### OTICON | Opn S

## Technical data sheet

### **BTE PP**

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	•	•	•
	Speech Rescue™ LX	•	•	•
Sound Quality	Clear Dynamics	•	•	-
	Spatial Noise Management	•	•	-
	Fitting Bandwidth*	10 kHz	8 kHz	8 kHz
	Processing Channels	64	48	48
S	Bass Boost (streaming)	•	•	•
٥٤	Transient Noise Management	4 configurations	On/Off	On/Off
Listening Comfort	Feedback shield LX	•	•	•
S S	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
a fu	Fitting Bands	16	14	12
Personalization & Optimizing Fitting	Multiple Directionality Options	•	•	•
aliz zing	Adaptation Management	•	•	•
rsor	Oticon Firmware Updater	•	•	•
9 9	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2 DSL v5.0
g to the World	Stereo streaming (2.4 GHz)	•	•	•
	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
ectin	TV Adapter 3.0	•	•	•
Connecting to	Phone Adapter 2.0	•	•	•
	DAI/FM	•	•	•
	Tinnitus SoundSupport <sup>TM</sup>	•	•	•



Oticon Opn S™ BTE PP has a compact design and offers both hook and thin tube. Features telecoil, double push button with optional LED status and FM support.

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.

Operating conditions

Temperature:  $\pm 1^{\circ}$ C to  $\pm 40^{\circ}$ C ( $34^{\circ}$ F to  $104^{\circ}$ F) Relative humidity: 5% to 93%, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa

Storage and transportation conditions

Temperature and humidity shall not exceed the below limits for extended periods during transportation and storage. Temperature: -25°C to +60°C (-13°F to 140°F)

Relative humidity: 5% to +60°C (-13°F to 140°F)
Relative humidity: 5% to 93%, non-condensing
Atmospheric pressure: 700 hPa to 1060 hPa











<sup>\*</sup> Bandwidth accessible for gain adjustments during fitting

Oticon Opn S 1 BTE PP

#### Technical data Ear Simulator **2CC Coupler** Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006 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 OSPL90 105 Full-on Gain Full-on Gain Corda miniFit Technical information Omnidirectional mode is used unless otherwise stated. Standard tube Thin tube (size 1/1.3) Standard tube --- Thin tube (size 1/1.3) Warning to the instrument dispenser The maximum output capability of the hearing aid may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument, as there Frequency Response Frequency Response may be risk of impairing the remaining hearing of the hearing aid user. Acoustic input: 60 dB SPL Acoustic input: 60 dB SPL --- Magnetic input: 31.6 mA/m --- Magnetic input: 31.6 mA/m Peak 138 (1321) dB SPL 131 (1291) dB SPL OSPL90 1600 Hz 130 (1211) dB SPL 123 (1131) dB SPL HFA-OSPL90 133 (1261) dB SPL 126 (1181) dB SPL Peak 73 (69<sup>1</sup>) dB 66 (66<sup>1</sup>) dB Full-on gain<sup>2</sup> 1600 Hz 65 (56<sup>1</sup>) dB 57 (47<sup>1</sup>) dB HFA-FOG 68 (621) dB 61 (541) dB Reference test gain 57 dB 50 dB Frequency range 150-7300 Hz 120-7000 Hz 1 mA/m field 97 dB SPL 10 mA/m field Telecoil output (1600 Hz) 117 dB SPL SPLITS L/R 109/109 dB SPL 500 Hz 7% 3% Total harmonic distortion <2% 800 Hz 5% (Input 70 dB SPL) 1600 Hz <2% <2% 17 dB SPL 14 dB SPL Omni Equivalent input noise level 29 dB SPL 27 dB SPL Dir 1.8 mA 1.9 mA Typical Battery consumption<sup>3</sup> Quiescent 1.6 mA 1.6 m Battery life, artificial measurement, hours<sup>4</sup> 175 160 Expected battery life, hours (battery size 13 - IEC PR48)<sup>5</sup> 80-105

# 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	<b>2CC Coupler</b> Measured according to ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006			
-10 dB HL -10 0 10 20 30 40 50 60 70 80		0SPL90  dB SPL  130  120  110  100  200 Hz 500 1000 2000 Hz 5000 10000	0SPL90  d8 SPL  130  100  100  200 Hz 500 1000 2000 Hz 5000 10000			
90 100 110 120 125 250 500 1k 2k 4k 8k Hz		Full-on Gain	Full-on Gain			
Hook		70	70			
Corda miniFit  Technical information Omnidirectional mode is used unless otherwise	stated.	50 40 100 200 Hz 500 1000 2000 Hz 5000 10000	50 40 100 200 Hz 500 1000 2000 Hz 5000 10000			
		Standard tube Thin tube (size 1/1.3)	——— Standard tube ——— Thin tube (size 1/1.3)			
Warning to the instrument dispenser The maximum output capability of the hearing exceed 132 dB SPL (IEC 711). Special care shoul exercised in selecting and fitting the instrumen may be risk of impairing the remaining hearing hearing aid user.	d be it, as there	Frequency Response  B SPL  120 110 100 200 Hz 500 1000 2000 Hz 5000 10000	Frequency Response  dB SPL  120 100 200 Hz 500 1000 2000 Hz 5000 10000			
		Acoustic input: 60 dB SPL  ——— Magnetic input: 31.6 mA/m	Acoustic input: 60 dB SPL  Magnetic input: 31.6 mA/m			
OSPL90	Peak 1600 Hz HFA-OSPL90	138 (132¹) dB SPL 130 (121¹) dB SPL 133 (126¹) dB SPL	131 (129¹) dB SPL 123 (113¹) dB SPL 126 (118¹) dB SPL			
	Peak	73 (69¹) dB	66 (66¹) dB			
Full-on gain <sup>2</sup>	1600 Hz HFA-FOG	65 (56¹) dB 68 (62¹) dB	57 (47¹) dB 61 (54¹) dB			
Reference test gain	TILY-LOG	57 dB	50 dB			
Frequency range		150-7300 Hz	120-7000 Hz			
Telecoil output (1600 Hz)	1 mA/m field 10 mA/m field SPLITS L/R	97 dB SPL 117 dB SPL -	- - 109/109 dB SPL			
Total harmonic distortion	500 Hz	7 %	3 %			
(Input 70 dB SPL)	800 Hz 1600 Hz	5 % <2 %	< 2 % < 2 %			
Equivalent input noise level	Omni Dir	17 dB SPL 29 dB SPL	14 dB SPL 27 dB SPL			
Battery consumption <sup>3</sup>	Typical Quiescent	1.8 mA 1.6 mA	1.9 mA 1.6 m			
Battery life, artificial measurement, hours <sup>4</sup>	Quiescefit	1.6 MA	1.6111			
Expected battery life, hours (battery size 13 - IEC	PR48) <sup>5</sup>		105			
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**BTE PP** 

<sup>1)</sup> For instruments fitted with Corda miniFit Power.

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.

<sup>3)</sup> Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

<sup>4)</sup> Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.

<sup>5)</sup> Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).

<sup>1)</sup> For instruments fitted with Corda miniFit Power.

<sup>2)</sup> 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.

<sup>3)</sup> Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

<sup>4)</sup> Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.

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