

## inspiro

### Technical Data



#### inspiro features

- Dynamic Speech Extractor
- DataLogging FM
- MultiTalker Network
- SoundCheck
- Monitoring
- ChannelFinder
- Durable
- Easy and intuitive user interface
- Multi-frequency
- Fast charging capabilities
- Two microphone options: iBoom and iLapel
- Two wearing options: clip and lavalier
- Two menu settings: 'Standard Level' for everybody and 'Extended Level' for special applications.
- Fully programmable with FM SuccessWare 4.01 or higher

#### iBoom features

- Best signal-to-noise ratio
- Maximum wearing comfort
- Left and right ear compatible

#### 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)

Latest set-up tips for FM systems in combination with hearing instruments and Cochlear implants.  
[www.phonak.com/FM\\_Configurator](http://www.phonak.com/FM_Configurator)

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

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

**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.



#### 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 iBoom microphone



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### General data

Type:	Dynamic FM transmitter
Length:	83 mm
Width:	56 mm
Height:	21 mm
Weight:	69 g
Operating temperature range:	-10°C - +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. 40 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)

inspiro combined with MLxi, ML10i or any others Dynamic FM receivers leads to a significantly higher signal-to-noise ratio. See the booklet in the **inspiro** brochure, page 3 figure 3.

### 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

### Accessories and replacement parts

iBoom microphone  
iLapel microphone  
**inspiro** charger  
miniUSB/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 iBoom  
Replacement alligator clip for iLapel

### Battery

Type:	Lithium Polymer
Dimensions:	Length: 50 mm Width: 25.5 mm Height: 5.8 mm
Voltage:	3.7 V
Capacity:	750 mAh
Operating time (normal mode)	12 hours
Charging temperature range:	0°C - +45°C
Charging time with charger:	100% in 2 hours 80% in 1 hour

### Power supply

Type:	Dedicated <b>inspiro</b> 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

<b>Adaptive FM Advantage (AFMA):</b> (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 the receivers to the <b>inspiro</b>
OOK Link:	Frequency 8.192 kHz / Data rate 1024 Bit/s Link from the <b>inspiro</b> to the receivers
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 <b>inspiro</b> transmitters	
Frequency: 2.4 GHz / Data rate 2 MBits/s	
Operating range between the <b>inspiro</b> transmitters: 8 m	

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