

## Full-Range Speaker System with MCAP Enclosure - TR100a -

### Principal Design

General Information		Summary
Document Release Date	2008/10/26	This speaker system is a compact 1 cft speaker system with 3 sub-chambers and 6 ducts. Duct lengths may be reconsidered, but shows relatively good performance without changing design. Sound pressure level of lower range (50-200Hz) is approximately 10dB lower than higher range, still lack of low frequency is not tangible while listening music sources.
Manufactured Year	2006	
Document ID	MCAPAP005E	
Model ID	TR100a	
Used Driver(s)	Tangband W4-927SC	
Alternative Drivers	better to use square-framed 5" driver	
Overall Size (H×W×D)[mm]	300×300×300	
Characteristic Frequencies[Hz]	50, 54, 55, 72, 82, 90	
Required DIY Skill	Relatively High	
Designed by	S. Suzuki	

### Enclosure Details

Item	Specification	Drawing
Number of Sub-chambers	3	
Main Chamber	4.29[L]	
Sub-chamber #1	3.79[L]	
Sub-chamber #2	3.97[L]	
Sub-chamber #3	4.70[L]	
Duct #1 W×H×L[mm]	30×30×77	
Duct #2 W×H×L[mm]	30×30×96	
Duct #3 W×H×L[mm]	30×30×106	
Duct #4 W×H×L[mm]	30×30×168	
Duct #5 W×H×L[mm]	30×30×168	
Duct #6 W×H×L[mm]	30×30×168	

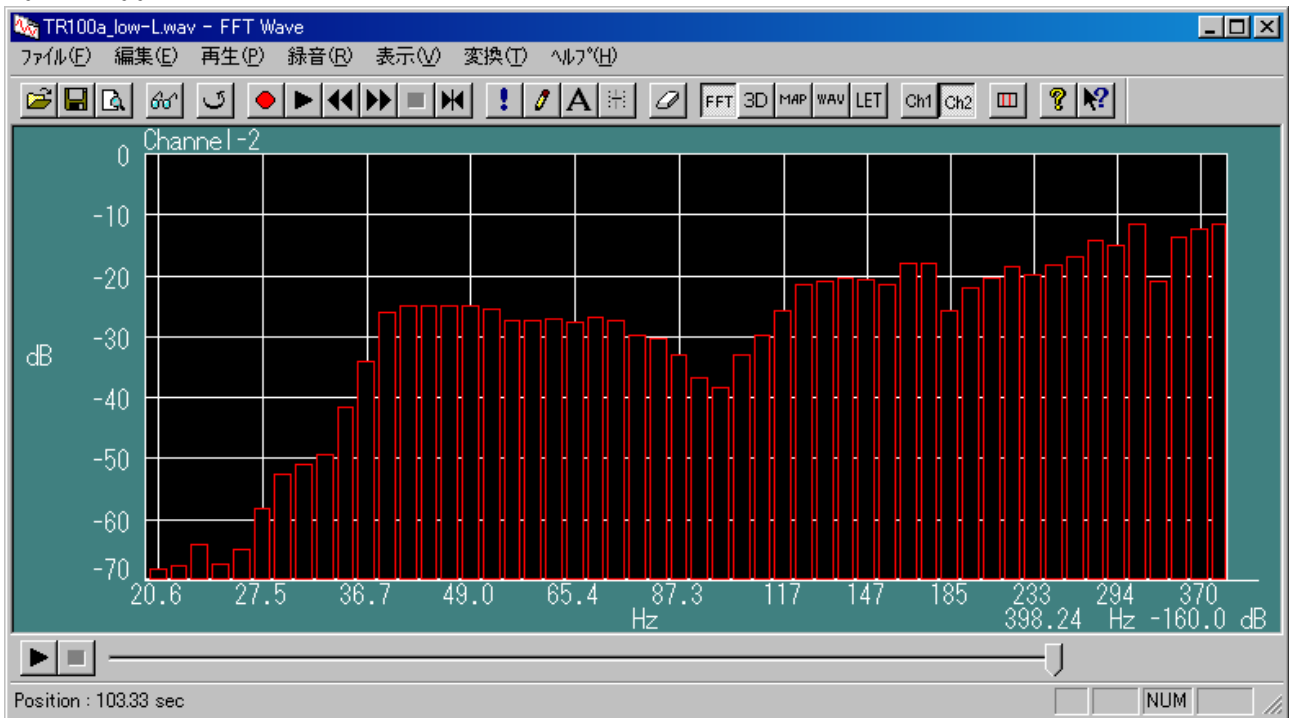
### Additional Notes

This enclosure was originally designed for limited model FE108S by Fostex. Original model has much higher response in middle range frequency region, and low boost by control amplifier was required. Tangband's W4-927SC matches better than FE108S. It may be better to use a little larger 13cm class drivers.

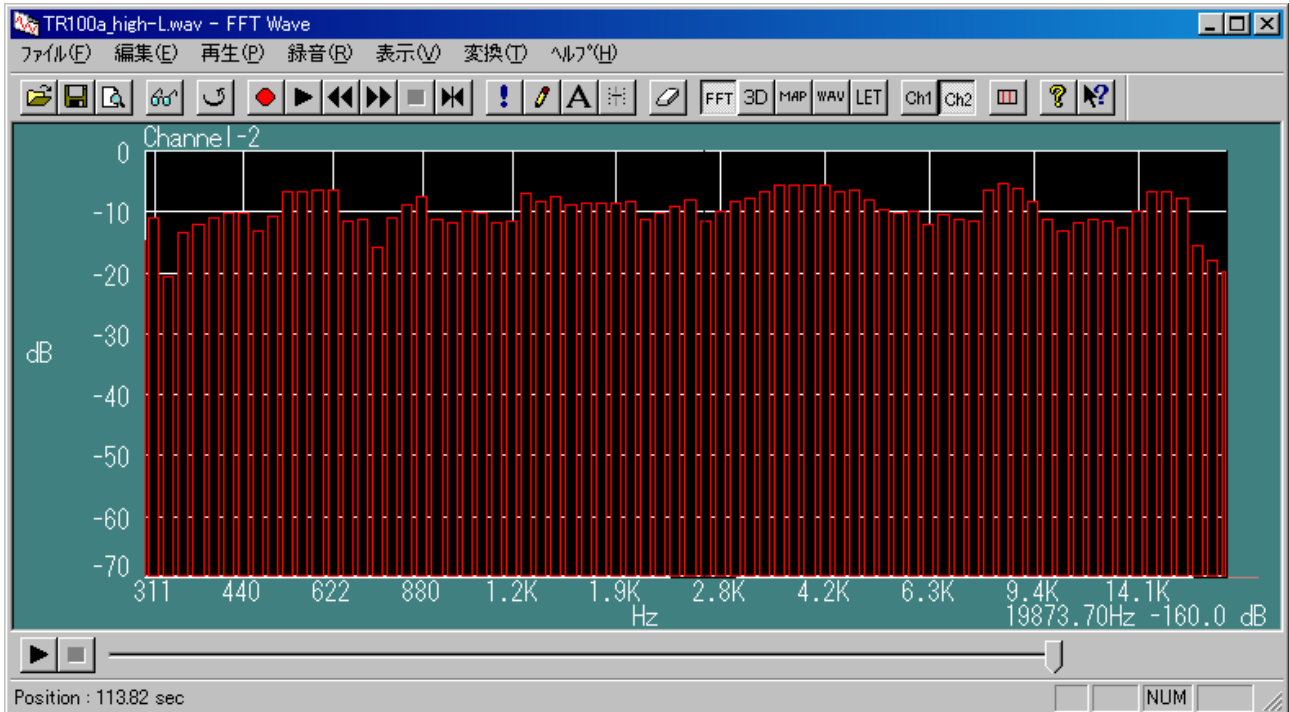
Multiple-Chamber Aligned in Parallel (MCAP) Speaker System  
Application Report

Frequency Response

20Hz - 400Hz



300Hz - 20kHz



Any question should be asked to:

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