

# Sonix™ Imp 100

## PA/GA digital loudspeaker impedance meter



### Overview

Sonix™ Imp 100 is a compact, ruggedised digital loudspeaker impedance meter. It is vital to ensure that any PA/GA installation has correctly installed and pre commissioned loudspeakers, in advance of calling an Eaton Engineer to finalise commissioning. This save a great deal of time and money within your project budget.

### Features

- USB interface with data logging software
- Internal data logging
- Selectable for sine, sweep, chirp
- Uses wav files
- Loudspeaker impedance test
- Auto power off

Compact and hand held, the Imp 100 is versatile enough to manage any industrial or offshore application. Thanks to backlit LED display, the use in low light situations is made easy and fault free.

The Imp 100 provides a full set of analog audio signals including sine wave, pink noise, white noise, delay test signal, polarity test signal, stepped sweep and continuous sine sweep. Further, a set of wav-files, useful for system optimization, is stored in the internal flash memory. This allows you to add Sonix™ alarm tones to test your loudspeaker loops in advance.

The signal balance, phantom power and impedance of the connected load are monitored. The integrated XLR cable tester simplifies trouble shooting tasks.

The Imp 100 is indispensable and a proven tool for set-up, maintenance and monitoring of Sonix™ PA/GA systems. The wide range of functionalities is tailored for measurement tasks in many applications including: installed sound, life safety systems, live sound, broadcast, building acoustics, industrial and aerospace, quality control.

## Specifications

### Mechanical / environmental

<b>Weight</b>	310g including battery
<b>Dimensions (H x W x D mm)</b>	152 x 81 x 43 including jacket
<b>Ingress protection</b>	IP51
<b>Operating temp</b>	0°C to +45°C
<b>Operating relative humidity</b>	< 90% non-condensing
<b>Service location</b>	Safe location

### Electrical

<b>Voltage</b>	3 x AA Alkaline dry cells or rechargeable equivalents. 8 hr life
<b>Consumption</b>	USB for firmware updates and 512 Mb storage

### Technical data

<b>Outputs</b>	Balanced XLR, unbalanced RCA - phantom power resistant	
<b>Inputs</b>	DC power supply, USB - XLR for cable test	
<b>Signal wave forms</b>	Sine, polarity test signal, delay test signal, white noise (crest factor, PAR* = 3.05 (9.7 dB)), pink noise (crest factor, PAR* = 4.5 (13.1 dB)), gated pink noise (1 - 9 seconds), wave file playback	
<b>Wave file format</b>	Sampling frequency:	48 kHz
	Resolution:	16 Bit, mono / stereo
	Output level:	0 dBFS = 18 dBu (sine) acc. to EBU R68
<b>Frequency setting</b>	Range:	10 Hz to 20 kHz
	Increment:	in 1 digit steps
	Accuracy:	0.01 %
<b>Stepped sweep function</b>	Frequency range:	Freely selectable
	Increment:	1/1, 1/3, 1/6, 1/12 octave
	Sweep speed:	selectable 0.5 to 5 seconds
<b>Continuous sweep (chirp)</b>	Frequency range:	freely selectable
	Increment:	Linear / logarithmic
	Chirp speed:	1 to 99 seconds per cycle
<b>Level setting</b>	Units:	dBu, dBV, V, dBFS, %in 1 digit steps (e.g. 0.1 dBu)
	Incremen:	
<b>Output level ranges</b>	Sine, sweep, chirp:	-80 dBu to +18 dBu
	White noise:	-80 dBu to +10 dBu
	Pink noise:	-80 dBu to +8 dBu
	Polarity, delay test:	-80 dBu to +16 dBu
<b>Flatness</b>	RL ≥ 600 Ohm	±0.2 dB @ 10 Hz to 12 kHz -0.1 dB / +0.3 dB @ 12 kHz to 20 kHz
<b>Accuracy @ 1kHz</b>	±0.2 dB	
<b>THD+N</b>	22 Hz to 22 kHz, average: -96 dB (0.0016%) @ 18 dBu @ 1 kHz, typical: Noise floor typ. 15 µV	
<b>Output impedance</b>	12.5 Ohm balanced, I <sub>max</sub> : 10 mA	
<b>Impedance measurement</b>	Method:	Absolute value Z
	Measurement range:	4 Ohm to 50 kOhm balanced 2 Ohm to 25 kOhm unbalanced
	Accuracy:	@ f = 30 Hz to 10 kHz (Sine) @ Level from -20 to +18 dBu±10% or ±20Ohm (whatever is higher)
<b>Power calculation</b>	Reference voltage:	25 V, 35 V, 50 V, 70.7 V, 100 V, 140 V, 200 V
<b>PC connect</b>	USB	

## Ordering requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box

### Model

Sonix-Imp-10
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