



- STIPA Reference
- IEC 60268-16
- System Line-up
- Precise Flatness
- Calibrated Level

TalkBox

ACOUSTIC GENERATOR
STIPA REFERENCE



Made in
Switzerland 



INTRODUCTION

The TalkBox is an active acoustic signal generator for speech intelligibility measurements in evacuation and announcement systems, as well as for level alignment of teleconference or any audio system incorporating a microphone input. It allows performing complete end-to-end evaluation of the speech intelligibility STIPA from the talker's microphone to the listener's ears.

The TalkBox simulates a human talker (60 dBA @ 1 meter according to IEC 60268-16) with the STIPA test signal and spoken messages. Further it provides a wide range of test signals like sine, pink noise, white noise and delay.

The TalkBox features human head-like dimensions and is based on a solid-state-generator. It replays the STIPA test signal with a precise frequency response, individually equalized for each TalkBox, also ensuring best performance through the internal amplifier and the precision loudspeaker. A variety of supplied or user-defined test signals may be precisely output for different alignment applications.

APPLICATION AREAS

- Life Safety Systems
- Installed Sound
- AV Installations
- Industrial



EVACUATION SYSTEMS

The TalkBox as an acoustic signal generator provides two major advantages for STIPA measurements: An extended test coverage and an easy way to handle test signal injection. Sampling frequency deviations from CD or other uncalibrated playback devices are a serious source of measurement errors. The TalkBox ensures accurate measurements and eliminates such errors.

The human head sized NTi Audio TalkBox replaces and simulates a real speaker when measuring speech intelligibility. By using the TalkBox, the entire signal path is taken into consideration, including the microphone and the acoustic environment. The Line-Output of the TalkBox may be used for systems which do not include an announcement microphone.



CONFERENCE SYSTEMS

Teleconference systems play a significant role in today's connected world, allowing companies to communicate seamlessly across continents. Proper system alignment, delivering consistent speech levels and excellent intelligibility is a key success factor for the installing company.

The conference participants expect that they be allowed to concentrate on the business topics at hand and not be distracted by any inadequacies or failures in the communication system. NTi Audio equipment provides you with the tools to align the systems and rooms with excellence and confidence.

The NTi Audio TalkBox simplifies and improves the setup of microphones, system levels and equalization. It generates a reference human speech signal or other standard audio test signals, so only one person is required to quickly adjust complete conference systems. Additional test signals support the determination of system flatness and response effects e.g. in teleconference applications.

The TalkBox generates all test signals for professional conference room setup. Typically the TalkBox is positioned at a measured reference point near each speaking position.



FEATURES

Individually Equalized

NTi Audio TalkBox includes a precise broadband loudspeaker. Precise flatness of ± 1 dB over the relevant frequency range and highest quality requirements are guaranteed by an individual equalization and calibration using advanced FIR filtering and DSP technology. The radiation characteristic complies with ITU-T P.51 in wide ranges.

Calibrated Output Level

The IEC 60268-16 standard specifies a sound pressure level for a speaker simulator of 60 dBA in 1 meter distance. The TalkBox output levels are calibrated to comply with this standard. To avoid operating failures the TalkBox has no volume control.

Lombard Effect

Human voice tends to be raised in level at emergency situations. In order to cope with this so called Lombard effect, all STIPA related signals are additionally offered at an increased level of 70 dBA at 1 meter.

Balanced Line Out

Using the balanced line out, the TalkBox operates as a signal generator. Sampling frequency deviations - a dangerous trap when using CD players for STIPA measurements - are eliminated.

Balanced Line In

Any external signal can be connected to the system using the balanced line input. The applied signal is transparently looped to the line output and processed in the internal DSP in real-time to appear equalized at the speaker.

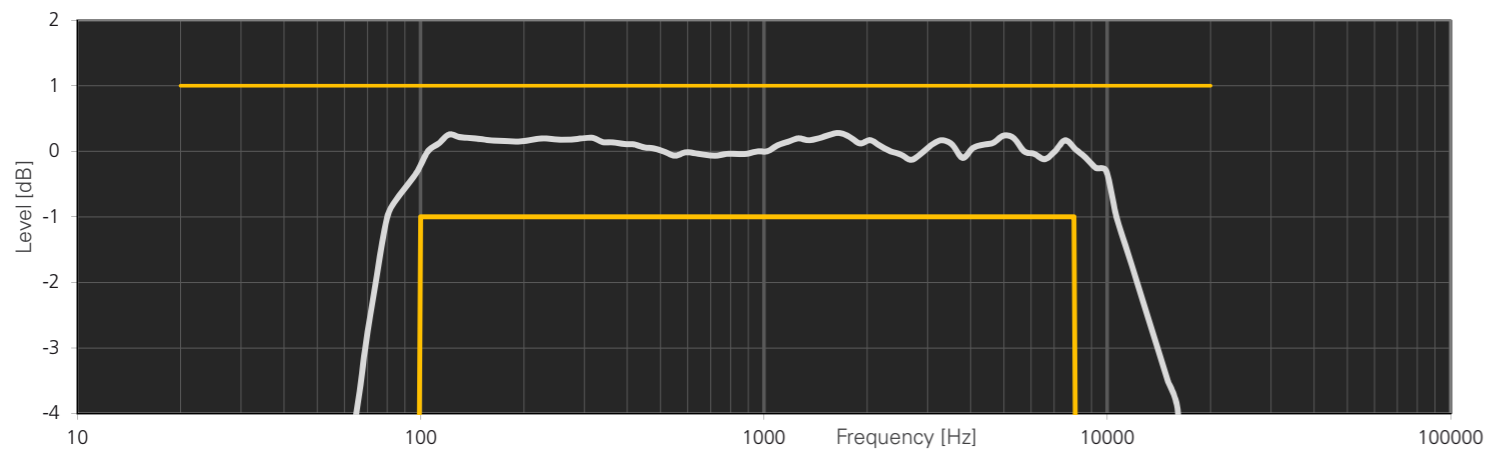
Standard and Custom Signals

The TalkBox also generates additional waveforms: White noise, pink noise, sine wave, reference speech signals and the delay time measurement chirp. Custom designed signals may be loaded onto the CF Card and are seamlessly looped.

Universal Power Supply

The TalkBox supports a power supply range 10 - 18 VDC. An external power supply for worldwide operation is included.

Typical Frequency Response (meets the specified ± 1 dB tolerance band requirement by IEC 60268-16)

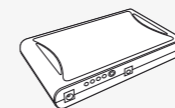


TECHNICAL SPECIFICATIONS

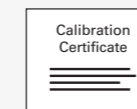
Waveform	<ul style="list-style-type: none"> • Up to 15 different signals • Waveforms can be added / changed by the user • Factory signal set: NTi Audio STIPA Test Signal, Reference Speech Signal, Sine 1 kHz, White Noise, Pink Noise, Delay Time Chirp
Line Out	<ul style="list-style-type: none"> • XLR, balanced 100 Ohm, unbalanced 50 Ohm • Maximum output level: +18 dBu
Line Input	<ul style="list-style-type: none"> • XLR, balanced 38 kOhm • Maximum input level: +18 dBu • Internal delay XLR input to speaker: 59 ms
CF Card	<ul style="list-style-type: none"> • 256 MB included, FAT32 formatted • Wave file format: 16 Bit, 44.1 kHz mono
Acoustical Flatness	<ul style="list-style-type: none"> • STIPA band levels (in axis) <ul style="list-style-type: none"> » typ. $< \pm 0.5$ dB @ 24°C » typ. $< \pm 1.0$ dB @ 10°C - 30°C
Acoustical Output Level	<ul style="list-style-type: none"> • STIPA: 60 dBA @ 1m ± 0.5 dB, acc. IEC60268-16 • STIPA band sensitivity gradient: - 0.07 dB / °C (average) • Others see track list in user manual
Power Supply	<ul style="list-style-type: none"> • 10 - 18 VDC, 10 W • External switching power supply included (for worldwide usage 100 V .. 240 V)
External Mute	<ul style="list-style-type: none"> • Jack 3.5 mm (1/8") • Floating switch required
Mounting	Mic Stand 5/8" with Adapter to 3/8"
Dimensions	L x W x H: 150 x 150 x 175 mm (5.9 x 5.9 x 6.9 inch)
Weight	3.5 kg
Included Accessories	Mains Power Adapter, CF Card and Soft Carrying Case

Get full specifications at www.nti-audio.com/TalkBox

Accessories



Battery Pack
(> 7 hours operation)
600 000 086



Calibration Certificate
600 000 018

ASSOCIATED PRODUCTS



M2211
Measurement
Microphone



Minirator MR-PRO
Signal Generator

XL2 Analyzer with
STIPA Option



TalkBox with optional Battery Pack



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www.nti-audio.com

All information is subject to change without notice.

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