C & U
CREATIVE
& UNIQUE

Electromagnetic anechoic box (Shield box)

ME8661A

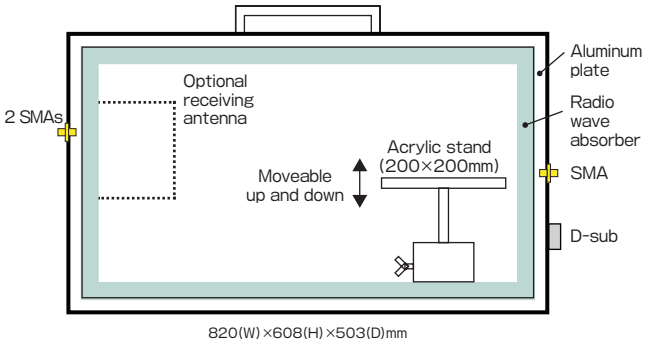
MICROWAVE

Ideal for RFID / wireless LAN / ETC wireless system tests.

MICRONIX

It is a simple electromagnetic anechoic box for stationary use. It has a double structure of a radio wave absorber and an aluminum plate and can measure frequencies from low frequencies to 18 GHz. An acrylic stand for placing the DUT is installed, and the structure is such that the optional receiving antenna can be easily attached.

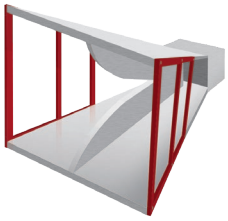
■ The structure of ME8661A



820(W)×608(H)×503(D)mm

Standard spiral antenna

Frequency range	2 to 18GHz
Gain(typ.)	-6 to +4.4dBic
VSWR	<3.0
Polarized wave	Right Hand Circular Polarization
Axial ratio	<3.5dB
Use	ETC in-vehicle unit, etc.



Standard horn antenna

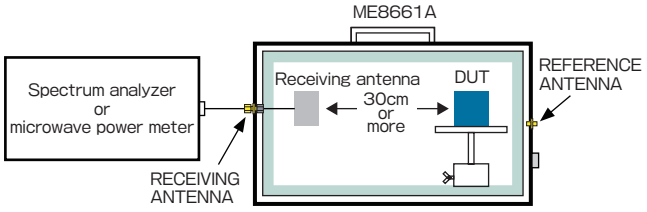
Frequency range	1.6 to 20GHz
Gain(typ.)	+5 to +15dBi
VSWR	<1.5
Polarized wave	linear polarization
MAX input power	50W(CW)
Application	Cellular phone, Wireless LAN, etc.

※Antenna images are for illustrative purposes only.

Applications

■ 1. Wireless system test

The following wireless system tests can be performed in free space close to the actual usage conditions of mobile phones, ETC on-board units, wireless LAN, wireless communication devices, etc. Tests of power transmission, transmission frequency, spurious, occupied bandwidth, power leakage during carrier off, modulation index, transmission eye aperture ratio, etc.



This wireless system test is performed by placing the DUT on an acrylic table and connecting the output of the receiving antenna mounted at the position opposite to it to a spectrum analyzer, microwave power meter, etc. Therefore, an optional receiving antenna is required when performing this test. Spiral antenna and horn antenna are available as receiving antennas. When installing an antenna with specifications other than these, it can be handled by specifying the frequency band used and the polarization method. The distance between the DUT and the receiving antenna can be 30 cm or more. The optional reference antenna is used when calibrating the RF coupling (loss from the front of the DTU to the receive antenna output SMA connector). Frequency characteristic data of antenna gain, and RF coupling are attached to this reference antenna. The reference antenna and the receiving antenna are the same, but the reference antenna has a fixed base so that it can be placed on an acrylic stand.

■ 2 : Antenna test

By connecting the signal source to the connector for the reference antenna and connecting the measuring instrument to the connector for the receiving antenna, the characteristic data of the antenna can be obtained.

■ 3 : As an electromagnetic anechoic box

It can be used as a mere electromagnetic anechoic box without attaching an antenna. It is most suitable for a simple preliminary experiment of EMC test or when you want to shield from the external electromagnetic field.

Main Specifications

External dimensions	About 820(W)×608(H)×503(D)mm (Excluding protrusions)
Internal dimensions	About 690(W)×380(H)×380(D)mm
Structure	Double structure of radio wave absorber and aluminum plate
Weight	About 38kg (Excluding antennas)
Acrylic table dimensions	200×200mm
Connectors	· 3 SMAs (1 reference side, 2 reception side) · 25 pins D-sub
Option	Receiving spiral antenna
	Standard spiral antenna (With antenna gain and RF coupling data)
	Receiving horn antenna
	Standard horn antenna (With antenna gain and RF coupling data)
	Microwave coaxial cable (0.5m, 3m, 4m)
	Microwave fixed attenuator(1 to 10,12,13,15,20dB)
	50Ω Terminator(SMA)
	Turn table (Manual)
	Caster

If a manual turntable is selected, a height-adjustable acrylic stand is not included.

※MICRONIX Corporation reserves the right to make change in design, specification and other information without prior notice.

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