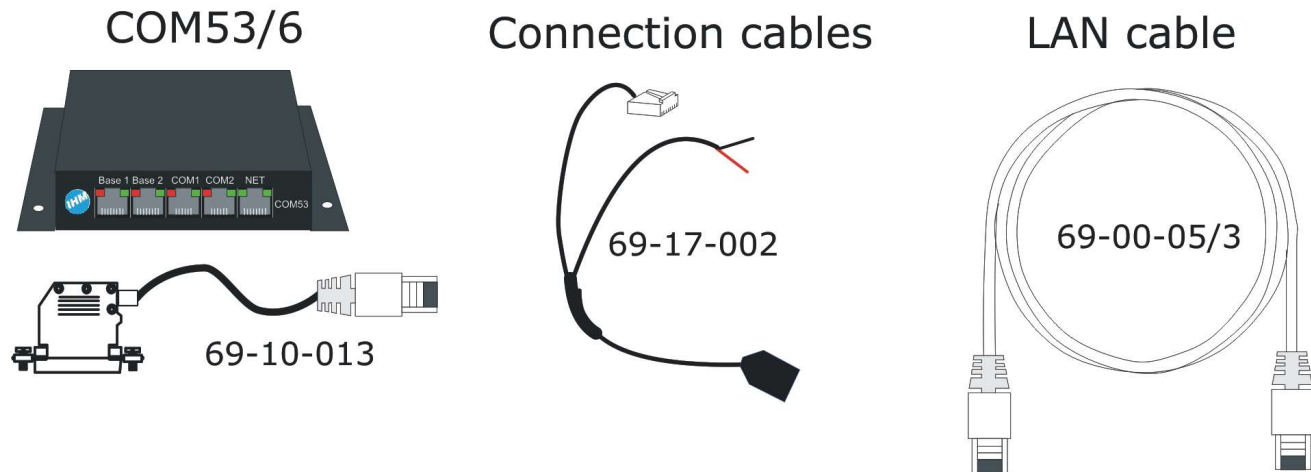# 87-COM53/6 – MOTOROLA – TETRA - Databox

PRODUCT SHEET

The COM53/6 is a VoIP Base Station Controller for one MOTOROLA MTM5500 TETRA Databox version.

The COM53/6 kit includes interfaces cables for connection of one radio unit.

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COM53/6 — 69-10-013

Connection cables — 69-17-002

LAN cable — 69-00-05/3

The radio interface

The MTM5500 terminal shall be programmed with the required Talk Groups (TG).

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

MOTOROLA MTM5500

Ant. | 13.2V DC | GPS ant.

69-17-002

IHM COM53/6

To LAN switch

69-10-013

Functions

- Audio input and output to and from the radio
- PTT output (relay), TG communication is always performed in simplex mode, whereas Private Calls can be performed in either duplex or simplex mode.
- RSSI indicates the received field strength from the TETRA backbone
- Power output control. Used with IHM MCS Flexible series, the power output can be set to low or high.
- Talk Groups, the radio is typically used with several TGs. The TGs identified in the radio shall be coded in the ActServ.ini file of the connected system. Provided connected to an IHM MCS PnP system, this can be setup using the McsSetup application.
- Private calls, private calls can be performed to other TETRA terminals in either simplex or duplex mode.
- Text messaging, SDS messages can be sent and received.

Unsupported functions

- Direct mode
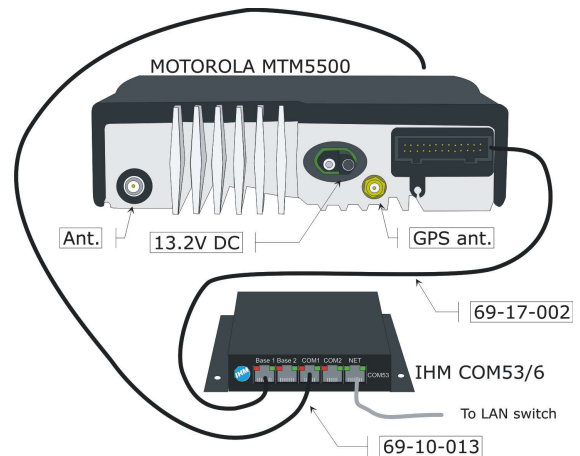
87-COM53/6 – MOTOROLA – TETRA - Databox

PRODUCT SHEET

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 !

COM53/6 firmware: c53_FWT_v10_16.hex and code file C53_FWT_default_v10.com53.ihm supports MOTOROLA MTM5500 Model number M83PFA6TZ5AN with firmware release 16.1.

If you have another firmware version in your MOTOROLA terminal, either upgrade to version 16.1 or please contact IHM for availability of COM53 firmware and if applicable, McsService32 supporting newer Motorola firmware versions.

PRODUCT SHEET

MTM5500 Databox version - Data Settings

- PEI Parameters: Baud rate 38400, Parity bit = PARITY_NONE, Flow Control = RTC/CTS, Stop Bits = 1, Data Bits = 8
- AT Commands: ETSI GROUP Setup Format = Set, ETSI AT SDS/Status Format = Set, Extended ETSI Addressing = Set,
- Digit MNI = Not set
- Transceiver Accessories Settings: RX Audio Line Output Type = 0dBr Point, Preferred Emergency Accry - Transceiver = Last Active Mic, Visor Mic Rear Accry Interface = MIC1/EXT_MIC (pin #13R)
- Transceiver Accessories Setup: Line In Rear Accry = LINE-IN, rest unimportant.