



Noise Cancelling Electret Condenser Microphone Specification

Series M9752

Model Number: M9752BA544LF

Version 1.0

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1. PURPOSE AND THE SCOPE

THIS DOCUMENT CONTAINS THE SPECIFIC SPECIFICATIONS (ELECTRICAL AND MECHANICAL), INSPECTION STANDARD AND THE RELIABILITY STANDARD FOR THE PURPOSE OF THE CUSTOMER'S APPROVAL.

2. DESCRIPTION

CONDENSER MICROPHONE

3. APPLICATIONS

TELEPHONE, MODEM, TAPE RECORDER, WALKIE TALKIE ETC.

4. PRODUCT ORIGIN

CHINA

5. TEST CONDITIONS

TEST SHOULD BE MADE UNDER THE CONDITIONS OF ROOM TEMPERATURE (20 +/- 10°C) NORMAL HUMIDITY (60 +/- 20 %) AND NORMAL ATMOSPHERIC PRESSURE. IN THE CASE, HOWEVER, THAT THE JUDGEMENT IS QUESTIONABLE THE TEST CONDITIONS ARE TO BE CHANGED TO ROOM TEMPERATURE 20 +/- 2°C, RELATIVE HUMIDITY 60 - 70 % AND NORMAL ATMOSPHERIC PRESSURE.

6. OZONE GUARANTEE

CERTIFICATE ON THE ELIMINATION OF OZONE LAYER DESTROYING SUBSTANCES SUCH AS FREON.

7. QUALITY PROTECTION

THE SPECIFICATIONS OF THE MENTIONED MODEL ARE BASED ON THIS DOCUMENT. OTHER SPECIFICATIONS OUTSIDE THAN THIS DOUCMENT MUST BE DISCUSSED WITH US BEFORE WE INSERT INTO THIS APPROVAL DOUCMENT. IT MEANS THAT WE WILL NOT GUARANTEE THE SPECIFICATIONS OUTSIDE THAN THIS APPROVAL DOCUMENT.

8. WARRANTY

THE WARRANTY PERIOD WILL COMMENCE UPON THE DATE OF THE RECEIPT OF THE PARTS FROM FLEZON. IN THE EVENT THAT THE WARRANTY IS NOT SPECIFIED ON THE PURCHASING ORDER, THE WARRANTY PERIOD SHALL BE HALF YEAR FROM THE DATE OF DELIVERY.

9. OUR MAJOR MATERIAL LIST

OUR MAJOR MATERIAL IS LISTED BELOW:

TRANSPARENT MYLAR: DUPOT

10. WASHING CONDITIONS

THE PRODUCTS MENTIONED WITH "REMOVE AFTER WASHING" COULD BE WASHED BY OUR RECOMMENDED SOLVENT.

11. FLUX REMOVING SOLVENTS

IN THE VIEW OF THE RECENT REQUIREMENT FOR TOTAL ELIMINATION OF OZONE-DEPLETING CHEMICALS, WE HAVE DECIDED TO RECOMMEND OUR CUSTOMERS TO USE DEIONIZED WATER FOR THEIR CLEANING PROCESS AT THE CONDITIONS GIVEN BELOW, INSTEAD OF "CFC" THAT WAS CONVENTIONALLY USED.

CLEANING SOLVENT	: DEIONIZED WATER
SOLVENT TEMPERATURE	: 55 +/- 5 CELSIUS
IMMERSION TIME	: 5 +/- 0.5 MINUTES

12. POWER SUPPLY AND RESISTANCE LOADING

IF THE POWER SUPPLY VOLTAGE AND THE LOADING RESISTANCE IS CHANGED, THE SENSITIVITY WOULD ALSO CHANGED. PLEASE MAKE SURE THIS 2 PARTS ARE THE SAME AS THE SPECIFICATIONS.

13. FILTER

PLEASE DON'T TEAR OFF THE TOP BLACK FILTER ON THE TOP OF THE MICROPHONE. IT WILL AFFECT THE WHOLE FREQUENCY RESPONSE CHARACTERISTIC.

14. PASCAL AND uBAR

1pa = 10 ubar

SO THE SENSITIVITY WILL INCREASE 20 DB WITH "pa" INDICATION.

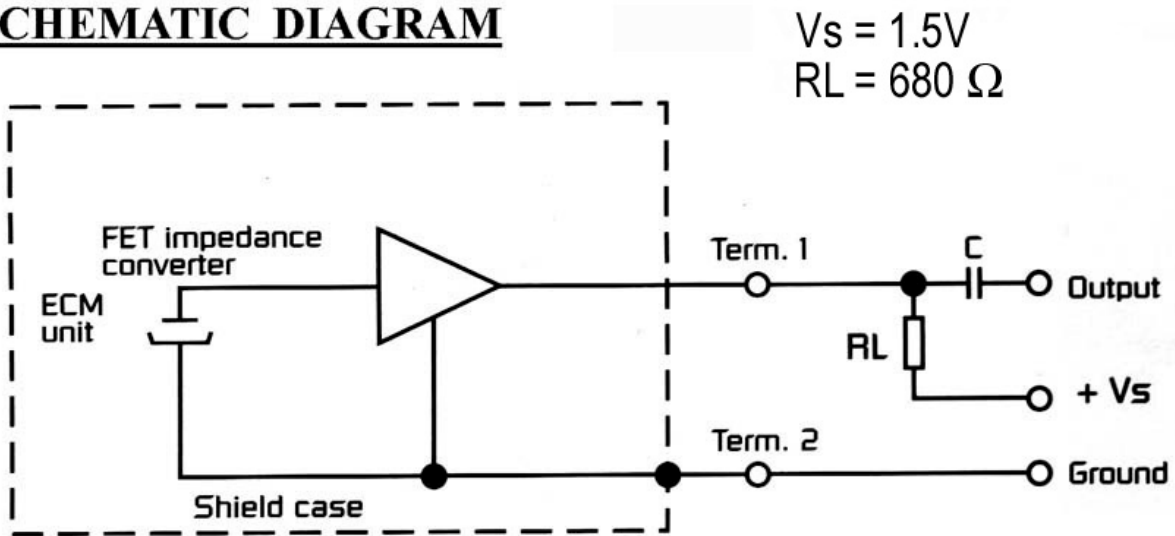
E.G.: -60DB (0DB = 1V/ubar) = -40db (0DB = 1 pa)

15. DRIVING CIRCUIT

OUR STANDARD CIRCUIT FOR MEASUREMENT IS SHOWN IN THE FIGURE 1. THE FUNCTIONS OF THIS CIRCUIT IS TO MAKE SURE THE DRIVEN CONDENSOR MICROPHONE IS MEASUED BASED ON THE STANDARD CONDITION. OTHER DRIVING CIRCUIT COULD BE USED AFTER CONSULTING FROM FLEZON.

REF. CIRCUIT:

SCHEMATIC DIAGRAM

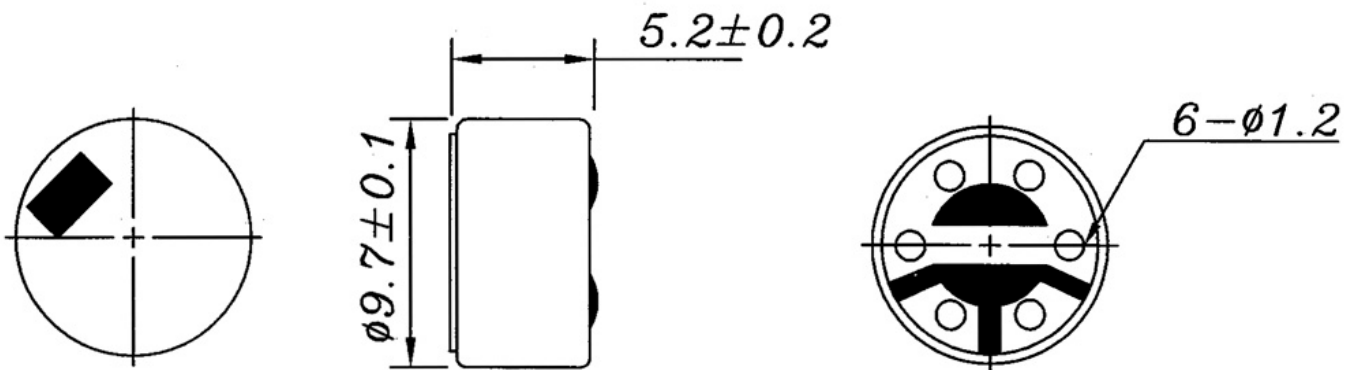


16. DIMENSIONS:

TOP VIEW

SIDE VIEW

BOTTOM VIEW



17. SPECIFICATIONS

ITEMS	SPECIFICATIONS	CONDITIONS
-SENSITIVITY	-54.0 +/- 4.0 (dB) AT 1 KHz (at L = 50 cm) (0 dB = 1 V/pa AT 1 KHz)	FROM A MICROPHONE WITH APPLYING VOLTAGE V_s , RESISTANCE LOADING R_L , SEE AN EXAMPLE OF REFERENCE CIRCUIT.
-IMPEDANCE	LOW IMPEDANCE	LESS THAN 680 Ω
-DIRECTIVITY	NOISE CANCELLING	
-FREQUENCY	100 ~ 10000 Hz	
-OPERATING VOLTAGE	1.0 ~ 10.0 VDC	
-STANDARD OPERATION VOLTAGE (V_s)	1.5 VDC	
-RESISTANCE LOADING (R_L)	680 Ω	
-CURRENT CONSUMPTION	MAX. 0.5 mA	TESTED AT THE REF. CIRCUIT
-S/N RATIO`	MORE THAN 55.0 dB	
-OPERATING TEMPERATURE	-10 ~ +50 °C	
DIMENSIONS	SEE DRAWING ATTACHED	
APPEARANCE		THERE SHOULD BE NO REMARKABLE STAINS, RUSTS OR FLAWS.

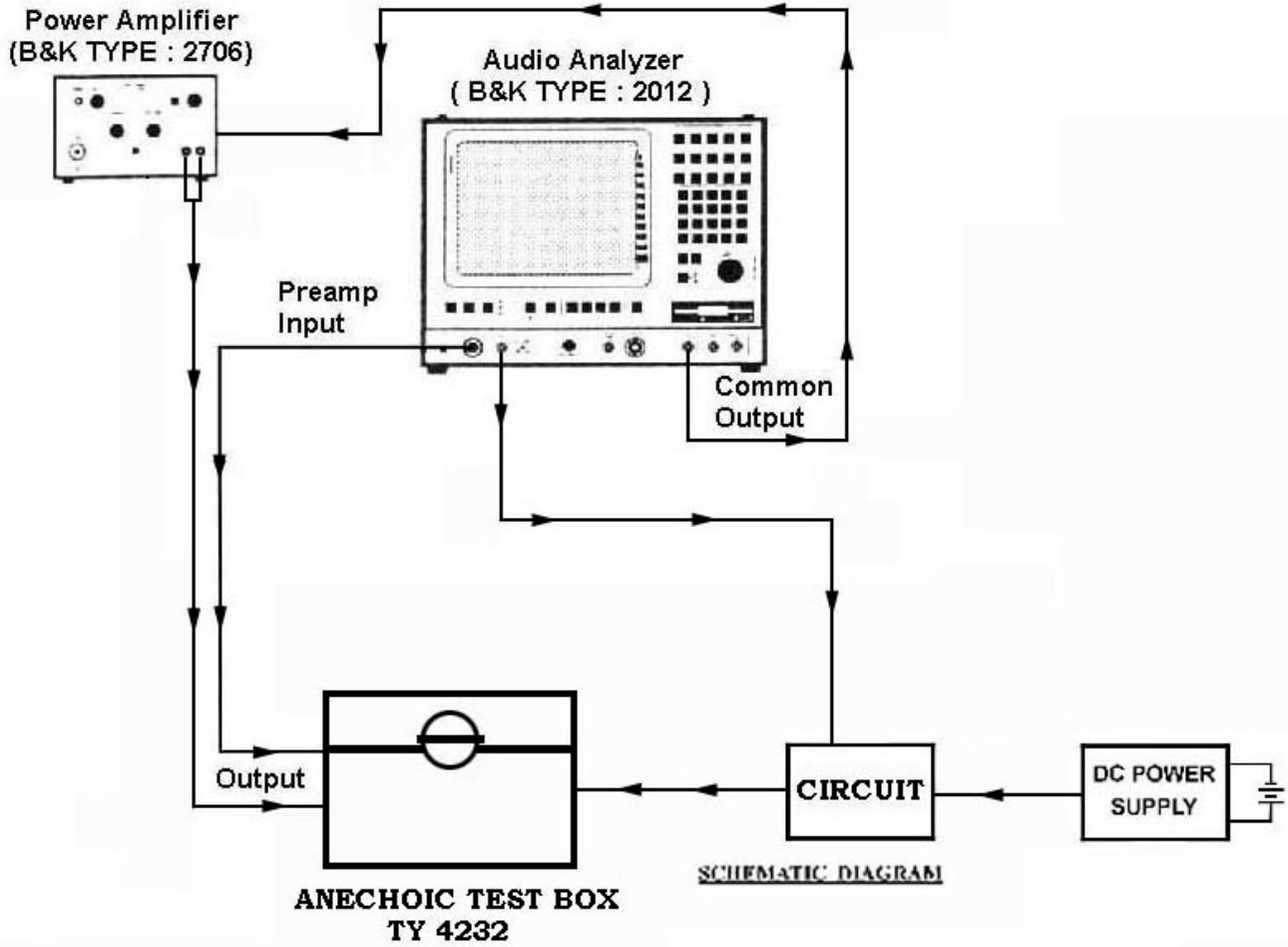
18. INSPECTION STANDARD

ITEM TESTED	SYM	STANDARD	AQL	LEVEL	INSPECTION BY MEANS OF	REMARKS
-SENSITIVITY		-54.0 +/- 4.0 dB (at L = 50 cm)	0.65	II	AUDIO ANALYZER	AT 1.0 KHz
-OUTER DIAMETER	A	Ø 9.7 +/- 0.1 (mm)	1.50	S-3	ELECTRONIC CALIPERS	TO BE MEASURED AT THE MAXIMUM DIA.
-OVERALL HEIGHT	B	5.2 +/- 0.2 (mm)	1.50	S-3	ELECTRONIC CALIPERS	
STATIONARY STRENGTH OF BASE		MORE THAN 1.0 KG	0.65	S-3	TENSION GAUGE	BY PULLING THE BASE
RUST			1.00	II	EYE	ANY RUST SHOULD NOT BE ACCEPTED.
STAIN			1.50	II	EYE	THERE SHOULD BE NO REMARKABLE STAINS.
ADHESION			1.50	II	EYE	ADHESION SHOULD BE MADE SUFFICIENTLY AND THERE SHOULD BE NO OUTFLOW OF ADHESIVE AGENT.
OTHER APPEARANCE			1.50	II	EYE	

19. RELIABILITY TEST

ITEM	METHOD OF THE TEST	STANDARD
OPERATING TEMPERATURE	DRIVING FROM THE LOWEST OPERATING TEMPERATURE TO THE HIGHEST OPERATING TEMPERATURE WITHIN 30 MINUTES FOR 2 CYCLES THEN EXPOSE TO THE ROOM TEMP FOR 2 HOURS	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
STORAGE IN HIGH TEMP.	STORAGE IN TEST BOX FOR 96 HOURS UNDER THE HIGHEST OPERATING TEMPERATURE THEN EXPOSE TO THE ROOM TEMP FOR 2 HOURS	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
STORAGE IN LOW TEMP.	STORAGE IN TEST BOX FOR 96 HOURS UNDER THE LOWEST OPERATING TEMPERATURE THEN EXPOSE TO THE ROOM TEMP FOR 2 HOURS	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
LIFE TEST IN THE ROOM TEMP.	OPERATE THE BUZZER CONTINUOUSLY FOR 1000 HOURS WITH APPLYING AT THE RATED SIGNAL.	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
TEMP CYCLE TEST	+ 50 °C 1 HOUR + 25 °C 1 HOUR - 10 °C 1 HOUR + 25 °C 1 HOUR WITH 5 CYCLES, AND EXPOSE TO ROOM TEMP. FOR 6 HOURS.	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
TEMP./ HUMIDITY CYCLE TEST	THE UNIT MUST BE SUBJECTED TO +40C 90% PH FOR 200 HOURS, AND EXPOSE TO ROOM TEMP. FOR 6 HOURS.	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
VIBRATION TEST	MUST BE SUBJECTED TO EACH 3 MINUTES VIBRATIONS AT THREE AXES 3mm DYNAMIC RANGE, 1000 CYCLE / MINUTE.	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.
DROP TEST	DROP A UNIT NATURALLY FROM THE HEIGHT OF 700mm ONTO THE SURFACE OF 20mm THICK WOODEN BOARD. TWO DIRECTIONS; THAT IS, UPPER AND SIDE OF THE UNIT ARE TO BE APPLIED FOR THIS DROP TEST.	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST.

20. MICROPHONE TESTING PROCESS



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FIG.1 TEMP. CYCLE TEST

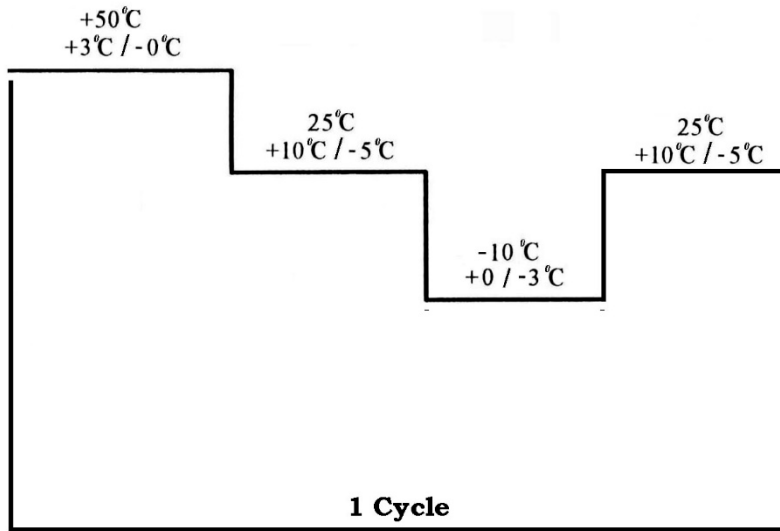


FIG. 2 TEMP. / HUMIDITY CYCLE TEST

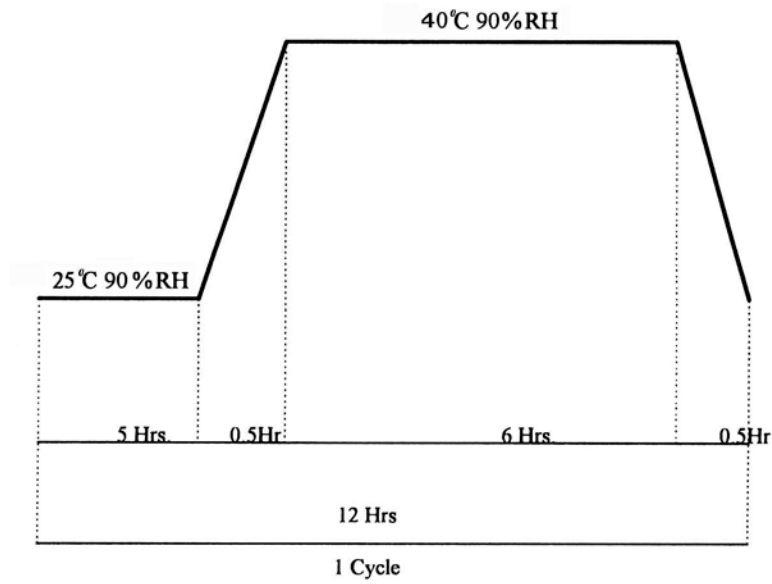


FIG. 3 VIBRATION TEST

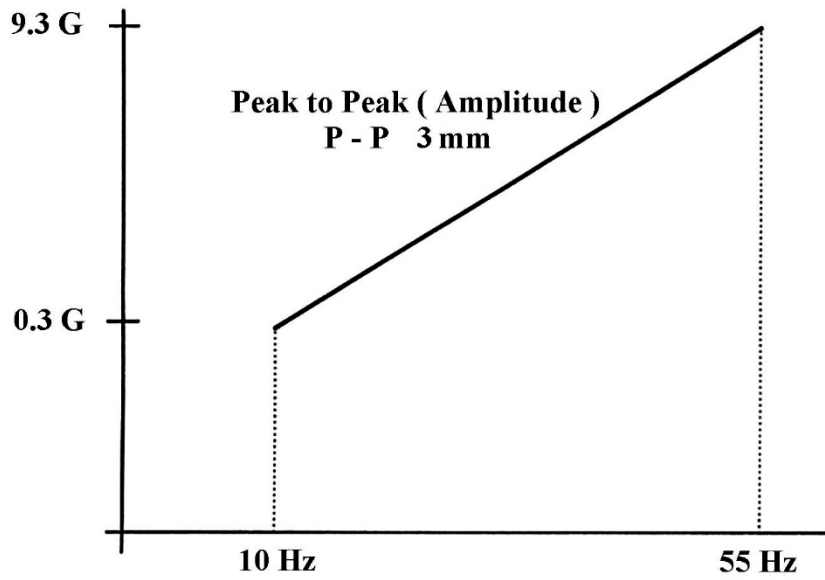
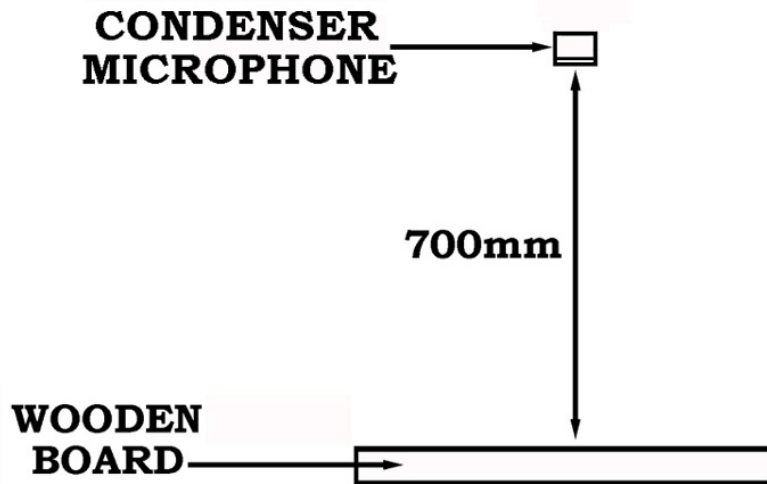


FIG. 4 DRPO TEST



21. FREQUENCY RESPONSE CURVE

ZA:Live Curve SSR Fund.

Steady State Resp

Response: Relative

Sweep: Log ISO

Start Freq: 30.000Hz

Stop Freq: 16.00kHz

ISO Series: R40

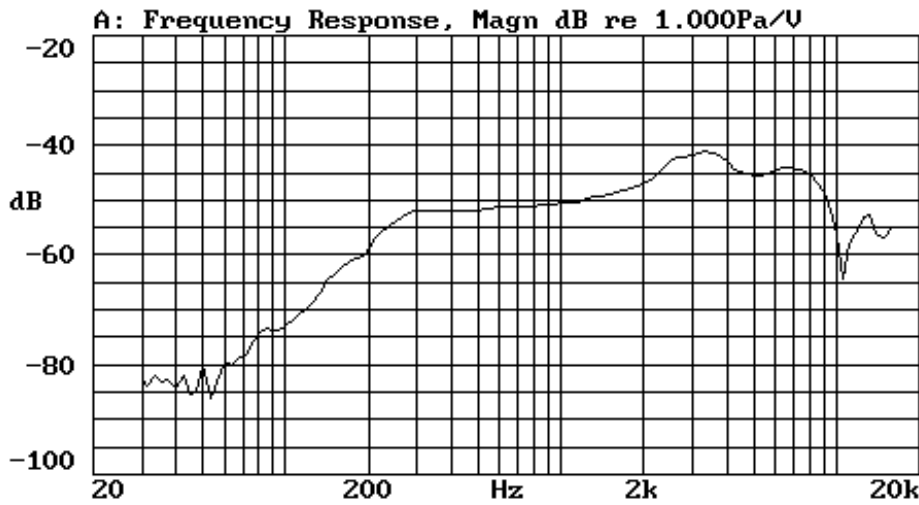
Avg.: Complex Adapt.

Detect. Band: 1.00dB

Detect. Delay: 10ms

Det. Max Time: 0.00s

Page 2, Distortion



Mode: SSR



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22. CHANGE HISTORY

Version	Date	Description
1.0	2005.4	First Release

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