

SS 605 恶劣工况专用带 TEDS 的麦克风套件

产品规格书

SS 605 TEDS Microphone Kit for Harsh Conditions

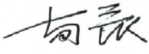
Product Specification

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从此文件发布日期起，在此发表的是当前或者拟定的信息。由于我们会不断对产品进行改进和增加特征此出版物中的信息如有变动恕不另行通知。

From the date of this document's release, the information published here is current or proposed. As we will continuously improve and add features to our products, the information in this publication is subject to change without further notice.

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我们生产的测量用传声器，属于精密传感器，生产相关的各个方面都进行着严格管控，包括材料选择，生产工艺，测试管控，以及生产环境。



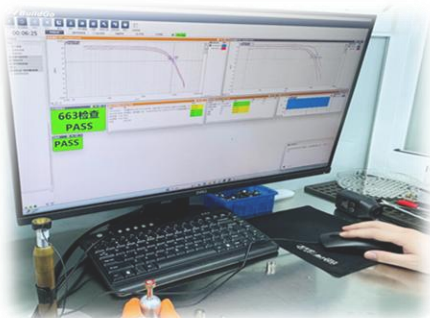
材料选择

经过多年持续改善，我们现采用特种镍合金材料作为膜片核心材料，相比其它合金材料有着更高灵敏度，更低失真率，以及更为稳定的长期使用表现；麦克风前置主体采用不锈钢材料使整支麦克风在各种装配产合下仍能拥有极为强壮的结构特性。



生产工艺

我们采用先进生产工艺，全自动化精密加工设备，最大程度减少了传统加工设备在进行二次装夹时带来的精度误差，从而显著提升了产品的尺寸一致性、几何精度及整体品质稳定性，为高要求的应用场景提供了可靠的技术保障。



测试管控

同时我们采用极其严苛的测试管控手段，对任何可能导致产品品质问题的环节都进行量化测试，并且进行测试顺序管控，防止跳站情况发生，完善的 MES 管控使得所有数据可追踪，确保传感器品质的高度一致性。



生产环境

所有我们的麦克风其整个生产流程均严格在无尘车间内完成，能最大程度降低空气中的灰尘数量，从而为传感器营造一个稳定、纯净的工作环境，以确保传感器长期稳定的寿命和并且在日常使用中始终展现出卓越的性能表现。

产品简介

恶劣工况专用带 TEDS 的麦克风套件



SS 605 是 IEPE 型 1/2 英寸预极化自由场测量传声，用于测量传声器放入声场前的无畸变的真实声压。

SS 605 经过特殊设计，咪头和前置放大器一体式不可拆卸，可防油防水防尘，能在高低温，水淋，油雾和灰尘等恶劣环境下正常使用，防护等级可达IP65，且支持TEDS，常用于NVH，发动机，电机等测试。

功能特点

- 符合 IEC 61094-4 对于 WS2F 型测量传声器要求
- 低本底噪声，宽频率范围
- 恶劣工况专用，防油防水防尘
- 防护等级 IP65
- 支持 TEDS

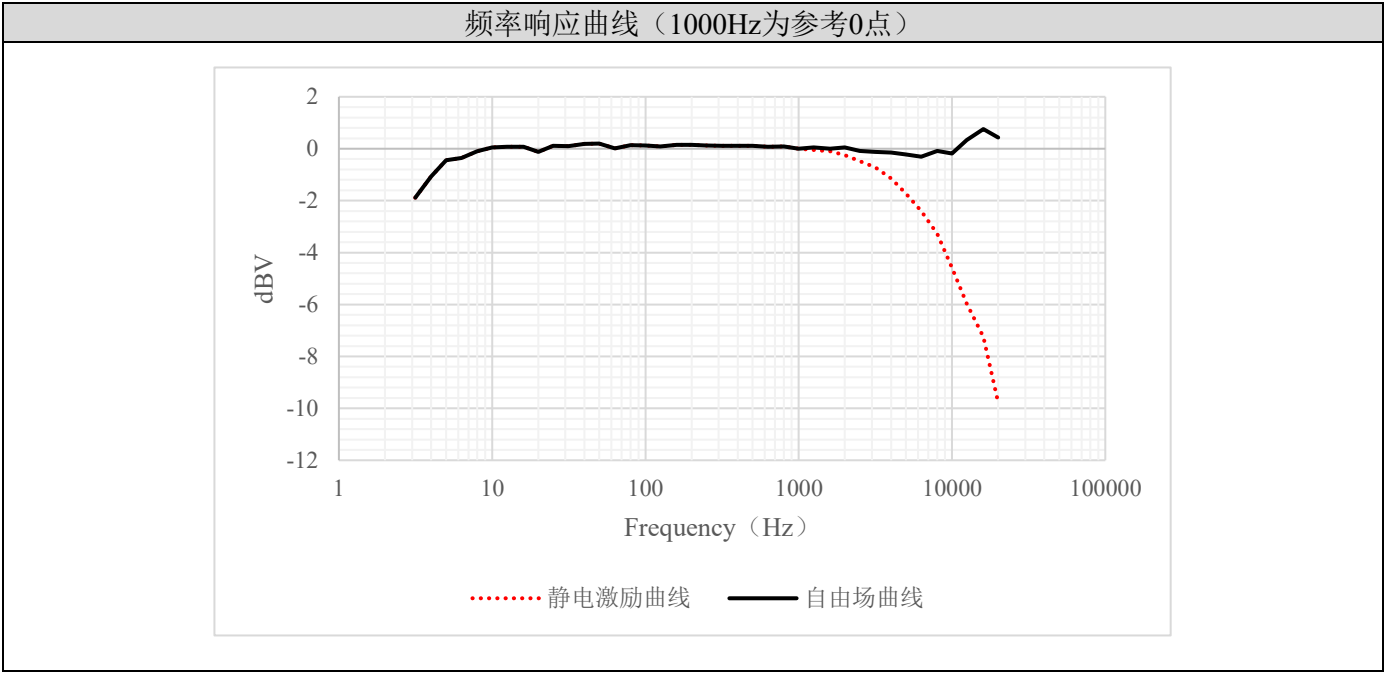
规格参数

整体参数	
声场类型	自由场型
极化电压	0V（预极化）
频率响应（dB）	3.15Hz – 20kHz ± 2dB 12.5Hz – 10kHz ± 1dB
动态范围（dB）	17dB（A） - 135dB（1000 Hz 失真<3%）
底噪	<17dB（A）
灵敏度 mV/Pa(dBV/Pa)	(50±10)mV/Pa (-26.0±2)dB re 1V/Pa
最大输出电压	5.6V
供电电源	2mA - 20mA（典型 4mA）
均压方式	后均压
接口类型	BNC
工作温度范围	-50°C至 95°C
温度系数	-0.001dB/°C
湿度系数	0% - 90%无凝结
相对湿度系数	<0.1dB（0~90%无凝结）
静压系数	-0.01dB/kPa
存储温度	温度：25°C±5°C，湿度：50%±15%RH（保证传感器的长期稳定性）
TEDS功能	支持

TEDS读写功能

类别	支持的信息字段
基本标识	序列号（Serial Number）

频响曲线

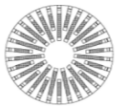
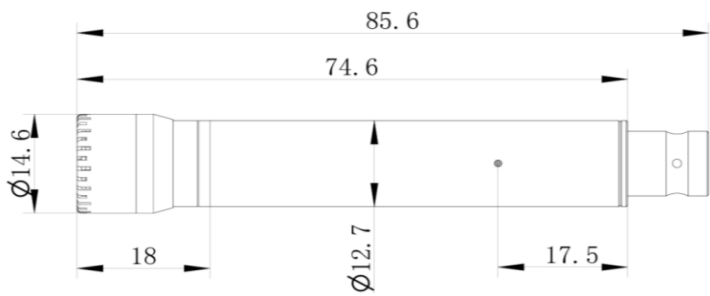


结构尺寸

unit: mm

尺寸参数	
整体长度（含接口）	85.6mm
长度（不含接口）	74.6mm
直径（含保护栅）	14.6mm
直径（不含保护栅）	12.7mm

单位：mm



订购信息

PN号	型号	说明
910024-01	PM 0083	功率放大器
900002-39	SS 605	恶劣工况专用带 TEDS 的麦克风套件
730002-000	102A	50欧BNC_BNC低噪声线缆，可定制长度
730002-030	102A030	50欧BNC_BNC低噪声线缆，长度3.0m
730002-060	102A060	50欧BNC_BNC低噪声线缆，长度6.0m
730002-090	102A090	50欧BNC_BNC低噪声线缆，长度9.0m

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The measuring microphones we produce are precision sensors, and all aspects related to production are strictly controlled, including material selection, production processes, testing control, and production environment.



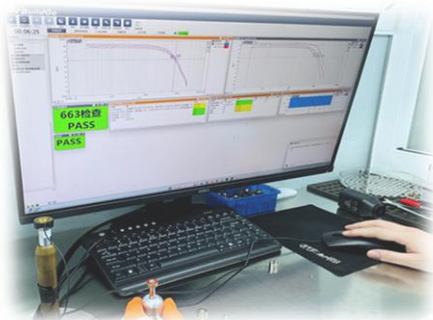
Material selection

After years of continuous improvement, we now use special nickel alloy materials as the core material for the diaphragm. Compared to other alloy materials, it exhibits higher sensitivity, lower distortion rate, and more stable long-term performance. The front body of the microphone is made of stainless steel, ensuring that the entire microphone maintains extremely robust structural characteristics even under various assembly conditions.



Production process

We adopt advanced production processes and fully automated precision machining equipment, which significantly reduces the accuracy errors caused by secondary clamping in traditional machining equipment. This greatly enhances the dimensional consistency, geometric accuracy, and overall quality stability of the products, providing reliable technical support for demanding application scenarios.



Testing control

At the same time, we employ extremely rigorous testing and control measures, conducting quantitative testing on any links that may lead to product quality issues, and implementing test sequence control to prevent skip-station situations. The comprehensive MES control enables all data to be traceable, ensuring a high degree of consistency in sensor quality.



Production environment

The entire production process of all our microphones is strictly carried out in a dust-free workshop, which can minimize the amount of dust in the air, thus creating a stable and pure working environment for the sensors. This ensures a long and stable lifespan for the sensors and maintains their excellent performance throughout daily use.

Product introduction



TEDS microphone kit for harsh conditions

SS 605 is an IEPE 1/2-inch pre-polarized free-field measurement microphone, designed to measure the true, undistorted sound pressure as it exists before the microphone is introduced into the sound field.

SS 605 is specially designed with an integrated microphone and preamplifier that cannot be disassembled. It is oil, water, and dust resistant, and can be used normally in harsh environments such as high and low temperatures, water, oil mist, and dust. The protection level can reach IP65, and it supports TEDS. It is commonly used for testing NVH, engines, motors, etc.

Features

- Complies with the requirements of IEC 61094-4 for WS2F measurement microphones
- Low inherent noise, wide frequency range
- Designed specifically for harsh operating conditions, oil-resistant, waterproof, and dustproof
- Protection rating of IP65
- Supports TEDS

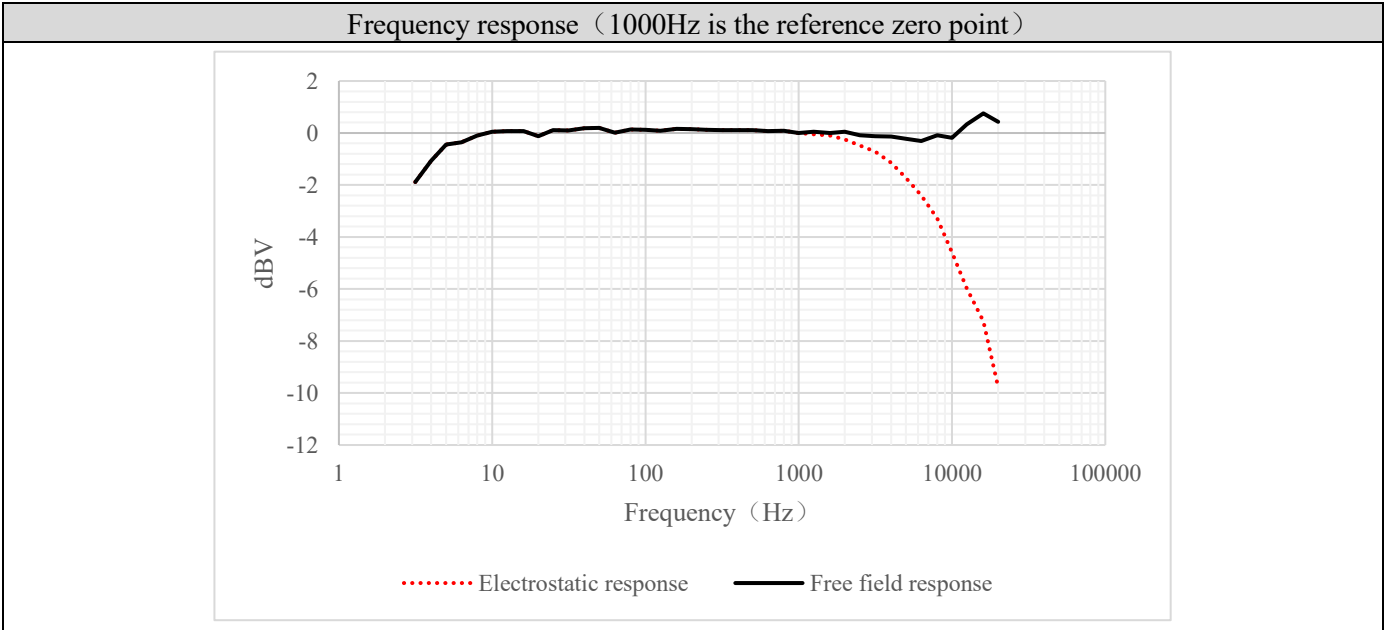
Specification parameters

Parameters	
Sound field type	Free-field
Polarization	0V (Pre polarized)
Frequency range	3.15Hz - 20kHz $\pm$ 2dB 12.5Hz - 10kHz $\pm$ 1dB
Dynamic range	17dB (A) -135dB (1000 Hz THD<3%)
Inherent noise	<17dB (A)
Sensitivity mV/Pa(dBV/Pa)	(50 $\pm$ 10)mV/Pa (-26.0dB $\pm$ 2dB) re 1V/Pa
Maximum output voltage	5.6V
Power supply	2mA-20mA (Typical 4mA)
Equalization method	Back-equalized
Interface type	BNC
Temperature range	-50°C- 95°C
Temperature range coefficient	-0.001dB/°C
RH	0% - 90% non condensation
Relative humidity coefficient	<0.1dB (0% - 90% non condensation)
Static pressure coefficient	-0.011dB/kPa
Storage condition	Temperature: 25°C $\pm$ 5°C, humidity: 50% $\pm$ 15%RH (to ensure the long-term stability of the sensor)
TEDS	Support

TEDS

Type	Supported information fields
Basic Information	Serial Number

Frequency response

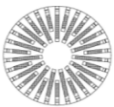
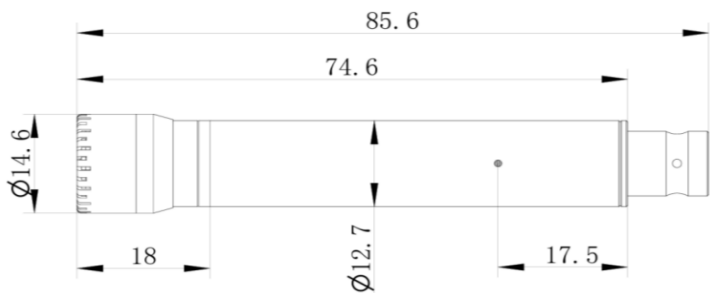


Mechanical dimensions

unit: mm

Dimension parameters	
Overall length (Including interfaces)	85.6mm
Length (Excluding interfaces)	74.6mm
Diameter (with protective grid)	14.6mm
Diameter (without protective grid)	12.7mm

单位: mm



Ordering Information

PN	Model	Description
910024-01	PM 0083	Power amplifier
900002-39	SS 605	TEDS microphone kit for harsh conditions
730002-000	102A	50Ω BNC _BNC low-noise cable, customizable length
730002-030	102A030	50Ω BNC _BNC low-noise cable , length 3.0m
730002-060	102A060	50Ω BNC _BNC low-noise cable , length 6.0m
730002-090	102A090	50Ω BNC _BNC low-noise cable , length 9.0m

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