



# Motorola Ear Microphone System

Compact, Durable Accessory that Meets Demanding Mission Critical Needs



The streamlined Ear Microphone System for TETRA subscribers picks up sound through bone vibrations in the ear canal, giving emergency personnel the ability to hear and speak directly to others on the scene. This lightweight earpiece is comfortable to wear, yet durable enough to meet the rigorous needs of emergency response personnel.

Benefits of the Ear Microphone System include:

- Built in bone conduction microphone and receiver **eliminates the need for a boom microphone**
- Voice is picked up directly from the ear canal **minimizing ambient noise transmitted**
- Miniature earpiece **leaves the face unobscured**, allowing users to hear and speak directly to others on the scene
- Large push-to-talk button allows easy **access with or without gloves**
- Ring Guard around push-to-talk button **prevents accidental activation**
- **Clean, compact design** with no interface box required, makes it easy to wear with heavy jackets or other emergency equipment

- May be worn with protective masks or other hazardous-material equipment
- Designed to operate in both **digital and analog** mode

Examples of use:

- **Fire personnel:** Large push-to-talk button is easy to find and access when wearing large gloves. Picking up voice directly from the ear canal reduces extreme noise transmitted while on the fire scene
- **Hazardous Material (HazMat) Personnel:** Protective masks can be worn without a reduction in the clarity of sound
- **Emergency Medical Service (EMS) Personnel:** Miniature earpiece with no boom microphone required leaves the face and hands free to hear and speak with people directly on the scene

**EAR MICROPHONE SYSTEM SPECIFICATIONS**

Part Number:	PMLN5561
Description:	Ear Microphone System with Bone Conduction
Radio Compatibility:	MTP850, MTH800

**ACOUSTICS**

Microphone	Type:	Electret microphone
	Sensitivity:	-19dB +/- 4.5dB at 1kHz (0dB = 1V/0.5G)
	Frequency Range:	200Hz – 3000Hz
Speaker	Type:	Electromagnetic
	Output Level:	104dB +/- 4.5dB at 1 KHz (0dB=20µPa) Input 0.5mV
	Maximum Output Level:	<118dB SPL at maximum radio volume
	Frequency Range:	100Hz – 5000Hz
	Distortion (THD):	<5% (Rx) at 1 KHz at rated audio

**EARPIECE**

Dimensions:	16.5mm (W) x 29mm (H) x 30mm (D)
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**CONTROLS**

Push to talk (PTT):	In line Ring guarded PTT button with swivel clip
Dimensions:	50mm (W) x 68mm (H) x 35mm (D) with clip

**POWER**

Power Source:	Radio Battery
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**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature:	-40°C to +70°C
Storage Temperature:	-57°C to +85°C
Thermal shock:	-57°C to +80°C
Humidity:	90% - 95% Relative Humidity at +50°C for 8 hours
Rain:	MIL810F Method 506.4 Procedure 1
Salt/Fog:	MIL810F Method 509.4
Dust:	MIL810F Method 510.4 Procedure 1
Vibration:	MIL810F Method 514.5 Procedure 1 Category 24
Mechanical Shock:	MIL810F Method 516.5 Procedure 1
ESD:	IEC/EN61000-4-2
IP Rating:	IP54 at used condition (Earpiece inserted into ear canal)
Regulatory:	EME/EMC, CE



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