soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-5728T



Release | Revision: B/2022

CONTENTS

This document contains the technical specifications for the dynamic speaker unit.

Page 1
Speaker Electroacoustic Characteristics

General Specifications

Page 2
Reliability Tests

Page 3
Measuring Method (Speaker Mode)

Page 4
Frequency Response Curve

Page 5
Dimensions

Page 6
Packing

Dynamic Speaker Electroacoustic Characteristics

Sound Pressure Level

90±3dB (0.1W/0.1M) @AVE 1.0, 1.2, 1.5, 2.0KHz (0dB SPL=20μPa)
Measuring conditions: 0.1W (sine wave) 0.1M measured with baffler shown in Fig 2

Frequency Response Curve

As shown in Fig 2

Resonance Frequency

220±20% Hz @1V (without baffler)

Input Power (Nominal and Maximum)

Rated Noise Power: 3.0W

Short Term Max Power: 5.0W

Frequency Range

F0 ~ 20KHz resonant frequency down -10dB

Audible Noise

Must be free audible noise 200 ~ 4KHz, Input level up to 4.0Vrms.

Measuring Diagram

. Shown in Fig 1

DC Resistance:

7.4Ω ±15%

AC Impedance

8Ω ±15%

Distortion

Less Than 10% @1KHz 0.1W

Dimension

Ø 57.0 x H25.0mm

General Specifications

Operating Temperature Range

-20℃~+70℃

Storage Temperature Range

-30˚C ~ +80˚C

Standard Test Conditions

Temperature 5℃~35℃

Relative Humidity 45%~85%(RH)

Air Pressure 860 mbar ~ 1060 mbar

Front Clearance:

Keep clear of speaker front by 0.0mm for undisturbed sound reproduction:
-30˚C ~ +80˚C

soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-5728T



Release | Revision: B/2022

CONTENTS

This document contains the technical specifications for the dynamic speaker unit.

Page 1
Speaker Electroacoustic Characteristics

General Specifications

Page 2
Reliability Tests

Page 3
Measuring Method (Speaker Mode)

Page 4
Frequency Response Curve

Page 5
Dimensions

Page 6
Packing

Reliability Tests

The sound pressure as specified will neither deviate more than ±3dB from the initial value, nor have any significant damage after any of following testing.

High Temperature Test

High Temperature +70±3℃

Duration 16 hours

Low Temperature Test

Low Temperature -30±3℃

Duration 16 hours

Humidity Test

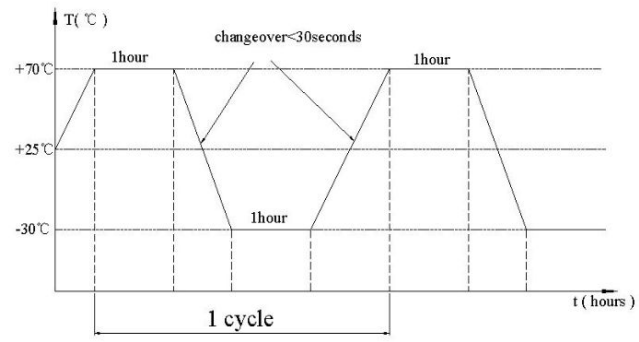
Temperature +40±2℃

Relative Humidity 90%~95%

Duration 16 hours

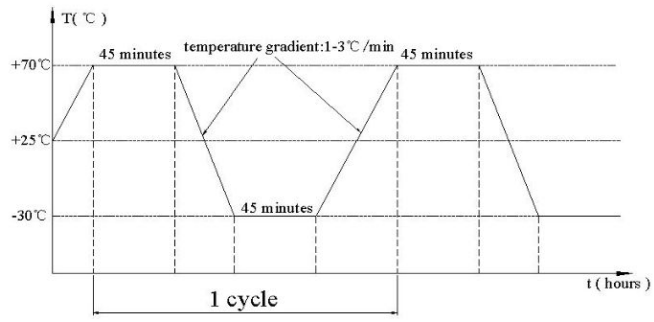
Heat Shock Test

High Temperature	+70˚C
Low Temperature	-30˚C
Changeover Time	<30 seconds
Duration	1 hour
Cycle	5



Temperature Cycle Test

High Temperature	+70˚C
Low Temperature	-30˚C
Duration	45 minutes
Temperature gradient	1 ~ 3˚C / minutes
Cycle	5



Drop Test

Height : 1.5m
Cycle: 10 cycles (onto the concrete board)

Load Test

White noise (EIA filter) for 48 hours @3.0W input power

soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-5728T



Release | Revision: B/2022

CONTENTS

This document contains the technical specifications for the dynamic speaker unit.

Page 1
Speaker Electroacoustic Characteristics

General Specifications

Page 2
Reliability Tests

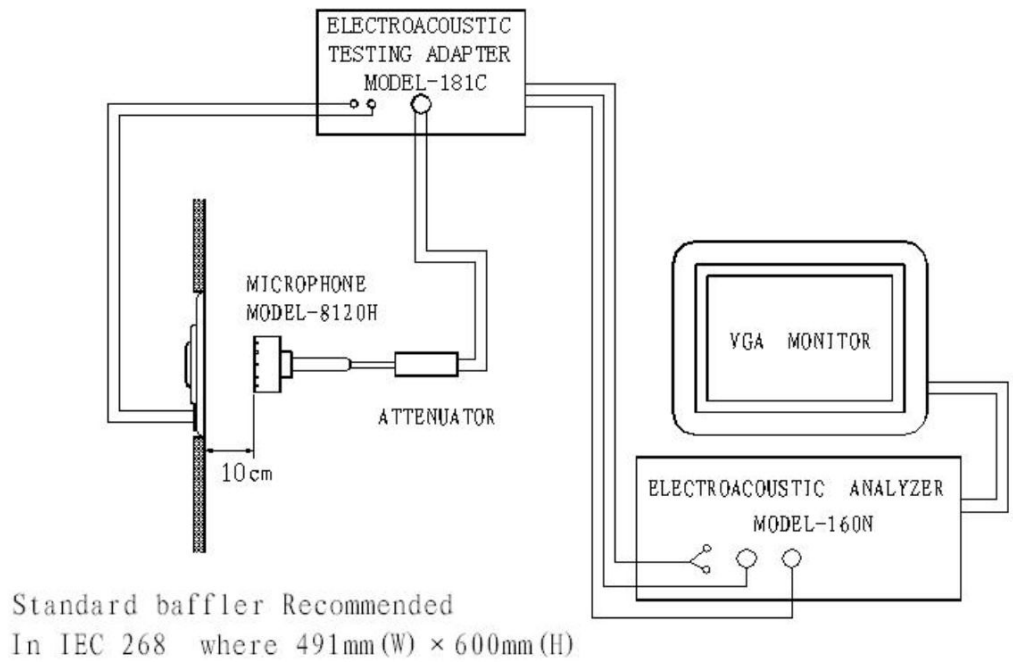
Page 3
Measuring Method (Speaker Mode)

Page 4
Frequency Response Curve

Page 5
Dimensions

Page 6
Packing

Measuring Method (Speaker Mode) (Fig. 1)



Standard baffler Recommended
In IEC 268 where 491mm(W) × 600mm(H)

soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-5728T



Release | Revision: B/2022

CONTENTS

This document contains the technical specifications for the dynamic speaker unit.

Page 1
Speaker Electroacoustic Characteristics

General Specifications

Page 2
Reliability Tests

Page 3
Measuring Method (Speaker Mode)

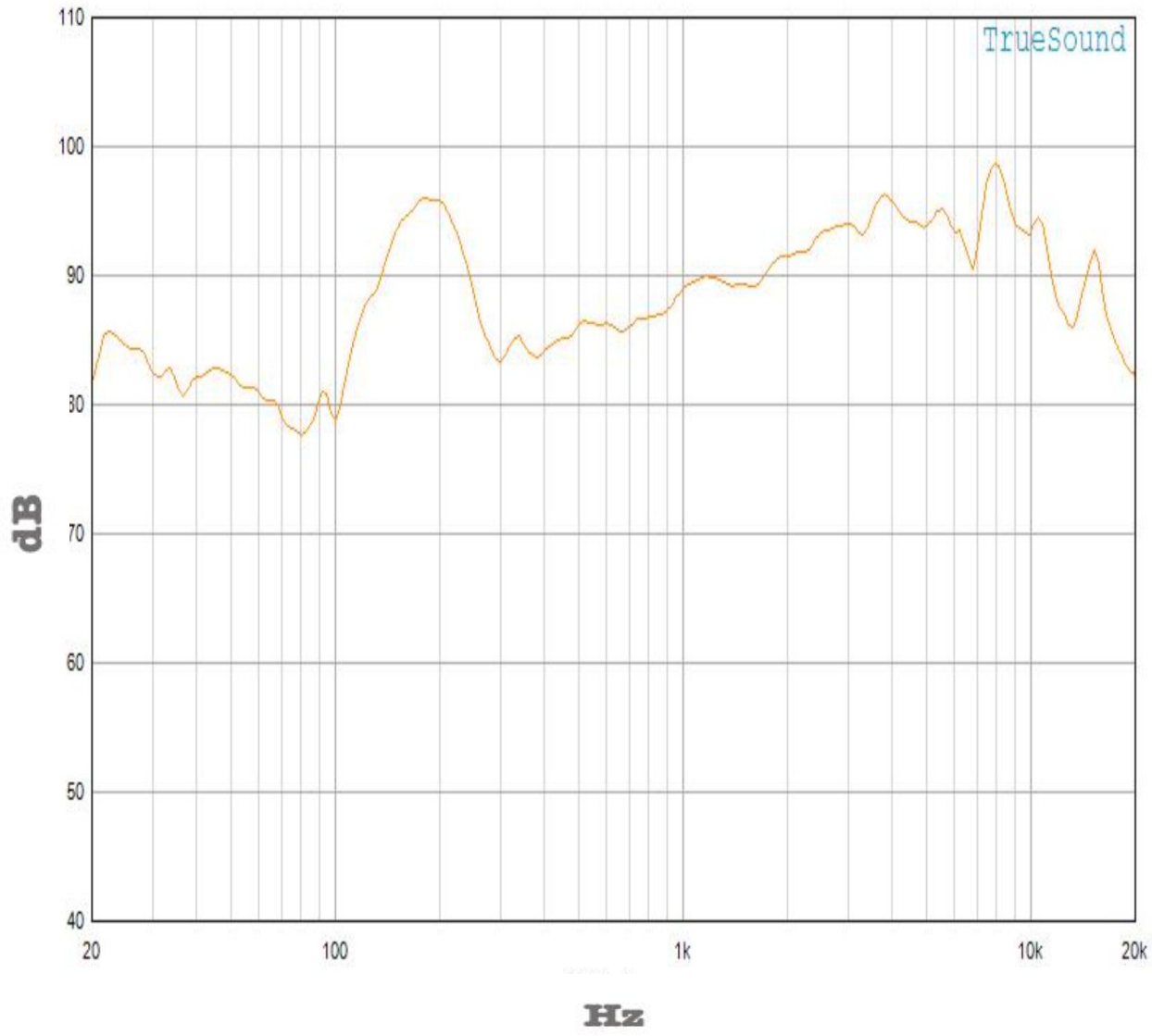
Page 4
Frequency Response Curve

Page 5
Dimensions

Page 6
Packing

Frequency Response Curve (Fig. 2))

0.1W / 0.1M



soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-5728T



Release | Revision: B/2022

CONTENTS

This document contains the technical specifications for the dynamic speaker unit.

Page 1
Speaker Electroacoustic Characteristics

General Specifications

Page 2
Reliability Tests

Page 3
Measuring Method (Speaker Mode)

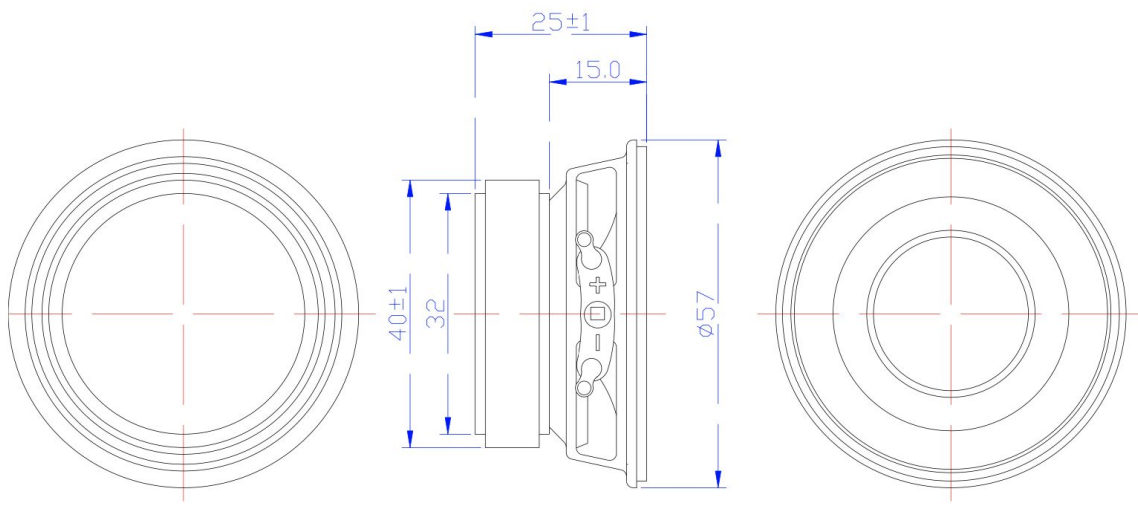
Page 4
Frequency Response Curve

Page 5
Dimensions

Page 6
Packing

Dimensions

Tolerance: ±0.5 (unit: mm)



No.	Part Name	Material
1	Frame	MF0057-02
2	Yoke	SPCC Plated
3	Pole Piece	SPCC
4	Magnet	Ferrite Plated
5	Cap	Paper
6	Diaphragm	PU + Paper
7	Coil	Copper Wire (DS-UP)
8	Gasket	Non-Woven dustproof
9	Screen	Poron SR-S-70P

soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-5728T



Release | Revision: B/2022

CONTENTS

This document contains the technical specifications for the dynamic speaker unit.

Page 1
Speaker Electroacoustic Characteristics

General Specifications

Page 2
Reliability Tests

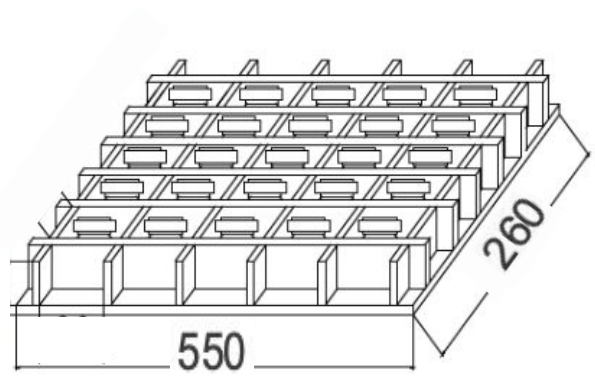
Page 3
Measuring Method (Speaker Mode)

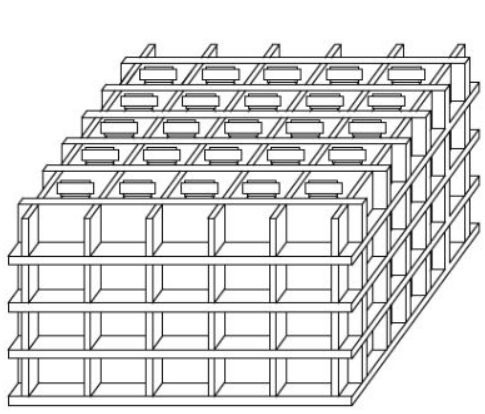
Page 4
Frequency Response Curve

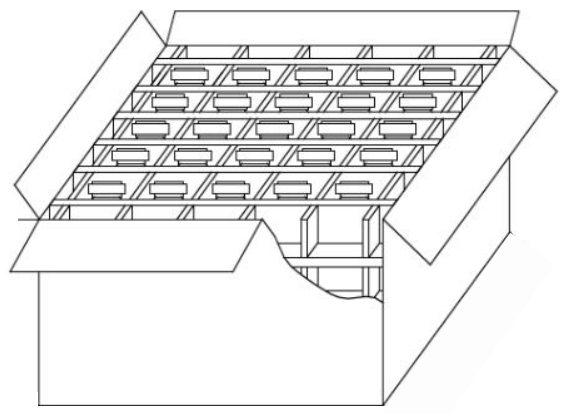
Page 5
Dimensions

Page 6
Packing

Packing







Packing Order:

Per Tray: 100 pcs
Tray Size: 550 x 260 x H70mm

Per Carton: 400 pcs