

ML13i for Phonak Ambra BTEs

Technical Data



ML13i features

- Dynamic FM
- Durable
- Automatic Frequency Synchronization (AFS) with WallPilot
- Direct Frequency Synchronization (DFS) 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 4.5 or higher

ML13i is the tiny, design-integrated Dynamic FM receiver for Phonak Ambra behind-the-ear hearing instruments featuring a 13 battery. ML13i offers everything Dynamic FM encompasses. The hearing care professional can attach or remove an ML13i easily with just one pin.

ML13i for Phonak Ambra P, Phonak Ambra SP: together they form a powerful communication solution.



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

ML13i for Phonak Ambra BTEs

General data

Type:	Dynamic FM receiver
Length:	11 mm
Width:	9 mm
Height (connected to HI):	11 mm
Weight:	1.1 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 +/-10 ppm
Modulation:	FM (narrow band)
Antenna:	Ear level FM antenna
Spurious emissions (EMC):	-57 dBm ERP
Sensitivity at E = 3 mV/m:	SINAD ≥ 15 dB
Selectivity at $\Delta f_{RX} = \pm 125$ kHz:	> 50 dB

Audio characteristics

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

Power management

Power supply:	Supplied by the HI battery	
Voltage range (extreme):	0.9 to 1.5 V	
Current drain:	Active mode	< 3 mA
	Sleep mode	< 580 μ A

Standards

Radiocom:	EN 300.422
EMC:	EN 60601-1-2
	FCC part 15b

Dynamic FM System data for inspiro and Dynamic FM receivers

Adaptive FM Advantage (AFMA): (Ambient noise level ≥ 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 receivers to the inspiro
OOK Link:	Frequency 8.192 kHz / Data rate 1024 Bit/s Link from the inspiro to the receivers
Operating range:	20 cm / 8 inches
MultiTalker Network*:	
Digital network for up to 10 transmitters	
Frequency: 2.4 GHz / Data rate 2 Mbits/s	
Operating range between the inspiro transmitters: 8 m	
* Also available if inspiro is used with traditional FM receivers.	