Multiple-Chamber Aligned in Parallel (MCAP) Speaker System Application Report

Full-Range Speaker System with MCAP Enclosure - TR130b -

Doument Released Date: 2008/10/20

Reported by Shigeru Suzuki

Principal Design

General Information		Summary	
Manufactured Year	2008	This speaker system with Tangband's 5"	
Document ID	MCAPAP001E	full-range driver was successfully developed with MCAP enclosure. It realizes dynamic	
Model ID	TR130b	sounds with just single driver.	
Used Driver(s)	Tangband W5-1611SA	It realized 36Hz - 18kHz flat response with 5" full-range driver; it is a relatively	
Alternative Drivers	Fostex FE138ES-R	compact speaker system with 3 sub-	
Overall Size (W×H×D)[mm]	chambers and 6 ducts.		
Characteristic Frequencies[Hz]	30, 37, 49, 67, 85, 94	This speaker system will be presented to	
Required DIY Skill	Relatively High	public at an event on December 14th, 2008 by Muse-no-hakobune in Tokyo.	
Designed by	S. Suzuki	by Muse no nakobane in Tokyo.	

Enclosure Details

Item	Specification	Drawing
Number of Sub-chambers	3	(a) , i , i ²² 1
Main Chamber	9.0[L]	©—④: 18m pine plate ①—⑤: 15m thickness combined panel TR130b Assembly Drawing 5 50 50 60 140 143 140 140 140 140 140 14
Sub-chamber #1	9.7[L]	
Sub-chamber #2	9.6[L]	
Sub-chamber #3	10.5[L]	
Duct #1 W×H×L[mm]	40×40×40	
Duct #2 W×H×L[mm]	40×40×80	
Duct #3 W×H×L[mm]	40×40×100	
Duct #4 W×H×L[mm]	33×33×100	
Duct #5 W×H×L[mm]	33×33×180	
Duct #6 W×H×L[mm]	33×33×260	

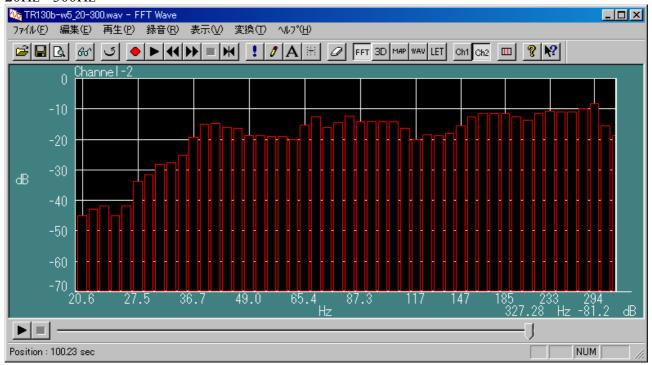
Additional Notes

TR130b was originally equipped with full-range driver "L5" by Omnes Audio. TR130b with L5 presented clear and fantastic sounds, but frequency response in low range was lower. TR130b requires relatively strong magnet. 6.5" drivers such as Fostex FE166E, FF165K, Audio Nirvana Standard 6.5 or Super 6.5 may be suitable.

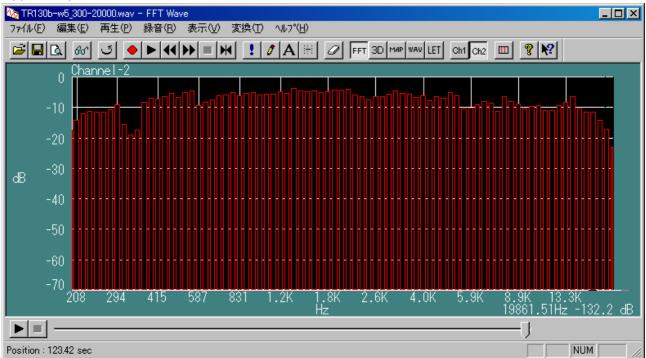
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Frequency Response

20Hz - 300Hz



200Hz - 20kHz



Any question should be asked to:

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