

EPIK CONQUEST

Measurements & Tech Notes
Taken by Tom Nousaine
Epik Subwoofers
Conquest 18" Active Subwoofer
www.epiksubwoofers.com

IN THE LAB

Bass limits of subwoofer: 12.5 Hz at 103.8 dB SPL

(lowest frequency and maximum SPL with limit of 10% distortion at 2 meters in a large room)

Frequency	SPL	Distortion
62 Hz	113.5 dB	0.7%
50 Hz	110.8 dB	1.3%
40 Hz	112.5 dB	2.6%
32 Hz	115.5 dB	2.6%
25 Hz	112.3 dB	4.1%
20 Hz	109.3 dB	6.0%
16 Hz	104.7 dB	11%
12.5 Hz	103.8 dB	3.4%

(maximum SPL with limit of 10% distortion at 2 meters in a large room)

Maximum SPL at 32 Hz: 115.5 dB

Bandwidth uniformity: 98%

Average SPL from 25 to 62 Hz: 112.9 dB

Frequency response (at 2 meters):

Subwoofer ground plane:	26 Hz to 125 Hz \pm 3.7 dB
Subwoofer near field:	26 Hz to 110 Hz \pm 1.98 dB
Subwoofer in room:	26 Hz to 133 Hz \pm 4.5 dB



Conquest Specifications

Driver: 18 inch proprietary High-excursion design

Amplifier: 1000 watt custom BASH amplifier.

Cabinet: Dual 6 inch ported super-refined MDF heavily braced.

Usable in-room response: 10-130 Hz

Dimensions: 36H x 22W x 30D inches (31 inches deep with grill)

Weight: 200 pounds

Price as tested: \$1999 - black textured finish

Company website: www.epiksubwoofers.com

TESTING PROCEDURE AND COMMENTS:

The Subwoofer frequency response and bass limits were measured with it set to maximum bandwidth and placed in the optimal corner of a 7,500-cubic-foot room. In a smaller room users can expect 2 to 3 Hz deeper extension and up to 3 dB higher sound-pressure level (SPL). Frequency response was taken ground plane at 0.5 meters which accommodates true acoustical summation of individual radiating elements. Averaged Near-Field and an In-Room response taken with the Conquest out of the corner and the microphone at an acoustically optimal position are also provided.

Bass Limits are limited to 10%, the range where drivers are still working in a linear fashion but where further drive causes exponential increases in distortion or when protective devices cut output or non signal related noises (such as port noise) are audible. SPL is measured at 2 meters in an optimal, mode balanced location. The input signal is a 6.5 cycle ramped sine wave that allows any product to be tested at maximal output.

With this product, distortion was seldom an issue and throughout most of its operating range the system was capable of running "wide open" and no modulation of input signal was necessary for maximal performance. However at 16 Hz an occasional "burp" from the protective device could be heard and at 12.5 Hz the system would shut off if driven hard enough and long enough.

This system has Herculean SPL capability compared with most other products currently available. The sole exception of course is the Eminent Technology rotary fan subwoofer that costs \$13,000 and has an upper bandwidth limit of 25 Hz. The uniformity of the Conquest dynamic capability exceeds that of any commercial product I've ever measured.

-Tom Nousaine