

TEKI RDS 1000 TECHNICAL SPECIFICATION

1 CHARACTERISTICS

TeKI is specifically designed to withstand, and operate in, a maritime environment.

TeKI detects the following radars:

- Standard maritime pulsed radars in the X-band (aka I band).
- Standard maritime radars in the S-band (aka E/F band), Vertical and horizontal polarisations.
- Over the horizon detection.

2 INPUTS

- Power supply: 230V 50-60Hz, 500VA maximum (through 7 standard power sockets).
- Imports of detected radars including expected precision measurements, in an easy to understand XML format.
- GPS navigation data, for geo-locating the TeKI system, and adjusting the sensor for the ships heading.
- Blanking signals to deactivate the sensor when the ships own radar is transmitting.

3 OUTPUTS

- Detected radars, distributed to TCP/IP clients (such as AIMS-ISR®) as a “line of bearing”.
- Stored raw radar pulse data (digitised in downconverted IF form, on a removal hard drive).
- Exports of detected radars including precision measurements, in an easy to understand XML format.
- System status information, distributed to TCP/IP clients (such as AIMS-ISR®).

4 COMPONENTS

4.1 Antenna

Masthead equipment weight: 40kg. Mounts onto a ship’s mast.

4.2 Receivers

Includes 2 receivers (S-band and X-band). Both are 19” rack mountable, and 1U high.

4.3 Server

19” rack mountable. 4U high. Features include a rugged case, high reliability components, and removable hard drives for retrieval of stored raw radar pulse data, and for import/export of detected radars.

4.4 RF Accessories Box

19" rack mountable. 3U high. Provides Ethernet distribution of serial data (e.g., GPS, AIS, TTM messages) received through a 9-pin or 25-pin RS232 port. Provides inputs for blanking signals (from the host ships radars).

4.5 Ethernet Switch

19" rack mountable. 1U high. 24 port (RJ45) Gigabit Ethernet switch.

4.6 Keyboard/Display module

19" rack mountable. 1U high. Includes a video display, full QWERTY keyboard, trackball, and a 4-port KVM switch.

4.7 ANCILARY EQUIPMENT

- Equipment below deck is mounted in a 19" rack (occupying 12U of height). The 19" rack is not supplied.
- Number of cables running from Masthead to below deck equipment rack: 2.
- PC based system, with keyboard/trackpad/video display unit that is rack mounted, and stows within the rack. It extends and folds out for use when required. Typical installations use a separate sensor display system (such as AIMS-ISR® for the display of detected radars).

5 ENVIRONMENTAL

TeKI meets the following standards:

- Environmental: IEC60945.
- Lloyds compliant : Yes
- Temperature: 0° to +40°C (32 to 107°F), 0-95% relative humidity (non-condensing).