

3M™ PELTOR™ Technical Datasheet



PELTOR™

3M™ PELTOR™ WS™ LiteCom

MT53H7*4410WS5

Product description

The 3M™ Peltor™ WS™ LiteCom is a high-performance hearing protector with a built-in communication radio for cable free short-range communication with other LiteCom headsets and portable two-way radios programmed on the same frequency. Microphones with level-dependent function for ambient listening increases your safety because you can hear your surroundings, e.g. warning signals. Bluetooth and an external audio input allows you to connect to external equipment such as an external phone or portable two-way radio, regardless of frequency. The noise cancelling speech microphone with VOX functionality enables you to communicate hands free in noisy environments.

Versions

| Article number | Description | 3M ID number |
|------------------|----------------------------------------|--------------|
| MT53H7A4410WS5 | WS LiteCom, PMR 446, headband | XH001677026 |
| MT53H7B4410WS5 | WS LiteCom, PMR 446, neckband | XH001677034 |
| MT53H7P3E4410WS5 | WS LiteCom, PMR 446, helmet attachment | XH001677042 |

Key Features

- Built in two-way radio communication
- 8 channels (PMR 446 MHz)
- 38 subchannels
- Bluetooth enables connection to e.g. cell phone
- Level-dependent function for ambient listening
- Rechargeable battery and charger with USB connection
- Voice operated transmission (VOX)
- Auto power off function
- Battery status indication
- Voice guided menu system

Accessories and Spare parts

| Article number | Description | 3M ID number |
|----------------|-------------------------------------------------|--------------|
| HY79 | Hygiene kit | XH001651047 |
| HYM1000 | Microphone protection | XH001651328 |
| M995 | Wind shield for electret microphones | 11003066252 |
| M60/2 | Wind protection for level dependent microphones | XH001652532 |
| HY100A | Single-use protectors for ear cushions | XH001651351 |
| ACK053 | Rechargeable battery | XH001680608 |
| FR08 | Power supply | XH001680194 |
| FR09 | Battery charger | XH001680616 |
| 1180 SV | Battery cover | XL001600565 |
| FL6CS | Cable with a 2.5 mm stereo connector | XH001652052 |
| FL6BR | Cable with Peltor J11 connector | XH001652029 |
| FL6BT | Cable with a 3.5 mm mono connector | XH001652045 |
| FL5602 | External PTT | XH001654561 |
| MT53N-12 | Electret microphone | XL001633814 |



3M™ PELTOR™ Technical Datasheet

Standards and Approval

The product is in conformity with the provisions set out in the following directives. Thereby it fulfils the requirements for CE marking.

- PPE directive 89/686/EEC
- R&TTE-directive 1999/5/EG
- ROHS-directive 2011/65/EU

The product is tested and approved in accordance with following standards:

EN 352-1:2002, EN 352-3:2002, EN 352-4:2001 +A1:2005,
EN 352-6:2002, EN 352-8:2008, EN 300 296-2 V1.2.1, EN 300 328 V1.7.1,
EN 301 489-5 V1.3.1, EN 301 489-17 V1.3.2, EN 301 489-1 V1.8.1,
EN 60950-1:2006 + A11:2009, EN 50581:2012

Technical Data Specifications

| | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials: | Headband wire (stainless steel) Two-point fastener (POM) Ear cushion (PVC foil and polyether foam) Attenuation cushion (Polyether foam) Headband padding (PVC, Polyether foam) Cup (ABS plastic) |
| Battery Type: | 2x AA alkaline (3,0 V) or NiMH (2,4 V) |
| Operating time: | 11 hours (NiMH) |
| Weight (incl. ACK053): | 475 g (headband) 503 g (helmet att.) 459 g (neckband) |
| Charging temperature: | 0°C to +40°C |
| Operating temperature: | -20°C to +55°C (battery dependent) |
| Storage Temperature: | -20°C to +55°C |
| Recommended shelf life: | 5 years (products), 1 year (batteries) |
| Frequency range: | 446 MHz (PMR) |
| Operation mode: | Half duplex |
| Channels: | 8 (PMR) |
| Channel raster: | 6,25 kHz |
| Channel separation: | 12,5 kHz |
| Modulation: | FM: 2,5 kHz |
| Microphone type: | Noise cancelling Electret (MT53) |
| Receiver sensibility: | Typical - 122 dBm |
| Selective squelch: | CTCSS (38 subchannels) |
| Output power: | 25/200 mW |
| Range: | Up to 3 km depending on conditions |
| Power consumption: | Standby: <80 mA |
| Receiving: | <85 mA |
| Bluetooth A2DP streaming: | <107 mA |
| Transmitting high power: | <250 mA |
| Transmitting low power: | <160 mA |
| Bluetooth: | Version: 2.1+EDR Frequency: 2400-2483,5 MHz Supported profiles: HF/HS version 1,5, A2DP version 1.2 Output power: 2,5 mW |

Attenuation

MT53H7A4410WS5 (headband)

| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|-------------------------|------|------|------|------|------|------|------|------|
| Mean attenuation (dB) | 18,3 | 14,7 | 23,4 | 30,7 | 34,6 | 34,5 | 36,9 | 37,3 |
| Standard deviation (dB) | 5,0 | 3,9 | 4,6 | 3,2 | 3,4 | 3,1 | 2,7 | 4,2 |
| Assumed Protection (dB) | 13,3 | 10,8 | 18,8 | 27,4 | 31,2 | 31,4 | 34,2 | 33,1 |

SNR=30 dB H=33 dB M=27 dB L=19 dB

MT53H7P3E4410WS5 (helmet attachment)

| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|-------------------------|------|------|------|------|------|------|------|------|
| Mean attenuation (dB) | 15,1 | 16,2 | 22,9 | 31,7 | 35,6 | 34,5 | 37,7 | 40,0 |
| Standard deviation (dB) | 2,6 | 3,2 | 2,2 | 2,0 | 2,9 | 3,0 | 3,9 | 3,3 |
| Assumed Protection (dB) | 12,5 | 13,0 | 20,7 | 29,7 | 32,7 | 31,5 | 33,8 | 36,8 |

SNR=31 dB H=33 dB M=29 dB L=21 dB

MT53H7B4410WS5 (neckband)

| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|-------------------------|------|------|------|------|------|------|------|------|
| Mean attenuation (dB) | 19,2 | 15,5 | 23,3 | 31,2 | 35,6 | 35,0 | 36,5 | 40,9 |
| Standard deviation (dB) | 3,5 | 2,6 | 2,3 | 2,0 | 3,2 | 3,4 | 3,4 | 3,3 |
| Assumed Protection (dB) | 15,7 | 13,0 | 21,0 | 29,2 | 32,4 | 31,6 | 33,2 | 37,6 |

SNR=31 dB H=33 dB M=29 dB L=21 dB

In the box

1 x WS LiteCom
2 x AA Alkaline Batteries
1 x Battery ACK053
1 x Power supply FR08
1 x Battery charger FR09
1 x User instruction

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.

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.



3M Personal Safety Division
3M Svenska AB
Box 2341
SE-331 02 Värnamo
Sweden
Phone: +46 (0) 370 65 65 65
Fax: +46 (0) 370 65 65 99
Email: peltorcommunications@mmm.com
Internet: www.3M.eu/CommunicationSolutions

Please recycle. Printed in Sweden.
© 3M 2014. All rights reserved.