

DynaMic

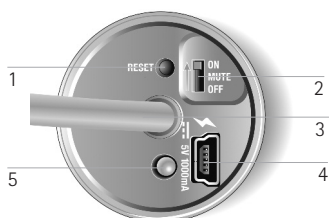
Technical Data



DynaMic features

- Excellent sound quality
- MultiTalker Network
- Easy user interface
- Durable
- Comfortable in the hand
- Fast charging battery
- Programmable with FM Successware
- DataLogging FM

Product description



- 1 Reset button
- 2 Slider On/Mute/Off
- 3 Antenna
- 4 USB interface
- 5 LED indicator

Relevant internet pages

Your online comprehensive FM support tool for schools
www.eSchoolDesk.com

Latest set-up tips for FM systems in combination with hearing instruments and Cochlear implants
www.phonak.com/FM_Configurator

Your online FM knowledge base
www.FMeLibrary.com

Your online FM counseling support tool
www.FMCounselWare.com

DynaMic is the passaround microphone for use in classrooms. DynaMic is designed to work exclusively alongside inspiro in the MultiTalker Network.

DynaMic enables speakers, other than the main inspiro-wearing teacher, to wirelessly access the hearing impaired in the audience by simply talking into DynaMic.

DynaMic combines the flexibility of the MultiTalker Network with the sound performance benefits of Dynamic FM, integrating inspiro transmitter technology into a durable handheld microphone that acts as an additional Dynamic FM transmitter.

DynaMic's algorithms are optimized to avoid picking up unwanted signals while at the same time not missing any useful speech signals.

Typical MultiTalker Network situations

inspiro for the teacher and DynaMic as passaround microphone for the student



inspiro for the teacher and up to 9 DynaMic transmitters on desks



DynaMic

General data

| | |
|------------------------------|--|
| Type: | Dynamic FM and Dynamic SoundField transmitter Operates only with inspiro in MTN |
| Length: | 210 mm |
| Antenna length: | 150 mm |
| Weight: | 110 g |
| Operating temperature range: | -10°C to +60°C |
| Humidity: | 20 ...75% |

HF characteristics

| | |
|------------------------|--|
| Frequency range: | 169 – 176 MHz (HA - band) 214 – 220 MHz (NB – band) |
| Frequency switching: | Integrated digital frequency synthesizer |
| Frequency stability: | Better than +/- 1kHz |
| Modulation: | FM (narrow band) Max. frequency dev $\Delta f < 6$ kHz |
| Antenna: | Fixed on the electronic plate slides into a flexible tube |
| FM operating range: | In MTN EMC: - 54 dBm ERP (EN 300.422) |
| Signal to noise ratio: | > 45 dB ($\Delta f > 4$ kHz) |
| Power emission: | 2mW |

Audio characteristics

| | |
|-------------------------|--|
| Audio bandwidth: | 100 - 6000 Hz |
| Microphone sensitivity: | 74 dB SPL at $f_{mod} = 1$ kHz for $f_{dev} = 4.0$ kHz (100% modulation) 70 dB SPL at $f_{mod} = 1$ kHz for $f_{dev} = 3.$ kHz |
| Distortion: | THD < 0.2% at 70 dB SPL with $f_{mod} = 1$ kHz $f_{dev} = 3$ kHz |

Dynamic SoundField characteristics

| | |
|--------------------------|---|
| Transmission technology: | 2.4 GHz including automatic frequency hopping |
| Power emission: | 100 mW, 20 dBm |

Directional microphone array

DynaMic has two microphones, forming an array. The microphones and the VAD determine which acoustic signals trigger the DynaMic. It is always best to speak into DynaMic at close range, 50 - 300 mm (2 - 12 inches).

Accessories and replacement parts

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|-----------------------------------|
| Desk stand, Clamp, Microphone cap |
| Colored rings: red, blue, green |
| Charger: single and twin |
| USB cable, Packaging |

Battery

| | |
|-----------------------------|---|
| Type: | Lithium Polymer |
| Dimensions: | Length: 52 mm Width: 25.8 mm Height: 9.5 mm |
| Voltage: | 3.7 V |
| Capacity: | 1000 mAh |
| Operating time: | up to 12 hours |
| Charging temperature range: | 0 °C to 45°C |
| Charging time with charger: | 80% in 1 hour ; 100% in 2 hours |

Power supply

| | |
|------------|----------------------------------|
| Type: | Specific inspiro/DynaMic charger |
| Connector: | mini-USB |

Standards

| | |
|-------------|--|
| Radiocom: | EN 300 422 - 1, - 2; 2001 EN 300 330 - 1, 2; 2006 EN 300 328; 2006 |
| EMC: | EN 301 489 - 3, -9, 17; 2002 |
| El. Safety: | EN 60950 - 1; 2006 |

Dynamic FM System data

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|---|-------|
| Adaptive FM Advantage (AFMA): (Ambient noise level ≥ 73 dB SPL) | |
| Dynamic FM advantage over the hearing instrument: | 25 dB |
| Dynamic FM advantage over a traditional FM system: | 15 dB |

Voice Activity Detection (VAD):

| | |
|------------------------|----------------------------------|
| Attack time: | 5 ms |
| Hold-on time: | 5 seconds |
| Release time: | 2 seconds |
| Voice off attenuation: | -26 dB |
| VAD: | 7 dB less sensitive than inspiro |

Wireless Dynamic FM:

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|------------------|-----------------------|
| Frequency range: | Above the audio band |
| Operating range: | As FM operating range |

MultiTalker Network

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|--|--------------------------------------|
| DynaMic operates as a secondary transmitter in the MTN | |
| Digital Network : | up to max. 9 DynaMic and one inspiro |
| Pairing time with inspiro: | 8 sec. |
| Frequency : | 2.4 GHz |
| Operating range to initiator inspiro: | at least 20 m |