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GNSS ZONE

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The sMRT V300 is an advanced, commercial grade, man overboard (MOB) device incorporating AIS, VHF DSC, and 121.5MHz technologies. It features water activation technology, audible and visual indicators, and offers multiple fixing options for life jacket integration.

With an increased signaling range and Class M compliance, the sMRT V300 ensures accelerated alerting and reliable location tracking over extended distances, improving the effectiveness and efficiency of rescue efforts during a man overboard incident.

VHF\_© DSC

## VHF DSC

All nearby vessels are automatically alerted of the man overboard situation via DSC

121.5 √- MHz

Features a low power homing signal to assist local and aerial rescue efforts

121.5 MHz

**AIS** The live location of the man overboard is regularly updated and displayed via AIS

DUAL GNSS

ΛIS

### **Dual GNSS**

Combines both GPS & Galileo GNSS receivers for accelerated detection



#### Class-M

Compliant to European regulation ECC/DEC/ (22)02 relevant to the usage of MOB devices

## **PRODUCT FEATURES**



WATER ACTIVATION Device will activate when immersed in water for 2 seconds



STROBE LIGHT High powered strobe light to aid visual identification



COLOURED LEDS LEDs change colour dependent on status of beacon



ARMING DOOR Swing door to prevent false arming and activations



GNSS ZONE Equipped with dual GNSS for accurate location



WATER SENSOR Weighted water sensor lead ensures immersion in water



C



Audible Alarm Highlight activation to both aid location and raise awareness of false activation



Test Functionality Manual based testing provides a status check on power and functionality



**Clipping System** Multiple fixing systems allows easy attachment and integration with life jackets



Water Sensor Lead A weighted water sensor lead ensures that the device will automatically activate when worn inside a life jacket

Dual Activation Methods Device can be activated manually or after immersion in water meaning it will still work if user is incapacitated



Dual GNSS Receivers Integrated GPS and Galileo receivers for accelerated

location detection



#### Annual Recertification

Yearly servicing by an approved sMRT service center ensures that the product is ready for use



#### **Environmentally Conscious**

Packaged in 100% recyclable materials & batteries only changed by an approved service centre



#### Water Proof

The device is designed to withstand submersion up to 10 meters, ensuring its protection against water damage

# WHAT IS A Class-M MAN OVERBOARD DEVICE?

To protect AIS from overloads caused by irrelevant off-ship devices, a new regulation, ECC/DEC/(22)02, has been approved and is scheduled to be implemented from December 2024. Under this regulation, in countries that adopt the Class-M standard, AMRDs (autonomous maritime radio devices, such as AIS MOBs), will no longer be permitted to use AIS channels 1 and 2. Instead, they will be required to switch to channel 2006, which is not designated as an emergency channel.

Where ECC/DEC/(22)02 is adopted, non-compliant MOBs will be prohibited to use/license.



BATERY TYPE         9VLithum hathray           NIRMUM ALERTING PERIOD         Minimum of 12 hours al-20°C.           BATTERY SHELL IFE AT -20°C         5 years           OPERATING TEMPERATURE         -20° to 155°C (4°P or 121°) apr IEC 60°45           DIMONE TEMPERATURE         -20° to 155°C (4°P or 121°) apr IEC 60°45           DIMONE TEMPERATURE         -20° to 155°C (4°P or 121°) apr IEC 60°45           DIMONE TEMPERATURE         -20° to 155°C (4°P or 121°) apr IEC 60°45           DIMONENTAL         IEC 60°45           DEVIDEONENTIAL         IEC 60°45           DEVIDEONENTIAL         IEC 60°45           DEVIDEONENTIAL RATING         IEVE to 100°           DEVIDEONENTIAL RATING         IEVE to 100°           DEVIDEONENTIAL RATING         IEVE to 100°           SELE I D         ITU R NASS Compliant factory pergammed freetrom Muniterio Edentity with 972 profix           COMPASS SAFE DISTANCE         0.5% IEJ 60°           ALEVINET TRANSMITTER PACKAGES         121 500 MAte           ANTENNA TYPE         Vertically polarised           ANTENNA TYPE         Vertically polarised           VAF DAS MOVER OUTPUT         Nominal INVERP           VMF DAS INDONE PERCUTURUE         ALS and VFE.           GOSS ECONTROL         ALS and VFE.           OUS FALENTYPE	GENERAL	
BATTERY SHELF LIFE AT - 20°C         Systems           OPERATING TEMPERATURE         -20° to -58°C (-4° to +131°T) as per IEC 60745           STORAGE TEMPERATURE         39° to -70°C ( 22° to +136°F) as per IEC 60745           DIMENSIONS         207mm (H) (including antennal; s 59mm (W) is 20mm (W) is 20mm (W)           WEIGHT         130°C           ENVIRONMENTAL         IEC 60745           STROBE LIGHT         30° candida, 20° degree dispersion, flash rate 12 /minute           ENVIRONMENTAL RATING         IF66 to 10 metres depth           MOUNTING OPTIONS         Designed to indeprate with a SOLAS approved life jocket           SELF ID         ITU & NASS Compliant factory programmed freeform Maritime identity with 972 perfx.           COMMENSAL RATING         Typically SMM - BMM           ALSYNFF TRANSMITTER PACKAGES         121.500 M1 z           AIR BAND FREQUENCIES         121.500 M1 z           AIR BAND FREQUENCIES         121.500 M1 z           AIR SAND FREQUENCIES         Vertically polarised           AIST POWER OUTPUT         Nominal 120/EIRP           VIE DSC TARIO 70° ESS 252/MFz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 120.025 MHz           VIE DSC TARIO 70° ESS 252/MFz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 120.025 MHz           VIE DSC TARIO 70° ESS 252/MFz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 120.025 MHz           VIE DSC TARIO 70°	BATTERY TYPE	9V Lithium battery
OPERATING TEMPERATURE         -201*0 + 55°C (4**0 + 131*f) as per IEC 40945           STORAGE TEMPERATURE         -301*0 + 70°C (22**0 + 130*f) as per IEC 40945           DIMENSIONS         207mm (H) (including antenna) × 59mm (W) × 23mm (D)           WEIGHT         190g           ENVIRONMENTAL         IEC 60745           STROBE LIGHT         300 candela. 120 degree dispersion, flash rate 12 /minute           ENVIRONMENTAL RATING         IPA6 to 10 metros degréh           MOUNTING OFTIONS         Dealende to 10 metros degréh           MOUNTING OFTIONS         Dealende to integrate with a SOLA supproved IIf i jacket           SELF ID         ITU R M 335 Consoliant factory orgammed freeform Maritime identity with 972 perfix.           COMPASS SARE DISTANCE         0.5m (1.5m)           ALSYVIEF TRANSMITTER PACKAGES         121 500 MHz           ANTENNA TYPE         Vertically polarised           ANTENNA TYPE         Vertically polarised           AST ROWRE OUTPUT         Nominal 10*EIRP           VIEF TRANSMISSION PERQUENCIES         VIEF DSC Channel 70: 156.525 MHz, ALS Channel 2: 162.025 MHz           VHE DSC TARDON         After 24 sconds of water sensor immersion           OMAULING TYPE         AlS on VHF DSC           CONTROLS AND OPERATION         After 24 sconds of water sensor immersion           MANUAL ACTIVATION <td< th=""><th>MINIMUM ALERTING PERIOD</th><th>Minimum of 12 hours at -20°C.</th></td<>	MINIMUM ALERTING PERIOD	Minimum of 12 hours at -20°C.
STORAGE TEMPERATURE    0P to +2PCC(22* to +154PT) as per IFC 60245       DIMENSIONS     207mm (HL Including antenna) x 59mm (W) x 23mm (D)       WEIGHT     190g       ENVIRONMENTAL     IEC 60245       STROBE LIGHT     30 candels. 170 degree dispersion, flash rate 12 /minute       ENVIRONMENTAL     IEC 60245       STROBE LIGHT     30 candels. 170 degree dispersion, flash rate 12 /minute       ENVIRONMENTAL RATING     IP48 to 30 metres depth       MOUNTING COPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-K MSSIS Compliant factory programmed freeform Muritime Identity with 972 prefix       COMPASS SAFE DISTANCE     0.5m (1.5H)       ALESTING RADIUS     Typically SNM - 8NM       ALST/VHF TRANSMITTER PACKAGES     121.500 MHz       AREAND REQUENCIES     121.500 MHz       ANTENNA TYPE     Vertically palarised       AIS TA POWER OUTPUT     Nominal 1WEIRP       VHF TRANSMISSION FREQUENCIES     VHF DSC Charmel 2: 161.075 MHz, AIS Channel 2: 162.025 MHz       VHF DSC TA POWER OUTPUT     Nominal radiated power 500mW       SIGMALLING TYPE     AIS and VHF-DSC       CONTROLS AND OPERATION     After 2 accords of water sensor immersion       MANULACTIVATION     Ores armed, press, activate button       GPS and Calline     TFF (IMME TO RIST FPR)       TFF (IMME TO RIST FPR)     15 seconds fo	BATTERY SHELF LIFE AT +20°C	5 years
DIMENSIONS     207mm (H) (including antona) x 5mm (W) x 2mm (D)       VEIGHT     150g       ENVIRONMENTAL     IEC 63945       STROBE LIGHT     30 candels, 170 degree dispersion, flach rate 12 /minute       ENVIRONMENTAL     IEC 63945       STROBE LIGHT     30 candels, 170 degree dispersion, flach rate 12 /minute       ENVIRONMENTAL RATING     IP68 to 10 metros depth       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R M 585 Compliant factory programmed freeform Muritime Identity with 972 prefix       COMPASS SAFE DISTANCE     0.5m (15ft)       ALETTING RADIUS     Tripically 5NM - 8NM       ALETTING RADIUS     Tripically 5NM - 8NM       ALETTING RADIUS     Tripically 5NM - 8NM       ALSY/HF TEANSMITTER PACKAGES     121.500 MHz       AIR BAND REQUENCIES     121.500 MHz       ANTENNA TYPE     Vertically palarised       ALSY NOVER OUTPUT     Nominal radiated power 500mW       SIGMALLING TYPE     Als and VHF DSC       CONTROLS AND OPERATION     After 2 seconds of water sensor immersion       ANUMALATIVITON     Once armed, press activate button       GPS RECEIVER     GPS and Galleo       TTFF (TIME TO FIRST FIX)     15 seconds of water sensor immersion       AIS     Within 30 seconds of GRSS pashilon acquisition       SUBSQUENT OPEN LOOP DSC ALERTS	OPERATING TEMPERATURE	-20° to +55°C (-4° to +131°F) as per IEC 60945
WEIGHT         190g           ENVIRONMENTAL         IEC 40945           STROBE LIGHT         30 candela, 120 degree dispersion, flach rate 12 /minute           ENVIRONMENTAL         REC 40945           STROBE LIGHT         30 candela, 120 degree dispersion, flach rate 12 /minute           ENVIRONMENTAL RATING         IP64 to 30 metres depth           MOUNTING OPTIONS         Designed to integrate with a SOLAS approved life jacket           SELF ID         ITU-4 M.585 Compliant factory programmed freeform Markine Identity with 972 prefix           COMPASS SAFE DISTANCE         0.5m (1.51)           ALEXTING RADIUS         Typically SNM - BNM           ALSYVHF TRANSMITTER PACKAGES         AAR SAND REQUENCIES           ANTENNA TYPE         Vertically polarised           ANSTA POWER OUTPUT         Nominal 120 EG 255 MHz, AIS Channel 1: 161 973 MHz, AIS Channel 2: 162 025 MHz           VHF DSC TA POWER OUTPUT         Nominal radiused power S00mV           SIGMALING TYPE         AIS and VHI-DSC           CONTROLS AND OPERATION         After 2 seconds of water sensor immersion           MANUAL ACTIVATION         One armed, press activate botton           GPS RECEIVER         GPS and Galleo           TTFF (TIME TO FIRST FIX)         15 seconds of Water 3 apiral levels - 130 dtim           ONES SUPDATE RATE         Every minuta	STORAGE TEMPERATURE	-30° to +70°C (-22° to +158°F) as per IEC 60945
ENVIRONMENTAL         IEC 69945           STROBE LIGHT         30 candela, 170 degree dispersion, flash rate 12 /minute           ENVIRONMENTAL RATING         IP68 to 10 metres depth           MOUNTING OPTIONS         Designed to integrate with a SOLAS approved life jacket           SELF ID         ITU R M.SS5 Compliant factory programmed freeform Maritime Identity with 972 prefix           COMPASS SAFE DISTANCE         Q.Sm (1.5ft)           ALST/VHF TRANSMITTER PACKAGES         Austrone Request with a SOLAS approved life jacket           AINTENNA TYPE         Q.Sm (1.5ft)           ANTENNA TYPE         Vertically polarised           AIST& POWER OUTPUT         Nominal TWEIRP           VHFT DASC TX POWER OUTPUT         Nominal mail and and and preguest SolonW           SIGNALLING TYPE         Alst and VHF DSC TX POWER OUTPUT           Nominal mail and and and preguest SolonW         SIGNALLING TYPE           CONTROLS AND OPERATION         After 2 seconds of water sensor Immersion           MUNIAL ACTIVATION         Once armed, press activate bouton           GPS RECEIVER TYPE         GPS and Gallico           CIFF and Gallico         TIFF (TIME TO FIRST FIX)           MITIAL OPEN LOOP DSC ALERTS         Within 30 seconds of CMSS position acquisition           MITIAL OPEN LOOP DSC ALERTS         Every minute           VHF DSC GMID AT ALE	DIMENSIONS	207mm (H) (including antenna) x 59mm (W) x 23mm (D)
STROBE LIGHT     30 candela, 120 degree dispersion, flash rate 12 /minute       ENVIRONMENTAL RATING     IP68 to 10 metros depth       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU R M S85 Compliant factory programmed freeform Maritime Identity with 972 prefx       COMPASS SAFE DISTANCE     0.5m (1.5ft)       ALEXTING RADIUS     Typically SNM - 8NM       ALS/VHF TRANSMITTER PACKAGES     121.500 MHz       ANTENNA TYPE     Vertically polarised       ANTENNA TYPE     Vertically polarised       AIS TA POWER OUTPUT     Nominal TW EIRP       VHF DRSC NEREQUENCIES     VHF DSC Channel 20: 16.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz       VHF DSC TAR POWER OUTPUT     Nominal radiated gower 900mW       SigNALLING TYPE     Alsor and VHF DSC       CONTROLS AND OPERATION     After 2 seconds of water sensor immersion       MANUAL ACTIVATION     After 2 seconds of water sensor immersion       MANUAL ACTIVATION     Once armed, press activate batton       GPS RECEIVER     GPS and Galleo       TTFF (TIME TO FIRST FIRI)     15 seconds (typical) with nominal GPS signal levels -130dBm       CASS RECEIVER     Every minute       VHF DSC AND AIS ALERTS     Within 30 seconds of GNSS position acquisition       INITIAL OPEN LOOP DSC ALERT     Within 30 seconds after activation       SUBSEQUENT OPEN LOOP DSC	WEIGHT	190g
ENVIRONMENTAL RATING     IP68 to 10 metres depth       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R M.585 Compliant factory programmed freeform Maritime Identity with 972 prefix       COMPASS SAFE DISTANCE     0.5m (1.5ft)       ALERTING RADIUS     Typically SNM - 8NM       ALS/VHFF TRANSMITTER PACKAGES     121.500 MHz       ARBAND FREQUENCIES     121.500 MHz       ANTENNA TYPE     Vertically polarised       AST x POWER OUTPUT     Nominal 1W EIRP       VHF TRANSMISSION FREQUENCIES     VHF DSC Charmel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz       VHF TRANSMISSION FREQUENCIES     VHF DSC Tx POWER OUTPUT       Nominal radiated power 500mW     3IGNALLING TYPE       ALIS and VHF-DSC     CONTROLS AND OPERATION       AUTOMATIC WATER ACTIVATION     After 2 seconds of water sensor immersion       MANUAL ACTIVATION     Once armed, press activate button       GPS and Galileo     115       TTFF (TIME TO PIRST FIX)     13 seconds of CMSS position acquisition       INTIAL OPEN LOOP DSC ALERT     Within 30 seconds of GMSS position acquisition       INTIAL OPEN LOOP DSC ALERT     Within 30 seconds of GMSS position acquisition       INTIAL OPEN LOOP DSC ALERT     Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the baltery expires.       FIRST DSC GPS DATA ALERT S	ENVIRONMENTAL	IEC 60945
MOUNTING OPTIONS         Designed to integrate with a SOLAS approved life jacket           SELF ID         ITU-R M.SBS Compilant factory programmed freeform Maritime Identity with 972 prefix           COMPASS SAFE DISTANCE         0.5m (1.5ft)           ALERTING RADIUS         Typically SNM - BNM           ALS/VHFF TRANSMITTER PACKAGES         121.500 MHz           AND FREQUENCIES         121.500 MHz           ANTENNA TYPE         Vertically polarised           ASTx POWER OUTPUT         Nominal IW EIRP           VHF TRANSMISSION FREQUENCIES         VHF DSC Channel 70: 156.525 MHz, AIS Channel 2: 162.025 MHz           VHF DSC Tx POWER OUTPUT         Nominal radiated power 500mW           SIGNALLING TYPE         AIS and VHF-DSC           CONTROLES AND OPERATION         Alter 2 seconds of water sensor immersion           MANUAL CTIVATION         Once armed, press activate button           GPS RECEIVER         GPS and Galileo           GNSS RECEIVER         GPS and Galileo           GNSS RECEIVER         Signal texels - 130dBm           GNSS UPDATE RATE         Every minute           VHF DSC AND AIS ALERTS         AIS           AIS         Within 30 seconds of GNSS position acquisition           INTIAL OPEN LOOP DSC ALERT         Within 30 seconds of GNSS position acquisition           INTIAL OPEN LOOP DSC	STROBE LIGHT	30 candela, 170 degree dispersion, flash rate 12 /minute
SELF 1D       ITU-R M S85 Compliant factory programmed freeform Maritime Identity with 972 prefix         COMPASS SAFE DISTANCE       0.5m (1.5ft)         ALERTING RADIUS       Typically 5NM - 8NM         AIS/VHE TRANSMITTER PACKAGES       121.500 MHz         ANTENNA TYPE       Vertically plarised         AIS TX POWER OUTPUT       Noninal 1W EIRP         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.325 MHz, AIS Channel 2: 162.025 MHz         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.325 MHz, AIS Channel 2: 162.025 MHz         VHF DSC TX POWER OUTPUT       Noninal 1w/ EIRP         VHF DSC TX POWER OUTPUT       Noninal radiated power 500mW         SIGNALLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Gailleo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Xithin 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds of GNSS position acquisition         SUBSEQUENT OPEN LOOP DSC ALERTS<	ENVIRONMENTAL RATING	IP68 to 10 metres depth
COMPASS SAFE DISTANCE     0.5m (1.5ft)       ALERTING RADIUS     Typically SNM - BNM       AIS/VHF TRANSMITTER PACKAGES     121.500 MHz       AR BAND FREQUENCIES     121.500 MHz       ANTENNA TYPE     Vertically polarised       AIS TA POWER OUTPUT     Nominal 1W EIRP       VHF TRANSMISSION FREQUENCIES     VHF DSC Charmel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz       VHF TRANSMISSION FREQUENCIES     VHF DSC Charmel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz       VHF DSC Tx POWER OUTPUT     Nominal radiated power 500mW       SIGNALLING TYPE     AIS and VHF-DSC       CONTROLS AND OPERATION     After 2 seconds of water sensor immersion       MANUAL ACTIVATION     Once armed, press activate button       GPS RECEIVER     GPS and Gallico       TTFF (TIME TO FIRST FIX)     15 seconds (typical) with nominal GPS signal levels -130dBm       GNSS UPDATE RATE     Every minute       VHF DSC AND AIS ALERTS     Within 30 seconds of GNSS position acquisition       INITIAL OPEN LOOP DSC ALERT     Within 30 seconds of GNSS position acquisition       SUBSEQUENT OPEN LOOP DSC ALERTS     Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.       FIRST DSC GPS DATA ALERT SENT     Immediately after GNSS position acquisition       EUROPENAAPROVALS     EN 303 132 V2.1.1	MOUNTING OPTIONS	Designed to integrate with a SOLAS approved life jacket
ALERTING RADIUS       Typically SNM - 8NM         AIS/VHF TRANSMITTER PACKAGES       International Content of the state of th	SELF ID	ITU-R M.585 Compliant factory programmed freeform Maritime Identity with 972 prefix
AIS/VHF TRANSMITTER PACKAGES         AIR BAND FREQUENCIES       121:500 MHz         ANTENNA TYPE       Vertically polarised         AIS Tx POWER OUTPUT       Nominal 1W EIRP         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz         VHF DSC Tx POWER OUTPUT       Nominal radiated power 500mW         SignalLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS WEDATE RATE       Every minute         VHF DSC AND AIS ALERTS       AIS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every Similates for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V21.1	COMPASS SAFE DISTANCE	0.5m (1.5ft)
AIR BAND FREQUENCIES       121:500 MHz         ANTENNA TYPE       Vertically polarised         AIS TA POWER OUTPUT       Nominal 1W EIRP         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz         VHF DSC TA POWER OUTPUT       Nominal radiated power 500mW         SIGNALLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GP5 and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GP5 signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       AIS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acharchowledgement or the battery expires	ALERTING RADIUS	Typically 5NM - 8NM
ANTEINIA TYPE       Vertically polarised         AIS TX POWER OUTPUT       Nominal 1W EIRP         VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz         VHF DSC TX POWER OUTPUT       Nominal radiated power 500mW         SIGNALLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         TITFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels - 130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       AIS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds of the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	AIS/VHF TRANSMITTER PACKAGES	
AIS TX POWER OUTPUT     Nominal 1W EIRP       VHF TRANSMISSION FREQUENCIES     VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz       VHF DSC TX POWER OUTPUT     Nominal radiated power 500mW       SIGNALLING TYPE     AIS and VHF-DSC       CONTROLS AND OPERATION     Alter 2 seconds of water sensor immersion       AUTOMATIC WATER ACTIVATION     After 2 seconds of water sensor immersion       MANUAL ACTIVATION     Once armed, press activate button       GPS RECEIVER     GPS and Galileo       TTFF (TIME TO FIRST FIX)     15 seconds (typical) with nominal CPS signal levels - 130dBm       GNSS UPDATE RATE     Every minute       VHF DSC AND AIS ALERTS     Within 30 seconds of GNSS position acquisition       INITIAL OPEN LOOP DSC ALERT     Within 30 seconds of the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.       FIRST DSC GPS DATA ALERT SENT     Immediately after GNSS position acquired       APPROVALS     EN 303 132 V2.1.1	AIR BAND FREQUENCIES	121.500 MHz
VHF TRANSMISSION FREQUENCIES       VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz         VHF DSC Tx POWER OUTPUT       Nominal radiated power 500mW         SIGNALLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Within 30 seconds of GNSS position acquisition         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	ANTENNA TYPE	Vertically polarised
VHF DSC Tx POWER OUTPUT       Nominal radiated power 500mW         SIGNALLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERT       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	AIS Tx POWER OUTPUT	Nominal 1W EIRP
SIGNALLING TYPE       AIS and VHF-DSC         CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       AIS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	VHF TRANSMISSION FREQUENCIES	VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz , AIS Channel 2: 162.025 MHz
CONTROLS AND OPERATION       After 2 seconds of water sensor immersion         AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         TITFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Als         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	VHF DSC Tx POWER OUTPUT	Nominal radiated power 500mW
AUTOMATIC WATER ACTIVATION       After 2 seconds of water sensor immersion         MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         GINSS RECEIVER TYPE       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Als         NITIAL OPEN LOOP DSC ALERT       Within 30 seconds of GNSS position acquisition         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	SIGNALLING TYPE	AIS and VHF-DSC
MANUAL ACTIVATION       Once armed, press activate button         GPS RECEIVER       GPS and Galileo         GINSS RECEIVER TYPE       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels - 130dBm         GINSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Als         NITIAL OPEN LOOP DSC ALERT       Within 30 seconds of GNSS position acquisition         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	CONTROLS AND OPERATION	
GPS RECEIVER         GNSS RECEIVER TYPE       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       AIS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	AUTOMATIC WATER ACTIVATION	After 2 seconds of water sensor immersion
GNSS RECEIVER TYPE       GPS and Galileo         TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Image: Comparison of GNSS position acquisition         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	MANUAL ACTIVATION	Once armed, press activate button
TTFF (TIME TO FIRST FIX)       15 seconds (typical) with nominal GPS signal levels -130dBm         GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       Mithin 30 seconds of GNSS position acquisition         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	GPS RECEIVER	
GNSS UPDATE RATE       Every minute         VHF DSC AND AIS ALERTS       AIS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	GNSS RECEIVER TYPE	GPS and Galileo
VHF DSC AND AIS ALERTS         AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	TTFF (TIME TO FIRST FIX)	15 seconds (typical) with nominal GPS signal levels -130dBm
AIS       Within 30 seconds of GNSS position acquisition         INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	GNSS UPDATE RATE	Every minute
INITIAL OPEN LOOP DSC ALERT       Within 30 seconds after activation         SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EN 303 132 V2.1.1	VHF DSC AND AIS ALERTS	
SUBSEQUENT OPEN LOOP DSC ALERTS       Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.         FIRST DSC GPS DATA ALERT SENT       Immediately after GNSS position acquired         APPROVALS       EUROPEAN APPROVALS	AIS	Within 30 seconds of GNSS position acquisition
acknowledgement or the battery expires.       FIRST DSC GPS DATA ALERT SENT     Immediately after GNSS position acquired       APPROVALS     EN 303 132 V2.1.1	INITIAL OPEN LOOP DSC ALERT	Within 30 seconds after activation
APPROVALS       EUROPEAN APPROVALS   EN 303 132 V2.1.1	SUBSEQUENT OPEN LOOP DSC ALERTS	
EUROPEAN APPROVALS EN 303 132 V2.1.1	FIRST DSC GPS DATA ALERT SENT	Immediately after GNSS position acquired
	APPROVALS	
US APPROVALS RTCM 11901.1*	EUROPEAN APPROVALS	EN 303 132 V2.1.1
	US APPROVALS	RTCM 11901.1*

 $^{\ast}$  USA and Australia approvals are pending

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