- With auto target acquisition using Sector and Footprint Acquisition Zones
- Inclusive or Exclusive Acquisition Zones to simplify automatic tracking. Can be geographically or relatively referenced and stored for repeated use
- Supplied with Trackerball with control buttons
- Optionally available with an ErgoPod enabling control from a chair
- Optionally available with AFB and Trackerball
- Choice of 110/220VAC or 24VDC versions



Optional MANTA 1700 Flush Display



Desktop Pod



# Black-box radar

## Transceivers

Part Number	CAE-A30-7
Type	Upmast
Antenna Rotation	24rpm
Compass Safe	Grade I (0.25°) 3.0m
Distance:	Grade II (1°) 1.8m

## Transmitter

Magnetron	10kW
PRF:	Short Pulse 3000Hz
	Medium Pulse 1500Hz
	Long Pulse 750Hz
	Very Long Pulse 375Hz
Pulse Lengths:	Short Pulse 55ns
	Medium Pulse 230ns
	Long Pulse 600ns
	Very Long Pulse 600ns

## Receiver

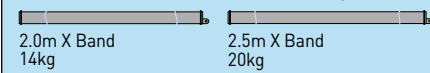
Type	Logarithmic
Noise Figure	6dB
IF Frequency	60MHz
Bandwidths	6MHz/ 22MHz

## Performance\*

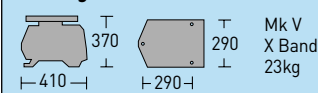
Minimum Range	35m
Display Range Resolution Better Than	2m

\*with suitable display unit

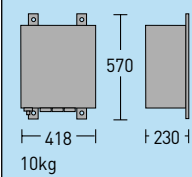
## Antennas (Dimensions shown are turning circles.)



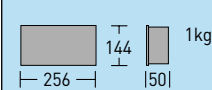
## Turning Mechanism



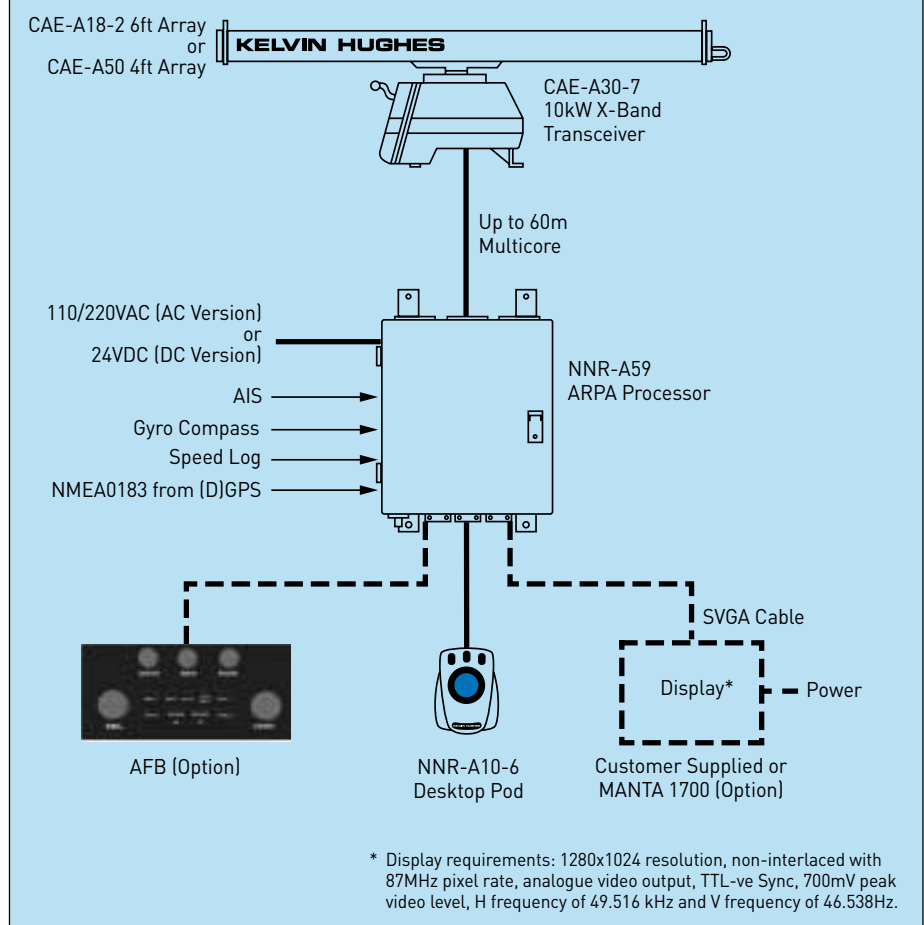
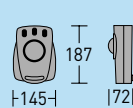
## Radar Processor Unit (RPU)



## AFB



## Desktop Pod



\* Display requirements: 1280x1024 resolution, non-interlaced with 87MHz pixel rate, analogue video output, TTL-ve Sync, 700mV peak video level, H frequency of 49.516 kHz and V frequency of 46.538Hz.

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