



HANDHELD MICROPHONE FACE-OFF

[Dictaphone PowerMic II](#), [Philips Premium SpeechMike](#),
[Grundig Digta SonicMic II](#) & [Olympus DirectTrec](#)

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Introduction:

While preparing to review the new Philips Premium SpeechMike LFH-3500, it occurred to me that the most effective way to do so would be in the context of the top rated handheld speech recognition microphones.

The following review consists of 3 parts:

- (1) My personal take on the [evolution of speech recognition microphones](#)
- (2) The [Pros and Cons](#) of what a general consensus of many top speech recognition experts believe to be the *top five handheld microphones*
- (3) My personal [assessment](#) of what the numbers mean

If you wish to skip past the brief microphone history, click [Pros and Cons](#). If you wish to skip further ahead to my conclusions, click [recommendations](#).

Evolution of Speech Recognition Microphones

When we first began using DragonDictate speech recognition software in the 1980's it seemed to be incredibly impressive technology. Never minding the very deliberate pause after each and every word, we waited with baited breath to see another (hopefully correct) word miraculously appear on our somewhat blurry little screens. It was fun! It was frustrating! It was not very practical. Back then, the couple of wired headset microphone choices available to us were more than adequate.

In 1996, NaturallySpeaking continuous speech recognition was released. With the emergence of this new technology, we had a viable tool for professional as well as personal use. That being the case, we needed microphones designed to better utilize this increasingly more sophisticated software and microphone manufacturers have responded.

Hand Held Microphone History:

Around the turn of the century, Philips dominated the handheld microphone market by introducing the 1st non-USB SpeechMike which combined programmable buttons with a rollerball handheld mouse/microphone. The 1st units even included a 3 level volume control for various environments (a feature we really could have used on the SpeechMike II and III). One of the main problems with the SpeechMike II was the daily necessity of having to remove oil from the plastic rollerball with rubbing alcohol. Some end-users even resorted to cutting off the thumb from a pair of latex gloves so that they didn't have to clean the ball so often. Eventually Philips replaced the SpeechMike with several USB models of the SpeechMike II which kicked everything up a notch. The plastic ball was coated with mother-of-pearl to resist oily fingers. A number of other handheld microphone manufacturers, like Grundig and Olympus, additionally took a shot at the handheld market which remained firmly in Philips grasp until about 4 years ago when Nuance upped the ante by releasing the Dictaphone PowerMic II. As the manufacturer of both Dragon Medical and the PowerMic II, Nuance enjoyed the advantage of being able to embed the PowerMic II application right into Dragon Medical but another advantage was the introduction of idiot proof programmable buttons that not only allowed you to program the usual dozen or so NaturallySpeaking hotkey commands but additionally permit the end-user to

program any NaturallySpeaking, personal or even a third-party macro by simply typing the name of the command into the button field. Within a few months after the PowerMic II's introduction, it literally took over the market that Philips had dominated for over a decade. Philips answered that challenge by introducing the SpeechMike Air and the SpeechMike III about 2 years ago. Although Philips didn't market the 1st wireless handheld microphone (that distinction belongs to the Grundig Digta CordEx) Philips made it work. Although the SpeechMike III introduced a new look and feel, including an antibiotic housing, it was unable to recover the market share it lost to Nuance so Philips went back to the drawing board and came up with the SpeechMike Premium LFH 3500 (think of it as the SpeechMike IV) which introduced additional programmable buttons, large playback speaker, automatic mute (when you lay the microphone down on a flat surface), integrated pop filter, precision stainless steel laser scanned self lubricating removable trackball, improved signal-to-noise ratio, completely redesigned more sensitive extended-range jar proof microphone element, higher accuracy, polished surface (to reduce unwanted fingertip noises), motion sensor, ergonomically improved and most importantly... SIGNIFICANTLY IMPROVED noise filtering. This is the 1st handheld microphone that can effectively be used in a crowded Emergency Room. In my opinion, the greatest problem with other handheld microphones is noise filtering. Fortunately, Philips seems to have found a solution.

A handheld microphone just might be your best option if:

- You find headset microphones to be uncomfortable
- You are self-conscious about wearing a headset in front of others
- You like the idea of using a hand-held microphone with programmable buttons that additionally doubles as a mouse controller
- You dislike having to continuously don and remove your headset
- You need an easily portable microphone that you can take from place to place
- You take the time to arrange your hair just the way you like it and THAT IS HOW YOU WANT TO KEEP IT!

Pros & Cons

Dictaphone PowerMic II

MSRP: \$499/\$399 Street

Accuracy: 99%

Noise Cancellation: 7 out of 10

Overall Rating: 9 out of 10



Dictaphone PowerMic II Pros:

- 99% Accuracy
- Official Nuance Dragon Medical Practice Edition microphone
- Rugged construction and extra thick cabling
- No other handheld microphone comes close when it comes to the ease and flexibility of programming the buttons. The PowerMic II is also the first model to introduce the ability to program any NaturallySpeaking macro, third-party macro or personal command. Note that this feature is now included with the Philips SpeechMikes
- The perfect microphone for network deployments because the PowerMic II application is automatically installed with Dragon Medical
- 90 day manufacturer warranty

Dictaphone PowerMic II Cons:

- 90 day warranty
- Only works with Dragon Medical
- More expensive than competitive units
- Barcode Reader option is high priced

Philips SpeechMike Air

MSRP: \$499 (wireless) & \$309+ (wired)

Accuracy: 99%

Noise Cancellation: 7 out of 10

Overall Rating: 10 out of 10



Philips SpeechMike Air Pros:

- 99% Accuracy
- Very well constructed including lots of informative lights
- The only handheld WIRELESS microphone in this group
- Vibrates to signal when you were wondering out of range and chirps if you go completely out of range
- Doubles as a desktop microphone and can be used from a distance of up to 14 inches
- Includes AC adapters for use in other countries
- Use on multiple computers by leaving the base station and relocating the removable Bluetooth dongle
- LFH-3200 & LFH-3215 are lower priced wired versions of the SpeechMike Air that additionally include a micro antimicrobial skin
- 1 year manufacturer warranty

Philips SpeechMike Air Cons:

- Cannot be pared to more than 1 Bluetooth adapter

Philips SpeechMike Premium LFH 3500

MSRP: \$335

Accuracy:100%

Noise Cancellation: 9 out of 10

Overall Rating: 10 out of 10



Philips SpeechMike Premium LI

- 100% Accuracy
- Doubles as a desktop TableMike that can be used from a distance of up to 16 inches when combined with the complementary KnowBrainer TableMike adapter (**KnowBrainer Website Store Exclusive**)
- Recipient of Nuance's highest 6 Dragon rating
- Very well constructed including lots of informative lights
- More sensitive than any other handheld microphone (longer-range)
- Improved signal-to-noise ratio over other Philips handhelds
- 2 additional programmable buttons over the LFH 3200 series
- Jar/bump free-floating decoupled microphone element
- Antimicrobial housing

- Like the PowerMic II, the LFH 3500 allows you to program any NaturallySpeaking factory or end-user commands into the programmable buttons but extends this functionality to all versions of NaturallySpeaking. The PowerMic II limits this functionality to Dragon Medical
- Built-in high precision "CLICKABLE" stainless steel laser scanned self lubricating removable trackball
- Largest playback speaker in its class
- Automatic microphone mute when setting on a flat surface
- Integrated pop filter
- Programmable buttons can be used to program any NaturallySpeaking factory or end-user personal macro (like the PowerMic II)
- Auto volume control (increases or decreases volume input as you move in or away from the microphone)
- 1 year manufacturer warranty

Philips SpeechMike Premium LFH 3500 Cons:

n/a

Grundig SonicMic II & Digta CordEx

MSRP: \$299 (wired) & \$499 (wireless)

Accuracy: 99%

Noise Cancellation: 7 out of 10

Overall Rating: 9 out of 10



Grundig SonicMic II Pros & Digta CordEx Pros:

- 99% Accuracy
- Includes weighted desktop stand
- Digta CordEx model is wireless
- Doubles as a desktop microphone with a 15 inch range
- Doesn't need to be held close to your mouth like most handheld microphones
- You can program 3 functions into each button (single click, double-click and long click)

- 1 year manufacturer warranty

Grundig SonicMic II Cons:

- Included configuration utility may not be obvious to new end users but we include a KnowBrainer pictorial step-by-step guide

Olympus DR-2300/2200/1200

MSRP: \$249+

Accuracy: 98%

Noise Cancellation: 7 out of 10

Overall Rating: 8 out of 10



Olympus DR-2300/2200/1200 Pros:

- DR-1200 is push button. DR-2200 includes a slider control and the DR-2300 adds a barcode scanner to the DR-2200
- Very well constructed and durable
- High quality metal rollerball
- Auto volume control (increases or decreases volume input as you move in or away from the microphone)
- Considerably **less expensive** than the competition
- 1 year manufacturer warranty

Olympus DR-2300/2200/1200 Cons:

- Doesn't include the usual DVD to install the button configuration utility
- No manufacturer user guide

Note: We felt that the absence of a user guide and configuration utility were unacceptable so we are including a complimentary DVD with the DirectTrec configuration utility along with a pictorial step-by-step on how to program the buttons along with setting up your microphone for use with NaturallySpeaking.

Conclusions:

1st Place ~ Philips SpeechMike LFH-3500 ([Click to See](#))

Philips and Nuance currently dominate the handheld microphone market but Philips raised the bar by introducing significantly improved noise filtering (far beyond any other handheld microphone), antimicrobial housing, automatic mute, the best accuracy of any handheld microphone, flexible long range jar proof microphone element, largest playback speaker, desktop stand for hands-free use (**KnowBrainer exclusive**) and an integrated pop filter. The LFH 3500 is also less expensive than the Nuance PowerMic II. Additional manufacturer information available at www.dictation.philips.com

2nd Place ~ Dictaphone PowerMic II ([Click to See](#))

Unlike other handheld microphones, the PowMic II doesn't require installing a configuration utility because it is already built into the Medical versions of Dragon. Our favorite feature is the idiot proof button programming tab. Programming is as easy as typing the name of the command you wish to deploy and you are not limited to a handful of Dragon functions or hotkeys, as with all other handheld microphones. While we appreciated the versatility of the programmable buttons, we had to subtract points for Nuance limiting this microphone to just the medical versions of NaturallySpeaking along with a 90 day warranty. Additional manufacturer information available at www.nuance.com

3rd Place ~ Philips SpeechMike Air ([Click to See](#))

Philips introduced the 1st wireless handheld microphone that can double as a desktop microphone with a 14 inch reach range. This microphone even warns you if you move the microphone too far from the base. Additional manufacturer information available at www.dictation.philips.com

4th Place ~ Grundig Digta SonicMic II ([Click to See](#))

The 2 most compelling reasons for choosing the SonicMic II over other handheld microphones was price (although slightly higher than the Olympus DR-2200) and the fact that the Grundig microphone doubles as a desktop microphone with a 15 inch range. The notably more expensive SpeechMike Air is the only other microphone that can double as a desktop microphone. Even though the SonicMic II only has 3 programmable buttons, we liked the fact that all 3 buttons can be programmed with single click, double-click and

long click functionality enabling you to program up to 9 functions. Additional manufacturer information available at www.grundig.de

5th Place ~ Olympus DR-2200 ([Click to See](#))

Although not quite as accurate as other handheld microphones, we were impressed by construction and pricing of the DR-2200. If you're looking for high quality and affordability, you'll get the best bang for your buck with the Olympus DR-1200 but if you require a barcode reader, nothing comes close to the price break on the DR-2300 model. Although it's common for microphone manufacturers to omit proper instructional guides, I was surprised that Olympus didn't include a button programming utility. Fortunately, I was able to download the Olympus Directrec configuration utility from the Olympus website. Note that if you decide to purchase this microphone from KnowBrainer, we additionally include the Olympus Directrec configuration utility on DVD along with pictorial step-by-step instructions. Additional manufacturer information available at www.olympusamerica.com

I feel it's important to point out that all 5 of these microphones worked exceedingly well in Dragon with the only limitation being that the PowerMic II can only be used in the medical versions of Dragon.

This review was dictated with the new [Philips SpeechMike III LFH 3500](#)

Previous Reviews:

If you would like to see some of our previous reviews check out the following:

[KnowBrainer TableMike Face-Off](#)

[KnowBrainer Handheld Microphone Face-Off](#)

[KnowBrainer Headset Microphone Face-Off](#)

[KnowBrainer Telephone Microphone Face-Off](#)

[KnowBrainer Digital Recorder Face-Off](#)

[KnowBrainer Wireless Headset Face-Off](#)

[KnowBrainer USB Soundcard Face-Off](#)

Current Gold Standards:

The following is a list of microphones, USB soundcards and digital recorders that we consider to be #1 in their respected categories:

Best Wireless Microphone = [Samson Airline 77](#)

Best Combo Telephone Wireless Microphone = [Sennheiser SD Pro1](#)

Best Handheld USB Microphone = Philips [SpeechMike Premium \(LFH-3500\)](#)

Best USB TableMike = [SpeechWare 3-in-1](#), [6-in-1](#) & [9-in-1](#)

Best Wired Headset Microphone = [FlexyMike DEC](#)

Best USB soundcard = [SpeechWare MultiAdapter](#)

Best Bluetooth Microphone = [VXi VoxStar UC](#)

Best Digital Recorder = Philips [DPM-8000](#)

Best Speech Recognition Application = [Dragon 13](#)

[Lunis Orcutt](#) - Developer of [KnowBrainer 2015](#) and founder of [KnowBrainer Speech Recognition Forums](#) (the world's largest speech recognition forum)
[Chat Live](#) w/a Nuance Gold Certified Speech Recognition Solutions Provider

