



SMART
RADIO
TECH

Exclusive supplier
of Aeromarine SRT products



MRTS-7 Pro

GMDSS MULTI TESTER

Next-level performance for marine radio surveys

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PROFESSIONAL GMDSS TESTER

Accuracy & convenience

The GMDSS tester MRTS-7 Pro is the only one GMDSS Tester that combines portability with uncompromising capabilities for professional testing of all GMDSS and AIS equipment.

The tester enables both antenna and cable connections to the tested equipment, enabling complete and detailed verification in full compliance with IMO requirements. With the help of this Tester you can check both transmitting functions, and the receiving performance of the onboard stations by generating and transmitting special defined signals and at the required power level.

All the measurements are precise and enable accurate and justified conclusions regarding the operability of onboard equipment.

The tester is hand-held and fully independent, it means the survey can be carried out on board using this device and no additional equipment is needed. Though when paired with a laptop, smart phone, or tablet, it offers even greater convenience. The remote control via Bluetooth is available for testing equipment that have hardly accessible connection ports.

Besides, MRTS-7 Pro features a modern, intuitive interface with clear pictograms for easy navigation. The design is user-adjustable, offering both dark and light themes, as well as the option to enable or disable gradients.

A large TFT colour display provides full information on one screen, this helps to avoid long scrolling. Some test results can be also viewed in graphs.

The main unit of the tester is water and dust proof, IP65.



Water- and dustproof



Big TFT colour display



Remote control via Bluetooth



Anti-shock rubber sleeve



Ready today for all present and future GMDSS & AIS testing:



MF/HF radio



VHF radio



GMDSS/DSC



AIS



EPIRB, AIS EPIRB



AIS-SART



NAVTEX



AIS MOB device



PLB



Walkie-talkie



Radar SART*



*available when using optional SART testing unit

All test procedures are carried out in accordance with international standards:

- IMO A.948 (23) or A.997(25), A.1020(26) resolutions (for marine radio stations);
- The circular letter MSC.1/Circ.1252 (for AIS stations);
- IMO Circulars MSC.1/Circ.1039/Rev.1 and 1040/Rev.2 (for C/S beacons);
- IMO Resolution A.802(19), SOLAS-74/88 (for SARTs).



TEST SCOPE IN DETAILS

GMDSS Multi Tester MRTS-7 Pro enables testing of the following types of equipment:

— VHF transceivers:

- operation tests on any simplex channel including 6, 9, 13 and 16 channels;
- measurement of carrier frequency and frequency deviation;
- measurement of antenna VSWR, forward and reflected power.

— VHF transceivers with DSC:

- test of correct transmission/reception of DSC messages by means of transmission/reception, routine or test calls to particular MMSI number and Distress (to all ships) messages;
- check the MMSI code programmed in equipment without any broadcast emission;
- measurement of carrier frequency and frequency deviation;
- measurement of forward and reflected power, VSWR.

— VHF equipment of duplex radiotelephony (portable):

- operation tests on channels 6, 9, 13, 16 (at least);
- measurement of output power, carrier frequency and frequency deviation.

— VHF equipment of duplex radiotelephony with airplanes including operating on 121.5 MHz and 123.1 MHz:

- operation tests on channels 6, 9, 13, 16 (at least);
- measurement of output power, carrier frequency and frequency deviation.

— VHF radiotelephone stations operating in range (300 - 337) MHz (intended for river-sea vessels):

- measurement of output power, carrier frequency and frequency deviation.

— MF/HF radio telephone equipment:

- measurement of frequency in range (1600 – 30000) kHz;
- measurement of output power up to 500W;
- operation tests in frequency range (1600 – 30000) kHz;
- measurement of antenna feeder VSWR and reflected power (when tested using power sensor PS-3.

— MF/HF radiotelephone equipment with DSC:

- test of correct transmission/reception of DSC messages by means of transmission/reception of Selective Test call to particular MMSI number and Distress (to all ships) messages on any of 6 distress channels and Routine call on any of 6 routine channels.

— NAVTEX receivers:

- operation tests by means of sending test messages.

— AIS mobile stations Class A and Class B and AIS-SARTs working in the maritime VHF band:

- measurement of output power, carrier frequency and antenna VSWR;
- receiving and decoding of the AIS messages;
- sending data/messages to AIS stations;
- passing the DSC polling information (channel 70);
- checking AIS response to so-called “virtual vessel”.

— All COSPAS-SARSAT radio beacons:

- reception, demodulation and decoding of the emergency information transmitted on channel 406 MHz;
- frequency measurement of 406 MHz and 121.5 MHz signals;
- audio-control of the sweep 121.5 MHz signal presence;
- power level measurement on 406 MHz and 121.5 MHz channels;
- measurement of total transmission time of 406 MHz signal;
- measurement of unmodulated carrier duration of 406 MHz signal;
- estimation of the equivalent radiated power of 406 MHz signal through broadcast;
- measurement of power on AIS1/AIS2 channels;
- measurement of frequency on AIS1/AIS2 channels;
- demodulation of AIS messages.

— 9GHz Radar SART (when using optional SART testing unit):

- measurement of duration of response signal T_0 in 50 ÷ 150 μ s range;
- indication of power level of response signal in $P_0 = 300 \div 950$ mW range;
- counting the number of sweeps in response signal.



The next generation of GMDSS Multi Testers

The new MRTS-7 Pro follows the worldwide success of the GMDSS Multi Tester MRTS-7M, adding key advances in technology, ergonomics, and interface.

Improved testing across equipment:

VHF and UHF testing range is optimized: 30 MHz to 512 MHz frequency range for receive and 35 MHz to 512 MHz for transmit. Power level range (VHF/UHF) is upgraded to up to 60W.

MF/HF and VHF / UHF a broadband Frequency Counter/Power Meter function has been added. The frequency counter enables automatic tuning to the required channel in VHF Receiver AM/FM modes.

EPIRB checking is enhanced with triple independent receivers. All beacons, including AIS EPIRB with three channels can be checked at one burst. The test results are available in the view of graphs for deeper analysis.

AIS testing is facilitated by GPS-antenna that informs current coordinates and allows the tester to automatically calculate the coordinates of virtual ships during AIS receiver testing.

SART testing is enabled with optional unit STU-1, it can be added into the complete set.

Improved ergonomics and interface:



Remote repair IQ file recording for effortless remote diagnostics and support. Now, if any issue arises during operation, most cases can be resolved remotely — no need to ship the tester for repair or lose valuable working time. Stay productive, wherever you are!



Key Advantages of the GMDSS Multi Tester **MRTS-7 Pro**:

- ✓ Comprehensive testing of all modern GMDSS and AIS equipment, ready for present and future technologies
- ✓ Revised and enhanced testing procedures across all equipment types
- ✓ Convenient testing of hardly-accessible equipment thanks to Remote Control feature
- ✓ AIS testing with integrated GPS for automatic “virtual vessel” positioning
- ✓ Rugged casing, anti-shock rubber sleeve and IP65 protection for flawless operation in harsh environments
- ✓ Most compact full-feature set in its class

GMDSS MULTI SOFTWARE

For maximum comfort in testing and reporting

An important advantage of the MRTS-7 Pro is its seamless integration with the GMDSS Multi Software — a specialized application designed to streamline your workflow and simplify survey documentation.

This application greatly enhances MRTS-7 Pro convenience by allowing users to download test data, analyze measurements, view EPIRB test graphs, and generate IMO-compliant reports — all in just a few clicks.

In specific cases, the software also supports remote monitoring and control of the testing process via Bluetooth connection.

The connection between the tester and the app is flexible: you can use a USB cable or Bluetooth, depending on your setup. And the software runs on all major platforms — Windows, macOS, Android, iOS — giving you full flexibility to work on a computer, laptop, tablet, or smartphone.

Test results can be grouped by vessel or MMSI code, making it easy to review survey history and compare performance over time. Search filters by date or equipment type simplify navigation through past tests.

AEROMARINE SRT
Smart Radio Technologies

Test Results

Vessels

Download Data

Testers

Profile

Remote control

GMDSS Test Equipment

Testers for Marine Radios, EPIRBs, SARTs and AIS

Test Results

Database of all saved measurements during radio surveys

Search

☐	PID#	Survey Date	Equipment	Channels	MMSI Code	
☐	16	Jun 10, 2025	MF/HF Radio	DSC	262377830	details >>
☐	15	Jun 10, 2025	MF/HF Radio	DSC	262377830	details >>
☐	14	Jun 10, 2025	MF/HF Radio	DSC	262377830	details >>
☐	13	Jun 10, 2025	VHF Radio	DSC	262377830	details >>
☐	12	Jun 10, 2025	EPIRB	406, 121	262377830	details >>
☐	11	Jun 10, 2025	EPIRB	406, 121	262377830	details >>
☐	10	Jun 10, 2025	EPIRB	406, 121	262377830	details >>
☐	9	May 29, 2025	MF/HF Radio	DSC	974000000	details >>

The test report header can be customized with your company's logo and contact details, using one of several templates. Company profiles are stored for fast access.

For highly specialized professionals the software also allows creating custom DSC messages to upload them into the MRTS tester for future use during the surveys.

Calibration status is tracked automatically, and the relevant data is added to each report to ensure full compliance with classification requirements.

For seamless access across multiple workstations, all data can be backed up and synced via the cloud.

A multilingual interface makes the software convenient and accessible for users worldwide.



Features of GMDSS Multi Software

- One convenient database of all surveys records
- Remote control of your tester
- Cross-platform support: macOS, Windows, iOS, and Android
- Automatic IMO-approved report generation
- Test results organized by vessel with full history tracking
- Customizable reports with company logo and contact details
- Custom DSC composer
- Cloud uploading for backup and workplaces sync
- One for all Aeromarine SRT GMDSS testers
- Multilingual interface — available in 6 languages



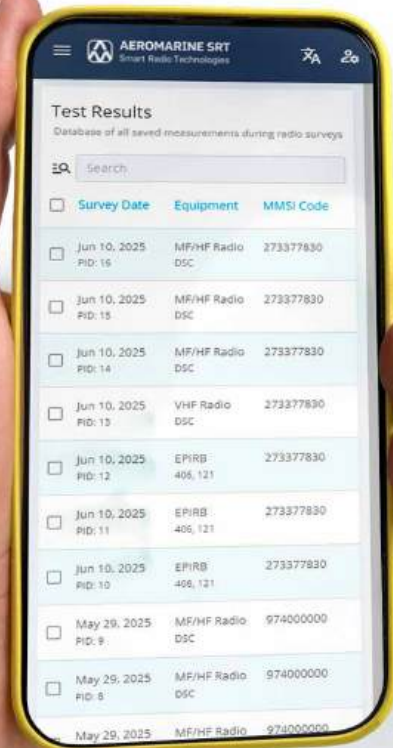
Cross-platform
access



Cloud
synchronization



Multilingual
interface



REMOTE CONTROL

With Bluetooth connectivity, the MRTL-7 Pro can be remotely operated via the GMDSS Multi Software on a computer or smartphone. This functionality is especially useful when testing equipment with hard-to-reach connection ports. Simply connect the tester to the equipment using the appropriate cables, pair it with your device over Bluetooth — and you can manage the entire testing process comfortably from the app, with all measurements controlled remotely.





The **complete set** includes all the necessary parts and is ready for work

The standard set includes a dual-band Power Sensor covering both VHF and MF/HF ranges. This one replaces two separate sensors, keeping the set lightweight and compact

All components are securely packed in a water-tight, crushproof carry-case (IP68 rated), making the kit convenient and safe for transport and business travel.



MAIN UNIT

20.5 x 13.8 x 11.0 cm, **0.62 kg**

WITH CASE

30.0 x 27.5 x 12.0 cm, **3.5 kg**

Illustrative images only. Accessory appearance may change without notice.

COMPLETE SET



Power VSWR Meter,
PS-3 Dual Band



Telescopic antenna
& GPS antenna



USB power adapter



UHF RF cables set



RF cable UHF
male – N female



USB A - USB C cable



NMEA In / Out cable
(DB9 fem - Pilot Plug)



PS-3 cables



Main unit

GMDSS Tester MRTS-7 Pro



Crushproof & watertight case

OPTION



SART testing unit STU-1

Illustrative images only. Accessory appearance may change without notice.

SART TESTING UNIT STU-1 (optional)

Small in size, **big in performance**

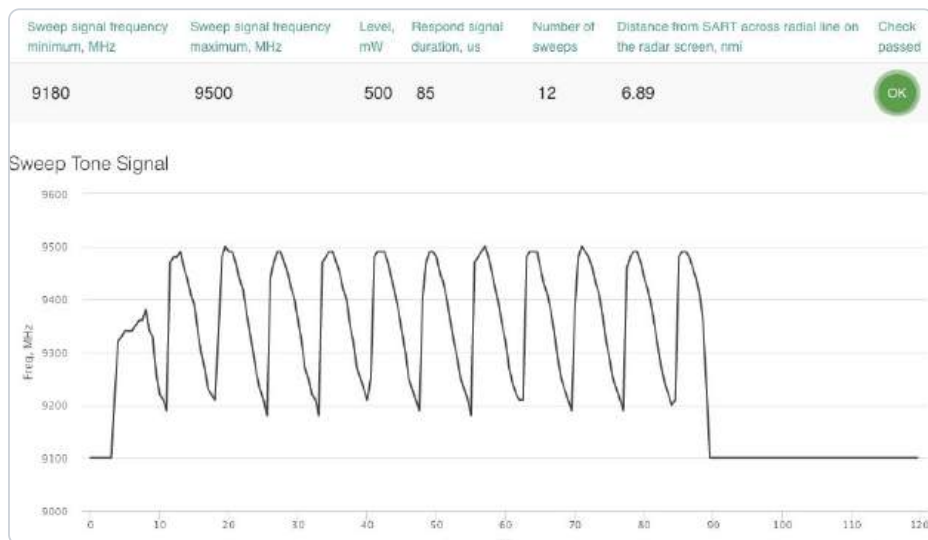


The STU-1 can be supplied either as a standalone unit or integrated into the GMDSS Tester MRTS-7 Pro set.

It is purpose-built for precise and comprehensive verification of 9 GHz SART performance — going far beyond the capabilities of any built-in self-test function.

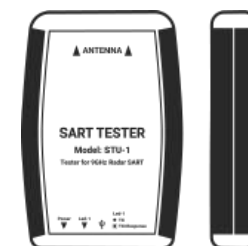
SART signal parameters are measured directly from the broadcast, providing a reliable and realistic assessment of device operation.

Testing is simple: connect the testing unit to your laptop or PC and launch the software. The entire procedure is controlled through the user-friendly interface, with results displayed in real time. Once testing is complete, results can be saved or instantly converted into IMO-compliant reports.



STU-1 highlights

- Fast and effortless testing of any 9 GHz SART
- Ultra-lightweight and compact
- Reliable signal reception within the 9140–9560 MHz frequency range
- Audio monitoring for quick sweep signal verification
- Instant generation of IMO-compliant test reports



MAIN UNIT

117 x 79 x 25 mm, **105 g**

WITH CASE

200 x 120 x 50 mm, **250 g**

After all, the STU-1 is

Small. Portable. Easy to use.

SPECIFICATIONS

1. Technical specifications in transmitting mode

Operational frequencies range, MHz:	MF/HF band	0.4 – 30
	VHF 1 band	30 – 100
	VHF 2 band	118 – 300
	UHF band	300 – 512
Frequency step:	MF/HF band	1 Hz (min)
	VHF/UHF band	1 kHz (min)
Frequency accuracy at +25°C and during two years after calibration		$< \pm 0.3 \cdot 10^{-6}$
Frequency accuracy in operational temperature range		$< \pm 1 \cdot 10^{-6}$
Max output level		-20 dBm $\pm$ 1 dB
Min output level		-107 dBm $\pm$ 3 dB
REF output level		-30 dBm $\pm$ 0.5 dB
Output level step		1.0 dB; (DNL: $\pm$ 0.3 dB)

2. Technical specifications of measuring receiver

Max signal level on RF IN/OUT		+20 dBm or 100 mW
Attenuation range of input signal by internal attenuator		63 dB
Input signal operational range on RF IN/OUT		from -80 dBm to -20 dBm
Operational frequencies range, MHz:	MF/HF band	0.4 – 30
	VHF 1 band	30 – 100
	VHF 2 band	118 – 300
	UHF band	300 – 512
LO PLL Frequency step size, kHz (min):	MF/HF band	0.1
	VHF band	1.0
Frequency bandwidth (at 3 dB level), Hz:	MF/HF Receive DSC and NAVTEX	$\pm$ 500
	MF/HF Receiver	$\pm$ 8600
	VHF band (all modes)	$\pm$ 9000

3. Technical specifications of MH/HF/VHF Power sensor VSWR meter PS-3

MF/HF Max allowed input power level, W	250
VHF Max allowed input power level, W	60
MF/HF operational frequency range, MHz	2 – 30
VHF operational frequency range, MHz	30 – 410
Insertion attenuation between RF-Input and MRTS-Input/Output, dB:	
MH/HF frequencies	83
VHF frequencies	74

GMDSS tester Pro allows to:

- generate the RF signals in range of 0.4 – 100 MHz and 118 – 512 MHz, including those with tonal amplitude and frequency modulation;
- measure the signal frequency and power level of of CW and FM-modulated radio signals in the range of 5 – 512 MHz.

ABOUT US

SRT Group unites three companies with a shared purpose: to deliver the most reliable and advanced GMDSS and AIS test solutions worldwide.

- **Aeromarine SRT Ltd (Ukraine)** is the manufacturing and R&D center behind all our testers. With 25 years of specialization in Cospas-Sarsat technologies, the company combines proven engineering with modern innovation, ensuring high-performance and user-focused products.
- **Smart Radio Tech d.o.o. (Serbia)** is the exclusive global supplier of Aeromarine SRT equipment. It handles all sales, marketing, and logistics worldwide.
- **Smart Radio Tech Srl (Romania)** is the official branch responsible for supplying Aeromarine SRT products within the European Union.



Watch how Aeromarine SRT testers are produced



Today, SRT Group stands as the only company worldwide dedicated exclusively to the development, production, distribution, and support of GMDSS and AIS test equipment — combining specialization with global reach.

The “three-easy” principle of our testers:

- ✓ Easy to carry
- ✓ Easy to use
- ✓ Easy to process

Our mission

We are committed to enhancing maritime safety by developing reliable, user-focused test equipment for marine radio surveys.

The reliability and high performance of our equipment are confirmed by users who return to us time and again — a testament to the trust we’ve earned. To meet and exceed their expectations, we continually expand our testers’ functionality and develop new features that reflect the evolving needs of the industry.

Our history

The story of our company began in 2000, when three radio engineers with deep expertise in Cospas-Sarsat safety systems founded a research and production company in Ukraine — **Musson Marine Ltd.** From the very beginning, the company focused on developing and manufacturing test equipment for GMDSS inspections.

By 2002, Musson Marine had entered the international market. Over the years, we rapidly expanded our product range and sharpened our expertise in RF engineering, PCB design, and OEM manufacturing.

A major milestone came in 2015 with a full restructuring and rebranding as **Aeromarine SRT Ltd**, marking the start of a new chapter of innovation and global growth. Around this time, we launched our first multifunctional GMDSS Tester MRTS-7M — quickly recognized for its portability and reliability.

To better serve our worldwide customers, **Smart Radio Tech d.o.o.** was founded in Serbia in 2022 as the exclusive global distributor of Aeromarine SRT equipment. In 2023, **Smart Radio Tech Srl** was established in Romania to simplify purchases and logistics within the European Union.

In 2025, we introduced the second-generation GMDSS Multi Tester — MRTS-7 Pro. Its rich functionality and advanced capabilities have set new standards, elevating radio surveys to a higher level across the industry.

Some of the industry’s leading companies that use our equipment





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Compact. Powerful. Professional.

From quick routine checks to comprehensive inspections,
MRTS-7 Pro is your all-in-one solution — combining
advanced technology with real-world practicality.



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