87-COM53/7B – MOTOROLA, MOTOTRBO Analogue Multichannel
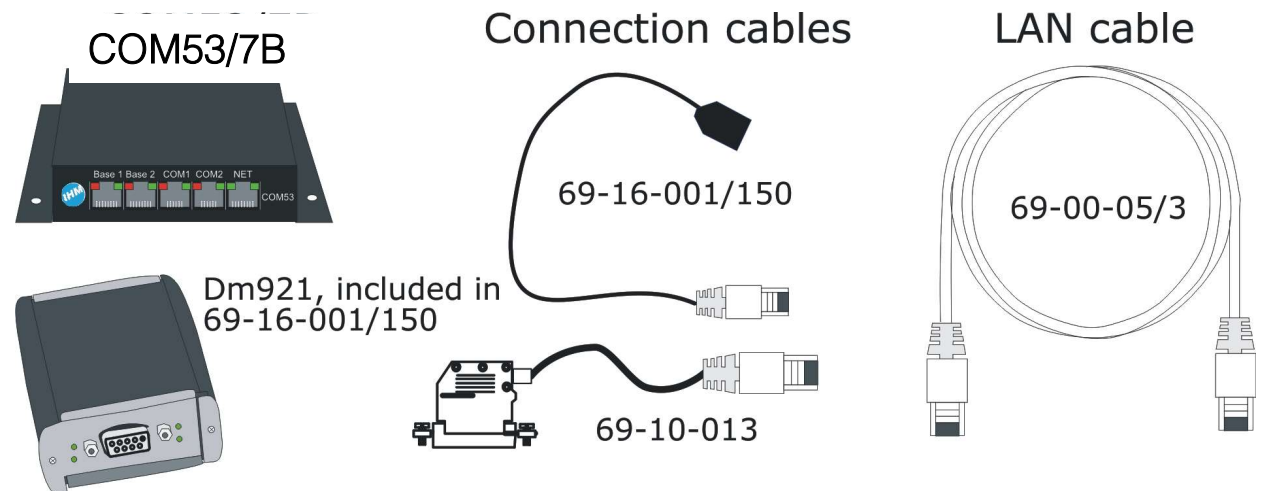
The COM53/7B is a VoIP Base Station Controller for one Multichannel MOTOROLA DM4600 & XPR 5580 MOTOTRBO terminal.

The COM53/7B kit includes interfaces cables for connection of one radio unit.

COM53/7B

Dm921, included in
69-16-001/150

Connection cables

69-16-001/150

69-10-013

LAN cable

69-00-05/3

The terminal

The DM4600 terminal shall be programmed with the required frequencies.

Please note, this radio does not conform to GMDSS standards and should therefore not be used for VHF marine communications.
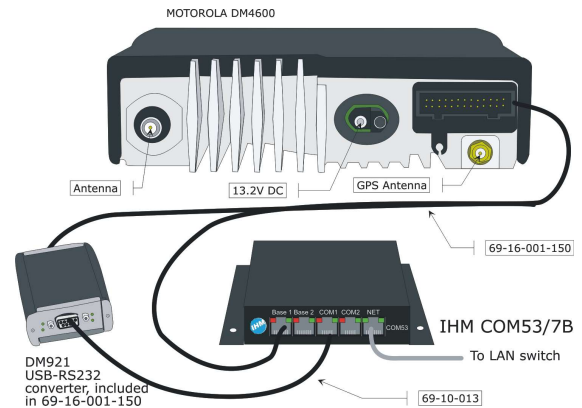
Please note: The radio unit is not part of the IHM delivery.

MOTOROLA DM4600

Antenna | 13.2V DC | GPS Antenna

69-16-001-150

DM921
USB-RS232
converter, included
in 69-16-001-150

IHM COM53/7B

To LAN switch

69-10-013

Functions

- Audio input and output to and from the radio
- PTT output (relay), analogue communication is always performed in simplex mode.
- RSSI, (0-5Vdc) indicates the received field strength from the other radio/base station
- Power output control, Used with IHM MCS Flexible series, the power output can be set to low or high.
- Multichannel, simplex and semi duplex coast radio frequencies.

Functions – not supported

- DMR mode

87-COM53/7B – MOTOROLA, MOTOTRBO Analogue Multichannel

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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	600 g				

Important !

COM53/7B firmware: c53_FWT_v10_16.hex and code file C53_FWT_default_v10.com53.ihm supports MOTOROLA DM4600 with firmware release 02 50 05 and code file DM4601_UHF_v1.0_ctb or use the Motorola 'CPS' application to set parameters found on next page.

If you have another firmware version in your MOTOROLA terminal, either upgrade to version 02 50 05 or please contact IHM for availability of COM53 firmware and if applicable McsService32 supporting newer Motorola firmware versions.

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DM4600 – Data settings

Setup to be conducted in CPS

DM 4600 -> General settings -> Intelligent Audio Response ->	Disabled		
DM 4600 -> General settings -> Noise Suppressor ->	Disabled		
DM 4600 -> General settings -> Analogue Mic AGC ->	Unchecked		
DM4600 -> Accessories -> Analogue Rear Mic Gain (db) ->	-12		
DM 4600 -> Accessories -> RX Audio Type - Filtered Squelch			
DM 4600 -> Accessories -> Cable type - Rear Data Accessories			
DM 4600 -> Accessories -> GPIO #1 Physical Pins - Pin #17	Ext Mic PTT	Low	unchecked
DM 4600 -> Accessories -> GPIO #2 Physical Pins - Pin #19	Unassigned	Low	unchecked
DM 4600 -> Accessories -> GPIO #6 Physical Pins - Pin #20	Unassigned	Low	unchecked
DM 4600 -> Accessories -> GPIO #3 Physical Pins - Pin #21	PL/Talkgroup detect	High	unchecked
DM 4600 -> Accessories -> GPIO #7 Physical Pins - Pin #22	Unassigned	Low	unchecked
DM 4600 -> Accessories -> GPIO #8 Physical Pins - Pin #24	Unassigned	Low	unchecked
DM 4600 -> Accessories -> GPIO VIP1 Physical Pins - Pin #26	Unassigned	Low	unchecked

Please note: After programming, remove the programming cable and reboot the radio