

# Comparison of FONIX Hearing Aid Analyzers

● = yes    ☆ = optional

Physical configuration	7000	FP35	FP40	FP40D
Portable		12 lbs	22 lbs	22 lbs
LCD display		●	●	●
External monitor	●	☆	●	●
Large, external chamber	●	☆	☆	☆
Remote module for real-ear measurements	●			
Hard carrying case (built-in)			●	
Soft carrying case (optional)		●		●
Battery pills	●		●	☆
RS232	●	●	☆	☆

## Coupler Tests

Real-ear measurements	☆	☆	☆	●
ANSI 87/96/03*	●	●	●	●
IEC, JIS*	●	●	●	●
ANSI 92	●		●	●
Profiler (Optional)			●	●
Number of curves in Coupler Multicurve	10	4	4	4
Battery current drain	●		●	☆
Telecoil	●	☆	☆	☆
Harmonic distortion	●	●	●	●
Attack & Release	●			
Auto test	●			
Enhanced DSP (group delay & phase)	●			
Attack & release screen	●			
Battery current screen	●			
I/O test screen	●			

## Real-ear Tests

Real-ear insertion gain	●	●	●	●
Real-ear SPL	●	●	●	●
Audibility Index			●	●
Number of aided curves in real-ear test screens	4	3	3	3
NAL-RP, POGO, Berger, 1/2 Gain, 1/3 Gain, 2/3 Gain, Direct targets	●	●	●	●
Built-in DSL target		●	●	●
Built-in NAL-NL1 target	●	●		
DSL & NAL-NL1 using computer	●	●	●	●
Coupler targets in Gain		●	●	●
Coupler targets in SPL		●		
Simulated real-ear		●		

## Test Signals

Composite/Digital Speech	●	☆	☆	☆
Puretone sweeps	●	●	●	●
Digital Speech with Bias tone	●			
Intermodulation distortion sweep		●		
Spectrum analysis/live speech functionality	●	☆	☆	☆

## Accuracy

Coupler measurements	± 1 dB	± 2 dB	± 2-3 dB	± 2-3 dB
Real-ear measurements	± 2-3 dB	± 2 dB	± 2-3 dB	± 2-3 dB

\* FONIX analyzers come standard with one automated test sequence or a specific combination. Additional test sequences are optional. Every instrument but the FP35 has ANSI 87 available.

**The 7000 hearing aid test system** is our top-of-the-line analyzer. It has a large sound chamber with good acoustic and vibrational sound isolation combined with a flat test surface, making it easy to position hearing aids for measurements, including those necessary to test directionality. This chamber also has built-in telecoil and battery current measurements. The microphone used to perform coupler measurements with the 7000 is our most sensitive and accurate, making this unit the best choice for researchers and clinicians who depend on getting the most accurate measurements possible.

The 7000 analyzer has lots of testing capability. In addition to the standard coupler and optional real-ear measurements, it has the Enhanced DSP screen for testing the group delay and phase of digital hearing aids, the bias tone capability for testing the noise reduction filters of digital hearing aids, and it has the ability to create a custom automated test sequence, making it easy to set up a standard testing protocol for the hearing aid clinic. The 7000 hearing aid test system is suitable for researchers, universities, large clinics, schools, and manufacturers.

**The FP35 analyzer** is our most advanced portable. It is small, lightweight, and easily portable. Most people find it intuitive, making it suitable for the beginning user, but it also has many hidden advanced features, making it great for the advanced user. It can be purchased with the option of hooking it up to an external monitor, making test results more easily viewable. This external monitor display is only in two colors. The FP35 is currently our best selling analyzer, used by clinics and schools all over the world.

**The FP40/FP40D analyzer** is our oldest design currently still being manufactured. It is a solid instrument that produces very reliable

test results and it has many of the abilities available on the FP35 and 7000 analyzers. Its sound chamber is slightly larger than the FP35 chamber, which can make positioning the hearing aid a little easier, although it does not occlude sound as well as the FP35 chamber. The FP40 has a much nicer display than the FP35; its LCD screen is nearly twice as large, and the ability to connect to an external monitor is a standard feature rather than an option. Furthermore, when an external monitor is connected, the results are displayed in many colors, rather than the two colors available with the FP35 external display.

The FP40 cannot measure as fast as our other analyzers; its test signal only updates once or twice a second during real-time measurements, compared to the five updates a second possible with the FP35 and 7000 analyzer. It does, however, have the Digital Speech signal, so it has the ability to perform accurate frequency response measurements on digital hearing aids. The FP40 is the only analyzer to have the Audibility Index screen. This is a “count the dots” display that shows the predicted percentage of speech that will be intelligible to the patient with their hearing aid on and with their hearing aid off. The only other test that the FP40 has that the FP35 does not is battery current drain. The only other tests that the FP40 has that the 7000 does not have are the built-in DSL targets and the coupler targets. You can have access to these features on the 7000, however, by connecting to a computer and using one of our computer programs, such as the FONIX NOAH Module or WinCHAP.



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