

PAMS Technical Documentation
Appendix 8 – Transceiver THF–10H

Chapter 2
TRANSCEIVER

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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.

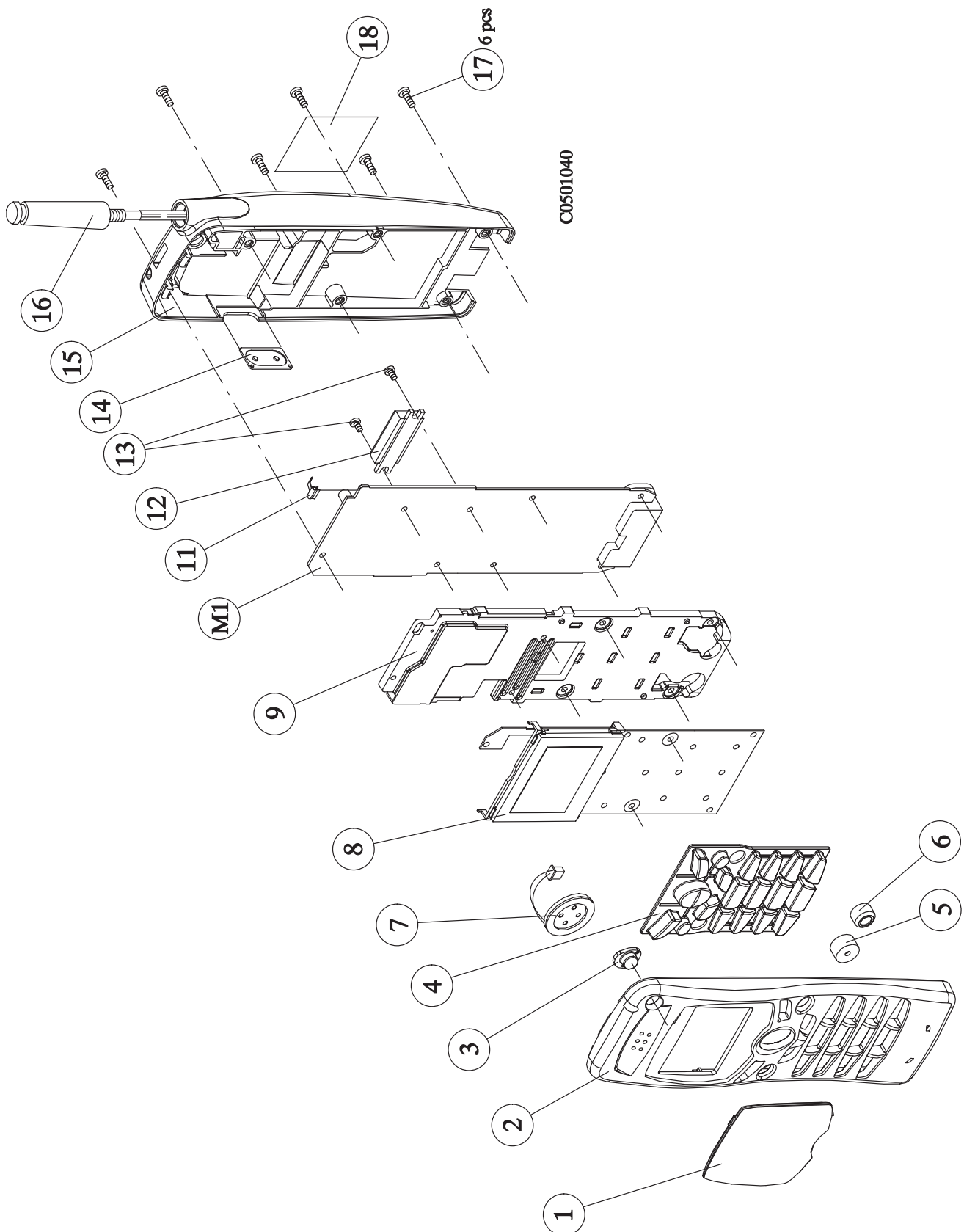
Modules

Transceiver THF–10H	0501226	
• system module TA1H		0201042
• software module		0240509
• display module GN4		0200964
• mechanics MTHF10		0261290
Swap transceiver		0501584

RF Characteristics

Characteristic	Value / Comments
RX Frequency range	465.230...467.370 / 468.570...469.990 MHz
TX Frequency range	455.230...457.370 / 458.570...459.990 MHz
Channel spacing	20 kHz
Number of channels	239 (239...132 / 72...1)
TX Frequency deviation	$\leq \pm 3.75$ kHz (± 4.05 kHz with 4 kHz supervisory signal)
FFSK deviation	
• 1200 Hz ("1" frequency)	± 2240 Hz
• 1800 Hz ("0" frequency)	± 3360 Hz

Exploded View of THF-10H



Assembly Parts of THF-10H

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		0201042	System/RF Module TA1H	
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 TA1H SMD VARIATION MODULE

(EDMS Issue 1.6)

Code: 0201105

ITEM	CODE	DESCRIPTION	VALUE	TYPE
R420	1430786	Chip resistor	18 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	4511009	Saw filter	467.6+–2.4 M	5.2x5.2
Z640	451H124	Use code 4512041		
N620	4350097	IC, pow.amp.		6 V 3 W

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