Technical Data Specification

3M™ PELTOR™ WS™ ALERT™ X Headset (CE version)

Hearing protection with Bluetooth® technology and Mobile App interface

Product Description

The Bluetooth® headset with noise-cancelling boom microphone connects to your mobile phone for hands free calls and streaming in noisy environments. The headset helps to protect against hazardous noise and at the same time helps promote your situational awareness via the level-dependent function for ambient listening. The headset also synchs to a mobile app so users can easily set-up and adjust the headset.

Key Features

- Attenuating hearing protector comes in two models: headband or a safety helmet attachment
- Bluetooth® technology for connection to an external Bluetooth® device allows for hands-free talking and streaming
- Noise-cancelling boom microphone for clear speech transmission in noisy environments
- Level-dependent function for ambient listening to help promote auditory situational awareness
- Connection to an iOS and Android compatible mobile app, 3M™ Connected Equipment, to more
 easily set-up and adjust the headset. The app is available to download from App Store and Google Play.
- Mobile app allows you to receive reminders when to change replacement cushions (hygiene kit) and choose the frequency of these alerts
- Push-to-Listen feature to easily and instantaneously listen to your surroundings
- Voice guided feedback after setting adjustment. No need to remove the headset for any adjustments
- The headset will automatically turn off after four hours of non-use to save battery life
- Low-battery warning at low battery level
- To reduce the corrosion caused by sweat the electronics are located in the outer part of the cup
- Replaceable cushions (hygiene-kit)
- Replaceable covers so you can change to your own choice of colour

Applications

The 3M™ PELTOR™ WS™ ALERT™ X Headset offers Bluetooth® wireless communication in continuous or intermittent noisy environments. Essential when users need to be connected to their mobile phone throughout the day (e.g. handymen in construction industries, private contractors operating their own equipment, farmers, maintenance workers in industrial applications etc.); everywhere hands-free communication and hearing protection could be of benefit.

Approvals

Hereby, 3M Svenska AB declares that the product is in compliance with appropriate Directives or Regulations to fulfill the requirements for the CE and/or UKCA marking.

The full text of the Declaration of Conformity is available at the following internet address: www.3M.com/PELTOR/DOC

A copy of the Declaration of Conformity and additional information required in the Directives or Regulations can also be obtained by contacting 3M in the country of purchase.



MRX214AWS6



MRX21P3E4WS6



Bluetooth® technology for connection to one external device for hands free talk and streaming



Connect the headset with the "3M™ Connected Equipment" mobile app supporting both Android and iOS



Noise cancelling boom microphone for clear speech transmission in noisy environments



Level-dependent function for ambient listening to help improve auditory situational awareness

Headset Models and Accessories

| Article number | Description | 3M ID | SAPID |
|----------------|---|-------------|------------|
| MRX21A4WS6 | 3M™ PELTOR™ WS™ ALERT™ X Headset, App, bright yellow, headband | UU011469580 | 7100257811 |
| MRX21P3E4WS6 | 3M™ PELTOR™ WS™ ALERT™ X Headset, App, bright yellow, helmet attachment | UU011469598 | 7100256658 |

| Article number | Description | 3M ID | SAP ID |
|-----------------|---|-------------|------------|
| HY82 | 3M™ PELTOR™ HY82 Hygiene kit (cushion and foamliner) | UU008567388 | 7100122439 |
| HY80 | 3M™ PELTOR™ HY80 Gel Sealing Ring | 70071524139 | 7000127268 |
| 210300-664-GY/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, bright yellow,1 pair (left+right) | UU011614854 | 7100264002 |
| 210300-664-RD/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, red, 1 pair (left+right) | UU011321732 | 7100246986 |
| 210300-664-BA/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, blue, 1 pair (left+right) | UU011321724 | 7100246985 |
| 210300-664-OR/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, orange, 1 pair (left+right) | UU011321153 | 7100246983 |
| 210300-664-RE/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, pink, 1 pair (left+right) | UU011321138 | 7100247026 |
| 210300-664-SV/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, black, 1 pair (left+right) | UU010322590 | 7100253622 |
| 210300-664-GB/1 | 3M™ PELTOR™ Covers for WS™ ALERT™ Headsets, neon green, 1 pair (left+right) | UU011140447 | 7100240624 |
| LR6NM | 3M™ PELTOR™ LR6NM NiMH rechargeable AA batteries | XH001659693 | 7100064688 |
| MT53N-14/1 | 3M™ PELTOR™ Electret boom microphone, 240mm with plug incl windshield M995/2 | UU011614862 | 7100264326 |
| M995/2 | 3M™ PELTOR™ M995 Wind shield for speech microphone | XH001679154 | 7010044372 |
| HY100A | 3M™ PELTOR™ HY100A Clean Hygiene Pad | XH001651351 | 7100064410 |
| HYM1000 | 3M™ PELTOR™ HYM1000 Microphone protection (4.5 meters) | XH001651328 | 7100064281 |

Technical data specifications

| Materials: Headband MRX21A4WS6 Headband: PVC, PA Headband: PVC, PA Headband: PVC, PA Headband: PVC foil and PUR foam Foam liner: PUR foam Cup: ABS Level-dependent microphone for ambient listening: PUR foam Wind shield for speech microphone: ABS, PA Wind Shield: foam Helmet attachment/Hardhat MRX21P3E4WS6 Cup supporting arm: stainless steel Battery type: 2xAA Alkaline batteries (or optional NiMH rechargeables) Operating time: Approximately 78 hours (Bluetooth® streaming and level-dependent) Weight (batteries incl.): MRX21A4WS6 (headband): 393 g MRX21P3E4WS6 (helmet attachment): 413 g Bluetooth® technology: Bluetooth version: 4.2 Bluetooth headset profile (HSP): 1.2 Bluetooth hands-free profile (HFP): 1.6 Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity Product lifetime: Up to 5 years (excl. batteries) | recinical data specifi | |
|--|---------------------------|--|
| Operating time: Approximately 78 hours (Bluetooth® streaming and level-dependent) Weight (batteries incl.): MRX21A4WS6 (headband): 393 g MRX21P3E4WS6 (helmet attachment): 413 g Bluetooth® technology: Bluetooth version: 4.2 Bluetooth headset profile (HSP): 1.2 Bluetooth hands-free profile (HFP): 1.6 Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Materials: | Headband: PVC, PA Headband wire: stainless steel Two-point fastener: POM Cushion: PVC foil and PUR foam Foam liner: PUR foam Cup: ABS Level-dependent microphone for ambient listening: PUR foam Wind shield for speech microphone: ABS, PA Wind Shield: foam Helmet attachment/Hardhat MRX21P3E4WS6 |
| Weight (batteries incl.): MRX21A4WS6 (headband): 393 g MRX21P3E4WS6 (helmet attachment): 413 g Bluetooth® technology: Bluetooth headset profile (HSP): 1.2 Bluetooth hands-free profile (HFP): 1.6 Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Battery type: | 2xAA Alkaline batteries (or optional NiMH rechargeables) |
| MRX21P3E4WS6 (helmet attachment): 413 g Bluetooth® technology: Bluetooth version: 4.2 Bluetooth headset profile (HSP): 1.2 Bluetooth hands-free profile (HFP): 1.6 Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Operating time: | Approximately 78 hours (Bluetooth® streaming and level-dependent) |
| Bluetooth headset profile (HSP): 1.2 Bluetooth hands-free profile (HFP): 1.6 Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Weight (batteries incl.): | |
| Bluetooth hands-free profile (HFP): 1.6 Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Bluetooth® technology: | Bluetooth version: 4.2 |
| Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | | Bluetooth headset profile (HSP): 1.2 |
| Audio/Video Remote Control Profile (AVRCP): 1.6 Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | | Bluetooth hands-free profile (HFP): 1.6 |
| Bluetooth Range: Up to 10m (class 2) Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | | Bluetooth Advanced Audio Distribution Profile (A2DP): 1.3 |
| Speakers: 27 mm diameter, 100 Ohm Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | | Audio/Video Remote Control Profile (AVRCP): 1.6 |
| Boom microphone type: Noise-cancelling electret microphone Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | | Bluetooth Range: Up to 10m (class 2) |
| Operating temperature: -20°C (-4°F) to +55°C (131°F) (battery dependent) Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Speakers: | 27 mm diameter, 100 Ohm |
| Storage temperature: -20°C/-4°F to 40°C/122°F <90% humidity | Boom microphone type: | Noise-cancelling electret microphone |
| | Operating temperature: | -20°C (-4°F) to +55°C (131°F) (battery dependent) |
| Product lifetime: Up to 5 years (excl. batteries) | Storage temperature: | -20°C/-4°F to 40°C/122°F <90% humidity |
| | Product lifetime: | Up to 5 years (excl. batteries) |

Use limitation: Never modify or alter this product.

Headband with foam cushion

| Frequency (Hz) f | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | SNR |
|---------------------------------------|------|------|------|------|------|------|------|-----|
| Mean Attenuation M _f (dB) | 13.8 | 19.3 | 30.4 | 34.5 | 37.7 | 39.5 | 36.2 | |
| Standard deviation s_f (dB) | 2.7 | 2.4 | 2.7 | 3.6 | 2.3 | 2.7 | 4.1 | 30 |
| Assumed Protection Value APV_f (dB) | 11.1 | 16.9 | 27.7 | 30.9 | 35.4 | 36.8 | 32.1 | |

MRX21A4WS6: 393 a

EN 352-3:2002

L=18 dB

H=35 dB M=27 dB

MRX21P3E4WS6

Helmet Attachment with foam cushion

| Frequency (Hz) f | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | SNR |
|---------------------------------------|------|------|------|------|------|------|------|-----|
| Mean Attenuation M _f (dB) | 14.2 | 19.7 | 29.6 | 33.4 | 36.3 | 39.5 | 34.6 | |
| Standard deviation s_f (dB) | 3.9 | 1.9 | 2.5 | 1.8 | 2.5 | 2.7 | 4.9 | 30 |
| Assumed Protection Value APV_f (dB) | 10.3 | 17.8 | 27.1 | 31.6 | 33.8 | 36.8 | 29.7 | |

MRX21P3E4WS6: 413 g

L=18 dB H=34 dB M=27 dB

MRX21A4WS6

EN 352-1:2002



Headband with gel cushion

| Frequency (Hz) f | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | SNR |
|---------------------------------------|------|------|------|------|------|------|------|-----|
| Mean Attenuation M_f (dB) | 12.6 | 19.6 | 30.4 | 32.4 | 40.1 | 40.5 | 38.0 | |
| Standard deviation s_f (dB) | 2.9 | 2.0 | 3.0 | 2.8 | 3.3 | 3.3 | 2.8 | 30 |
| Assumed Protection Value APV_f (dB) | 9.7 | 17.6 | 27.4 | 29.6 | 36.8 | 37.2 | 35.2 | |

MRX21A4WS6: 454 g

H=36 dB

M=27 dB L=18 dB

MRX21P3E4WS6

EN 352-3:2002



Helmet Attachment with gel cushion

| Frequency (Hz) f | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | SNR |
|--|------|------|------|------|------|------|------|-----|
| Mean Attenuation M_f (dB) | 11.8 | 18.6 | 28.4 | 33.2 | 37.9 | 39.1 | 36.9 | |
| Standard deviation $\mathbf{s}_{_{\! f}}$ (dB) | 2.3 | 2.0 | 2.0 | 2.7 | 2.4 | 3.2 | 4.1 | 29 |
| Assumed Protection Value APV, (dB) | 9.5 | 16.6 | 26.4 | 30.5 | 35.5 | 35.9 | 32.8 | |

MRX21P3E4WS6: 474 g

H=35 dB M=26 dB L=17dB

3M strongly recommends personal fit testing of hearing protectors. Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s) on the packaging due to variation in fit, fitting skill, and motivation of the user. Refer to applicable regulations or guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the attenuation rating be reduced to better estimate typical protection.





App Store (iOS)



Google Play (Android)

In the box

1x Headset

2 x AA batteries

1x User Instruction

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In Europe, 3M PELTOR products may also be appropriate for certain non-work uses.

Always read and follow User Instructions.

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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 complete warranty condition, contact your dealer or local 3M office.

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