



**PELTOR™**  
Protection & Communication

3M™ PELTOR™

# ComTac™ VI NIB Headset



3M Science. Applied to life.™



**PELTOR™**  
Protection & Communication

**We strive to set the standard for confidence and trust by providing rugged, reliable protective communication equipment.**

**3M™ PELTOR™ Solutions for today's modern warfighter have been worn for use in combat and combat support operations and are compatible with most firearms and ballistic helmets. The hearing protectors feature external microphones for environmental listening (aka *Talk-Through*) capability, so operators can maintain auditory situational awareness while protecting their hearing.**

**With more than 65 years of experience, the 3M™ PELTOR™ Brand promises quality communication solutions that help provide an excellent balance of performance and protection.**

**The advanced engineering and technology inherent with the 3M™ PELTOR™ Brand fits with the high standard of quality and innovation of a continuously evolving range of product solutions that you, our customers, come to expect from 3M.**



## 3M™ PELTOR™ ComTac™ VI NIB Headset

# Advanced hearing protection and close range communications in noise

The new **ComTac™ VI NIB** helps protect your hearing, improve situational awareness and communications in noisy environments.

With new technologies such as **NIB - Natural Interaction Behaviour** and **MAP - Mission Audio Profiles**, the **ComTac VI** is packed with new advanced features that helps improve soldier efficiency.



# Hear and protect your hearing

With advanced hearing protection, there is no need to choose between hearing and hearing protection.

Exposure to hazardous noise is one of the most common causes of hearing impairment. How harmful the noise is depends on the exposure time in combination with the sound level. Many military operations are conducted in high levels of hazardous noise. Unprotected exposures often lead to life-long, noise induced hearing loss.



# Auditory situational awareness and level-dependent functionality

Environmental Listening is a means of allowing safe audio sounds to bypass the individual hearing protection while still helping protecting against harmful noises. This is accomplished with a proprietary digital audio circuit integrated into the headset.

A microphone receives the sounds outside the headset and transmits them to a speaker inside the headset. The Level-Dependent digital audio circuit senses noise levels above the desired threshold and compresses them to a safe decibel level (82dB A) or amplifies softer sounds to an audible level.

# New advanced Level dependent function for ambient listening



Mission Audio Profiles

The environmental microphones allow the users to listen to ambient sounds and communicate in lower noise environments, all while benefiting from hearing protection for sudden loud sounds. The ComTac™ VI introduces the new 3M™ PELTOR™ **MAP - Mission Audio Profiles**, advanced settings for ambient listening, allowing you to adapt and optimize the environmental listening function to different scenarios.



**Advanced mode 1 - (Comfort)**  
For comfort in a very noisy environment.



**Advanced mode 2 - (Conversation)**  
For natural, face-to-face communications.



**Advanced mode 3 - (Patrol)**  
For high situational awareness when walking in a low noise environment.

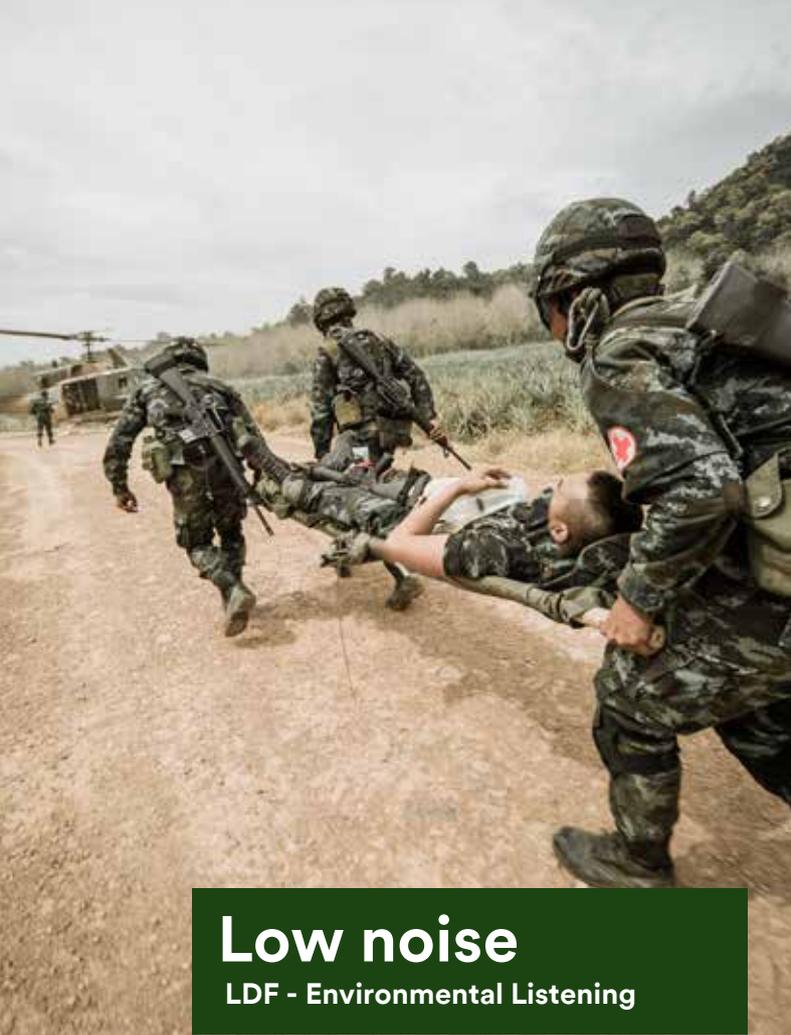


**Advanced mode 4 - (Observation)**  
For powerful situational awareness in a quiet environment.

# NIB ))) technology for close range communication in high noise environments.

The NIB enables natural face to face communication in noisy environments, without the use of an external communications radio, minimizing the effects of loud noise or hearing protection. This system is easy to use, just approach to the person you wish to talk to. NIB allows the user to communicate with people who are in close range to each other.





## Low noise

LDF - Environmental Listening

The environmental microphones allow the users to communicate in lower noise environments.

NIB complements LDF in high noise environments when LDF is no sufficient.

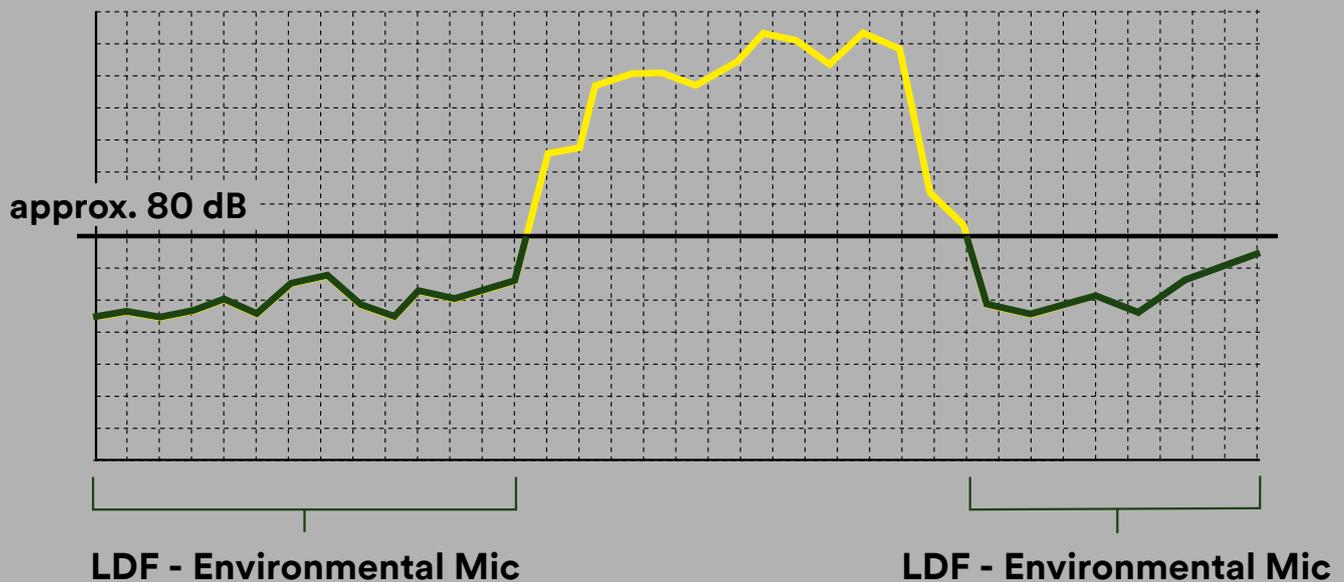


## High noise

NIB - Natural Interaction Behaviour

When the environmental noise increases and remain constant, the NIB communication activates.

NIB



# How does the ComTac™ VI NIB headset work?

NIB enables face-to-face communication within close range in noisy environments.

The NIB technology enables wireless communication within a 10 m radius. Full duplex communication for up to four people within this perimeter.



**Exampel:** In noisy environments, simply walk close to the person you wish to talk to. The NIB technology will softly fade in (5-10 m radius) and allow communication with people who are close. Stay within 3-5 m radius for optimal communication signal.

Up to four talkers can transmit simultaneously using four, full duplex transmitting channels. An unlimited number of listeners withing the 10M bubble can hear NIB communications.

**NOTE:** When more than four users attempt to transmit via NIB, the 5th user and beyond attempting to transmit will hear beeps, indicating that the outgoing communication did not transmit, until one of the four channels becomes free.

3-5 m radius optimal for communication

5-10 m radius fade in/fade out

-  **NIB**
-  **NIB Only Listening**
-  **No NIB**

**Exampel:** A person moves towards the helicopter where 4 people are being released. When he comes within reach, The NIB technology will softly fade in and out (5-10 m radius) and allow communication with people who are close.



-  **NIB**
-  **NIB Only Listening**
-  **No NIB**



MT20H682FB-02N GN



MT20H682FB-86N GN



MT20H682FB-19BN GN



MT20H682BB-38N GN

## Headset matrix

3M ID / SAP ID	Product Description	Colour	Band Style		Mik typ.		Connector		
			F-Band	Neck-band	Standard	No Mic	PELTOR J11	NATO J11	Stereo J11
UU009549500 / 7100168351	MT20H682FB-02N GN	●	●		●				
UU009554948 / 7100168384	MT20H682FB-38N GN	●	●		●		●		
UU009554476 / 7100168800	MT20H682FB-86N GN	●	●		●			●	
UU009554930 / 7100168383	MT20H682FB-19BN GN	●	●		●			●	
UU009554492 / 7100168803	MT20H682FB-88N GN	●	●		●				●
UU009898063 / 7100191429	MT20H682BB-38N GN	●		●	●		●		
UU009873538 / 7100191318	MT20H682BB-86N GN	●		●	●			●	
UU009554922 / 7100168352	MT20H682FB-02N SV	●	●		●				
UU009554963 / 7100168802	MT20H682FB-38N SV	●	●		●		●		
UU009554484 / 7100168801	MT20H682FB-86N SV	●	●		●			●	

## Laboratory Attenuation Values\*\*\*

### MT20H682FB-\*\*\*N\*\*

f (Hz)	125	250	500	1000	2000	4000	8000	SNR
M <sub>y</sub> (dB)	11.5	17.9	27.8	30.0	32.1	36.2	40.3	28
s <sub>y</sub> (dB)	2.5	2.7	1.8	2.3	3.0	2.0	3.1	
APV <sub>y</sub> (dB)	9.0	15.3	25.9	27.7	29.1	34.2	37.2	

H=31 dB M=25 dB L=16 dB



### MT20H682BB-\*\*\*N\*\*

f (Hz)	125	250	500	1000	2000	4000	8000	SNR
M <sub>y</sub> (dB)	16.6	16.8	27.4	32.1	33.1	33.0	36.1	28
s <sub>y</sub> (dB)	1.8	2.3	2.2	2.1	3.2	2.9	3.2	
APV <sub>y</sub> (dB)	14.8	14.5	25.2	30.0	29.9	30.1	32.9	

H=31 dB M=25 dB L=18 dB



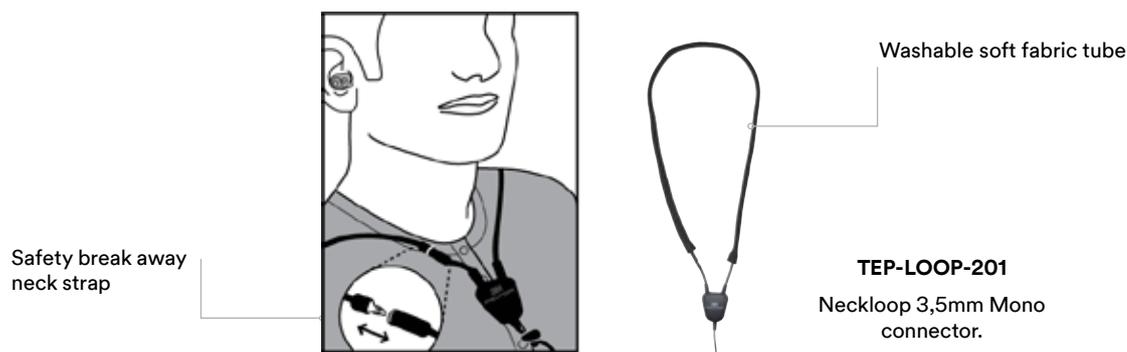
### MT20H682FB-\*\*\*N\*\* + Gel ring

f (Hz)	125	250	500	1000	2000	4000	8000	SNR
M <sub>y</sub> (dB)	15.1	18.2	26.2	32.2	30.4	29.3	36.7	27
s <sub>y</sub> (dB)	3.4	3.0	2.2	2.5	3.7	3.7	4.0	
APV <sub>y</sub> (dB)	11.7	15.2	24.0	29.7	26.7	25.6	32.7	

H=27 dB M=25 dB L=18 dB



\*\*\* Research suggests that many users may receive less noise reduction than indicated by the attenuation value(s) on the packaging, due to variation in fit, fitting skill, and motivation of the user. Refer to your national regulations for guidance on how to adjust label values and estimate attenuation. In addition, 3M strongly recommends fit testing of hearing protectors.



**MT73**  
Standard microphone



**MT90-02**  
Throat microphone (Dynamic)



**HY80-EU**  
Gel Sealing Rings



**HY68 SV**  
Hygiene Kit



**HYM1000**  
Micprotector



**M60/2**  
Foam mic cover



**M171/2**  
Wind shield for microphone for  
MT73 / MT33



**M42/1**  
Windshield for dynamic  
microphone



**1079 SV/SP**  
Battery lid



**P3ADG-F SV/2**  
Rails attachment



**F09/SP**  
Head pad for F-band

## Spare Parts and Accessories

Description	3M product code	Reference Id
3M™ PELTOR™ Neckloop, 3.5mm plug, Mono	70071730694 /	TEP-LOOP-201
3M™ PELTOR™ Standard microphone, 80mm cable	UU008163634 / 7100112094	MT73/1
3M™ PELTOR™ Throat microphone (Dynamic)	XL001644068 / 7000040037	MT90-02
3M™ PELTOR™ Gel Sealing Rings for ComTac™	UU003133988 / 7100101182	HY80-EU
3M™ PELTOR™ Hygiene Kit standard for ComTac™	XH001659461 / 7000108023	HY68 SV
3M™ PELTOR™ Micprotector, 5m, black	XH001651328 / 7100064281	HYM1000
3M™ PELTOR™ Foam mic cover for ComTac 2pc	XH001652532 / 7000039650	M60/2
3M™ PELTOR™ Windshield for MT73/1, MT33/1 microphone, 2pcs	UU008153483 / 7100112112	M171/2
3M™ PELTOR™ Windshield MAXI for dynamic microphone, black	XH001659792 / 7000039687	M42/1
3M™ PELTOR™ Battery cover for ComTac XP, XPI	UU004894315 / 7100088235	1079 SV/SP
3M™ PELTOR™ Headset Rail attachments for Military helmets	XL001652723 / 7000108832	P3ADG-F SV/2
3M™ PELTOR™ Head pad for F-band	UU004894547 / 7100088308	F09/SP

# Tecnitrán

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