



269 SWR 51 147 NX ALP 4L XLS 8/5Ω

By introducing the new range of Xtra Long Stroke (XLS) subwoofers, Peerless has pushed the performance limits for subwoofers. The XLS/subwoofer range will fulfil every demand for deep clean bass reproduction like active THX home theatre and Dolby Digital subwoofer applications.

In the design the emphasis has been put in achieving extreme deep bass, long time reliability, high power handling, and very low distortion - also under very large sound pressures.

The 10" XLS is available in several different configurations from small passive radiator assisted subwoofers to classical and car applications.

Type: 269 SWR 51 147 NX ALP 4L XLS 8/5Ω 830452

Thiele Small parameters:

Nominal impedance
Minimum impedance/at freq.
Maximum impedance
Dc resistance
Voice coil inductance
Capacitor in series with 8 Ω
(for impedance compensation)

Zn (Ω)
Zmin (Ω/Hz)
Zo (Ω)
Re (Ω)
Le (mH)
Cc (μF)

	Free air	Common	Baffled
Zn (Ω)		8	
Zmin (Ω/Hz)		4.9 / 115	
Zo (Ω)		53.3	
Re (Ω)		3.4	
Le (mH)		4.3	
Cc (μF)		22	

Resonance Frequency
Mechanical Q factor
Electrical Q factor
Total Q factor
F (Ratio fs/Qts)

fs (Hz)
Qms
Qes
Qts
F (Hz)

fs (Hz)	18.9		18.6
Qms	2.63		2.66
Qes	0.18		0.18
Qts	0.17		0.17
F (Hz)			109

Mechanical resistance
Moving mass
Suspension compliance
Effective cone diameter
Effective piston area
Equivalent volume
Force factor

Rms (Kg/s)
Mms (g)
Cms (mm/N)
D (cm)
Sd (cm²)
Vas (lts)
Bl (N/A)

Rms (Kg/s)		6.12	
Mms (g)	135.3		139.3
Cms (mm/N)		0.52	
D (cm)		20.6	
Sd (cm²)		333	
Vas (lts)		80.2	
Bl (N/A)		17.5	

Reference voltage sensitivity
Re 2.83V 1m at 115 Hz (Measured)

(dB)

(dB)			88.4
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Magnet and voice coil parameters:

Voice coil diameter d (mm) 51
Voice coil length h (mm) 33
Voice coil layers n 4
Flux density in gap B (T) 1.04
Total useful flux (mWb) 2.50
Height of the gap hg (mm) 8
Diameter of magnet dm (mm) 147
Height of magnet hm (mm) 35
Weight of magnet (kg) 2.42

