

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
	- Balancing power effect	100%	50%
	- Max. noise removal	9 dB	5 dB
	OpenSound Optimizer™	•	•
	Speech Guard™ LX	Level 1	Level 2
	Spatial Sound™ LX	4 estimators	2 estimators
	Soft Speech Booster LX	•	•
	Speech Rescue™ LX	•	•
Sound Quality	Clear Dynamics	•	-
	Spatial Noise Management	•	-
	Fitting Bandwidth*	10 KHz	8 KHz
	Processing Channels	64	48
	Bass Boost (streaming)	•	•
Listening Comfort	Transient Noise Management	4 configurations	On/Off
	Feedback shield LX	•	•
	Wind Noise Management	•	•
Personalization & Optimizing Fitting	YouMatic™ LX	3 configurations	2 configurations
	Fitting Bands	16	14
	Multiple Directionality Options	•	•
	Adaptation Management	•	•
	Oticon Firmware Updater	•	•
	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
Connecting to the World	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 ensures reliable and fast charging within 3 hours for a full charge.

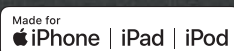
miniRITE R features a telecoil and a convenient double pushbutton.

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 securing 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.



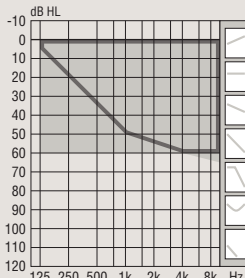

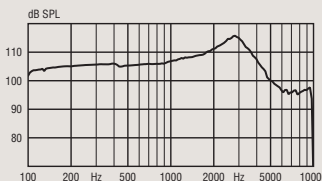
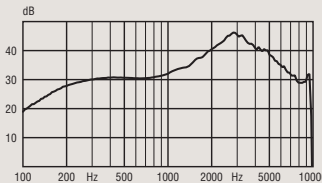
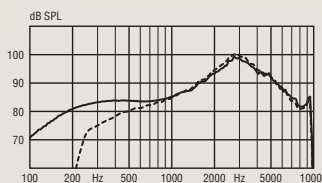
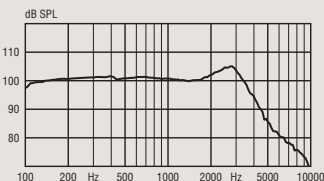
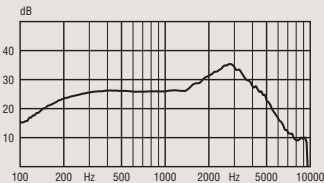
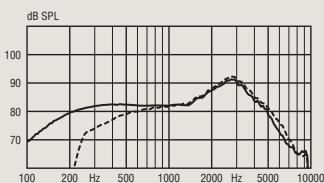
IP68



For information on compatibility, please visit www.oticon.ca/connectivity

Oticon Opn S 1

miniRITE R 60


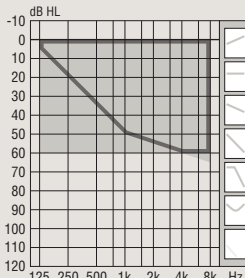
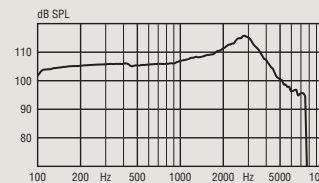
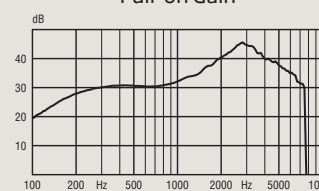
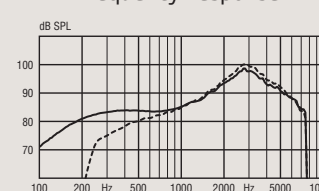
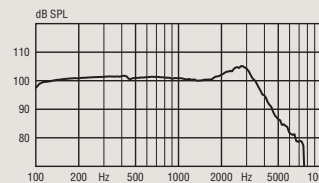
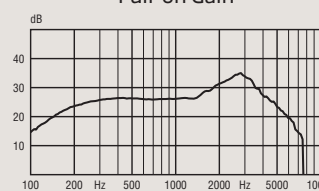
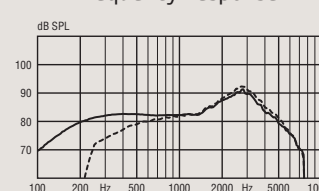
Technical data		Ear Simulator Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010	ZCC Coupler Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006
<div><div>60</div><div><div></div> Mould, Bass & Power dome</div><div><div></div> Open dome</div><div>Technical information Omnidirectional mode is used unless otherwise stated.</div></div>		<div>OSPL90 </div> <div>Full-on Gain </div> <div>Frequency Response <div><div></div> Acoustic input: 60 dB SPL</div><div><div></div> Magnetic input: 31.6 mA/m</div></div>	<div>OSPL90 </div> <div>Full-on Gain </div> <div>Frequency Response </div>
OSPL90	Peak 1600 Hz HFA-OSPL90	116 dB SPL 109 dB SPL 110 dB SPL	105 dB SPL 100 dB SPL 102 dB SPL
Full-on gain*	Peak 1600 Hz HFA-FOG	46 dB 37 dB 38 dB	35 dB 29 dB 30 dB
Reference test gain		30 dB	26 dB
Frequency range		110-9700 Hz	100-9200 Hz
Telecoil output (1600 Hz)	1 mA/m field 10 mA/m field SPLITS L/R	67 dB SPL 87 dB SPL -	- - 85/85 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz 800 Hz 1600 Hz	<2 % <3 % <2 %	<2 % <2 % <2 %
Equivalent input noise level	Omni Dir	21 dB SPL 28 dB SPL	18 dB SPL 27 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 16/21/26 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.

Oticon Opn S 2 & 3

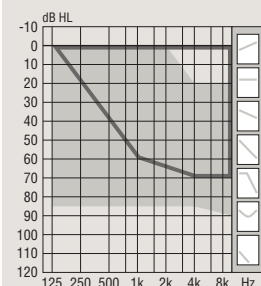

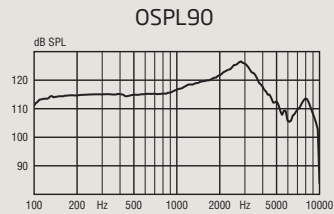
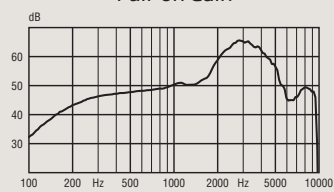
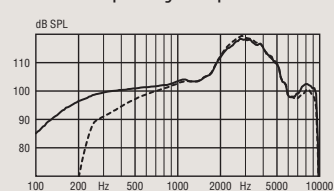
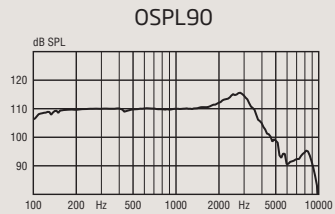
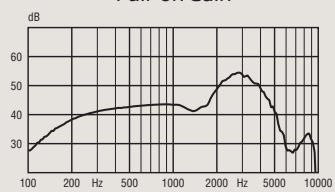
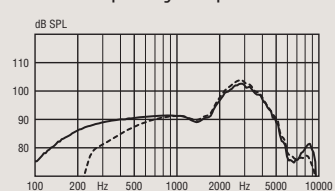
miniRITE R 60

Technical data		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	ZCC Coupler Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006
<div><div>60</div><div>Mould, Bass & Power dome</div><div>Open dome</div><p>Technical information Omnidirectional mode is used unless otherwise stated.</p></div>		<div><p>OSPL90</p><p>Full-on Gain</p><p>Frequency Response</p><p>Acoustic input: 60 dB SPL Magnetic input: 31.6 mA/m</p></div>	<div><p>OSPL90</p><p>Full-on Gain</p><p>Frequency Response</p><p>Acoustic input: 60 dB SPL Magnetic input: 31.6 mA/m</p></div>
OSPL90	Peak 1600 Hz HFA-OSPL90	116 dB SPL 109 dB SPL 110 dB SPL	105 dB SPL 100 dB SPL 102 dB SPL
Full-on gain*	Peak 1600 Hz HFA-FOG	46 dB 37 dB 38 dB	35 dB 29 dB 30 dB
Reference test gain		30 dB	26 dB
Frequency range		110-7500 Hz	100-7500 Hz
Telecoil output (1600 Hz)	1 mA/m field 10 mA/m field SPLITS L/R	67 dB SPL 87 dB SPL -	- - 85/85 dB SPL
Total harmonic distortion (Input 70 dB SPL)	500 Hz 800 Hz 1600 Hz	<2 % <3 % <2 %	<2 % <2 % <2 %
Equivalent input noise level	Omni Dir	22 dB SPL 30 dB SPL	19 dB SPL 28 dB SPL
Battery		Lithium-ion	Lithium-ion
Expected operating time, hours**		24	
IRIL (IEC 60118-13:2011)		700/1400/2000 MHz: 16/21/26 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.

Oticon Opn S 1

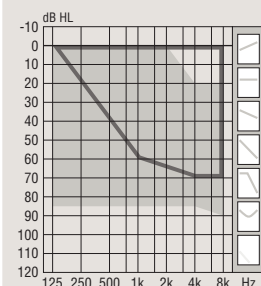

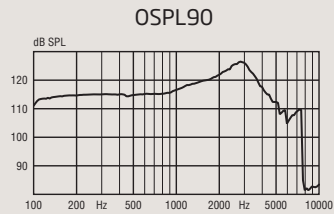
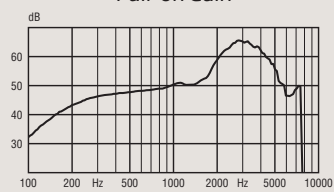
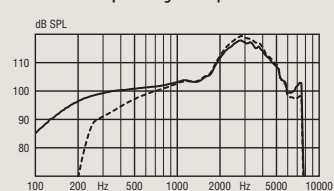
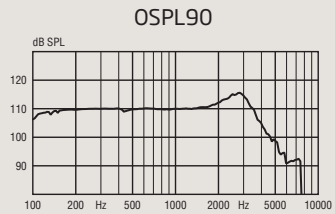
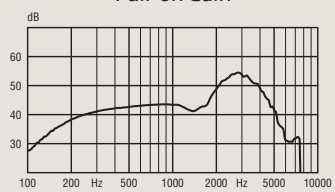
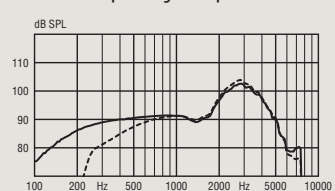
Technical data		Ear Simulator Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010	2CC Coupler Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006
  <div>85</div> <p>Technical information Omnidirectional mode is used unless otherwise stated.</p>		   <p>OSPL90</p> <p>Full-on Gain</p> <p>Frequency Response</p>	   <p>OSPL90</p> <p>Full-on Gain</p> <p>Frequency Response</p>
OSPL90		Peak 1600 Hz HFA-OSPL90	Peak 1600 Hz HFA-OSPL90
Full-on gain*		Peak 1600 Hz HFA-FOG	Peak 1600 Hz HFA-FOG
Reference test gain		45 dB	34 dB
Frequency range		120-9500 Hz	100-8500 Hz
Telecoil output (1600 Hz)		1 mA/m field 10 mA/m field SPLITS L/R	- - 94/94 dB SPL
Total harmonic distortion (Input 70 dB SPL)		500 Hz 800 Hz 1600 Hz	< 2 % < 2 % < 2 %
Equivalent input noise level		Omni Dir	20 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	

* 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.

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Oticon Opn S 2 & 3

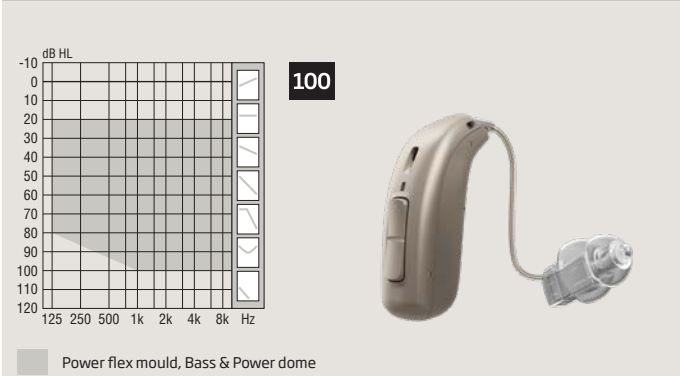
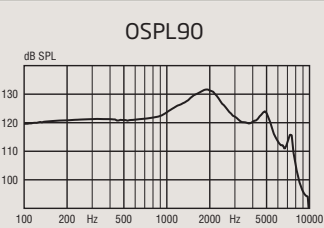
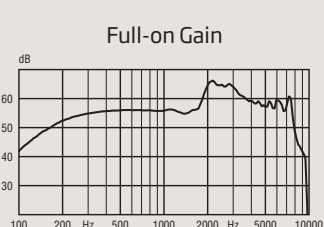
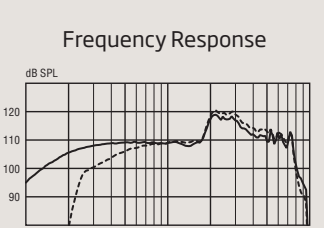
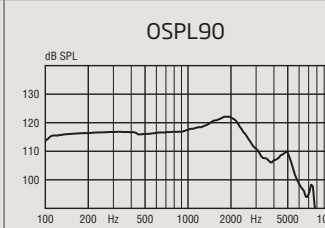
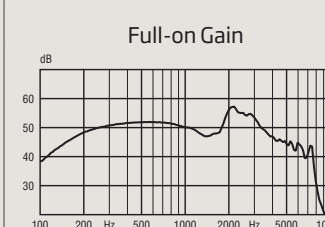
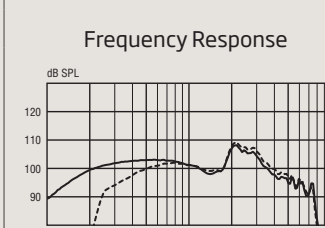
Technical data		Ear Simulator Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010	2CC Coupler Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006
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OSPL90		Peak 1600 Hz HFA-OSPL90	Peak 1600 Hz HFA-OSPL90
Full-on gain*		Peak 1600 Hz HFA-FOG	Peak 1600 Hz HFA-FOG
Reference test gain		45 dB	34 dB
Frequency range		120-7500 Hz	100-7500 Hz
Telecoil output (1600 Hz)		1 mA/m field 10 mA/m field SPLITS L/R	- - 94/94 dB SPL
Total harmonic distortion (Input 70 dB SPL)		500 Hz 800 Hz 1600 Hz	< 2 % < 2 % < 2 %
Equivalent input noise level		Omni Dir	21 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.

Oticon Opn S 1

miniRITE R 100

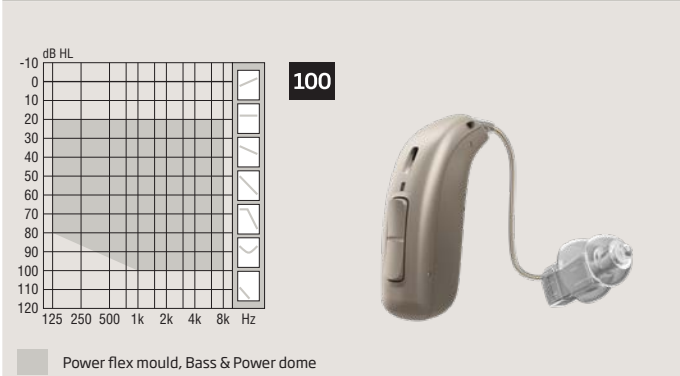
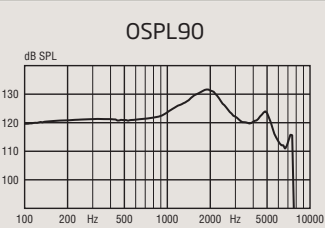
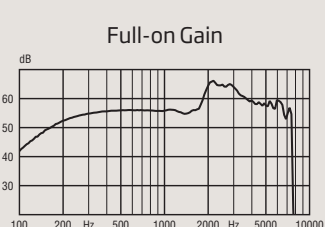
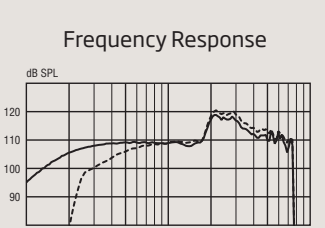
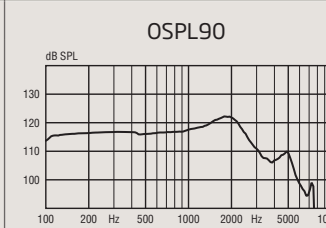
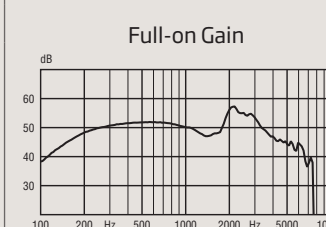
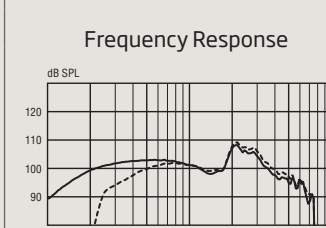
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 <p>Power flex mould, Bass & Power dome</p>		 <p>OSPL90</p>  <p>Full-on Gain</p>  <p>Frequency Response</p>	 <p>OSPL90</p>  <p>Full-on Gain</p>  <p>Frequency Response</p>
Technical information Omnidirectional mode is used unless otherwise stated.			
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
		1600 Hz	130 dB SPL
		HFA-OSPL90	127 dB SPL
Full-on gain*		Peak	66 dB
		1600 Hz	56 dB
		HFA-FOG	59 dB
Reference test gain			49 dB
Frequency range			100-8500 Hz
Telecoil output (1600 Hz)		1 mA/m field	86 dB SPL
		10 mA/m field	106 dB SPL
		SPLITS L/R	-
Total harmonic distortion (Input 70 dB SPL)		500 Hz	<7 %
		800 Hz	<4 %
		1600 Hz	<2 %
Equivalent input noise level		Omni	23 dB SPL
		Dir	32 dB SPL
Battery			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.

Oticon Opn S 2 & 3

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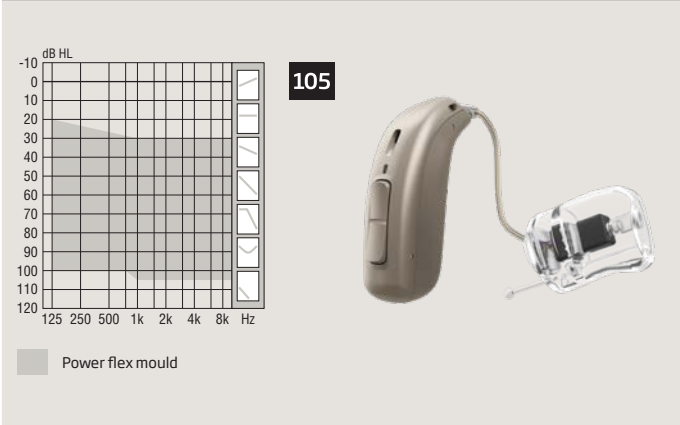
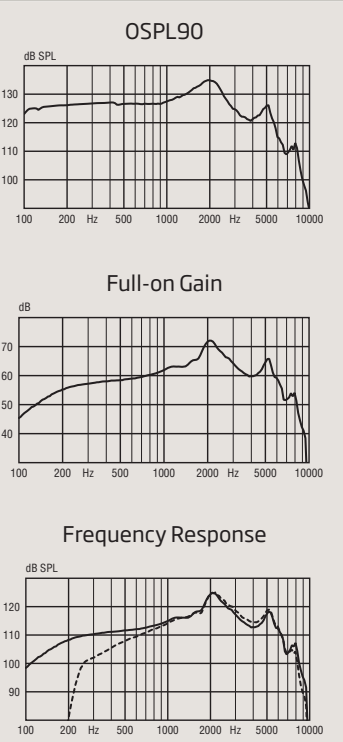
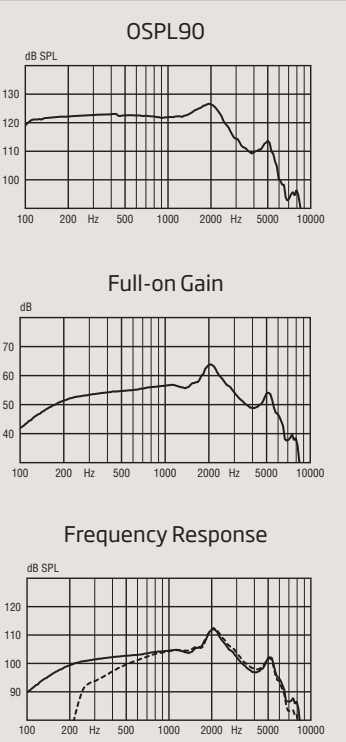
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 <p>Power flex mould, Bass & Power dome</p>		 <p>OSPL90</p>  <p>Full-on Gain</p>  <p>Frequency Response</p>	 <p>OSPL90</p>  <p>Full-on Gain</p>  <p>Frequency Response</p>
Technical information Omnidirectional mode is used unless otherwise stated.			
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
		1600 Hz	130 dB SPL
		HFA-OSPL90	127 dB SPL
Full-on gain*		Peak	66 dB
		1600 Hz	56 dB
		HFA-FOG	59 dB
Reference test gain			49 dB
Frequency range			100-7500 Hz
Telecoil output (1600 Hz)		1 mA/m field	86 dB SPL
		10 mA/m field	106 dB SPL
		SPLITS L/R	-
Total harmonic distortion (Input 70 dB SPL)		500 Hz	<7 %
		800 Hz	<4 %
		1600 Hz	<2 %
Equivalent input noise level		Omni	23 dB SPL
		Dir	32 dB SPL
Battery			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.

Oticon Opn S 1

miniRITE R 105

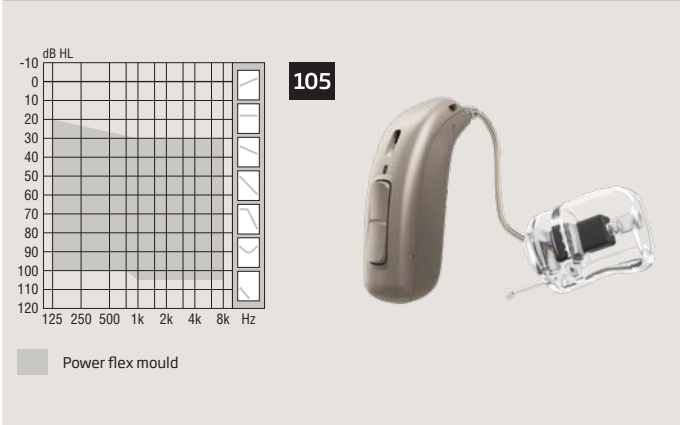
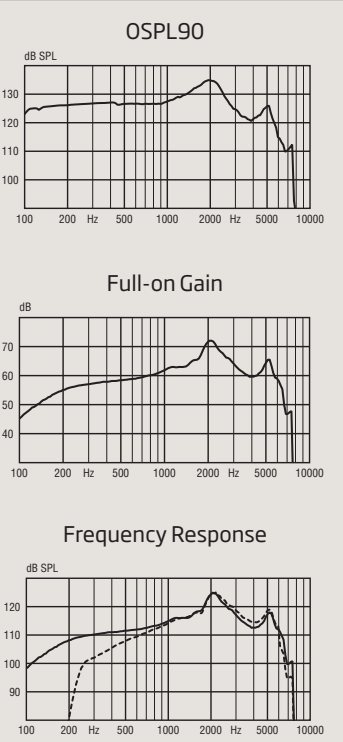
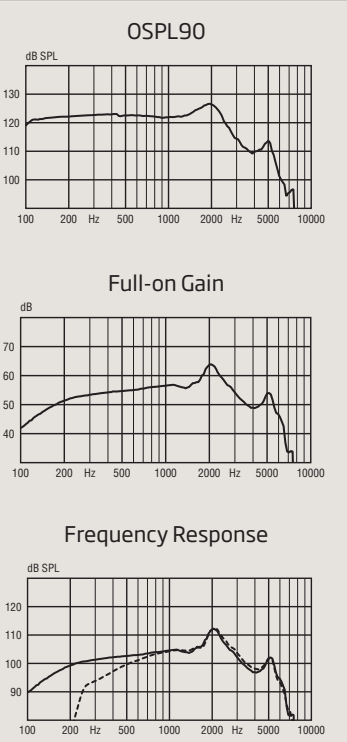
Technical data		Ear Simulator Measured according to IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010	ZCC Coupler Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006
			
Technical information Omnidirectional mode is used unless 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.			
OSPL90 Peak 1600 Hz HFA-OSPL90		135 dB SPL 132 dB SPL 130 dB SPL	127 dB SPL 125 dB SPL 122 dB SPL
Full-on gain* Peak 1600 Hz HFA-FOG		72 dB 65 dB 65 dB	64 dB 57 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 10 mA/m field SPLITS L/R	- - 105/105 dB SPL
Total harmonic distortion (Input 70 dB SPL)		500 Hz 800 Hz 1600 Hz	<2 % <2 % <2 %
Equivalent input noise level		Omni Dir	18 dB SPL 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.

Oticon Opn S 2 & 3

miniRITE R 105

Technical data		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	ZCC Coupler Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006
			
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.			
OSPL90 Peak 1600 Hz HFA-OSPL90		135 dB SPL 132 dB SPL 130 dB SPL	127 dB SPL 125 dB SPL 122 dB SPL
Full-on gain* Peak 1600 Hz HFA-FOG		72 dB 65 dB 65 dB	64 dB 57 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 10 mA/m field SPLITS L/R	- - 105/105 dB SPL
Total harmonic distortion (Input 70 dB SPL)		500 Hz 800 Hz 1600 Hz	<2 % <2 % <2 %
Equivalent input noise level		Omni Dir	18 dB SPL 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.

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 ensures 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 is 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.

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

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



* Power plug will vary from country to country

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
Colour	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



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Oticon A/S
Kongebakken 9
DK-2765 Smørum
Denmark
www.oticon.global

Imported and
Distributed by:
Audmet Canada Ltd
1600-4950 Yonge St
Toronto, ON M2N 6K1
www.oticon.ca

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