

Synergy Audio

Combined and Co-ordinated sound solutions



Synergy Tec Notes System Design Information

Type	SPL @ 1M	Weight (Kg)	H	W	D	Dispersion
TQ440sp	128dB	37.5	558	409	363	60x40
TQ425sp	132dB	85	836	511	632	SUB
TQ315	130dB	35.5	691	443	381	80x50
TQ310	124dB	21	525	319	277	100x60
PS15	131dB	29	675	434	268	50-100x55 *
LS1200	133dB	45	515	791	597	SUB
X-ARRAY	131dB	40.8	759	450	413	60x40
JF80	119.6	11.4	532	198	248	100x80
A5	125dB	34.5	584	356	419	90x45
CXI8	119dB	17	560	280	243	70x50
TRS212	134dB	48	950	575	450	60x40
TRS218	136dB	79	580	1160	750	SUB
SX300	125dB	14.5	586	429	312	65x65
Control 1	87dB	1.8	235	159	143	100x50
SR 1	124dB	15.5	302	556	358	110 x 70

*Nexo PS15 Dispersion is as follows

PA mode H= 50 top and 100 bottom V=25 up and 30 down
 Mon Mode H= 100 top and 50 bottom V=30 up and 25 down

The Physics Bit		SPL Loss Calculation
Arrival Time	= $\frac{\text{Distance}}{\text{Speed of Sound}}$	Find log of distance Multiply by 20 Result is loss in dB
Speed of Sound	= $(\sqrt{373 + \text{Deg Cent}}) \times 20.06$	
Mean Int Temp	= 23 Deg C	-3dB =>50% SIGNAL
Equivalent SoS	= 245.12 m/sec	-5dB =>50% SPL

Video Frames to ms		Conversion Table
1 Frame @ 25fps	= 40.00ms	Multiply by
1 Frame @ 30fps	= 33.33ms	Lbs to Kg 0.4536
1 Frame @ 24fps	= 41.66ms	Kg to Lbs 2.205
1 Frame @ 29.97	= 33.36ms	Feet to Ms 0.3048
		Ms to Feet 3.281
		Inch to Cm 2.54
		Cm to Inch 0.3937