3M™ Peltor™ Technical Datasheet

PELTOR™

Peltor™ LiteCom Pro II

MT7H7*4010-EU-50, IS version (intrinsically safe)

Product Description:
3M™ Peltor™ LiteCom Pro II is a hearing protector with built in programmable 2-way communication radio 403-470 MHz, a level dependent function and an external audio input. It is approved for use in potentially explosive areas according to ATEX/IECEx regulations.

Art no:	Description:	3M ID no:
MT7H7F4010-EU-50	LiteCom Pro II 403-470 MHz headband Ex	XH001679923
MT7H7P3E4010-EU-50	LiteCom Pro II 403-470 MHz helmet att. Ex	XH001679949
MT7H7B4010-EU-50	LiteCom Pro II 403-470 MHz neckband Ex	XH001679931

Key Features:
- 2-way radio communication
- Level dependent stereo function
- Rechargeable battery, Li-Ion
- Voice operated transmission (VOX)
- Busy channel indication
- Auto power off function
- Low battery warning
- IS (Intrinsically Safe) approval ATEX/IECEx

Applications:
- Underground coal mines
- Oil & Gas industry
- Industry where intrinsic safety is required

Standards and Approval:
MT7H7*4010-EU-50 is in conformity with the provisions set out in the PPE directive 89/686/EEC, R&TTE directive 1999/5/EC and the ATEX directive 94/9/EC.

The product has been examined by;
Combitech, Kungsörsvägen 68, 732 81, Arboga, Sweden, Notified Body#2279.
Bay Area Compliance Laboratories Corp. Shenzen, Guangdong, Shenzhen, Guangdong, China, Notified Body#0313.
NEMKO AS, P.O. Box 73, Blindern, N-0314 OSLO, Norway, Notified Body# 0470.

Intrinsically Safe
MT7H7*4010-EU-50 headsets are ATEX and IECEx certified and approved by Nemko for use in hazardous locations. EC-Type Examination Certificate Number: Nemko 11ATEX1234X
IECEx Certificate (ExTR Ref.No NO/NEM/ExTR11.0031/00)

I M1 Ex ia I Ma
II 1G Ex ia IIC T4 -20°C ≤ Ta ≤ +50°C Ga
II 1D Ex ia IIIC T130°C Da

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Technical data specifications

Model	Weight
MT7H7F4010-EU-50	with ACK08: 540 g
MT7H7B4010-EU-50	with ACK08: 500 g
MT7H7P3E4010-EU-50	with ACK08: 540 g

Materials:
Headband: Stainless steel with leather covered headband
Neckband: Stainless steel with POE cover
Helmet attachment: Stainless steel supporting arms
Cups: ABS
Ear cushions: Foam/fluid-filled ear cushions (PVC/PUR)

Frequency range: 403 – 470 MHz
Operation mode: Simplex
Channels: Max. 30
Channel raster: 3.125kHz and 2.5kHz
Channel separation: 12.5 kHz. 20 kHz and 25 kHz
Modulation: 2.5kHz, 4kHz and 5kHz , FM (16K0F3E / 8K50F3E)
Microphone type: Dynamic (MT7) or electret (MT53)
Receiver sensibility: Typical -122 dBm
Selective squelch: Programmable (and supports CTCSS and DCS)
Output power: 200 / 20 / 10 mW ERP
Range: Outdoors up to 3 km depending on conditions
Operating temperature: -4°F (-20°C) to +122°F (+50°C)
Operating time:
(at conditions 10/10/80 TX/RX/Standby at 20°C):
Hi output power: approx. 14 hours
Mid output power: approx.16 hours
Low output power: approx.17 hours

Power:
Li-Ion battery ACK08, included in delivery
Charging time: approx. 10-12 hours
Capacity: 3,7 V, 1350 mA, 5 Wh
Power consumption: Stand-by: ca 55 mA, Receiving: ca 65 mA
Transmission: Low power: ca 100 mA
Medium power: ca 115 mA
High power: ca 200 mA

Storage:
Recommended storage conditions: -20º C - +55º C, <90% humidity
Recommended max. shelf life: 5 years except the batteries, <1 year

Use limitation:
Never modify or alter this product

Attenuation:

MT7H7F4010-EU-50 (headband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	6000
Mean Attenuation (dB)	16,5	17,5	22,5	30,3	34,0	33,6	37,7	33,8
St. dev. (dB)	3,2	2,9	2,7	2,9	2,5	2,8	2,0	3,7
APValue (84%)	13,3	14,6	19,8	27,4	31,5	30,8	35,7	30,2

SNR=31 dB H=32 dB M=28 dB L=21 dB

MT7H7B4010-EU-50 (neckband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	6000
Mean Attenuation (dB)	17,7	17,9	23,3	30,5	34,5	33,5	38,1	34,7
St. dev. (dB)	3,7	3,7	3,1	2,2	2,2	3,1	3,1	2,3
APValue (84%)	14,0	14,3	20,2	28,3	32,3	30,5	35,0	32,5

SNR=31 dB H=32 dB M=29 dB L=21 dB

MT7H7P3E4010-EUA-50 (helmet attachment)

Frequency (Hz)	63	125	250	500	1000	2000	4000	6000
Mean Attenuation (dB)	15,2	16,9	22,0	30,0	34,5	33,1	36,7	34,7
St. dev. (dB)	4,0	3,7	2,9	3,3	2,6	2,4	2,0	3,3
APValue (84%)	11,1	13,2	19,2	26,7	31,9	30,7	34,6	31,3

SNR=30 dB H=32 dB M=28 dB L=20 dB

Important Notice
3M does not accept liability of any kind, be it direct or consequential (including, but not limited to, loss of profits, business and/or goodwill) arising from reliance upon any information herein provided by 3M.
The user is responsible for determining the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.

Warranty
The warranty does not cover any damage caused by neglected maintenance or careless handling. For more information on maintenance, please see the user instruction. For full warranty condition, contact your dealer or local 3M office.

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