

# ML14i for Cochlear Nucleus 5

## Technical Data



### ML14i features

- Dynamic FM
- Durable, sleek housing
- Automatic Frequency Synchronization (AFS) with WallPilot
- Direct Frequency Synchronization (DFS) with any Phonak FM transmitter (except DynaMic)
- Intelligent stand-by mode saves power when the transmitter is switched off
- Fully programmable with FM SuccessWare 4.6 or later

**ML14i** is a tiny, design-integrated Dynamic FM receiver for the Nucleus 5 speech processor from Cochlear. Suitable for children and adults, the ML14i is easy to attach and remove, splash resistant, and brings all the benefits of Dynamic FM technology.



### Color options



Charcoal (M2)   Black (L9)   Brown (L0)   Beige (M1)   White (L8)

### 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)

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# ML14i for Cochlear Nucleus 5

## General data

Type:	Dynamic FM receiver
Length:	17.2 mm
Width:	8.3 mm
Height:	12.2 mm
Weight:	0.95 g
Operating temperature range:	-10° C to +60° C
Water resistance:	IPX4

## 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 Nucleus 5 battery	
Voltage range (extreme):	0.9 to 1.5 V	
Current drain:	Active mode	< 3 mA
	Sleep mode	< 580 $\mu$ A

## Standards

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

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

<b>Adaptive FM Advantage (AFMA):</b> (Ambient noise level $\geq 73$ dB SPL)	
Dynamic FM advantage over the speech processor:	up to 25 dB
Dynamic FM advantage over a traditional FM system:	up to 15 dB
<b>Voice Activity Detection (VAD):</b>	
Attack time:	5 ms
Hold-on time:	5 seconds
Release time:	2 seconds
Voice off attenuation:	-26 dB
<b>Wireless Dynamic FM:</b>	
Frequency range:	Above the audio band
Operating range:	As FM operating range

<b>Wireless programming, monitoring and setting of FM Advantage:</b>	
FSK Link:	Frequency 40.96 kHz / Data rate 1000 – 2000 Bit/s Link from the <b>inspiro</b> to the receiver
OOK Link:	Frequency 8.192 kHz / Data rate 1024 Bit/s Link from the receiver to the <b>inspiro</b>
Operating range:	20 cm / 8 inches
<b>MultiTalker Network*:</b>	
Digital network for up to 10 transmitters	
Frequency:	2.4 GHz / Data rate 2 Mbits/s
Operating range between the <b>inspiro</b> transmitters:	8 m
* Also available if <b>inspiro</b> is used with traditional FM receivers.	