

**JBL Engineering Standard****Engineering Design  
Specification**

Number 1888

Date Effective 1/14/04

Page 1 of 5

**Model:** 2043G**Description:** 18" Pro PA woofer for JRX subwoofer featuring low cost and high output

**Voice Coil** Diameter: 3 inch  
Type: Round wire  
Material: 25.5G Copper  
Wind length: 0.90"  
DCR: 2.6 Ohms  
Turns: 90  
Axial position in gap: Centered

**Magnet** Flux: 256 k lines in 0.5" thk top plate  
309 k total lines intercepted by voice coil

Minimum Impedance: 3.4 Ohms @ 145 Hz In Free Air  
Polarity: Positive voltage to RED terminal gives forward cone motion

**Power Test** in 5.5 CF enclosure tuned to 45 Hz (MP418)

Voltage: 32.4 VTRMS  
Spectrum 40-120 Hz pink noise  
Crest Factor 9 dB  
Qualification duration 100 Hours  
Audit duration 2 Hours  
Reference power 350 watts into Zmin in enclosure = 3.0 ohms  
Environment MP418 enclosure, 5.5 cf, 45 Hz  
Rtg 0.91 Deg C/Watt All in enclosure  
Rtm 0.37 Deg C/Watt  
Rttl 1.28 Deg C/Watt File= 2043bx4

Woofer is expected to handle 400 watts in free air, but not yet formally qualified.

**Dimensions** Depth 7 1/2 Inches  
Weight: 17 lbs

## REVISIONS

LTR	DESCRIPTION	DATE	APPR
A	INITIAL RELEASE	1/14/2004	REH

Design Engineer

Ralph Hyde



JBL Engineering Standard

Engineering Design  
Specification

Number 1888

Date Effective 1/14/04

Page 2 of 5

Model 2043G

Theile - Small Parameters (Clio)

Before power test      After 2 hr power test

Re:	2.7	See B.P.T.	Ohms
Zmin	3.4		ohms
F zmin	150.0		Hz
Fs:	31		Hertz
Qts:	0.32		
Qms:	7.3		
Qes:	0.36		
Vas:	384		Liters
Ref Eff:	3.3%	See B.P.T.	
Sd:	0.127	See B.P.T.	Sq Meters
Mms:	153	See B.P.T.	Gms
BL:	15.5	See B.P.T.	T*M
Lc @ 1KHz:	1.1	See B.P.T.	mH
Xmax @ 10%			
THD:	8	See B.P.T.	mm
Motional Impedance:	59		Ohms

Proposed Frequency Response Window		
(Hz)	+/- dB	Octaves
40-400	1	1/3

# JBL

JBL Engineering Standard  
Engineering Design  
Specification

Number 1888  
Date Effective 1/14/04  
Page 3 of 5

## SPL vs Freq



Map	78: AVO 20430 #31-35 Resp & Imp
Notes	

LMS 4.5.8.340  
May 29/2003

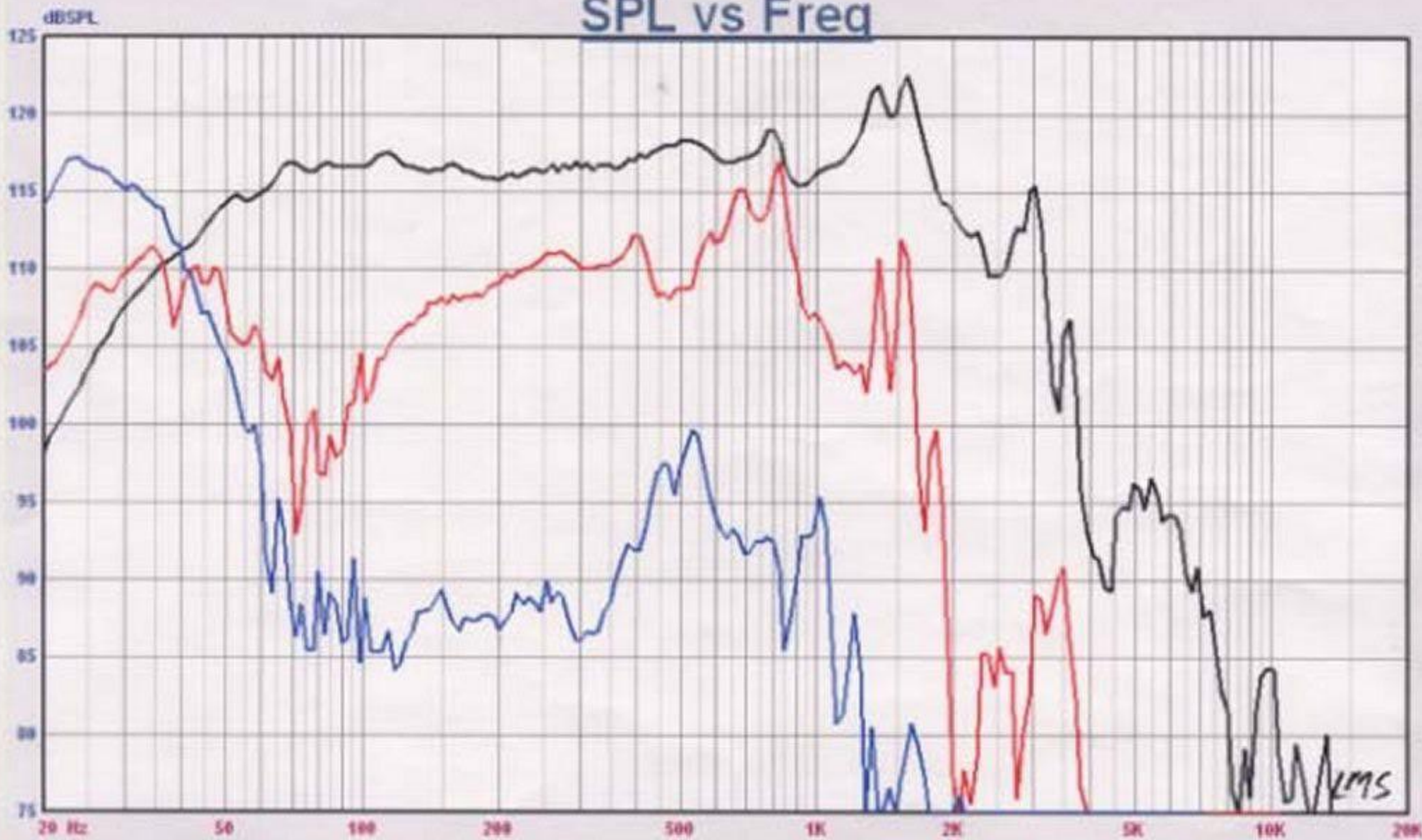
Person:  
Company:

Project:  
File: 2843G #28-on.Jib

Jan 14, 2004  
Wed 9:48 am

LINEAR X  
SYSTEMS

## SPL vs Freq



Map  
 — 72. AVG 2043G #31-36 40 V  
 — 73. AVG 2043G #31-36 2nd Harmonic  
 — 74. AVG #31-36 3rd Harmonic

Notes

---



---



---



---

LMS 4.5.8.340  
May 29 2003

Person  
Company:

Project:  
File: 2043G #28-on.Jib

Jan 14, 2004  
Wed 9:14 am

