

AFT1001 – Analogue Field Telephone

User-friendly Analogue Field phone for harsh environment

Functionality

AFT1001 is family of lightweight, ruggedized, Microcontroller based and portable 2-wire analogue field telephones for voice communication capable of working in Local Battery (LB) mode Central Battery (CB) mode and Central Battery Signalling (CBS)/Local Battery Radio (LBR) mode.

Variants

	Variant	Ordering Part	Description
a	AFT1001	DPAN002023	Mode : CB, LB, LBR, CBAA Handset : H350/U connectivity
b	AFT1001H	DPAN002029	Mode : CB, LB, LBR, CBAA Handset : H250/U connectivity
c	AFT1001S	DPAN002030	Mode: LB, CB, CBS Handset : H350/U connectivity

Applications

LB capable of working with another magneto telephone of similar kind or with a magneto exchange.

CB auto telephone with DTMF or Pulse dialling facility from built-in keypad.

CBS model with CBS feature support CBS signalling which is low powered CB mode for long distance operation.

LBR pressel switch used for remote radio operation, connected on network system using additional Radio Adaptor Unit (RAU) for remote operation of Radio set connected through Interface Cable

Design

- Microcontroller based state-of the art design.
- In accordance with MIL Standard.
- Programmable Signal level in CB and CBS mode
- Polarity independent external battery connection



Design Patents

- Patent no : 264378
- Patent no : 328401-001
- Patent no : 328402-001

Features

- Push-To-Talk handset function
- Adjustable levels for acoustical signal, including whisper mode
- Audio and LED indication for incoming call
- Easy to use push buttons with backlight
- Auto Answer feature for use with headset
- Storage of up to 10 pre-defined numbers in memory
- Standard batteries (3 no's of 1.5V C-type) or external battery (6V to 24V) used for LB function
- Battery quality status with LED indication
- Line man test facility
- Ringing Signal through Push Button
- Line Terminal – Spring Loaded Type
- Membrane type Keypad

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Specifications

Line / Transmission

Impedance (@1KHz) 600 \square
 Transmission length Up to 30 km in LB mode
 Up to 10 km in CB mode
 Up to 15 km in CBS mode,
 using standard field cable WD1-TT
 (or equivalent)
 Speech range 55dB
 Speech output > 900mV RMS

Mode of Operation

Central Battery (CB) DTMF or Pulse Dialling, Auto Answer
 Central Battery Signalling DTMF or Pulse Dialling (CBS)
 Local Battery (LB) Magneto
 Local Battery Radio (LBR) Remote Radio Operation (using **OPTIONAL RAU**)

Incoming Ring Sense

Ringing voltage > 25V AC
 Ringing frequency 16 - 25 Hz

Acoustical Interface

Frequency range 300 - 3400 Hz
 Microphone Dynamic
 Speaker 1000 Ω impedance
 Side tone > 14dB

Battery Voltage (LB)

Internal 3 of 1.5V C-type
 External 6V – 24V DC
 Max current drain 180 mA
 Max speech current 8 mA
 Idle current < 1 mA

Ringing Generator Voltage (LB)

Min. voltage > 90V (at no load)
 Frequency 25Hz \pm 2Hz

Environmental Data

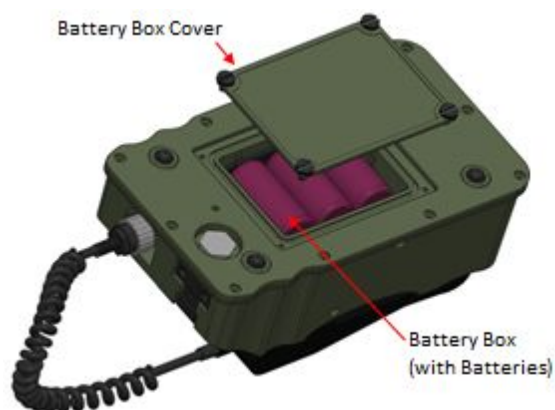
Operating Temperature -30°C to +60°C
 Storage Temperature -40°C to +70°C
 Relative Humidity 95 % (+50°C)
 Rain 100 mm/hour

References

MIL-STD-810G Temperature & Mechanical Stress
 MIL-STD-461E EMI/EMC
 EN-61000-4-2 ESD
 EN-61000-4-5 Lightening



Field Telephone Top View



Field Telephone Bottom View

Reliability

MTBF > 85,000 hours

Dimensions and Weight

Height: 80 mm (without handset)
 Height: 109 mm (with handset)
 Width: 122 mm
 Length: 215 mm
 Weight: 1,8 kg (with handset)
 Weight: 2,5 kg (with handset, batteries, manual & carrying bag)

Note:

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