OEM module system Cospas-Sarsat, AIS and DSC VHF

This OEM module is designed for using in all types of Cospas-Sarsat devices, such as EPIRB, PLB, ELT and also for other different types of rescue equipment as MOB, AIS PLB, EPIRB-AIS, AIS-SART, rescue tools (emergency buttons) for installation on trucks, lost containers tracking facilities, for MSLS device (MSLD) and other device combinations according to RTCM 11901.1

Main features of suggested OEM modules are described below.

Cospas-Sarsat 406MHz OEM module part number is MS-CS M1

Cospas-Sarsat frequency is adjusted from 406.00 to 406.1MHz, with step 3kHz

Channel 406MHz power: 37dBm ±2dBm (5W)

Modulation: phase modulation ±1.1Rad

Modulation method: digital, with phase discretization 0.005Rad

Spurious emission attenuation: not less than 40dB

Bit rate: 400Baud

ID and MMSI programming from PC

Power supply: 4.8-7.2V

Average current consumption: 40mA

Operation modes: emergency / test

Self-testing: battery voltage, output power, frequency capture, GPS coordinates presence
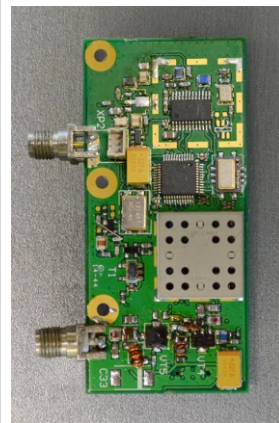
Operation temperatures: -20℃ to +55℃

PCB size: 55x30mm, height with add-on components not more than 9.5mm

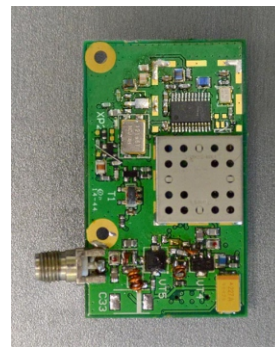PCB weight: not more than 17gr

Compliancy: ETS300 066, Cospas-Sarsat CIS T.001, CIS T.007.

Cospas-Sarsat 406MHz OEM-module part number – MS-ACS M1
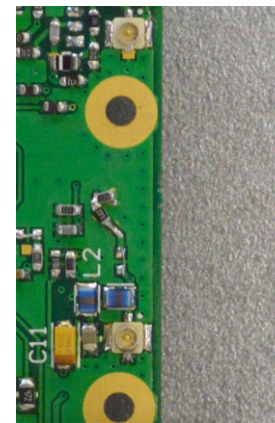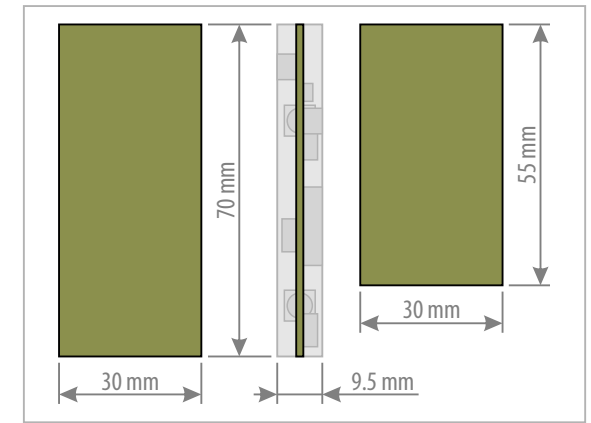
Adding to device MS-CS M1 specifications.

Image 1
Cospas-Sarsat 406MHz OEM-module part number – MS-ACS M1

Image 2
Cospas-Sarsat 406MHz OEM module part number is MS-CS M1

Image 3
Bottom side with two RF-outputs of channels 406MHz and combined AIS and DSC channel in VHF range.

Image 4
Dimensions

AIS-SART channel specifications

Operating frequency: channel 1 – 161.975MHz
channel 2 – 162.025MHz

Power: 33dBm (2W)

Modulation: GMSK

Modulation method: digital

Frequency stability: ± 2ppm

Spurious emission attenuation: not less than 40dB

Bit rate: 9600Baud

ID and MMSI programming from PC

Operation modes: emergency / test

Self-testing: battery voltage, output power, frequency capture, GPS coordinates presence

Average current consumption (including GPS): 12mA

DSC channel specifications

Operating frequency: 156.525MHz (channel70)

Power: 33dBm (2W)

Modulation: G2B

Modulation method: digital

Frequency stability: ±2ppm

Spurious emission attenuation: not less than 40dB

Bit rate: 1200Baud

ID and MMSI programming from PC

Operation modes: emergency / test

Self-testing: battery voltage, output power, frequency capture, GPS coordinates presence

Average current consumption (including GPS): 10mA

General specifications

Power supply: 4.8-7.2V

Operating temperatures: -20℃ to +55℃

PCB size: 70x30mm, height with add-on components not more than 9.5mm

PCB weight: not more than 20gr

Compliancy: ETS300 066, Cospas-Sarsat C/S T.001, C/S T.007; IEC_61097-14; IMO Resolution.

Outdated frequencies 121.5 and 243MHz can be added – more information if requested.

Operation in lower temperatures is possible – more information if requested.

Options

Soft- and hardware for coding and parameter installation by manufacturer – part number PSH M1

Software, coding tool and its design docs for ID changing on frequency 406MHz, AIS and DSC – the set should be sent to dealer and service centers for coding specially for user – part number CS M1.

On images 1 and 2 process connectors are used. It is clearly visible original connectors that are used.