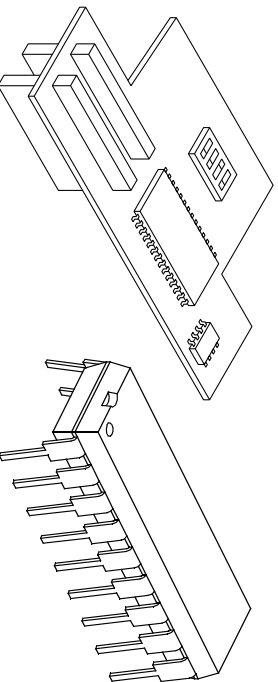


## Products to enhance the NASA® AIS Engine



OnBoard module

All Messages Chip

These products are replacements for the original microcontroller that provide greater decoding ability and easier setting of system parameters. The unit's bi-channel receiver and decoder circuitry is unaltered. In the case of the All Messages Chip, the microcontroller type is the same as the original but the firmware code has been completely rewritten to give enhanced functionality. Alternatively, the OnBoard module has a microcontroller with greater memory and processing capacity and, in addition, offers formatted display modes in the same way as is provided on a native KATAS AIS receiver such as the AIS Receiver/Decoder 1.

Both units provide the the ability to decode all AIS message types and to convert these into standard NMEA IAI/VDM sentences at 38,400 baud. The messages can be up to the full five slot length. These additional message types are typically those from the newer class B transponders, used within the inland and leisure sectors, and also broadcast or specifically-addressed textual or binary messages from existing class-A transponders. The units are controlled by the use of a special command language that is accessed by a terminal emulator program.

The squelch floor level is automatically set and is based upon a running measurement of the receiver noise level. A fixed squelch value can be added to this value by the user to provide, either good sensitivity under quiet RF conditions, or, if desired, rejection of weak or distant signals.

### All Messages Chip - see <http://www.katas.co.uk/kamc.htm> for further details

- Allows manual or automatic (alternating every ~36 seconds) switching of receiver channel.
- Allows long IAI/VDM messages to be presented in 'Wide' or 'Multi-Line' formats.
- Output data stream can be 'locked' for best reliability in unmanned situations.
- Starts decoding automatically and so cannot remain in command mode unintentionally.
- Provides a software simulation of signal status LEDs for diagnostic purposes, with time-out.
- Does not provide local GPS input facility, use 2nd serial or USB port of host computer instead.
- Supplied with comprehensive User-Operation guide giving listing of all current message types.
- Supplied with comprehensive fitting instructions.
- Supplied with HyperTerminal® configuration document that will be useful for new users.
- Supplied with detailed instructions for fitting optional red and green signal status LEDs.

### OnBoard Module - see <http://www.katas.co.uk/onboard.htm> for further details

- Allows AIS NMEA sentence output at either 19,200 baud or 38,400 baud.
- Has internal bi-colour LED for signal decoding status that can be re-mounted if required.
- Has command language to program receiver channel, squelch level and other parameters.
- Includes a software output pacing facility to allow for slower reception devices.
- Supplied with KATAS AIS Starter Disc (ASD) which includes trial version of ShipPlotter.
- Supplied with detailed User-Operation Guide document, with fitting instructions.
- Supplied with comprehensive 20-page book, 'Multi-Mode Operation for KATAS AIS Receivers'
- Default operating mode is 'Straight NMEA' for good compatibility with original firmware.
- GPS NMEA can be fed into blue wire at 4,800 baud, if required.
- Merges GPS NMEA sentences with outgoing AIS IAI/VDM sentences, as before
- Also includes proprietary KATAS 'Multi-Mode' allowing full use with data terminal or PC.
- Can be used with KATAS Serial Switch Boxes for local GPS input, extra dongle required.
- Accepts GPS NMEA sentences at 4800, 9600, 19200 or 38400 baud.
- Displays error codes for GPS NMEA if expected sentence not received.
- When static, own position can be set for computation of each ship's range and bearing.
- When dynamic, position input from GPS can be encoded into own-ship IAI/VDI sentences.
- Own MMSI can be embedded into 'own ship' IAI/VDI messages at programmable o/p rates.

### Please note

Fitment of these devices to your AIS Engine requires that the original manufacturer's integrity labels will need to be removed. Only perform this operation if you are sure that your warranty has expired or if you have no intention of making a claim on the warranty, should a problem occur. Installation of either of these devices requires only minimal electronic skills. Full and comprehensive installation instructions are provided with each unit. Fitment of the optional LEDs is a slightly more skilled operation, requiring some soldering experience.

### Firmware Upgrades

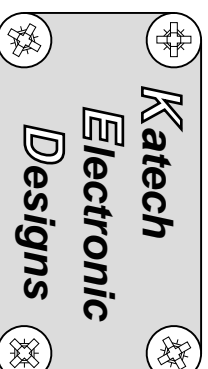
Both firmware versions are being continually developed and details of the latest versions can be found on the web site support page. The All Messages Chip can be exchanged for a later version but the OnBoard has to be returned for reprogramming.

### Pricing in Pounds Sterling - Valid from 1st January 2007. Carriage included.

KATAS OnBoard for AIS Engine	Packaged weight: <250g	KATT700	£ 59.00
KATAS All Messages Chip for AIS Engine	Packaged weight: <40g	KATT10	£ 25.00

Please email to check stock levels and to place an order. Payment may be made either by PayPal, a secure on-line payment method, or by mailed cheque following a faxed or e-mailed pro-forma invoice.

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