

# ML9i

## Technical Data



### ML9i features

- Dynamic FM
- Automatic Frequency Synchronization (AFS) with WallPilot
- Direct Frequency Synchronization with the **inspiro** or any other Phonak FM transmitter
- Intelligent stand-by mode to save power when the transmitter is switched off
- Fully programmable with FM SuccessWare 4.1 or higher

**ML9i** is a very attractive design-integrated Dynamic FM receiver which fits to the following Phonak BTEs: Exélia, Versáta, Certéna, SaviaArt, Savia, Eleva, eXtra, Una, Verve. ML9i can easily be attached and removed by the professional or the user. It is available in a variety of different colors.

**ML9i** for Exélia, Versata, Certéna, Savia Art, Savia, Eleva, eXtra, Una and Verve: Together they form a powerful communication solution.



### 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.FMELibrary.com](http://www.FMELibrary.com)

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

## General data

Type:	Dynamic FM receiver
Length:	11 mm
Width:	8 mm
Height (on the HI):	10 mm
Weight:	1.0 g
Operating temperature range:	-10°C to +60°C

## HF characteristics

Frequency range:	169.4 - 176 MHz (H-band) 214 - 220 MHz (N-band)
Frequency:	Multi-channel, quartz stabilized
Frequency stability:	Better than +/-10ppm
Modulation:	FM (narrow band)
Antenna:	Ear level FM antenna
Spurious emissions (EMC):	< -54 dBm ERP
Sensitivity at E = 3mV/m:	SINAD ≥ 15 dB
Selectivity at $\Delta f_{RX} = \pm 125\text{kHz}$ :	> 50 dB

## Audio characteristics

Audio bandwidth:	100 - 6000 Hz
Distortion (THD):	< 2%
	Full quieting FM $f_{mod} = 1\text{kHz}$ $\Delta f = 5\text{kHz}$
Audio signal output:	-40 to -70 dBV at $f_{mod} = 1\text{kHz}$ $\Delta f = 4\text{kHz}$

## Power management

Power supply	Supplied by the HI battery	
Voltage range (extreme)	0.9 to 1.6 V	
Current drain:	Active mode	< 3 mA
	Sleep mode	< 510 $\mu\text{A}$

## Standards

Radiocom:	EN 300.422
EMC:	EN 301.489
	FCC

## Dynamic FM system data for inspiro and Dynamic FM receivers

### Adaptive FM Advantage (AFMA): (Ambient noise level $\geq 73$ dB SPL)

Dynamic FM advantage over the hearing instrument: up to 25 dB

Dynamic FM advantage over a traditional FM system: up to 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 Dynamic FM:

Frequency range: Above the audio band

Operating range: As FM operating range

### Wireless programming, monitoring and setting of FM Advantage:

FSK Link: Frequency 40.96 kHz / Data rate 1000 - 2000 Bit/s  
Link from the transmitter to the receivers

OOK Link: Frequency 8.192 kHz / Data rate 1024 Bit/s  
Link from the receivers to the **inspiro**

Operating range: 20 cm / 8 inches

### MultiTalker Network\*:

Digital network for up to 10 transmitters

Frequency: 2.4 GHz / Data rate 2 MBit/s

Operating range between the transmitters: 8 m

\* Also available if **inspiro** is used with traditional FM receivers.