

## inspiro

### Technical Data



#### inspiro features

- Dynamic Speech Extractor
- DataLogging FM
- MultiTalker Network
- SoundCheck
- Monitoring
- Channel Finder
- Easy and intuitive user interface
- Customized soft keys allocation
- Multi-frequency
- Fast charging capabilities
- Two microphone options: EasyBoom and iLapel
- Two wearing options: clip and lavalier
- Three menu settings:
  - "Standard Level" for everybody
  - "Extended Level" for special applications
  - "Light Level" for basic use
- Three operating modes:
  - FM
  - FM + Dynamic SoundField
  - Dynamic SoundField
- Fully programmable with FM SuccessWare

**inspiro** is a FM transmitter ideally suited to the needs of teachers. Suitable for use in regular schools as well as special schools for hearing impaired pupils. The outstanding design, with its large color display, makes this transmitter unique. Soft keys, an alarm clock, housing options to suit different types of clothing, and a wealth of other details reflect our passion for userfriendliness. **inspiro** – designed for schools that care about their children.

#### EasyBoom features

- Best signal-to-noise ratio
- Maximum wearing comfort

#### iLapel features

- Directional miniature microphone
- No switching required
- Easy to clip

#### Relevant internet pages

Your online comprehensive FM support tool for schools  
[www.eSchoolDesk.com](http://www.eSchoolDesk.com)

Learn how to configure Phonak FM systems with different hearing instruments and/or cochlear implants

Your online FM knowledge base  
[www.FMeLibrary.com](http://www.FMeLibrary.com)

Your online FM counseling support tool  
[www.FMCounselWare.com](http://www.FMCounselWare.com)



#### Product description

- 1 On/Off switch
- 2 High resolution matrix color LCD
- 3 Microphone mute key
- 4 Soft keys
- 5 Menu navigation
  - Up/Down
  - Escape
  - OK
- 6 3.5 mm Audio input socket
- 7 mini-USB socket for charging and programming
- 8 Microphone cable wrapper
- 9 Clip
- 10 Lavalier
- 11 iLapel microphone
- 12 EasyBoom microphone



## General data

Type:	Dynamic FM and Dynamic SoundField transmitter
Length:	83 mm
Width:	56 mm
Height:	24 mm
Weight:	69 g
Operating temperature range:	-10°C to +60°C
Humidity:	20% - 75%

## HF characteristics

Frequency range:	169 - 176 MHz (H-band) 214 - 220 MHz (N-band)
Frequency switching:	Integrated digital frequency synthesizer, max. 32 programmable channels
Frequency stability:	Better than +/- 1 kHz
Modulation:	FM (narrow band) Max. frequency deviation $\Delta f < 6$ kHz
Antenna:	Integrated in the microphone cable
Operating range:	15 - 30 m EMC: -54 dBm ERP (EN 300.422)
Signal-to-noise ratio*:	> 45 dB ( $\Delta f > 4$ kHz)
Power emission:	2 mW

inspiro combined with MLxi or any other Dynamic FM receivers leads to a significantly higher signal-to-noise ratio.

## Audio characteristics

Audio bandwidth:	100 - 6000 Hz
Microphone sensitivity:	97 dB SPL at $f_{mod} = 1$ kHz for $f_{dev}$ = 4.0 kHz (100% modulation) 70 dB SPL at $f_{mod} = 1$ kHz for $f_{dev} = 3.0$ kHz
Distortion:	THD < 0.2 % at 70 dB SPL with $f_{mod} =$ 1 kHz $f_{dev} = 3.0$ kHz

## Dynamic SoundField characteristics

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

## Accessories and replacement parts

EasyBoom microphone
iLapel microphone
inspiro charger
mini-USB/USB cable for programming
Audio cable 1 m / 3 feet
Audio cable 3 m / 10 feet
Scart adapter for audio cable
Cinch adapter for audio cable
Replacement battery
Replacement clip
Replacement lavalier
Replacement audio cable 1 m / 3 feet
Replacement alligator clip for iLapel

## 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 (normal mode):	12 hours
Charging temperature range:	0°C to +45°C
Charging time with charger:	100% in 2 hours 80% in 1 hour

## Power supply

Type:	Dedicated inspiro charger
Connector:	mini-USB

## Standards

Radiocom:	EN 300.422-1,-2:2001 EN 300.330-1,-2:2006 EN 300.328:2006 CFR 47, part 95, part 15C
EMC:	EN 301.489-3, -9, 17:2002
El. Safety:	EN 60950-1:2006

## Dynamic FM System data

**Adaptive FM Advantage (AFMA):** (Ambient noise level  $\geq 73$  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

**Wireless sub-audio datalink:**

Frequency range:	Above the audio band
Operating range:	as FM operating range

**Wireless programming and monitoring:**

FSK Link:	Frequency 40.96 kHz / Data rate 1000 - 2000 Bit/s Link from transmitter to the receiver
OOK Link:	Frequency 8.192 kHz / Data rate 1024 Bit/s Link from the receiver to inspiro
Operating range:	20 cm / 8 inches

**AutoConnect\*:**

Covered hearing instrument impedance:	1.0 k $\Omega$ - 20.0 k $\Omega$
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**MultiTalker Network\*\*:**

Digital network for up to 10 inspiro transmitters
Frequency: 2.4 GHz
Operating range between the inspiro transmitters: at least 20 m

\* Also available if Dynamic FM receivers are not used with inspiro.  
\*\* Also available if inspiro is not used with Dynamic FM receivers.