



Mylar Speaker Specification

Series FMS

Model Number: FMS15R03N08XTHN

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

Mylar speaker.

3. Applications

Feature Telephone, Cordless Phone, Computer, Instrument etc.

4. Product Origin

In 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 judgment 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 specification outside than this document must be discussed with us before we insert into this approval document. 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. Soldering Conditions

The speaker by FLEZON should not be exposed to extremely high temperatures for prolonged period of time. As excessive heat will degrade the internal structure of the unit, soldering should be conducted as quickly as possible.

Recommended temperature and time for soldering
Hand soldering (for ABS, Hi-Temp ABS, FR ABS, Nylon)
300 ° C Thermal iron 2 seconds

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 condition given below, instead of “CFC” that was conventionally used.

Cleaning solvent : deionized water

Solvent temperature : 55 ± 5 ° C

Immersion time : 5 ± 0.5 minutes

12. Signal Input Polarity

When a positive dc voltage is applied to the terminal marked (+) or red the diaphragm should move to the front.

13. Operation Test

Must be normal at program source same as the power rating.

14. Specification

Items	Specifications	Conditions
Size	15.0 x 11.0 X 3.5 (mm)	
Normal Power Rating	0.7 W	In 1.0 cc box
Maximum Power Rating	1.0 W	In 1.0 cc box
Impedance	8.0 Ω	\pm 15.0 % at 2000 Hz 1.0 Vrms
Resonant Frequency (f_0)	550.0 Hz	\pm 20.0 % at 1.0 V (In free air)
Sound Pressure Level	84.0 dB	\pm 3.0 dB / 0.1 W power / measuring distance at 1000 , 1200 , 1500 , 2000 Hz average
Measuring Distance	10.0 cm	
Frequency Range	f_0 ~ 20.0 KHz	
THD	< 15.0 %	At 1000.0 Hz Input 0.5 W
Magnet	10.5 x 6.5 x 1.2 x R1.6 (mm)	N42
Housing Material	PBT	
Diaphragm Material	Peek + AL	
Weight	1.7 g	
Operating Temperature	- 20.0 ~ + 55.0 ° C	
Storage Temperature	- 20.0 ~ + 55.0 ° C	
Rub & Buzz	A sine sweep among rated frequency range at rated power for a period of 1.0 second will not result in any buzzing or extraneous sound	
Polarity Requirements		
Polarity	When a DC source's "+" polarity is attached to speaker's "+" polarity, "-" polarity is attached speaker's "-" polarity, the membrane will move forward	

15. Inspection Standard

Item tested	Sym	Standard	AQL	Level	Inspection by means of	Remarks
Sound Pressure Level		Should be within 84.0 ± 3.0 dB	1	II	Audio analyzer	0.1 W power / measuring distance at 1000 , 1200 , 1500 , 2000 Hz average
Impedance		8.0 Ω	0.65	I	Impedance Meter	± 15.0 % measured at 2000 Hz at 1.0 Vrms
Outer Diameter		15.0 x 11.0 ± 0.2 (mm)	1.5	S-3	Electronic Calipers	To be measured at the maximum dia.
Height		3.5 ± 0.2 (mm)	1.5	S-3	Electronic Calipers	To be measured at the maximum height on the body only.
Rust			1	II	Visual	Any rust should not be accepted.
Stain			1.5	II	Visual	There should be no remarkable stains.
Adhesion			1.5	II	Visual	Adhesion should be made sufficiently and there should be no outflow of adhesive agent.
Other Appearance			1.5	II	Visual	

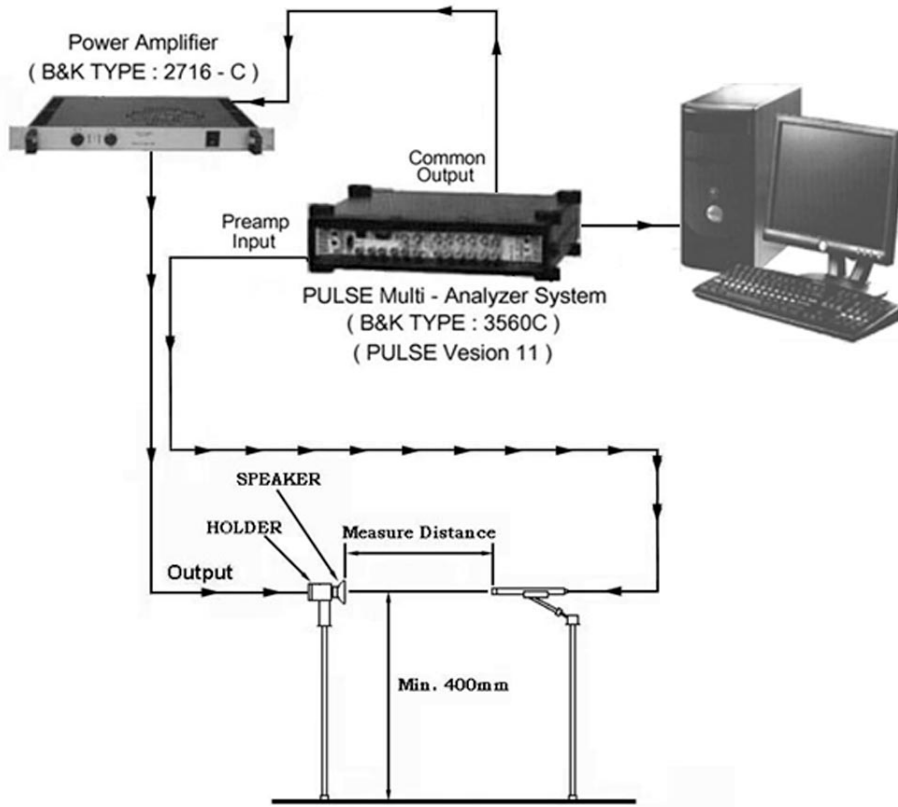
16. Reliability Test

Item	Method of the test	Standard
Temperature Shock	-20.0 °C / +55.0 °C 10.0 cycles. 30.0 minutes at each temperature. 20.0 – 30.0 seconds transition time. Refer to IEC 68-2-14	All specifications must be satisfied after the test.
Static Humidity Test	Soak samples to +45.0 °C with 85.0 % relative humidity for continuous period of 168.0 hours. Refer to IEC 68-2-67	
Drop Test	DUTs shall be mounted in a 100.0 g fixture, drop samples 1.5 m three times in each direction, total 18.0 times	
Operating Life	DUTs shall be tested under each specified climatic condition (per section 6.0) for a continuous period of 100.0 hours at rated noise power. Input shall be white noise (IEC268-1) with a crest factor of 1.8 to 2.2 in rated frequency range. Refer to IEC 268-5	
Short Term Maximum Power	DUTs shall be tested under each specified climatic condition (per section 6.0) at maximum power. Input shall be white noise (IEC 268-1) with crest factor of 1.8 to 2.2 in rated frequency response for a period of 1.0 second. And the test shall be repeated 60.0 times with intervals of 1.0 min. Refer to IEC 268-5	

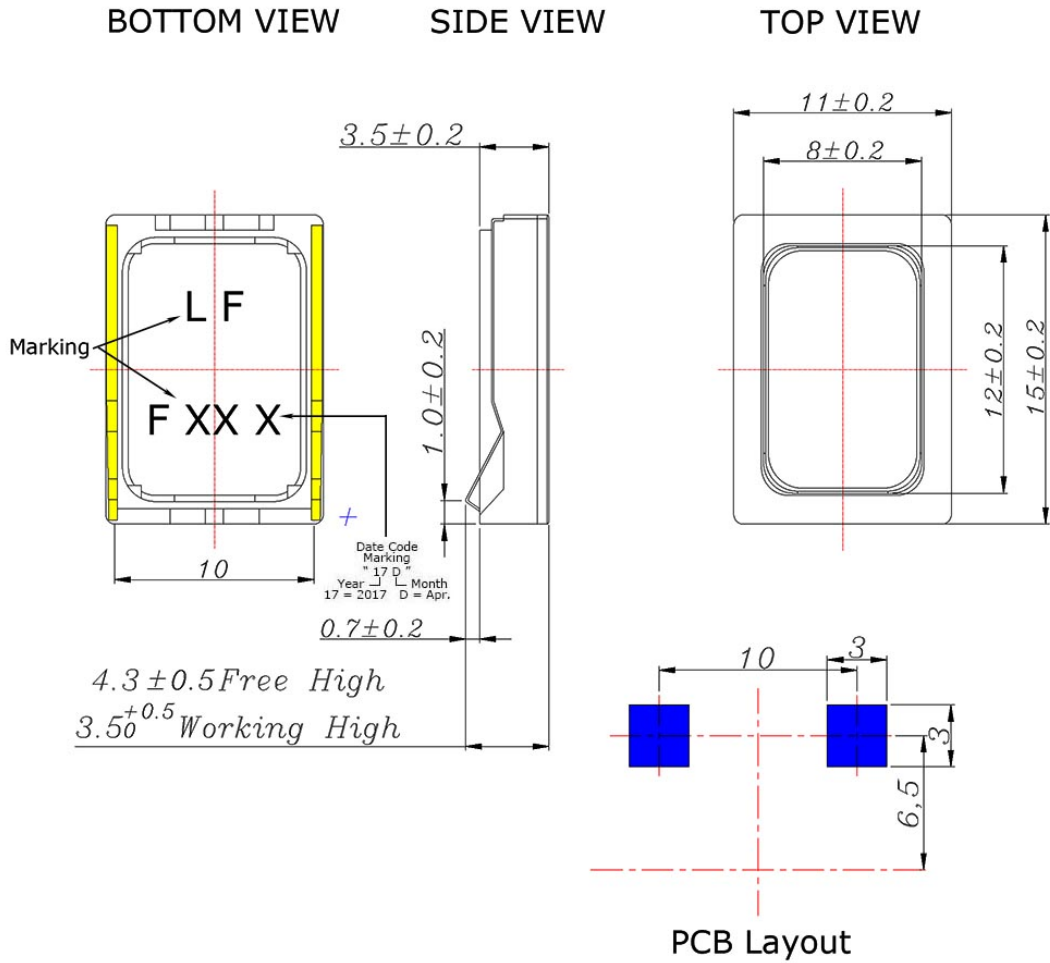
17. Equipment List

Name	Model
Audio Analyzer	Bruel & kjaer
Acoustic Chamber	Bruel & kjaer
Audio Calibrator	Bruel & kjaer
Amplifier	Bruel & kjaer

Fig.1 Measuring Method



18. Mechanical Draw



Unit: mm

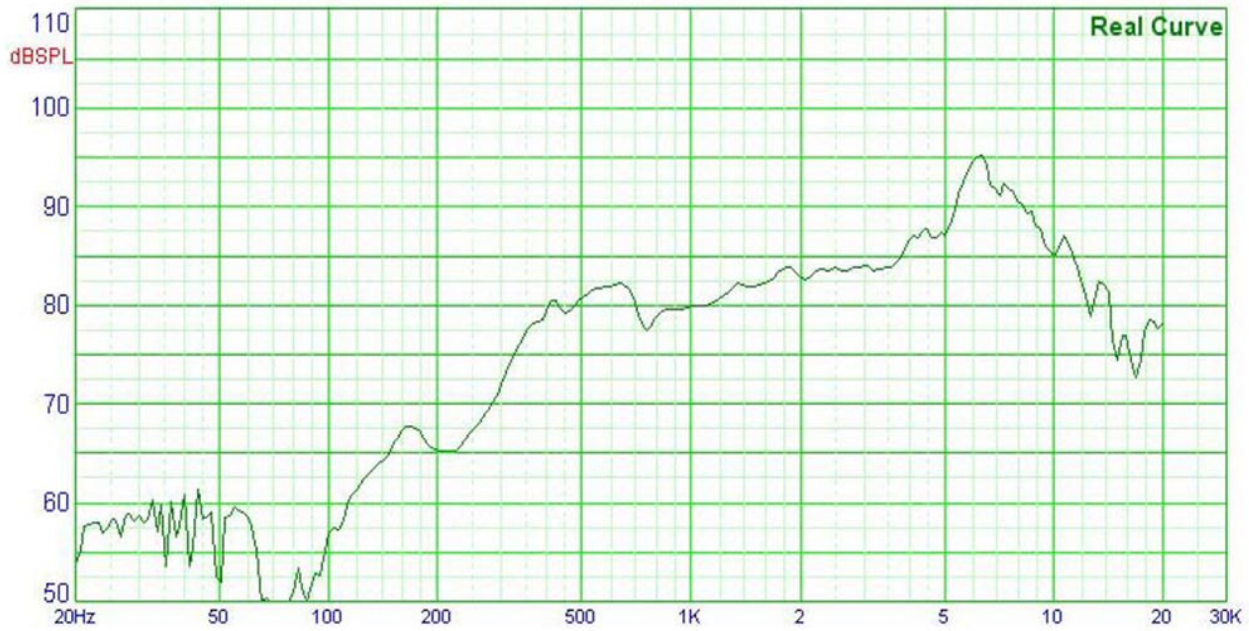
Tolerance: ± 0.2 mm

NOTE:

General unless otherwise noted : ± 0.2 mm

19. Frequency Response

(For Reference only)



20. Change History

Version	Date	Description
1.0	2017.04	First Released

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