

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?
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
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
KLIPSCH: SW-311	\$1,599	2 years	16.25x13x13.4375	1.64 / 46.4	37 / 16.8	1x10"	500w	reflex (PR's)	NO	YES
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
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
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
VELODYNE: DD18+	\$4,999	5 years / 3 electronics	25.6x20.67x22.72	6.9 / 197	142 / 64.4	1X18"	1250w	sealed	NO	YES
VELODYNE: EQ-MAX 15	\$879	5 years / 3 electronics	21x19x21.5	5 / 142	75 / 34	1x15"	750w	bass reflex	NO	YES
Tested by Gene DellaSala, Mark Sanfilippo & Paul Apollonio										
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 Audio: Bravus 10D	\$799	10 years / 3 electronics	13.5x15x13.5	1.58/44.8	44 / 20	2x10"	300w	sealed	YES	NO
Axiom Audio: EP400v3	\$1,145	5 years	13.8x10.5x16.8	1.41/39.9	48 / 22	1x8"	500w	sealed	YES	NO
Axiom Audio: EP500v1	\$1,270	5 years	19.5x15x19.5	3.3/93.5	72.6 / 32.9	1 x 12"	500w	ported	NO	NO
Axiom Audio: EP600v1	\$1,860	5 years	45.5x 15x 17	6.7/190.1	103 / 46.9	1 x 12"	600w	ported	NO	NO
Emotiva: Xref-10	\$499	5 years transferrable	13.6x12.6x13.6	1.35/38.2	33 / 15	1x10"	300w	sealed	YES	NO
Emotiva: Ultra 12	\$499	5 years transferrable	13.6x12.6x13.6	1.35/38.2	38 / 17.2	1 x12"	300w	sealed	NO	NO
EMPTek ES1010i	\$499	5 years/1 year electronics	13x19x27.5	3.9/111.3	45 / 20.4	2x10"	250w	ported	NO	NO
Funkywaves: FW 12.X	\$1,750	not specified	24x14.5x24	4.83/136.9	115 / 52.1	1x12"	2000w	ported	NO	NO
HSU: VTF-15H	\$879	7 years / 2 electronics	25x18x26	6.8/191.7	120 / 54	1x15"	350w	ported	YES	NO
Lava: LSP12	\$338	5 years	16.4x13.8x18.9	2.5 / 70.8	44.7 / 20.3	1 x 12"	250w	ported	NO	NO
JL Audio: f110	\$2,100	5 years	15.6x12.9 x17.3	2.01 / 57	67 / 30	1x10"	900w	sealed	YES	YES
SVS: PB12-Plus DSP	\$1,349	3 years	25x 19x21	5.77/163.5	127 / 57.6	1 x 12.5"	800w	portes	YES	YES
Velodyne: DD-15	\$3,999	5 years	20x18x17.8	1.64 / 46.4	100 / 45	1x15"	1250w	sealed	YES	YES
Velodyne: DD-15+	\$4,399	5 years	20x18x22	4.6/129.8	120 / 54	1x15"	1250w	sealed	YES	YES
Velodyne: DD-18	\$4,999	5 years	21.3x23x19.3	5.5/155	120 / 54	1x18"	1250w	sealed	YES	YES

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	20-80Hz	+/-3dB Window
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
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
KLIPSCH: SW-311	/	/	/	84.2	97.9	102.6	105.3	108.6	111.4	112.2	111.5	110.6	+/-14dB	50-125Hz
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
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
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	+/-2.75dB	20-100Hz
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 EQ-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
HIGHEST RECORDED VALUE														

MANUFACTURER & MODEL	CEA2010 CENTER FREQUENCY												BANDWIDTH UNIFORMITY	FREQUENCY RANGE
	10hz	12.5hz	16hz	20hz	25hz	31.5hz	40hz	50hz	63hz	80hz	100hz	125hz	20-60Hz	+/-3dB Window
Tested by Paul Apollonio														
Funkywaves: FW 12.X	/	/	/	107.0	112.3	112.4	114.0	113.9	113.1	/	/	/	+/-3.5dB	25-63Hz
HSU: VTF-15H: 1 PORT OPEN, EQ1	/	/	/	105.1	107.8	111.6	113.4	113.5	113.7	/	/	/	+/-5.9dB	25-63Hz
SVS: PB12-Plus DSP	/	/	/	107	109.5	111.5	114.3	115.3	115.3	/	/	/	+/-4.2dB	25-63Hz

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		
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 ACOUSTECH: PL-200	/	/	82.1	87.1	95.1	101.9	106.3	107.6	103.7	101.9	100.8	97.8	+/-10.2dB	36-63Hz
ELEMENTAL DESIGNS: A7S-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	+/-10.6dB	29-106Hz
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
KLIPSCH: SW-311	/	/	/	73.1	93.9	99.8	101.8	103.9	106.7	108.0	109.3	107.5	+/-17.4dB	45-125Hz
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
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
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	22.5-105Hz
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: 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	+/-10.3dB	38-86Hz
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	+/-6.4dB	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

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 0-125Hz

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		
Aperion Audio: Bravus 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: EP400v3	/	/	/	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
EMPTek ES1010i	/	/	/	85.0	91.0	97.0	102.5	106.0	106.0	105.0	105.0	105.0	+/-10.5dB	35Hz-125Hz
JL Audio: f110	/	/	/	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
Velodyne: DD-15	/	/	/	90.0	94.0	98.0	104.0	107.0	111.0	109.0	111.0	109.0	+/-10.5dB	40-125Hz
Velodyne: DD-15+	/	/	/	97.0	101.0	105.0	111.0	111.0	112.0	108.0	107.0	104.0	+/-7.5dB	25-125Hz
Velodyne: 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

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

AUDIOHOLICS "BASSAHOLIC" SUBWOOFER RATINGS

MAXIMUM SUGGESTED ROOM SIZE TO ENSURE ADEQUATE OUTPUT HEADROOM

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MANUFACTURER & MODEL	MINIMUM PASSING CRITERIA BASED ON CEA2010 2 METER GROUNDPLANE PEAK OUTPUT CONVERTED TO 4 METER 1/8TH SPACE				
	31.5-63Hz SPL	<109db	>109db	115db	123db
	25Hz SPL	<103db	>103db	109db	117db
	ROOM SIZE	SMALL	MEDIUM	LARGE	EXTREME
	<1500cu ft	1500-3000cu ft	3000-5000cu ft	>5000cu ft	
B&W: ASW-610XP	CERTIFIED				
BIC ACOUSTECH: PL-200		CERTIFIED			
ELEMENTAL DESIGNS: A7S-450			CERTIFIED		
EMOTIVA: X-REF12	CERTIFIED				
EPIK: EMPIRE			CERTIFIED		
KLIPSCH: SW-311		CERTIFIED			
OUTLAW AUDIO: LFM-1 EX: 18hz			CERTIFIED		
OUTLAW AUDIO: LFM-1 EX: 25hz			CERTIFIED		
PARADIGM SIGNATURE SUB 2				CERTIFIED	
PREMIER ACOUSTICS: PA-150		CERTIFIED			
RBH SOUND: SX-12		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		
VELODYNE EQ-MAX 15		CERTIFIED			
VELODYNE: DD18+				CERTIFIED	
Funkywaves: FW 12.X			CERTIFIED		
HSU: VTF-15H			CERTIFIED		
SVS: PB12-Plus DSP			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				
EMPtEK ES1010i					
JL Audio: f110		CERTIFIED			
Lava: LSP12	CERTIFIED				
Velodyne: DD-15		CERTIFIED			
Velodyne: DD-15+			CERTIFIED		
Velodyne: DD-18			CERTIFIED		

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
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
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
KLIPSCH: SW-311	/	/	/	11.1	4.0	2.8	3.5	4.7	4.7	4.2	2.2	3.1
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	4.1	6.3	8.6	10.9	11.0	9.6	8.1
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
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
TOTAL RANGE OF VARIATION ALL UNITS / SPL dB	3.1	12.2	7.2	18.0	8.8	4.7	6.6	7.5	9.7	9.5	9.3	11.1
AVERAGE RANGE OF VARIATION ALL UNITS / SPL dB	-1.6	-0.2	-0.9	0.2	0.4	1.5	2.3	3.2	3.7	4.3	4.5	5.2
TOTAL AVERAGE VARIATION ALL UNITS / ALL FREQS	2.2											
LEAST GAIN OR MOST LOSS												
MOST GAIN OR LEAST LOSS												

96.3	99.1	102.9	105	106.9	109.1	110.6	111.6	111.6	112	112.5	112.2
94.7	98.2	102.6	106.4	109.9	113.2	116.9	120.2	122.5	123.0	122.1	120.3