

PAMS Technical Documentation
Appendix 4 – Transceiver THF–10K

Chapter 2
TRANSCIVER

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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.

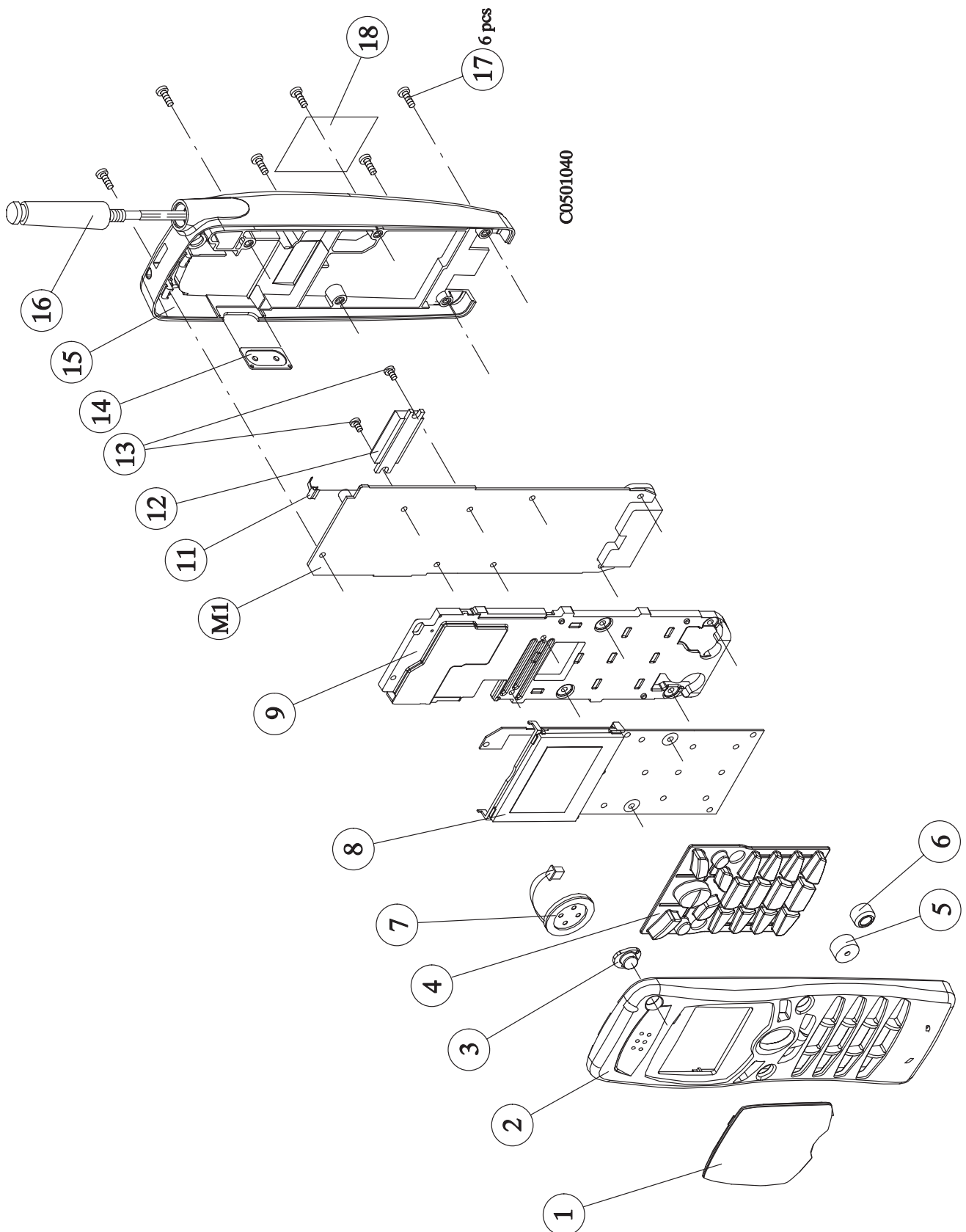
Modules

Transceiver THF-10K	0501227	
• system module TA1K		0201043
• software module		0240528
• display module GN4		0200964
• mechanics MTHF10K		0261449
Swap transceiver		0501585

RF Characteristics

Characteristic	Value / Comments
RX Frequency range	415.500...419.975 MHz
TX Frequency range	425.500...429.975 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-10K



Assembly Parts of THF-10K

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		0201043	System/RF Module TA1K	
11		9510373	Antenna Clip	DMD02860
12		4350109	Power Amplifier	
13	2	6190001	Screw M2x3.8	
14		9790163	Volume keypad	DMD000097
15		9457907	B-Cover	DMC01027
16		0660156	Antenna – retractable	411–443 MHz
17	6	6190031	Screw M2x8	
18		9380115	Type label	4D 21663 C

Parts list of TA1K SMD VARIATION MODULE

(EDMS Issue 1.3)

Code: 0201106

ITEM	CODE	DESCRIPTION	VALUE	TYPE
R420	1430784	Chip resistor	15 k	5 % 0.063 W 0402
G420	4350043	Vco 411–419mhz 4.5v/12ma tx nmt		
G520	4350041	Vco 376–384mhz 4.5v/10ma rx nmt		
Z320	4511003	Saw filter	427.75+–2.25 M	5.2x5.2
Z640	4512039	Dupl 415.5–420/425.5–430mhz	41x25	41x25
N620	4350109	IC, pow.amp.	6 V 3 W	

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