PlainTalk Microphone: Specifications (8/95)

Revised: 8/30/95
Security: Everyone

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TOPIC ----------

This article provides specifications of the PlainTalk Microphone (M9060Z/A). All specifications provided are for informational purposes only. Actual specifications may vary from those provided.

DISCUSSION ----------

Description

Apple PlainTalk Microphone - Unidirectional pickup pattern, electret microphone element.

Output

Typical voiced speech will develop 100 - 200 mVpp output. Peak could reach 1 - 2 Vpp.

Sensitivity

-9.5dbV + or - 5db at 1.0 KHz relative to 1.0 Volt/Pa

Directional Characteristics at 1 KHz
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at 90 degrees - output diminished by at least 4db
at 180 degrees - output diminished by at least 10db

Distortion

Less than 1% THD from 200 to 7000 HZ

Signal to noise

56db (minimum)

Maximum Sound Input
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110 dB SPL (1% Distortion @ 1 KHz)

Signal Level

There are different audio signal levels that microphones produce; mic level, line level, and professional line level. The PlainTalk Microphone produces a line level signal. Most microphones produce mic level output, including the Omni-Directional Microphone used in some Macintosh computers. Mic level is lower then line level, and line level is lower then a professional line level.

Prior to the introduction of the PlainTalk Microphone, the Omni-Directional Microphone that produced a mic level output was used with Macintosh computers. The Omni-Directional Microphone should not be used with Macintosh computers requiring the PlainTalk Microphone. If a microphone that outputs a mic level is used with a Macintosh that requires a PlainTalk Mic the signal produced from the microphone is too low and results in noise and distortion. However, a mic level microphone could be used if a microphone preamp is used. The microphone preamp boosts the mic level to a line level.

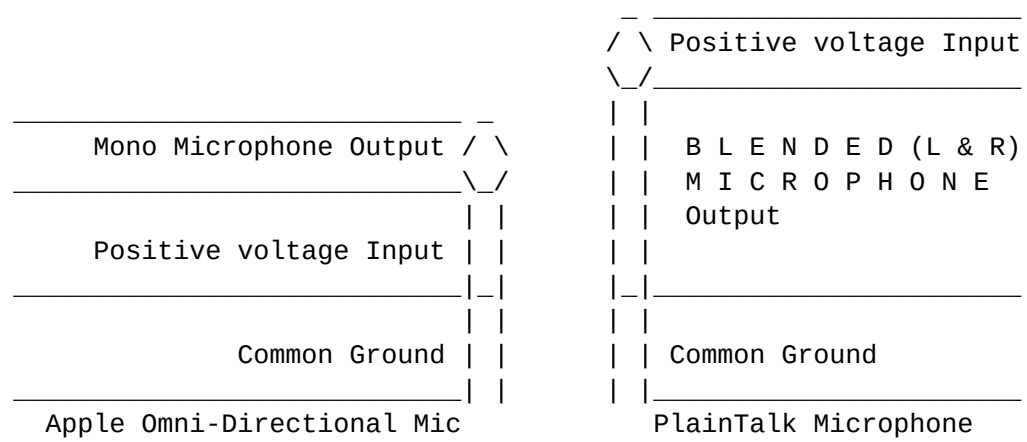
Microphone Connector Design

A standard 3.5 mm mini-plug may be used as the microphone/sound input plug.

The layout of how signals connect to the two different microphones are different. Both of these microphones require a voltage input to drive the electret microphone elements in them. However, the voltage is supplied at different connection points.

The PlainTalk microphone also outputs sound to both the left and right connectors internal to the Macintosh microphone jack.

When using a third party microphone a standard 3.5 mm mini-plug may be used as the input plug. The added length of the Apple PlainTalk Microphone jack connects the jack to a power source for the amplification.



Article Change History:
30 Aug 1995 - Corrected measurement of microphone port.
19 Jan 1995 - Made article public.

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