Roger DigiMaster 5000

Technical Data

roger

A Roger Dynamic SoundField system consists of one or more Roger DigiMaster loudspeakers and one or more Roger microphones.

For regular sized classrooms Phonak's Roger DigiMaster 5000 fits the bill perfectly. Featuring no less than 12 individual high-quality loudspeakers, all housed in a robust aluminum frame, this single-loudspeaker system offers the ultimate in instant sound performance.

Roger DigiMaster 5000 features

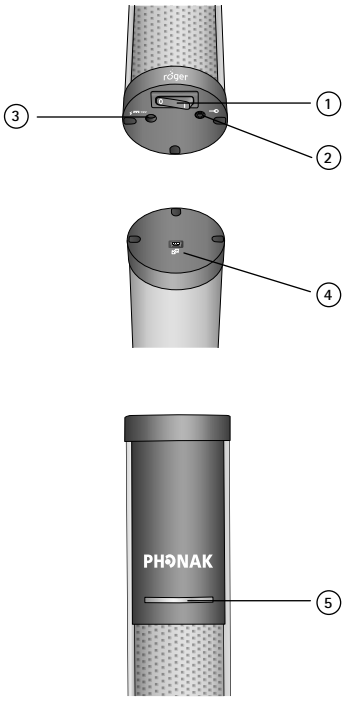
- One loudspeaker per class
- Unique line-source configuration featuring 12 high-quality loudspeakers for crystal-clear sound
- Automated dynamic behavior for optimal signal-to-noise ratios (SNRs)
- Adaptive automatic frequency hopping for interference-free sound
- Operates with Roger microphones
- Sleek design
- Wall-mount and floor-stand options
- Mini-USB for downloading new features
- Indicator light (LED)
- Installation-free

What is Roger

Roger is the new digital standard that bridges the understanding gap, in noise and over distance, by wirelessly transmitting the speaker's voice directly to the listener.

Description

① On/off
② 3.5 mm audio input
③ Power socket
④ Mini-USB
⑤ Indicator light (LED)



Accessories

Floor Stand	Tube height: 1035 mm / 41 inches Foot print diameter: 750 mm / 29 inches Weight: 2.16 kg / 4.8 lbs Height on floor stand: 1720 mm / 68 inches
Wall mounting kit	

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General data

Type:	Roger Dynamic SoundField receiver Operates with Roger microphones
Dimensions (L x W):	885 x 72 mm / 35 x 2.8 inches
Weight:	2070 g / 4.5 lbs
Operating conditions:	Temperature should not exceed the limit values of 0° to +40° Celsius / +32° to +104° Fahrenheit and relative humidity of < 95 % (non condensing)
Transport and storage conditions:	During transport or storage, the temperature should not exceed the limit values of -20° to +60° Celsius / -4° to +140° Fahrenheit and relative humidity of 90 % for a long period
Power supply	Voltage input: 100 – 240 V Voltage output: 19 VDC / 3.42 A / 65 W Connector: 5.5 x 2.5 x 11.5 mm / 0.21 x 0.1 x 0.45 inches Polarity + center Power consumption in standby mode: <1 W Power consumption in off mode: < 0.5 W

Audio characteristics

Audio bandwidth for speech:	200 Hz – 7.5 kHz
Signal-to-noise ratio with EasyBoom microphone:	> 55 dB
Audio bandwidth for auxiliary audio input:	200 Hz –15 kHz
Signal-to-noise ratio of external audio:	> 70 dB
Volume control for voice:	± 8 dB
Volume control for auxiliary audio input:	± 10 dB
Power output:	Up to 40 W
Loudspeaker impedance:	4 Ω
Vertical aperture angle of the main lobe @500Hz:	± 25°
Vertical aperture angle of the main lobe @2kHz:	± 7°
Auxiliary input socket:	3.5 mm jack
Auxiliary input impedance:	> 10 kΩ

Standards

EMC:	EN 301.489-1, -3, -9, -17
Power consumption comples with Ecodesign Directive 2005/32/EC:	EC No 1275/2008, EN 62301

Roger characteristics

Transmission technology:	2.4 GHz including adaptive automatic frequency hopping
Power emission:	100 mW
Operating range:	20 m / 66 feet

DigiMaster characteristics

Room size:	Up to 100 m^2 / 1076 ft^2
Number of DigiMaster 5000 per Roger microphone	1 unit
Number of DigiMaster 5000 per building	Unlimited

Roger Dynamic Soundfield system data (*)

Target gain for noise level < 54 dB SPL:	+12 dB compared to the voice level
Start of dynamic adaptation:	Noise level > 54 dB SPL
SNR with 45 dB SPL noise level in classroom:	> 26 dB**
SNR with 55 dB SPL noise level in classroom:	> 18 dB**
SNR with 65 dB SPL noise level in classroom:	> 14 dB**
Typical average output level (Volume control 0 dB, speech level of 65 dB SPL@1 m)	Noise level < 54 dB SPL: 71 dB SPL@1 m, 66 dB SPL in the reverberant field Noise level = 60 dB SPL: 75 dB SPL@1 m, 70 dB SPL in the reverberant field Noise level = 66 dB SPL: 81 dB SPL@1 m, 76 dB SPL in the reverberant field Noise level > 66 dB SPL: 81 dB SPL@1 m, 76 dB SPL in the reverberant field
Maximum average output level with EasyBoom microphone:	89 dB SPL@1 m (Volume control +8 dB, noise level of 60 dB SPL, speech level of 75 dB SPL@1m)
Maximum peak output level with EasyBoom microphone:	96 dB SPL@1 m (Volume control +8 dB, noise level of 60 dB SPL, speech level of 75 dB SPL@1m)
Maximum peak output level over auxiliary audio input:	100 dB SPL

* Characteristics with EasyBoom microphone
** Speech level of 65 dB SPL@1 m, SNR measured at a distance of 4 m / 13 ft 1 inch from the voice and loudspeaker sources