

Technical data sheet

miniRITE R

60 85 100 105



	Oticon Opn S 1	Oticon Opn S 2	Oticon Opn S 3	
Speech Understanding	OpenSound Navigator™	Level 1	Level 2	Level 3
	- Balancing power effect	100%	50%	50%
	- Max. noise removal	9 dB	5 dB	3 dB
	OpenSound Optimizer™	•	•	•
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
Sound Quality	Speech Rescue™ LX	•	•	•
	Clear Dynamics	•	•	-
	Spatial Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
Listening Comfort	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
Personalization & Optimizing Fitting	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
Connecting to the World	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
	Stereo streaming (2.4 GHz)	•	•	•
	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
	TV Adapter 3.0	•	•	•
	Phone Adapter 2.0	•	•	•
Tinnitus SoundSupport™	•	•	•	

* Bandwidth accessible for gain adjustments during fitting

Operating conditions

Temperature: +5°C to +40°C
Relative humidity: 5% to 93%, non-condensing

Storage and transportation conditions

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

Transport:

Temperature: -20°C to +60°C
Relative humidity: 5% to 93%, non-condensing

Storage:

Temperature: -20°C to +30°C
Relative humidity: 5% to 93%, non-condensing

Oticon Opn S™ miniRITE R is a discreet style powered by rechargeable lithium-ion battery. The inductive charger secures reliable and fast charging within 3 h. for a full charge.

miniRITE R features telecoil and a convenient double pushbutton.

OpenSound Navigator™ helps users to select and understand speech in all types of environments by balancing the sound sources and attenuating noise.

OpenSound Optimizer™ improves users listening experience and comfort by blocking feedback and secure the targeted amplification of sound sources.

TwinLink™ wireless technology combines binaural communication and 2.4 GHz connectivity with stereo streaming directly from digital devices.

Oticon Opn S is built on the powerful Velox S™ platform which has a programmable firmware architecture, supporting future performance updates.

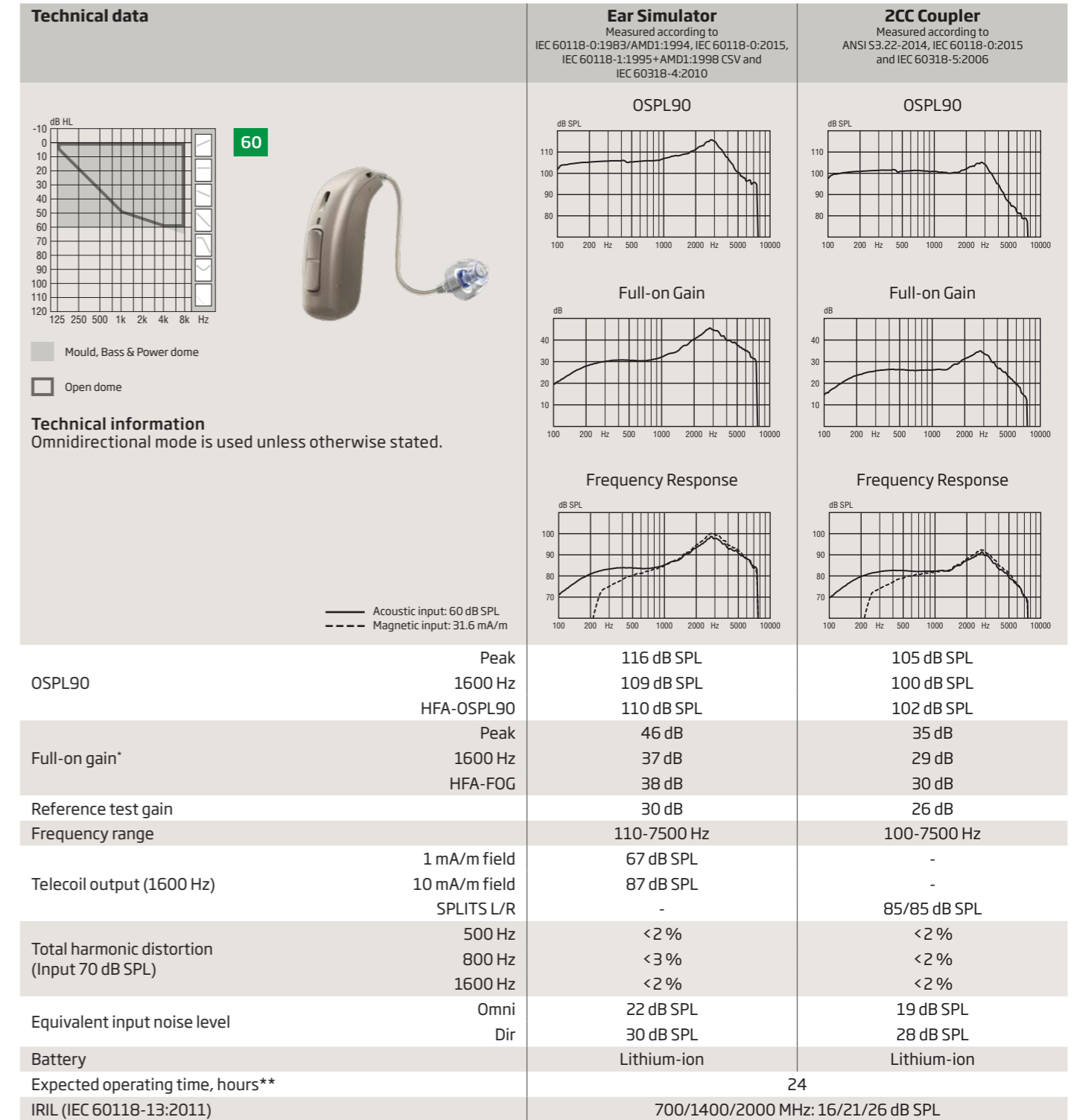
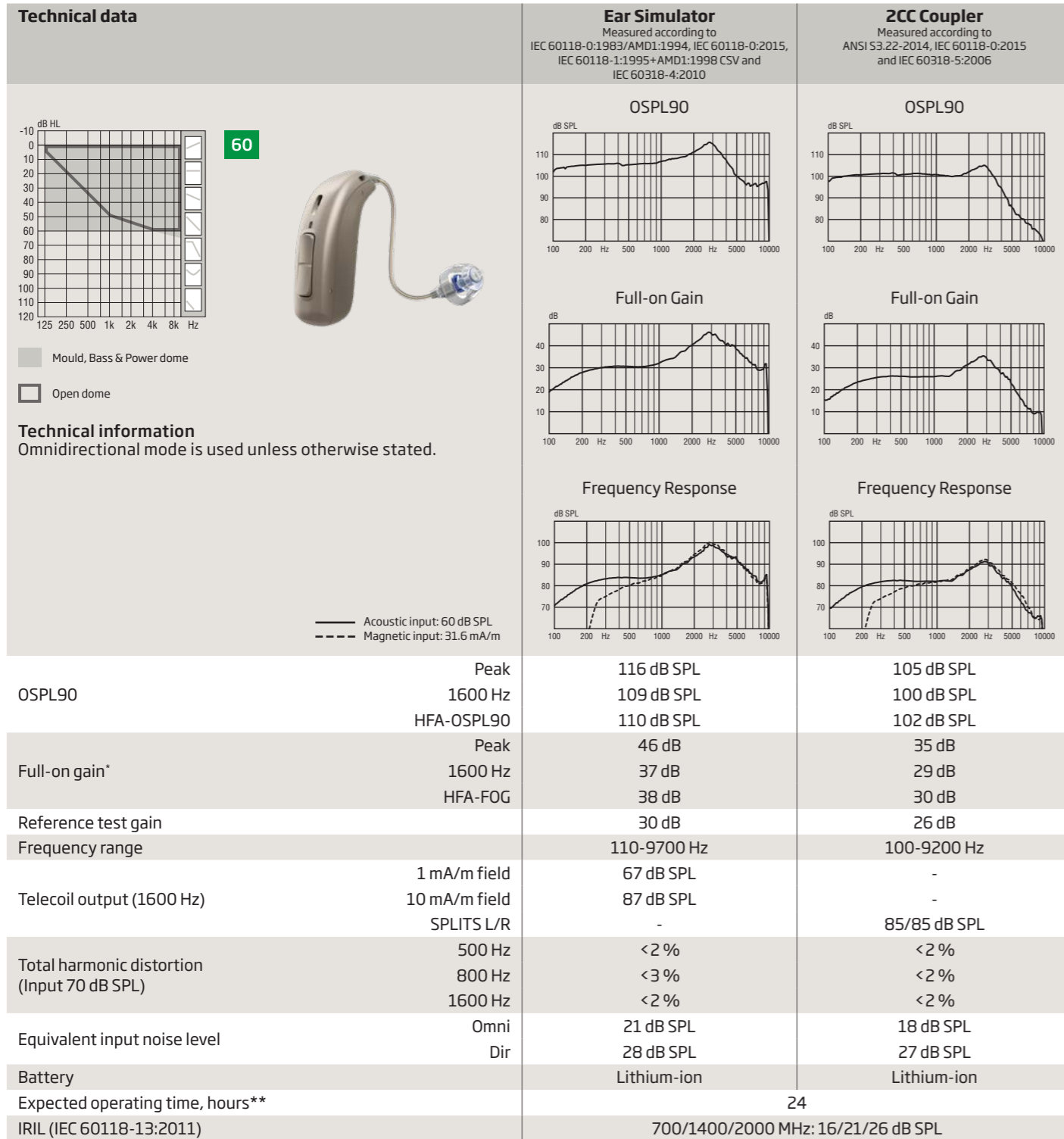


Oticon Opn S 1

miniRITE R 60

Oticon Opn S 2 & 3

miniRITE R 60



* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

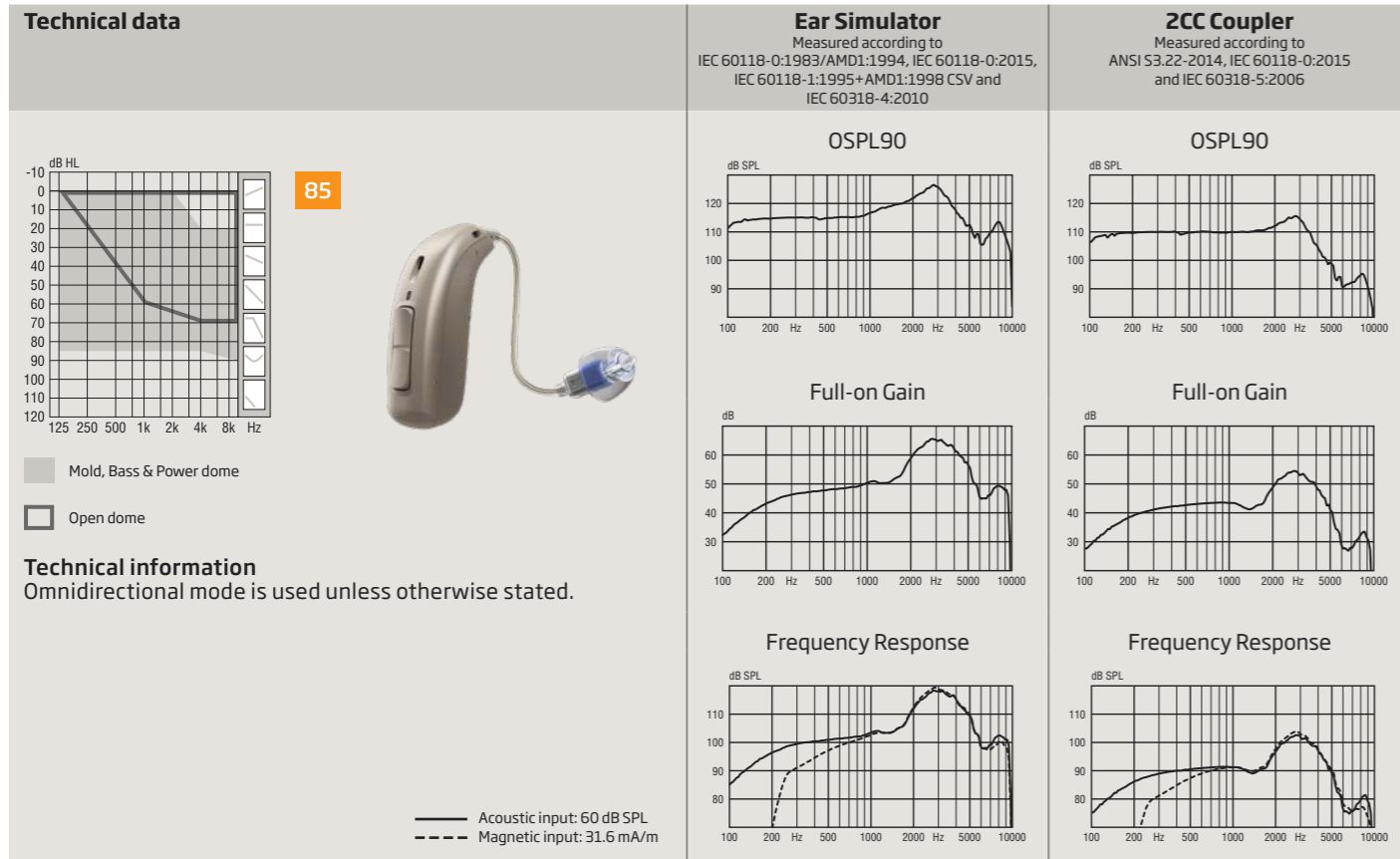
** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

Oticon Opn S 1

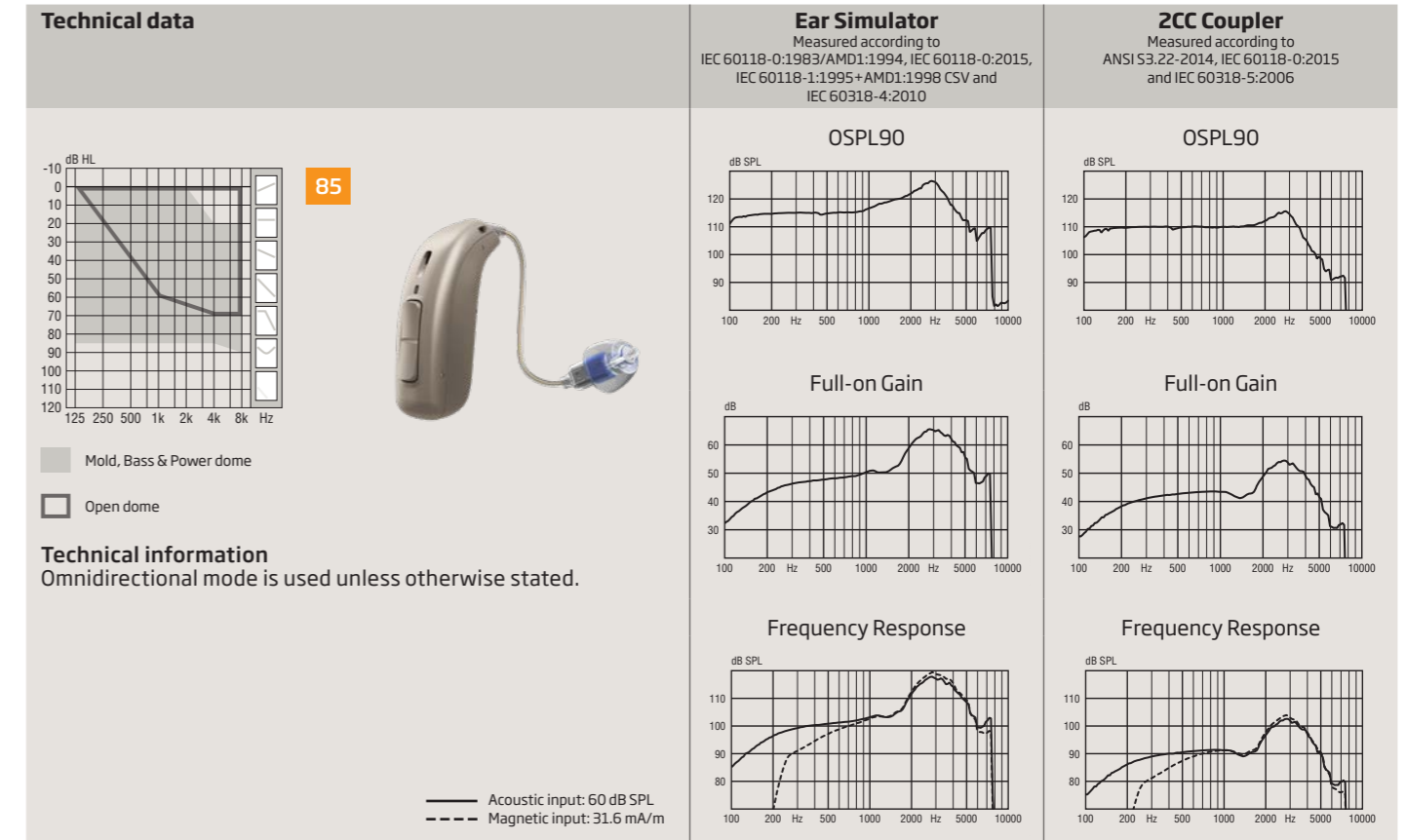
miniRITE R 85

Oticon Opn S 2 & 3

miniRITE R 85



OSPL90	Peak	127 dB SPL	116 dB SPL
	1600 Hz	120 dB SPL	111 dB SPL
	HFA-OSPL90	121 dB SPL	112 dB SPL
Full-on gain*	Peak	66 dB	54 dB
	1600 Hz	52 dB	43 dB
	HFA-FOG	55 dB	47 dB
Reference test gain		45 dB	34 dB
Frequency range		120-9500 Hz	100-8500 Hz
Telecoil output (1600 Hz)	1 mA/m field	82 dB SPL	-
	10 mA/m field	102 dB SPL	-
	SPLITS L/R	-	94/94 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz	<2 %	<2 %
	800 Hz	<3 %	<2 %
	1600 Hz	<2 %	<2 %
Equivalent input noise level	Omni	25 dB SPL	20 dB SPL
	Dir	32 dB SPL	29 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 20/20/24 dB SPL	



OSPL90	Peak	127 dB SPL	116 dB SPL
	1600 Hz	120 dB SPL	111 dB SPL
	HFA-OSPL90	121 dB SPL	112 dB SPL
Full-on gain*	Peak	66 dB	54 dB
	1600 Hz	52 dB	43 dB
	HFA-FOG	55 dB	47 dB
Reference test gain		45 dB	34 dB
Frequency range		120-7500 Hz	100-7500 Hz
Telecoil output (1600 Hz)	1 mA/m field	82 dB SPL	-
	10 mA/m field	102 dB SPL	-
	SPLITS L/R	-	94/94 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz	<2 %	<2 %
	800 Hz	<3 %	<2 %
	1600 Hz	<2 %	<2 %
Equivalent input noise level	Omni	26 dB SPL	21 dB SPL
	Dir	33 dB SPL	30 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 20/20/24 dB SPL	

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

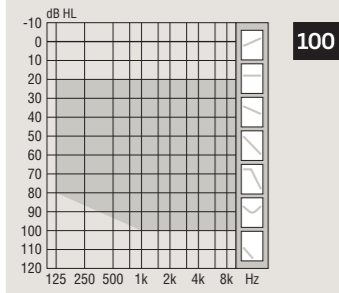
Oticon Opn S 1

miniRITE R 100

Oticon Opn S 2 & 3

miniRITE R 100

Technical data



100



Power flex mold, Bass & Power dome

Technical information

Omnidirectional mode is used unless otherwise stated.

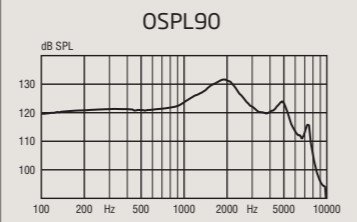
Instrument warning

The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing aid user.

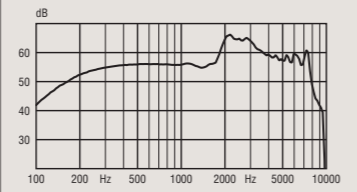
— Acoustic input: 60 dB SPL
- - - Magnetic input: 31.6 mA/m

Ear Simulator

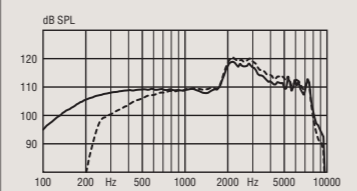
Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010



Full-on Gain

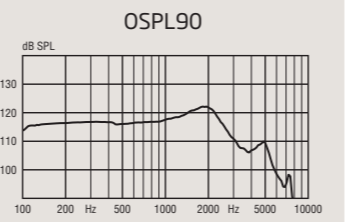


Frequency Response

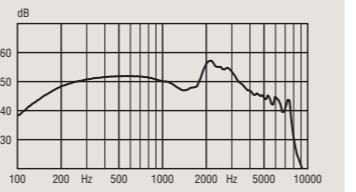


ZCC Coupler

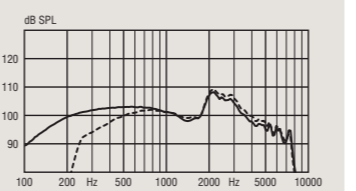
Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006



Full-on Gain

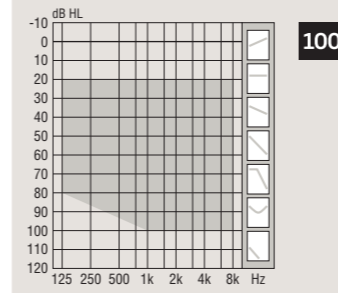


Frequency Response



OSPL90	Peak	132 dB SPL	122 dB SPL
	1600 Hz	130 dB SPL	121 dB SPL
HFA-OSPL90	Peak	127 dB SPL	118 dB SPL
	1600 Hz	127 dB SPL	118 dB SPL
Full-on gain*	Peak	66 dB	57 dB
	1600 Hz	56 dB	48 dB
Reference test gain	HFA-FOG	59 dB	51 dB
		49 dB	42 dB
Frequency range		100-8500 Hz	100-8000 Hz
Telecoil output (1600 Hz)	1 mA/m field	86 dB SPL	-
	10 mA/m field	106 dB SPL	-
SPLITS L/R		-	103/103 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz	<7 %	<2 %
	800 Hz	<4 %	<2 %
	1600 Hz	<2 %	<2 %
Equivalent input noise level	Omni	23 dB SPL	19 dB SPL
	Dir	32 dB SPL	30 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 18/21/28 dB SPL	

Technical data



100



Power flex mold, Bass & Power dome

Technical information

Omnidirectional mode is used unless otherwise stated.

Instrument warning

The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing aid user.

— Acoustic input: 60 dB SPL
- - - Magnetic input: 31.6 mA/m

OSPL90	Peak	132 dB SPL	122 dB SPL
	1600 Hz	130 dB SPL	121 dB SPL
HFA-OSPL90	Peak	127 dB SPL	118 dB SPL
	1600 Hz	127 dB SPL	118 dB SPL
Full-on gain*	Peak	66 dB	57 dB
	1600 Hz	56 dB	48 dB
Reference test gain	HFA-FOG	59 dB	51 dB
		49 dB	42 dB
Frequency range		100-7500 Hz	100-7500 Hz
Telecoil output (1600 Hz)	1 mA/m field	86 dB SPL	-
	10 mA/m field	106 dB SPL	-
SPLITS L/R		-	103/103 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz	<7 %	<2 %
	800 Hz	<4 %	<2 %
	1600 Hz	<2 %	<2 %
Equivalent input noise level	Omni	23 dB SPL	19 dB SPL
	Dir	32 dB SPL	30 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 18/21/28 dB SPL	

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.


Oticon Opn S 1

miniRITE R 105

Oticon Opn S 2 & 3

miniRITE R 105

Technical data



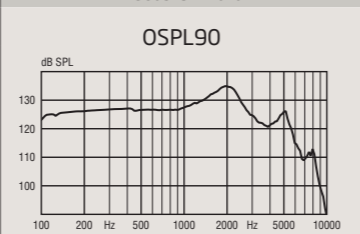
Technical information
Omnidirectional mode is used unless otherwise stated.

Instrument warning
The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing aid user.

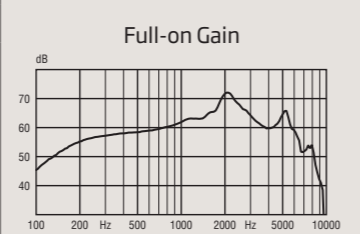
Acoustic input: 60 dB SPL
Magnetic input: 31.6 mA/m

Ear Simulator
Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010

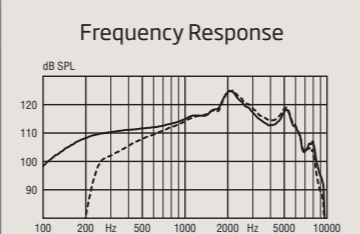
OSPL90



Full-on Gain

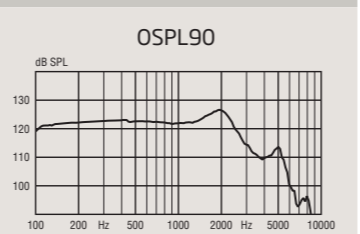


Frequency Response

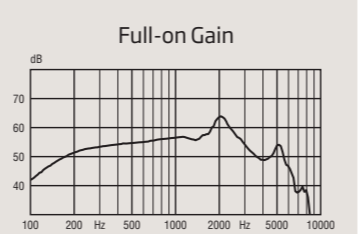


ZCC Coupler
Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006

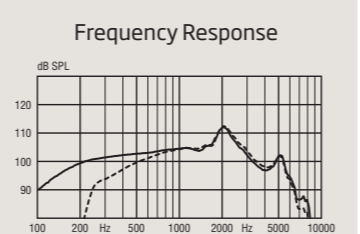
OSPL90



Full-on Gain




Frequency Response



OSPL90	Peak	135 dB SPL	127 dB SPL
	1600 Hz	132 dB SPL	125 dB SPL
	HFA-OSPL90	130 dB SPL	122 dB SPL
Full-on gain*	Peak	72 dB	64 dB
	1600 Hz	65 dB	57 dB
	HFA-FOG	65 dB	57 dB
Reference test gain		58 dB	46 dB
Frequency range		100-8200 Hz	100-7800 Hz
Telecoil output (1600 Hz)	1 mA/m field	96 dB SPL	-
	10 mA/m field	116 dB SPL	-
	SPLITS L/R	-	105/105 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz	<2 %	<2 %
	800 Hz	<2 %	<2 %
	1600 Hz	<3 %	<2 %
Equivalent input noise level	Omni	18 dB SPL	18 dB SPL
	Dir	28 dB SPL	29 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 38/18/39 dB SPL	

Technical data



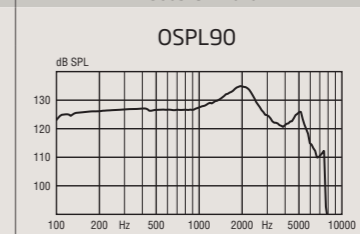
Technical information
Omnidirectional mode is used unless otherwise stated.

Instrument warning
The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing aid user.

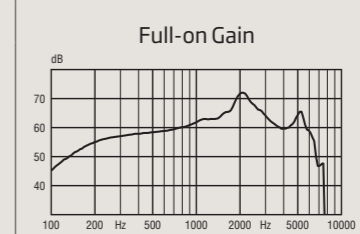
Acoustic input: 60 dB SPL
Magnetic input: 31.6 mA/m

Ear Simulator
Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010

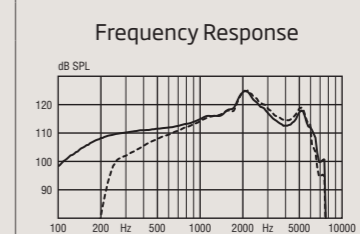
OSPL90



Full-on Gain

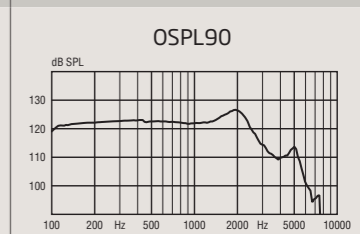


Frequency Response

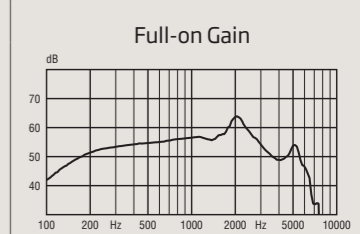


ZCC Coupler
Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006

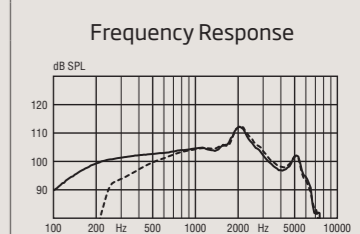
OSPL90



Full-on Gain



Frequency Response



OSPL90	Peak	135 dB SPL	127 dB SPL
	1600 Hz	132 dB SPL	125 dB SPL
	HFA-OSPL90	130 dB SPL	122 dB SPL
Full-on gain*	Peak	72 dB	64 dB
	1600 Hz	65 dB	57 dB
	HFA-FOG	65 dB	57 dB
Reference test gain		58 dB	46 dB
Frequency range		100-7500 Hz	100-6500 Hz
Telecoil output (1600 Hz)	1 mA/m field	96 dB SPL	-
	10 mA/m field	116 dB SPL	-
	SPLITS L/R	-	105/105 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz	<2 %	<2 %
	800 Hz	<2 %	<2 %
	1600 Hz	<3 %	<2 %
Equivalent input noise level	Omni	18 dB SPL	18 dB SPL
	Dir	28 dB SPL	29 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 38/18/39 dB SPL	

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

** Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

Charger 1.0

miniRITE R

The charger is designed for recharging miniRITE R, part of Oticon Opn S™ families. The charger is based on inductive technology. It wirelessly charges the hearing aids within three hours. A magnetic connection secures the hearing aids always stay in the charger. The charger is designed to simplify everyday recharging activities with a few, easy actions.

Charging

- Designed to make the most typical daily routine of charging smooth and simple.
- Simply take off the hearing aid and insert it in the charger - no lid to open. Operation so simple it can be done using only one hand.
- The hearing aid automatically starts charging when placed in the charger and turn ON automatically when removed from the charger.
- Charge every night and hearing aid will be fully charged when needed during day time.

Intuitive to decode with few simple LED messages directly on the hearing aid:

- Red = Charging
- Green = Fully charged

Offering short charging times. If the hearing aid is completely drained, the normal charging times are:

- 3 h = Fully charged
- 1 h = 50% charged
- 0.5 h = 25% charged

Product facts

- Inductive charging
- Power ON/OFF LED indicator on charger
- The charger comes with a fixed cable
- High stability due to rubber feet
- Soft, round shapes - easy to clean
- Soft pouch for travelling included

Charger 1.0

miniRITE R

Technical data: Charger

Name	Charger 1.0, Oticon miniRITE R
Designed for/compatibility	Oticon Opn S, Oticon Opn Play: miniRITE R
Dimensions	Ø95 mm /total height of 39 mm
Weight	140 grams
Color	Black
Power supply plug	USB A
Status indicator	LED on charger. Indicates Charger ON/OFF status LED on hearing instrument. Indicates charging mode
Charging time of hearing instruments	Max 3 hours depending on initial state of the battery (Temperature: +5 °C to +35 °) Max 4 hours depending on initial state of the battery (Temperature: +35 °C to +40 °)
Power source	Supplied power supply unit
Input voltage	5 V DC
Input current	< 0.2 A (charging two hearing instruments) <10mA stand-by (no hearing instruments inserted)
Cable	Fixed mounted cable / 150 cm
Connected to external equipment	When connected to external equipment plugged into a wall outlet, this equipment must comply with IEC-62368 (or IEC-60065, IEC-60950 until June 20, 2019) or equivalent safety standards.

Conditions of use

Operating conditions	Temperature: +5 °C to +40 °C Relative humidity: 5 % to 93 %, non-condensing
Storage and transportation conditions	Temperature: -25 °C to +70 °C Relative humidity: 5 % to 93 %, non-condensing
Atmospheric pressure	700 hPa to 1060 hPa

Technical data: Power supply unit

Power supply unit	AN05x-050A
Input voltage	100 -240 V AC
Input current	0.2 A
Input frequency	50-60 Hz
Output voltage	5 V DC
Output current	1 A



* Power plug will vary from country to country



Oticon A/S
Kongebakken 9
2765 Smørum
Denmark
+45 3917 7100



Absolute Hearing Solutions LLC
absolutehearing@att.net

750 Cross Pointe Road Suite F
Gahanna, Ohio 43230

Phone: 614-452-4280
Toll Free: 888-803-2159
Fax: 614-577-0481
www.absolutehearingsolutions.com

