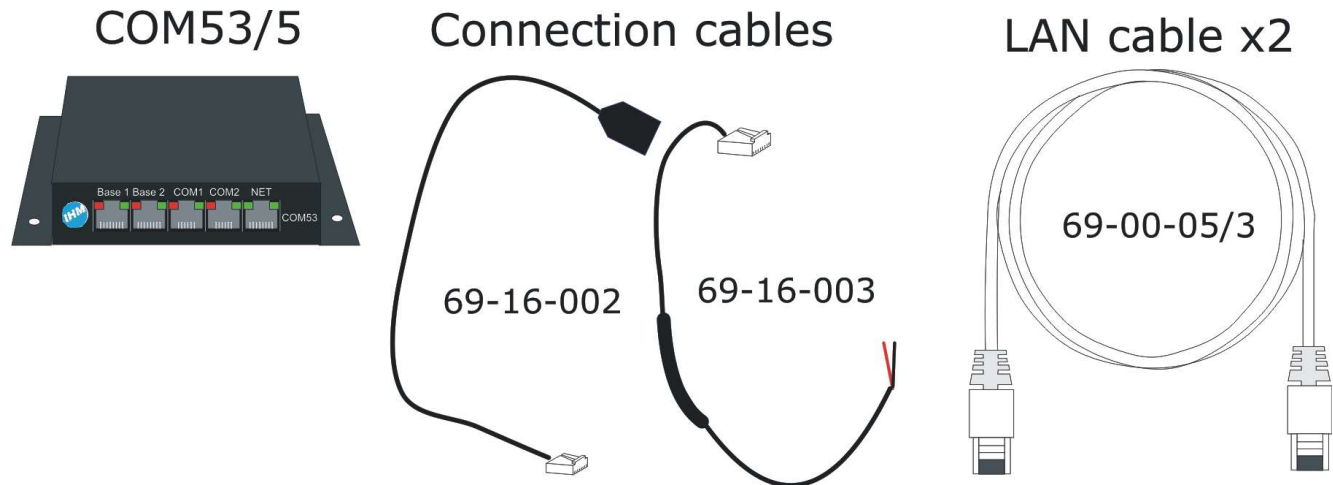# 87-COM53/5 – Sailor 6310 – MF/HF

PRODUCT SHEET

The COM53/5 is a VoIP Base Station Controller for COBHAM SAILOR 6310 MF/HF Radio.

The COM53/5 kit includes interfaces cables for connection of for one radio unit.

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The radio interface

The SAILOR 6310 provides a long list of ITU channels and can by option have an additional 6 channel DSC unit included.

Please note: The radio unit is not part of the IHM delivery.

Functions

- Audio input and output to and from the radio
- PTT output (relay), as the radio is working in simplex mode, the received signal will be disabled when PTT is activated.
- Squelch input (opto coupler). Together with IHM MCS Flexible series, the squelch opening level can be set in two sensitivity levels.
- RSSI, (0-5Vdc) indicates the strength of the received signal via a level bar. If you have more radios on the same frequency for a larger coverage area, RSSI can be used for letting the operator select which radio to use for a conversation.
- Power output control, the power output can be set to low, medium, or high, when used with IHM MCS Flexible series.
- Channel selection, the radio is typically used as multichannel. The channels, which can be used depend on the firmware in the radio and corresponding COM53 firmware and McsService32.exe + ActServ.ini versions. Standard ITU simplex & semi-duplex channels are typically installed.
- Clarifier, for fine tuning frequency (useful when communicating with legacy SSB radios.
- HF Gain, setting the receiver gain.
- DSC. As option the Digital Selective Calling facility can be enabled.
- Dual operation, the operator can control the radio both from its control head and from the IHM application. Usage of the SAILOR handset on the radio disables remote operation from the IHM application.
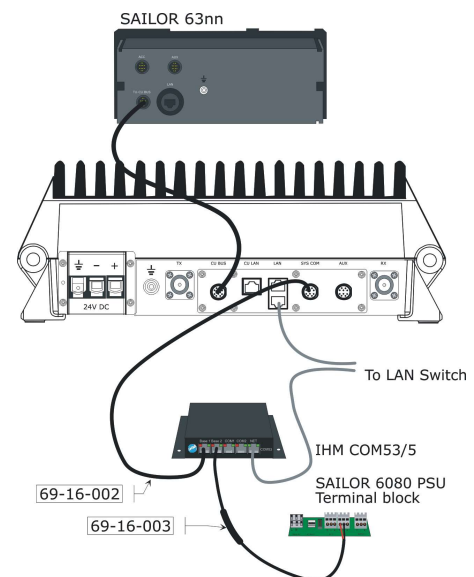
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Optional functions

- Emergency call (for vessel applications)
- GPS coordinates can be transferred from the 6310 radio and displayed in the operator application

Technical data

Parameter	Test conditions	Min.	Typ.	Max.	Unit
Supply voltage					
Vsupply		10.6		30.0	Vdc
Current consumption					
Isupply	Vsupply = 12Vdc		250	350	mA
	Vsupply = 24Vdc		150	250	mA
Ethernet					
Connection	IEEE 802.3 / RJ45				
Speed	Dual Speed 10/100 Mbit/s		100		Mbit/s
Auto	Auto Negotiation Enabled				
Bandwidth required	Per active voice channel	128			Kbit
Latency	one direction, both directions			150 300	msec
Jitter		160			msec
Broadcast	Should be avoided or kept to a minimum				
Base Station					
Input-level		-25	-10	-3	dBm
Output-level		-25	-10	-3	dBm
Impedance			600		ohm
RS232					
Vout Low			-5V		V
Vout High			5V		V
Baud rate	Adjustable	2400		115200	Baud
Temperature range					
Ambient		0°		55°	C
Storage		-10°		65°	C
Mechanical specifications					
Module type (PCB)	120*100mm				
Weight (PCB)	100 g				
Box size	110 x 130 x 28mm				
Weight (PCB + Box)	250 g				
Weight (PCB + Box + Cables	650 g				

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Important !

COM53/5 firmware: c53_Sailor_HF_176.hex and code file C53_Sailor_HF_default_V10.com53.ihm supports SAILOR firmware release 2.14 and MCSService32.exe release 3.0.5.3405 with parameter file.

If you have another firmware version in your SAILOR radio, either upgrade to version 2.14 or please contact IHM for availability of COM53 firmware and if applicable McsService32 supporting newer SAILOR firmware versions.

The SAILOR 6310 VHF radio may not make use of the built-in phonebook, as this would jeopardise remote operation via the COM53.

Make sure that the external key is enabled in the 6310 MF/HF radio.

Make sure that the radio is set in the correct mode 'Coast Station or Vessel', 'Coast station' is displayed on the control head of the radio.

When using IHM COM53 firmware releases older than c53_Sailor_HF_175.hex, the Sailor radios shall have connection to a DHCP server, which by default is provided by the IHM system. If the IHM system is to work in an existing network, the DHCP shall be included in this network.

When using IHM COM53 firmware equal to and newer that c53_Sailor_HF_176.hex, The SAILOR radios do no longer need connection to a DHCP server. The radios serial number is used to establish connection with the system.