

POWERED SUBWOOFER GENERAL INFORMATION INDEX

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MANUFACTURER & MODEL	RETAIL PRICE	MANUFACTURER'S WARRANTY	DIMENSIONS LxWxH (inches)	EXTERNAL VOLUME (cubic feet) / (liters)	WEIGHT (lbs) / (kilograms)	DRIVER CONFIG	AMPLIFIER POWER RATING	SYSTEM TYPE	MULTIPLE MODES?	BUILT IN PEQ?
APERION: BRAVUS II 12D	\$899	10 years / 2 electronics	15.5x15.5x17	2.36 / 67.3	62 / 28.1	1x12"	650w	reflex (PR's)	NO	NO
B&W: ASW-610XP	\$1,199	5 years / 2 electronics	14.8x12.8x12.8	1.4 / 39.6	34.4 / 15.6	1x10"	500w	sealed	NO	YES
BIC ACOUSTECH: PL-200	\$279	8 years / 2 electronics	19.5x14.75x17.25	2.88 / 81.6	47 / 21.3	1x12"	250w	bass reflex	NO	NO
CADENCE CSX-15 MKII	\$499	2 years	18x19x21.5	4.26 / 120	88 / 40	1x15"	300w	bass reflex	NO	NO
ELEMENTAL DESIGNS: A7S-450	\$849	1 year	23.5x22.25x22.75	6.88 / 195	130 / 59	1x18"	1300w	sealed	NO	NO
EMOTIVA: X-REF12	\$599	5 years	15.5x14.625x15.625	2.05 / 58.5	44 / 20	1X12"	600w	sealed	NO	YES
EPIK SUBWOOFERS: EMPIRE	\$799	3 years	24x18x22	5.5 / 156	125 / 56.7	2x15"	600w	sealed	NO	NO
FUNK AUDIO FW18.0	\$3,234	3 years	20.5x22x22	5.7 / 164	95 / 43	1X18"	2400W	sealed	NO	YES
HSU: VTF-15H	\$879	7 years / 2 electronics	25x18x26	6.8/191.7	120 / 54	1x15"	350w	ported	YES	NO
HSU VTF-2 MK5	\$539	7 years / 2 electronics	24x15x21.5	4.5 / 126.9	62 / 28.1	1x12"	350w	ported	YES	NO
HSU: ULS-15 mk2	\$779	7 years / 2 electronics	19.5x18x19	3.9 / 110	65 / 29.4	1x15"	600w	sealed	YES	NO
JL AUDIO: E110	\$1,500	3 years	16.5x13.5x14.25	1.84 / 52	52.7	1x10"	1200w	sealed	NO	NO
JL AUDIO: E112	\$1,900	3 years	18.4x15.5x16.25	2.68 / 75.8	73.5	1x12"	1500w	sealed	NO	NO
KLIPSCH: SW-311	\$1,599	2 years	16.25x13x13.4375	1.64 / 46.4	37 / 16.8	1x10"	500w	reflex (PR's)	NO	YES
MARTIN LOGAN DYNAMO 1500X	\$1,595	3 years	18.3x16.75x17.6	3.125 / 90	52 / 23.6	1x15"	650w	sealed	NO	NO
OUTLAW AUDIO: LFM-1 EX	\$649	3 years	24x17x22.75	5.31 / 150	80 / 36.3	1x12"	350w	bass reflex	YES	NO
PARADIGM SIGNATURE SUB 2	\$8,999	5 years / 3 electronics	22.375x23.75x24.5	7.5 / 214	230 / 104.3	6x10"	4500w	sealed	NO	YES
POWERSOUND: XV-15	\$799	5 years	23.5x18.5x24.25	6.1 / 174	92 / 42	1x15"	500w	bass reflex	NO	NO
PREMIER ACOUSTICS: PA-150	\$349	5 years / 2 electronics	19x18x21	4.2 / 119	69 / 31.3	1x15"	250w	bass reflex	NO	NO
RBH SOUND: SX-12	\$1,099	5 years / 1 electronics	21.125x17.7x19.625	4.25 / 120	53 / 24	1x12"	350w	bass reflex	NO	NO
RBH SOUND: SX-1212R	\$5,300	5 years / 1 electronics	17.75x38.5x21	8.3 / 237	130 / 59	2x12"	2400w	bass reflex	NO	NO
RYTHMIK AUDIO: FV15HP	\$1,199	5 years / 2 electronics	26x18x24	6.5 / 184	110 / 49.9	1x15"	600w	bass reflex	YES	YES
SVS: PB12-NSD	\$769	5 years	22x17.3x20.9	4.6 / 131	66 / 30	1x12"	400w	bass reflex	NO	NO
SVS: PB13-ULTRA SLEDGE DSP	\$1,999	5 years	29.25x20.5x22.5	7.8 / 221	155 / 70.3	1x13.5"	1000w	reflex / seal	YES	YES
SVS PC2000	\$799	5 years	16.6x16.6x34	4.3 / 121	50 / 22.7	1x12"	500w	bass reflex	NO	NO
SVS: SB12-NSD	\$649	5 years	14.2x14.2x14.6	1.7 / 48.5	35 / 16	1x12"	400w	sealed	NO	NO
SVS: SB13-ULTRA	\$1,599	5 years	17.4x17.4x17.4	3.1 / 87	92 / 42	1x13.5"	1000w	sealed	NO	YES
VELODYNE: DD18+	\$4,999	2 years	25.6x20.67x22.72	6.9 / 197	142 / 64.4	1X18"	1250w	sealed	NO	YES
VELODYNE: EQ-MAX 15	\$879	2 years	21x19x21.5	5 / 142	75 / 34	1x15"	750w	bass reflex	NO	YES
XTZ Sound 3X12	\$2,499	5 years / 2 electronics	21.9x21.1x44.5	11.9 / 337	170.3 / 77.3	3x12"	1500w	reflex / seal	YES	NO

Last Update: 11/10/16

CEA2010 MAX CLEAN RMS SUBWOOFER OUTPUT

ALL DATA COLLECTED OUTDOORS / GROUND PLANE AND REFERENCED TO 2 METER RMS dB SPL VALUES

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MANUFACTURER & MODEL	CEA2010 CENTER FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz		
APERION: BRAVUS II 12D	/	/	/	87.0	100.2	105.3	109.8	112.6	112.2	110.7	109.8	109.3	+/-12.8dB	40-125Hz
B&W: ASW-610XP	/	/	/	85.1	90.0	96.1	101.5	105.9	108.9	108.1	106.2	104.9	+/-11.9dB	50-125Hz
BIC ACOUSTECH: PL-200	/	/	/	84	96.2	102.5	107.7	110.4	108.1	106.5	105.3	103.8	+/-13.2dB	40-100Hz
CADENCE CSX-15 MKII	/	/	/	83.8	89.7	93.3	98.6	109.3	115.5	120.2	119.3	116.8	+/-18.2dB	63-125Hz
ELEMENTAL DESIGNS: A7S-450	/	90	94.6	100.4	106.8	112.5	117.8	121	120.1	118.3	116.8	115.8	+/-10.3dB	40-125Hz
EMOTIVA: X-REF12	/	/	/	81.0	89.5	99.1	103.5	107.6	108.5	107.7	106.3	105.1	+/-13.8dB	40-125Hz
EPIK: EMPIRE	/	93.5	98.2	102.2	105.8	109.7	113.2	116.4	119.2	121.6	123.3	124.2	+/-9.7dB	63-125Hz
FUNK AUDIO: 18.0	91.9	95.5	99.2	103.6	108.8	114.9	119.9	121.4	121.9	121.7	121.6	121.6	+/-9.2dB	40-125Hz
HSU: VTF-15H: SEALED, EO1	/	88.2	92.4	96.9	102.6	109.4	111.5	112.3	113.3	114.2	114.7	115.4	+/-8.7dB	31.5-125Hz
HSU: VTF-15H: 1 PORT OPEN, EO1	/	93.5	100.6	104.1	106.9	111.3	113.5	113.7	114.2	114.6	115.1	115.5	+/-5.3dB	31.5-125Hz
HSU: VTF-15H: 2 PORTS OPEN, EO2	/	/	93.4	104.1	109.7	113.1	115.6	115.3	115.3	115.5	115.6	115.9	+/-5.7dB	25-100Hz
JL AUDIO: E110	/	/	89.1	93.3	98.6	104.2	108.7	112.2	113.4	113	111.8	111.2	+/-10dB	40-125Hz
JL AUDIO: E112	/	87.7	92.6	97.5	103.2	108.6	112.4	114.7	115	113.7	112.5	111.5	+/-8.8dB	40-125Hz
KLIPSCH: SW-311	/	/	/	84.2	97.9	102.6	105.3	108.6	111.4	112.2	111.5	110.6	+/-14dB	50-125Hz
MARTIN LOGAN: DYNAMO 1500X	/	89.9	92.6	97.4	101.4	105.3	110.0	114.1	115.3	114.4	113.2	112.1	+/-9dB	40-125Hz
OUTLAW AUDIO: LFM-1 EX: 18hz	/	/	97.5	102.1	104.7	107.2	110.5	112.4	113.3	113.3	112.9	112.8	+/-5.6dB	31.5-125Hz
OUTLAW AUDIO: LFM-1 EX: 25hz	/	/	86.9	101.0	107.3	110.7	112.3	113.7	113.8	113.7	113.1	112.8	+/-6.4dB	31.5-125Hz
PARADIGM SIGNATURE SUB 2	94.7	98.2	102.6	106.4	109.9	113.2	116.9	120.2	122.5	123.0	122.1	120.3	+/-8.3dB	40-125Hz
POWERSOUND: XV-15	/	/	98.1	102.7	106.2	109.6	113.7	116.6	114.7	112.5	110.8	109.3	+/-7dB	40-100Hz
PREMIER ACOUSTICS: PA-150	/	/	/	93.6	98.6	105.4	109.3	114.4	118.0	117.8	116.9	116.0	+/-12.2dB	50-125Hz
RBH SOUND: SX-12	/	/	/	87.7	98.0	108.0	111.1	113.7	112.7	112.1	111.7	111.6	+/-13dB	31.5-125Hz
RBH SOUND: SX-1212R	/	99.6	107.7	112.8	114.5	117.3	120.8	120.1	120.5	120.6	120.6	120.7	+/-4dB	31.5-125Hz
RYTHMIK AUDIO: FV15HP: 1 PORT MODE	/	98.5	104.0	108.3	111.7	115.3	117.8	118.0	117.9	117.8	117.6	117.2	+/-4.9dB	31.5-125Hz
RYTHMIK AUDIO: FV15HP: 2 PORTS MODE	/	89.8	102.1	108.1	113.1	117.0	119.5	119.1	118.8	118.4	118.2	118.1	+/-5.7dB	31.5-125Hz
SVS PB12-NSD	/	/	93.3	103.2	105.0	105.9	106.5	107.3	108.0	108.7	109.2	109.6	+/-2.8dB	20-100Hz
SVS SB12-NSD	/	81.1	87.7	91.9	96.3	101.0	104.6	106.4	107.6	108.2	108.5	108.5	+/-8.2dB	40-125Hz
SVS SB13-ULTRA	83	88.6	92.6	96.5	101.3	108.1	112.1	114.9	116.8	117.3	117.2	116.9	+/-10.4dB	40-125Hz
SVS: PB13-ULTRA: 15HZ MODE	/	89.3	105.1	109.2	111.1	113.6	116.4	116.7	115.9	114.8	113.8	113.4	+/-3.8dB	25-125Hz
SVS: PB13-ULTRA: 20HZ MODE	/	/	97.4	110.6	113.5	115.5	117.5	117.8	116.6	115.3	114.4	114.1	+/-3.6dB	25-125Hz
SVS: PB13-ULTRA: SEALED MODE	/	84.6	91.5	97.6	104.0	110.0	113.8	115.2	114.7	114.0	113.4	113.0	+/-8.8dB	31.5-125Hz
VELODYNE EO-MAX 15	/	/	/	84.8	95.7	104.2	110.0	114.2	114.8	111.0	108.3	106.7	+/-15dB	40-80Hz
VELODYNE: DD18+ SERVO GAIN 1	84.6	89.2	98.8	103.4	108.3	113.0	115.8	116.8	115.3	113.5	112.1	110.5	+/-6.7dB	31.5-125Hz
VELODYNE: DD18+ SERVO GAIN 8	86.1	92.5	98.9	103.6	108.2	112.9	115.3	116.3	115.1	113.4	112.0	110.6	+/-6.4dB	31.5-125Hz
XTZ SOUND 3X12	/	97.0	106.1	111.5	115.5	118.8	121.8	122.4	122.4	122.6	123.1	123.4	+/-5.6dB	31.5-125Hz

HIGHEST RECORDED VALUE

Tested by Paul Apollonio (Funk and SVS) and Joel Foust (RBH models)

MANUFACTURER & MODEL	CEA2010 CENTER FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz		
Funkwavs: FW 12.X	/	/	/	107.0	112.3	112.4	114.0	113.9	113.1	/	/	/	+/-3.5dB	25-63Hz
RBH: SX-10R	/	/	/	/	94.0	103.0	106.0	108.0	109.0	108.0	107.0	105.0	+/-3.5dB	25-63Hz
RBH: S-10	/	/	/	/	/	98	105	107	107	106	105	103	+/-4.2dB	25-63Hz
SVS: PB12-Plus DSP	/	/	/	107	109.5	111.5	114.3	115.3	115.3	/	/	/	+/-4.2dB	25-63Hz

Tested by James Larson

MANUFACTURER & MODEL	CEA2010 CENTER FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz		
HSU ULS-15 MK2	/	90.7	95.0	99.4	104.7	110.4	115.3	117.8	118.2	118.1	117.7	117.7	+/- 9.4dB	40-125Hz
SVS PC2000	/	/	95.6	104.3	108.7	109.9	111.5	111.2	110.9	109.9	109.6	109.5	+/-3.6dB	25-125Hz
HSU VTF-2 MK5 SEALED	/	87	88.6	92.8	98.6	104.7	109.6	111.4	112.3	112.4	111.7	111.5	+/- 11.8dB	40-125Hz
HSU VTF-2 MK5 2 PORTS OPEN	/	/	87.3	101.4	106.8	110.1	112.1	113.7	114.1	113.7	113.1	112.8	+/- 6.3dB	31.5-125Hz
HSU VTF-2 MK5 1 PORT OPEN	/	/	97.5	102.3	103.9	107.4	110.5	112.6	113.4	113.4	112.9	112.5	+/- 5.5dB	31.5-125Hz

Last Update: 11/10/16

MAX RMS SUBWOOFER OUTPUT RECORDED VIA LONG DURATION SINE SWEEP

ALL DATA COLLECTED OUTDOORS / GROUND PLANE AND REFERENCED TO 2 METER RMS dB SPL VALUES

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MANUFACTURER & MODEL	FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10Hz	12.5Hz	16Hz	20Hz	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz		
APERION: BRAVUS II 12D	/	/	83.2	90.1	97.4	102.1	103.7	104.6	101.6	101.9	102.0	101.8	+/-3dB	31.5-125Hz
B&W: ASW-610XP	/	80.8	86.1	88.8	92.8	96.7	100.7	104.1	105.7	104	103.6	101.3	+/-8.4dB	38-125Hz
BIC ACoustics: CH-PI-200	/	/	82.1	87.1	95.1	101.9	106.3	107.6	103.7	101.9	100.8	97.8	+/-10.4dB	36-63Hz
CADENCE: CSX-15 MKII	/	/	89.5	92.4	96.5	101.8	106.8	113.3	109.0	116.0	113.4	114.3	+/-15.3dB	63-125Hz
ELEMENTAL DESIGNS: A78-450	84	91.2	98.9	102.9	107.0	111.9	116.8	119.6	117.9	115.9	114.4	114.3	+/-8.3dB	35-125Hz
EMOTIVA: X-REF12	/	/	83.3	94.3	99.7	103.4	104.6	104.0	101.2	99.6	97.2	97.2	+/-10.6dB	29-100Hz
EPIK: EMPIRE	80	88.1	98.6	102.1	106.0	109.3	110.8	112.7	115.1	117.3	118.2	119.4	+/-7.6dB	55-125Hz
FLNK AUDIO: I8.0	91.3	95.1	98.2	103.1	108.0	114.1	119.7	121.0	118.3	117.3	116.9	116.8	+/-9.0dB	33.5-125Hz
HISU: VTF-15H: SEALED, E01	82.6	90.2	95.5	99.7	104.3	109.4	110.7	111.6	111.1	112.6	112.4	112.5	+/-6.5dB	28.5-125Hz
HISU: VTF-15H: 1 PORT OPEN, E01	84.4	93.1	100.7	104.4	107.1	111.0	112.9	113.3	112.4	113.5	113.1	113.1	+/-4.6dB	26.5-125Hz
HISU: VTF-15H: 2 PORTS OPEN, E02	/	83	95	102.0	109.4	112.8	115.5	115.0	113.2	114.1	113.6	113.2	+/-6.8dB	26-125Hz
JL AUDIO: E1D	78.7	85.4	89.8	93.3	97.8	102.4	107.2	109.0	106.8	106.8	105.5	104.7	+/-7.5dB	34-125Hz
JL AUDIO: E1D	81.9	88.9	94.1	97.5	101.9	106.8	108.8	108.0	106.6	107.2	106.9	105.4	+/-5.7dB	27.5-125Hz
KLIPSH: SW-3H	/	/	73.1	83.9	99.8	101.8	103.9	106.7	108.0	109.3	107.5	107.5	+/-17.4dB	45-125Hz
MARTIN LOGAN DYNAMO 1500X	81.9	87.6	92.6	96.3	100.7	105.4	109.8	114.5	113.1	111.9	110.8	110.3	+/-9.1dB	36-125Hz
OUTLAW AUDIO: LFM-1 EX: 18hz	/	85.4	97	101.8	103.0	104.7	107.7	109.8	111.3	110.5	110.0	108.3	+/-4.7dB	35-125Hz
OUTLAW AUDIO: LFM-1 EX: 25hz	/	/	89	99.5	106.5	109.2	110.6	111.8	112.1	111.1	111.0	109.4	+/-6.3dB	25-125Hz
PARADIGM SIGNATURE SUB 2	96.3	99.1	102.9	105	106.9	109.1	110.6	111.6	111.6	112	112.5	112.2	+/-3.5dB	24-125Hz
POWERSOUND: NV-15	82.3	92.2	98.5	101.4	103.7	106.4	109.2	111.5	111.2	110.2	107.8	106.8	+/-5.1dB	31.5-125Hz
PREMIER ACOUSTICS: PA-150	/	81.1	90.2	95.2	99.4	103.4	107.3	112.1	116.0	114.9	113.5	113.4	+/-10.4dB	45-125Hz
RBH SOUND: SX-12	/	/	81.6	91.1	98.7	105.8	109.2	110.8	109.8	108.6	108.4	107.1	+/-9.8dB	31-125Hz
RBH SOUND: SX-121AR	83.4	94.8	100.5	104.3	108.1	116.1	116.7	116.5	115.8	115.6	114.4	113.8	+/-3.0dB	20-125Hz
RYTHMIK AUDIO: FV15HP: 1 PORT MODE	89	97.8	104	107.6	110.8	112.4	112.6	113.4	113.0	111.0	107.3	105.3	+/-2.9dB	20-100Hz
RYTHMIK AUDIO: FV15HP: 2 PORTS MODE	/	85.5	100.9	106.9	112.1	114.7	114.8	115.9	115.6	113.8	110.3	108.7	+/-4.5dB	27.5-105Hz
SVS PB12-NSD	/	/	91	99.4	104.3	105.2	105.3	106.2	106.8	107.2	107.5	108.2	+/-3.9dB	22-125Hz
SVS SB12-NSD	/	79.4	87.3	92.0	96.3	100.0	103.5	105.4	107.1	107.6	107.6	107.3	+/-7.8dB	37-125Hz
SVS SB13-ULTRA	86.9	90.3	94.4	97.8	101.1	105.1	108.4	111.7	113.0	113.6	112.2	111.4	+/-8dB	36.5-125Hz
SVS: PB13-ULTRA: 15HZ MODE	79.8	92.5	104.8	107.9	109.4	112.2	114.8	113.3	112.9	111.0	110.1	108.6	+/-3.4dB	23-125Hz
SVS: PB13-ULTRA: 20HZ MODE	/	85.9	99.5	109.3	111.9	113.4	115.9	115.1	113.3	111.2	110.2	109.0	+/-3.3dB	21-100Hz
SVS: PB13-ULTRA: SEALED MODE	86.8	91.4	96.4	100.2	104.6	109.5	112.4	111.1	111.4	109.9	109.2	107.8	+/-6.1dB	28-125Hz
VELODYNE EQ-MAX 15	/	/	78.8	91.7	98.1	102.8	107.8	112.4	111.8	107.9	105.7	104.7	+/-10.4dB	38-90Hz
VELODYNE: DD18+ SERVO GAIN 1	88.3	94.6	99.5	103.3	107.8	113.0	116.1	113.6	110.8	108.7	107.4	104.8	+/-6.3dB	28-63Hz
VELODYNE: DD18+ SERVO GAIN 8	88.3	93.5	99.1	102.8	107.3	111.6	113.6	114.1	112.9	111.7	111.0	109.8	+/-5.6dB	28-125Hz
VTZ SOUND 3M12	70.7	92	101.5	107.6	112.7	116.3	118.5	118.6	118.2	118.3	118.0	118.2	+/-6.4dB	28-63Hz

HIGHEST RECORDED VALUE

All subwoofers tabulated above were tested by: Josh Ricci

Results were generated using a sine-wave sweep of roughly 23 second long duration covering the range of 2-125Hz

MAX RMS SUBWOOFER OUTPUT RECORDED VIA LONG DURATION SINE SWEEP

ALL DATA COLLECTED OUTDOORS / GROUND PLANE AND REFERENCED TO 2 METER RMS dB SPL VALUES

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MANUFACTURER & MODEL	FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10Hz	12.5Hz	16Hz	20Hz	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz		
Ancient Audio: Bravos 10D	/	/	/	75.0	80.0	88.0	96.0	100.0	101.0	104.0	102.0	100.0	+/-14.5dB	40-125Hz
Axiom Audio: EP400v1	/	/	/	88.0	91.0	94.0	96.0	96.0	95.0	95.0	94.0	93.0	+/-3.5dB	25-125Hz
Axiom Audio: EP500v1	/	/	/	88.0	97.0	99.0	100.0	100.0	99.0	99.0	99.0	100.0	+/-6dB	25-125Hz
Axiom Audio: EP600v1	/	/	/	95.0	100.0	104.0	105.0	101.0	100.0	97.0	99.0	99.0	+/-3dB	20-125Hz
Emotiva: Xref-10	/	/	/	84.0	89.0	91.0	98.0	101.0	102.0	104.0	102.0	101.0	+/-10dB	40-125Hz
Emotiva: Ultra 12	/	/	/	84.0	92.0	96.0	102.0	106.0	107.0	104.0	104.0	102.0	+/-11.5dB	40-125Hz
EMTPick FS1010	/	/	/	85.0	91.0	97.0	102.5	106.0	106.0	105.0	105.0	105.0	+/-10.5dB	35Hz-125Hz
JL Audio: F10	/	/	/	91.0	97.0	101.0	102.0	101.0	100.0	97.0	95.0	92.0	+/-5.5dB	31.5-100Hz
Lava: LSP12	/	/	/	65.0	78.0	88.0	101.0	105.0	110.0	105.0	100.0	95.0	+/-20dB	31.5-125Hz
RBH: S-10	/	/	/	80.5	89.0	95.6	101.5	104.7	104.8	103.4	102.2	100.4	+/-11.5dB	35-125Hz
RYTHMIK: SX-10R	/	/	76.1	86.1	95.6	102.2	104.7	105.5	106.4	105.2	103.9	102.3	+/-9.6dB	29-125Hz
Vedolyn: DD-15	/	/	/	90.0	94.0	98.0	104.0	107.0	111.0	109.0	111.0	109.0	+/-10.5dB	40-125Hz
Vedolyn: DD-15+	/	/	/	97.0	101.0	105.0	111.0	111.0	112.0	108.0	107.0	104.0	+/-7.5dB	25-125Hz
Vedolyn: DD-18	/	/	/	94.0	99.0	105.0	111.0	114.0	114.0	114.0	113.0	111.0	+/-10dB	25-125Hz

HIGHEST RECORDED VALUE

All subwoofers tabulated above were tested by: Gene DellaSala, except the DD-18 and LSP12 which were tested by Mark Sanfilippo and the RBH models tested by Joel Foust

Subwoofers tested using a continuous reverse sine-wave sweep tend to track closely in SPL to CEA-2010 tests at low frequencies where the subwoofer is driver limited

CEA-2010 tends to yield higher SPL @s at higher frequencies where the subwoofer is amplifier limited

MAX RMS SUBWOOFER OUTPUT RECORDED VIA LONG DURATION SINE SWEEP

ALL DATA COLLECTED OUTDOORS / GROUND PLANE AND REFERENCED TO 2 METER RMS dB SPL VALUES

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MANUFACTURER & MODEL	FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10Hz	12.5Hz	16Hz	20Hz	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz		
HISU UL-15 MK2	74.4	86.3	96	100.3	104.7	109.3	113.8	116.2	116.1	115.2	114.6	114.6	+/-8dB	40-125Hz
SVS PC 2000	/	/	95.3	104.1	107.3	109.6	109.9	109.0	108.9	108.7	108.1	107.1	+/-2.9dB	20-125Hz
HISU VTF-2 MKS SEALED	/	88.2	91.4	95.4	100.0	104.7	108.3	109.0	109.7	108.8	107.1	107.1	+/-4.5dB	31.5-125Hz
HISU VTF-2 MKS 2 PORTS OPEN	/	/	90.7	99.4	105.6	109.4	111.7	111.0	109.3	107.7	106.9	106.4	+/-6.1dB	31.5-125Hz
HISU VTF-2 MKS 1 PORT OPEN	/	/	96.4	100.7	103.9	106.6	109.7	109.0	107.7	106.6	106.1	105.8	+/-4.5dB	25-125Hz

All subwoofers tabulated above were tested by: James Latson

Results were generated using a sine-wave sweep of roughly 23 second long duration covering the range of 2-1250Hz

Last Update: 11/10/16

AUDIOHOLICS "BASSAHOLIC" SUBWOOFER RATINGS

MAXIMUM SUGGESTED ROOM SIZE TO ENSURE ADEQUATE OUTPUT HEADROOM

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31.5-63Hz SPL	MINIMUM PASSING CRITERIA BASED ON CEA2010 2 METER			
	GROUNDPLANE PEAK OUTPUT CONVERTED TO 4 METER 1/8TH SPACE			
	<109db	>109db	115db	123db
	<103db	>103db	109db	117db
25Hz SPL	SMALL	MEDIUM	LARGE	EXTREME
ROOM SIZE	<1500cu ft	1500-3000cu ft	3000-5000cu ft	>5000cu ft
MANUFACTURER & MODEL				
APERION: BRAVUS II 12D			CERTIFIED	
B&W: ASW-610XP	CERTIFIED			
BIC ACOUSTECH: PL-200		CERTIFIED		
CADENCE CSX-15 MKII	CERTIFIED			
ELEMENTAL DESIGNS: A7S-450			CERTIFIED	
EMOTIVA: X-REF12	CERTIFIED			
EPIK: EMPIRE			CERTIFIED	
FUNK AUDIO: 18.0				CERTIFIED
HSU: VTF-15H SEALED, EQ1			CERTIFIED	
HSU: VTF-15H 1 PORTS, EQ1			CERTIFIED	
HSU: VTF-15H 2 PORTS, EQ2				CERTIFIED
JL AUDIO: E110		CERTIFIED		
JL AUDIO: E112			CERTIFIED	
KLIPSCH: SW-311		CERTIFIED		
MARTIN LOGAN: DYNAMO 1500X			CERTIFIED	
OUTLAW AUDIO: LFM-1 EX: 18hz			CERTIFIED	
OUTLAW AUDIO: LFM-1 EX: 25hz			CERTIFIED	
PARADIGM SIGNATURE SUB 2				CERTIFIED
POWERSOUND: XV-15			CERTIFIED	
PREMIER ACOUSTICS: PA-150		CERTIFIED		
RBH SOUND: SX-12			CERTIFIED	
RBH SOUND: SX-1212R				CERTIFIED
RYTHMIK AUDIO: FV15HP: 1 PORT MODE				CERTIFIED
RYTHMIK AUDIO: FV15HP: 2 PORTS MODE				CERTIFIED
SVS PB12-NSD			CERTIFIED	
SVS: PB13-ULTRA: 15HZ MODE				CERTIFIED
SVS: PB13-ULTRA: 20HZ MODE				CERTIFIED
SVS: PB13-ULTRA: SEALED MODE			CERTIFIED	
SVS SB13-ULTRA			CERTIFIED	
SVS SB12-NSD		CERTIFIED		
VELODYNE EQ-MAX 15		CERTIFIED		
VELODYNE: DD18+				CERTIFIED
XTZ SOUND 3X12				CERTIFIED
Aperion Audio: Bravus 10D	CERTIFIED			
Axiom Audio: EP400v3	CERTIFIED			
Axiom Audio: EP500v1		CERTIFIED		
Axiom Audio: EP600v1		CERTIFIED		
Emotiva: Xref-10	CERTIFIED			
Emotiva: Ultra 12	CERTIFIED			
EMPIEK ES1010i				
Funkywaves: FW 12.X			CERTIFIED	
HSU ULS-15 mk2			CERTIFIED	
HSU VTF-2 MK5 SEALED		CERTIFIED		
HSU VTF-2 MK5 1 PORT OPEN			CERTIFIED	
HSU VTF-2 MK5 2 PORTS OPEN			CERTIFIED	
JL Audio: f110		CERTIFIED		
Lava: LSP12	CERTIFIED			
RBH S-10	CERTIFIED			
RBH SX-10/R		CERTIFIED		
SVS: PB12-Plus DSP			CERTIFIED	
SVS PC2000			CERTIFIED	
Velodyne: DD-15		CERTIFIED		
Velodyne: DD-15+			CERTIFIED	
Velodyne: DD-18			CERTIFIED	
Last Update: 11/10/16				

CEA2010 VERSUS MAX SWEEP LEVEL COMPARISON

VALUES ARE THE AMOUNT THAT CEA2010 PASSING RESULTS RECORDED COMPARED TO DURING THE MAXIMUM LEVEL LONG TERM SWEEP
 POSITIVE VALUES INDICATE HIGHER OUTPUT WITH CEA2010 / NEGATIVE VALUES INDICATE LESS OUTPUT RECORDED VIA CEA2010

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MANUFACTURER & MODEL	CENTER FREQUENCY											
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz
APERION: BRAVUS II 12D	/	/	/	-3.1	2.8	3.2	6.1	8.0	10.6	8.8	7.8	7.5
BIC ACOUSTECH: PL-200	/	/	/	-3.1	1.1	0.6	1.4	2.8	4.4	4.6	4.5	6
B&W: ASW-610XP	/	/	/	-3.7	-2.8	-0.6	0.8	1.8	3.2	4.1	2.6	3.6
BIC ACOUSTECH: PL-200	/	/	/	-3.1	1.1	0.6	1.4	2.8	4.4	4.6	4.5	6
CADENCE CSX-15 MKII	/	/	/	-4.7	-2.7	-3.2	-2.7	2.5	2.2	1.2	3.3	3.4
ELEMENTAL DESIGNS: A7S-450	/	-1.2	-4.3	-2.5	-0.2	0.6	1	1.4	2.2	2.4	2.4	1.5
EMOTIVA: X-REF12	/	/	/	-2.3	-4.8	-0.6	0.1	3.0	4.5	6.5	6.7	7.9
EPIK: EMPIRE	-1.5	5.4	-0.3	0.1	-0.2	0.4	2.4	3.7	4.1	4.3	5.1	4.8
FUNK AUDIO: 18.0	0.5	0.4	1	0.5	0.8	0.8	0.2	0.4	3.6	4.4	4.7	4.8
HSU: VTF-15H SEALED, EQ1	/	-2	-3.1	-2.8	-1.7	0	0.8	0.7	2.2	1.6	2.3	2.9
HSU: VTF-15H 1 PORTS, EQ1	/	0.4	-0.1	-0.3	-0.2	0.3	0.6	0.4	1.8	1.1	2	2.4
HSU: VTF-15H 2 PORTS, EQ2	/	/	-1.6	2.1	0.3	0.3	0.1	0.3	2.1	1.4	2	2.7
JL AUDIO: E110	/	/	-0.7	0	0.8	1.8	1.5	3.2	6.4	6.2	6.3	6.5
JL AUDIO: E112	/	-1.2	-1.5	0	1.3	1.8	3.6	6.7	8.4	6.5	5.6	6.1
KLIPSCH: SW-311	/	/	/	11.1	4.0	2.8	3.5	4.7	4.7	4.2	2.2	3.1
MARTIN LOGAN: DYNAMO 1500X	/	2.3	-0.4	0.7	0.4	-0.2	0.2	2.2	2.5	2.4	2.4	1.8
OUTLAW AUDIO: LFM-1 EX: 18hz	/	/	0.5	0.3	1.7	2.5	2.8	2.6	2.0	2.8	2.9	4.5
OUTLAW AUDIO: LFM-1 EX: 25hz	/	/	-2.1	1.5	0.8	1.5	1.7	1.9	1.7	2.6	2.1	3.4
PARADIGM SIGNATURE SUB 2	-1.6	-0.9	-0.3	1.4	3.0	3.1	6.3	8.6	10.9	11.0	9.6	8.1
POWERSOUND: XV-15	/	/	-0.4	1.3	2.5	3.2	4.5	5.1	3.5	2.3	3.0	2.5
PREMIER ACOUSTICS: PA-150	/	/	/	-1.6	-0.8	2.0	2.0	2.3	2.0	2.9	3.4	2.6
RBH SOUND: SX-12	/	/	/	-3.4	-0.7	2.2	1.9	2.9	3.9	3.5	3.3	4.5
RYTHMIK AUDIO: FV15HP: 1 PORT MODE	/	0.7	0.0	0.7	0.9	2.9	5.2	4.6	4.9	6.9	10.3	11.9
RYTHMIK AUDIO: FV15HP: 2 PORTS MODE	/	4.3	1.2	1.2	1.0	2.3	4.7	3.2	3.2	4.6	7.9	9.4
SVS PB12-NSD	/	/	2.3	3.8	0.7	0.7	1.2	1.1	1.2	1.5	1.7	1.4
SVS: PB13-ULTRA: 15HZ MODE	/	-3.2	0.3	1.3	1.7	1.4	1.6	3.4	3.0	3.8	3.7	4.8
SVS: PB13-ULTRA: 20HZ MODE	/	/	-2.1	1.3	1.6	2.1	1.6	2.7	3.3	4.1	4.2	5.1
SVS: PB13-ULTRA: SEALED MODE	/	-6.8	-4.9	-2.6	-0.6	0.5	1.4	4.1	3.3	4.1	4.2	5.2
SVS SB12-NSD	/	1.7	0.4	-0.1	0.0	1.0	1.1	1.0	0.5	0.6	0.9	1.2
VELODYNE EQ-MAX 15	/	/	/	-6.9	-2.4	1.4	2.2	1.8	3.0	3.1	2.6	2.0
VELODYNE: DD18+ SERVO GAIN 1	-4.6	-5.4	-0.7	0.1	0.5	0.0	-0.3	3.2	4.5	4.8	4.7	5.7
VELODYNE: DD18+ SERVO GAIN 8	-3.0	-1.0	-0.2	0.8	0.9	1.3	1.7	2.2	2.2	1.7	1.0	0.8
XTZ SOUND 3X12	/	5.0	4.6	3.9	2.8	2.5	3.3	3.8	4.2	4.3	5.0	5.1
TOTAL RANGE OF VARIATION ALL UNITS / SPL dB	5.1	12.2	9.5	18.0	8.8	7.3	9.5	9.0	10.4	10.4	9.4	11.1
AVERAGE RANGE OF VARIATION ALL UNITS / SPL dB	-2.0	-0.1	-0.5	-0.2	0.4	1.2	1.9	2.9	3.8	3.9	4.1	4.5
TOTAL AVERAGE VARIATION ALL UNITS / ALL FREOS	2.1											
LEAST GAIN OR MOST LOSS												
MOST GAIN OR LEAST LOSS												

CEA2010 VERSUS MAX SWEEP LEVEL COMPARISON

VALUES ARE THE AMOUNT THAT CEA2010 PASSING RESULTS RECORDED COMPARED TO DURING THE MAXIMUM LEVEL LONG TERM SWEEP
 POSITIVE VALUES INDICATE HIGHER OUTPUT WITH CEA2010 / NEGATIVE VALUES INDICATE LESS OUTPUT RECORDED VIA CEA2010

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MANUFACTURER & MODEL	CENTER FREQUENCY											
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz
RBH: S-10	/	/	/	/	-1.6	0.8	1.3	2.5	2.6	2.8	3.1	2.7
RBH: SX-10R	/	/	/	/	/	-2.4	3.5	2.3	2.2	2.6	2.8	2.6

Tested by: Joel Foust

CEA2010 VERSUS MAX SWEEP LEVEL COMPARISON

VALUES ARE THE AMOUNT THAT CEA2010 PASSING RESULTS RECORDED COMPARED TO DURING THE MAXIMUM LEVEL LONG TERM SWEEP
 POSITIVE VALUES INDICATE HIGHER OUTPUT WITH CEA2010 / NEGATIVE VALUES INDICATE LESS OUTPUT RECORDED VIA CEA2010

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MANUFACTURER & MODEL	CENTER FREQUENCY											
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz
HSU ULS-15 MK2	/	4.4	-1.0	-0.9	0	1.1	1.5	1.6	2.1	2.9	3.1	3.1
SVS PC2000	/	/	0.2	0.3	1.4	0.3	1.9	2.2	2	1.2	1.5	2.4
HSU VTF-2 MK5 SEALED	/	-1.2	-2.8	-2.6	-1.4	0	1.1	2.4	3.1	3.6	3.6	4.4
HSU VTF2 MK5 2 PORTS OPEN	/	/	-3.4	2	1.2	0.7	0.4	2.7	4.8	6	6.2	6.4
HSU VTF-2 MK5 1 PORT OPEN	/	/	-1.2	1.6	0	0.8	0.8	3.6	5.7	6.8	6.3	6.7

Tested by: James Larson

Last Update: 11/10/16