

PAMS Technical Documentation
Appendix 9 – Transceiver THF–10M

Chapter 2
TRANSCIVER

CONTENTS

Introduction 2 – 3

 Functional Description 2 – 3

 Block Diagram 2 – 3

Modules 2 – 4

Electrical Specifications 2 – 4

 Transceiver General Specifications 2 – 4

 Transmitter Branch 2 – 4

 Receiver Branch 2 – 5

 RX Synthesizer 2 – 6

 TX Synthesizer 2 – 6

Exploded View of THF-10M 2 – 7

Assembly Parts of THF-10M 2 – 8

Parts List of TA1M SMD Variation Module 2 – 9

Introduction

Functional Description

The transceiver electronics consist of UI module PCB and RF/system PCB. UI module is connected to system module with a connector. System and rf submodules are interconnected with PCB wiring. Unit can be connected to accessories with a bottom system connector, which includes charging and accessory control.

RF block is designed for a hand portable phone, which operates in NMT450 systems. Purpose of the RF module is to receive and demodulate radio frequency signal from the base station and to transmit a modulated RF signal to the base station.

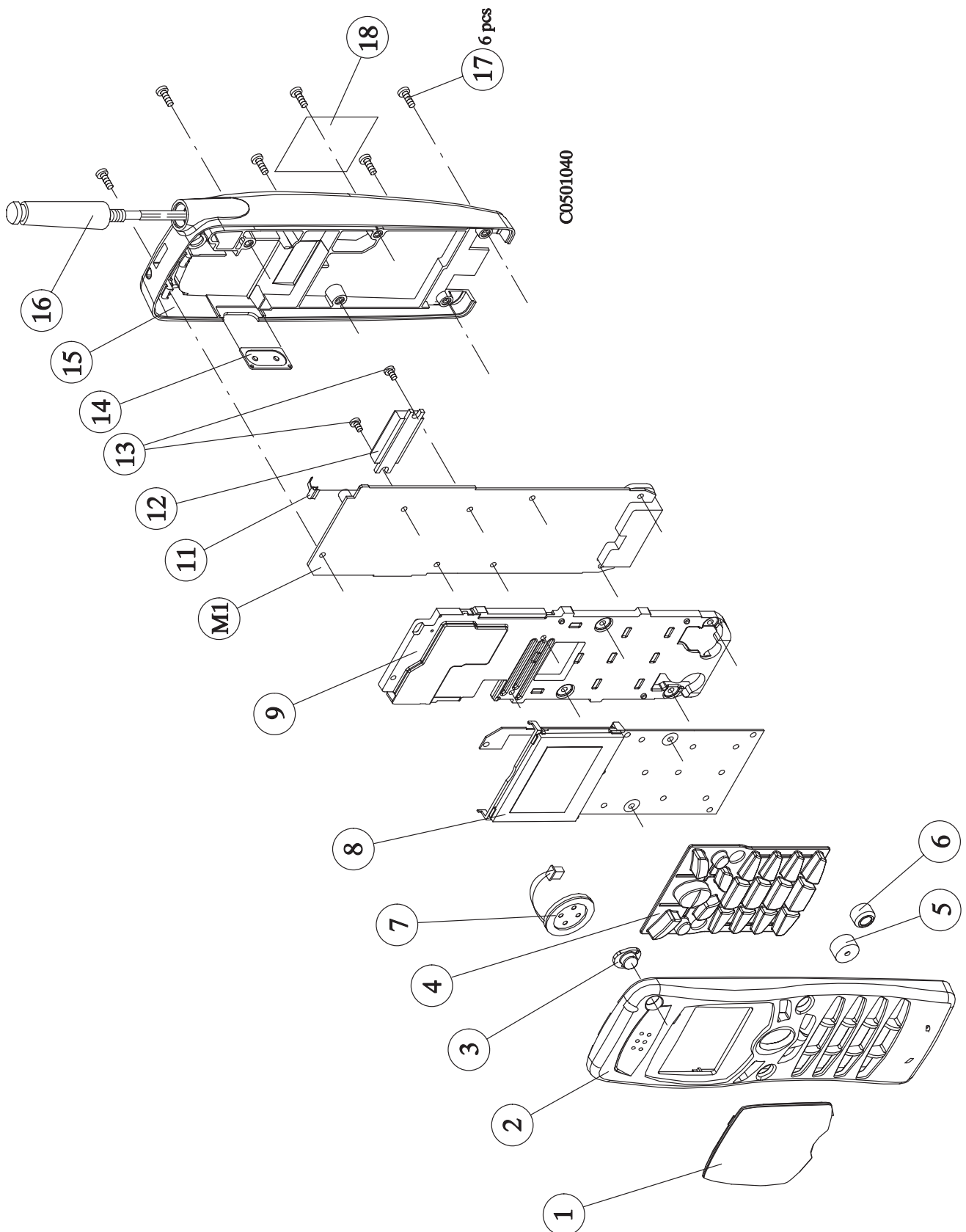
Modules

Transceiver THF–10M	0501229	
• system module TA1M		0201046
• software module		0240509
• display module GN4		0200964
• mechanics MTHF10		0261290
Swap transceiver		0501587

RF Characteristics

Characteristic	Value / Comments
RX Frequency range	462.000...466.475 MHz
TX Frequency range	452.000...456.475 MHz
Channel spacing	25 kHz
Number of channels	180 (1...180)
TX Frequency deviation	$\leq \pm 4.7$ kHz (± 5 kHz with 4 kHz supervisory signal)
FFSK deviation	
• 1200 Hz ("1" frequency)	± 2800 Hz
• 1800 Hz ("0" frequency)	± 4200 Hz

Exploded View of THF-10M



Assembly Parts of THF-10M

ITEM	Q'TY	CODE	DESCRIPTION	VALUE, TYPE
1		9457939	Window	DMC00802
2		9457960	A-cover	DMC00789
3		9790266	Power keymat	DMC01040
4		9790267	Keymat	DMC00788
5		5140037	Microphone	
6		5140018	Buzzer	
7		5140580	Speaker	
8		0200964	UIF Module GN4	
9		9540021	Shield	DMD02660
M1		0201046	System/RF Module TA1M	
11		9510373	Antenna Clip	DMD02860
12		4350097	Power Amplifier	440 – 470 MHz
13	2	6190001	Screw M2x3.8	
14		9790163	Volume keypad	DMD000097
15		9457907	B-Cover	DMC01027
16		0660140	Antenna – retractable	450–470 MHz 125mm
17	6	6190031	Screw M2x8	
18		9380115	Type label	4D 21663 C

Parts list of TA1M SMD VARIATION MODULE

(EDMS Issue 1.5)

Code: 0201109

ITEM	CODE	DESCRIPTION	VALUE	TYPE
R420	1430784	Chip resistor	15 k	5 % 0.063 W 0402
G420	4352939	Vco 450–459mhz 4.5v 12ma tx nmt		
G520	4352943	Vco 416–424mhz 4.5v 10ma rx nmt		
Z320	4510135	Saw filter	464.5+–3 M	/4DB 5.2x5.2
Z640	4512035	Dupl 452–456.5/462–466.5mhz 41x25		41x25
N620	4350097	IC, pow.amp.		6 V 3 W

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