

iFleetONE™

A maritime communications system for small and mid-sized fishing and leisure vessels



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The Wideye™ iFleetONE™ is one of Addvalue's maritime communications system operating on the Inmarsat global Alphasat and I-4 satellite network. Designed to be compact for small and mid-sized fishing and leisure vessels, it delivers affordable, tailored broadband voice and data services.

While at sea, the Wideye™ iFleetONE™ will be your indispensable partner for all of your business or leisure communications needs - it makes it easy to talk, text, and send and receive emails. It offers one voice line and data up to 100kbps - ideal for accessing full-colour weather images, navigational charts and routing information, as well as sending reports and browsing the web.

With Inmarsat's free 505 Emergency and calling service included, Wideye™ iFleetONE™ helps to keep sailors safe. Additionally, it offers rich many value-added features including:

- Built-in Firewall
- Built-in Wi-Fi for wireless mobility and smartphone applications accessibility
- Standard IP Data with one user accessible Primary PDP Context
- Built-in Web Console (English and Simplified Chinese languages)
- Remote Access for diagnostics, configuration and management
- SIM Lock based on IMSI/APN
- Data Connection ON / OFF Control via external remote switch
- Volume limited access for data sessions
- Radio Silence (radio transmission on/off) Control via external remote switch
- Configurable Restricted dialling - to prevent unauthorised outgoing calls
- Configurable Forced dialling - with SAC configuration - to enable crew calling
- Built-in SIP server supporting third party VoIP devices / applications
- Automatic and on-demand position reporting and fleet tracking capability including geo-fencing, with up to 10 polygon areas configurable

Technical Specifications

Compliant to RED, IEC60945, RoHS
 Certification Mark : FCC, CE, IC
 Wi-Fi Compliant IEEE802.11 b/g/n
 Green Passport

Frequency Band

Transmit: 1625.5 ~ 1660.5 and 1668.0 ~ 1675.0 MHz
 Receive: 1518.0 ~ 1559.0 MHz

Recommended Antenna Cable

Cable loss :10dB (max) at 1.6GHz and 1.0 Ω (max) DC loop resistance

Power Supply and Consumption

DC input range (isolated) : +10.8V to +31.2V DC
 Power (max) : 100W including antenna

Environmental Conditions

Operating Temperature : -25 to +55°C
 Storage Temperature : -40 to +80°C
 Operating Humidity : 95% non-condensing at +40°C
 ADU Ingress Rating : IP56
 BDU Ingress Rating : IP31

Vibration (ADU)

Vibration (Operational) : Random spectrum 1.05g rms x 3 axes:
 5 to 20 Hz: 0.02 g²/Hz
 20 to 150 Hz: -3 dB/octave
 Vibration (Survival) : Random spectrum 1.7g rms 2 h x 3 axes
 (6 h in total)
 5 to 20 Hz: 0.05 g²/Hz
 20 to 150 Hz: -3 dB/octave

Mechanical Shock

: 20g, 11ms half-sine wave

Ship Motion

Roll : ±30° / 4s period, max 0.7g tan.
 Pitch : ±15° / 3s period, max 0.6g tan.
 Yaw : ±10° / 5s period, max 0.3g tan.
 Turning Rate : ±36°/s, acc. max 12°/s²
 Surge : ±0.5g
 Sway : ±0.5g
 Heave : ±0.7g
 Headway speed : 42 knots
 Wind : 100 knots

Services

Standard Voice : 4 kbps circuit switched (AMBE+2 codec)
 Standard IP : Up to 100 kbps
 SMS : Up to 160 characters (3G standard)
 Larger SMS content : supported as multipart or segmented SMS
 (> 160 characters)

Router Functions

Single User Router Mode : NAT disabled, with option to
 enable/disable DHCP
 Multi-User Router Mode : NAT enabled, with option to
 enable/disable DHCP

Interfaces

ADU
 Antenna Connector : 50Ω N-Type, Female

BDU
 Antenna Connector : 50Ω N-Type, Female
 Wi-Fi Connector : 50Ω SMA, Male
 SIM Card Slot : 1 SIM Card Slot for Fleet One SIM card
 Ethernet : 1 RJ45 LAN Port
 Standard Phone : 1 RJ11 Phone Port
 Status LED : 4 LEDs (Terminal, Antenna, Registered,
 Data Active)
 I/O Connector : for Remote ON/OFF Switch,
 Data connection ON/OFF Switch,
 Radio Silence ON/OFF Switch and
 External Ringer
 Serial Port : for GPS Output (NMEA 0183)
 DC Power Input Socket
 Primary Handset Connector
 Resettable Circuit Breaker
 Safe Mode Switch

Physical Data

Dimension : BDU : 330 x 256.7 x 66.5 mm
 : ADU : 319.5 (Dia) x 277 mm
 Weight : BDU : 2.7 Kg / 6.0 lbs
 : ADU : 3.2 Kg / 7.1 lbs

Primary Handset (Optional)

Display : 2 In, 220 x 176 pixel TFT, 65K Colour LCD
 Dimension : 142 x 156 x 22 mm
 Weight : 390g / 0.8 lbs
 Ingress Rating : IP66
 Operating Temperature : -20 to +55°C
 Storage Temperature : -30 to +70°C

With a compact antenna and an easy to install below deck unit (BDU), the Wideye™ iFleetONE™ is small but powerful, with special features such as:

- 3-axis stabilised Antenna (including ATC-Resilience, Extended L-band and IP56 protection capability)
- Primary handset (optional) : IP66 environmental protection
- NMEA 0183 continuous GPS output
- No Fuse - Utilises an intelligent circuit breaker protection
- Appends GPS position to SMS

The Wideye™ iFleetONE™ includes a Primary Handset (optional) with a large colour LCD display and mobile phone type keys for text messaging. The BDU with its additional RJ11 phone port can connect either a standard corded or cordless phone.

For internet service, you can simply connect the Wideye™ iFleetONE™ to an on-board computer network using the standard RJ45 Ethernet connection. With NAT and DHCP functions, Wideye™ iFleetONE™ offers both single user (modem) and multi-user router modes. Utilising MAC address filtering and firewall features, it offers unmatched access security and uses secure IP-based technology which greatly enhances the privacy of your voice and data communications.

The internal GPS receiver and GPS Output in NMEA 0183 format of the Wideye™ iFleetONE™ can also be used to provide accurate position information to onboard systems such as plotters and depth sounders.

Charges are made for the kilobytes of data send and received, not the time used. Flexible, seasonal air-time pricing and preferential pricing regions makes the Wideye™ iFleetONE™ affordable for smaller vessels.

Addvalue Vessel Monitoring System (VMS)

Addvalue VMS is a vessel tracking solution to meet the respective country's Fishery Authority's mandatory regulatory requirements to address Illegal Unreported and Unregulated (IUU) fishing. It is now Type Approved by the US National Marine Fisheries Service (NMFS) Office of Law Enforcement (OLE) for use in the Pacific.

The VMS solution offered with iFleetONE™ terminal is a 2-in-1 solution, with a built-in VMS engine which reports both automatic and on-demand location updates of the vessel to the respective authorities, is also used as a general purpose broadband communication terminal for general purpose data and voice communications of the crew.



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