

# Quantum<sup>2</sup>

Quantum<sup>2</sup> 20, Quantum<sup>2</sup> 16, Quantum<sup>2</sup> 10, Quantum<sup>2</sup> E  
13 BTE hearing aid series



## Performance profile

	Quantum <sup>2</sup> 20	Quantum <sup>2</sup> 16	Quantum <sup>2</sup> 10	Quantum <sup>2</sup> E
Channels / bands	20	16	10	6
Processing types	WDRC and linear	WDRC and linear	WDRC and linear	WDRC and linear
Adaptive directional	Multiband	Multiband	Multiband	•

## Signature features

	Quantum <sup>2</sup> 20	Quantum <sup>2</sup> 16	Quantum <sup>2</sup> 10	Quantum <sup>2</sup> E
Automatic Program	Automatic 4	Automatic 3	Automatic 2	Manual
SmartFocus2	•	•		
SmartFocus			•	•
Automatic Adaptation Manager	•	•	•	•
Binaural Phone	•	•	•	
Pinna Effect	•	•		
Self learning	•	•		
LearnNow	•			

## Features

	Quantum <sup>2</sup> 20	Quantum <sup>2</sup> 16	Quantum <sup>2</sup> 10	Quantum <sup>2</sup> E
Manual programs	Up to 3	Up to 3	Up to 3	Up to 4
Feedback manager	•	•	•	•
Natural Sound Balance	•	•	•	•
AntiShock	•	•	•	•
Easy-t and DAI	•	•	•	•
MyMusic	Automatic	•	•	•

## In all technology levels

3 wireless programs (not available on E), data logging, wind noise manager, DuoLink, IntelliVent technology for custom ear pieces, tinnitus masker, plasma coating and IP57

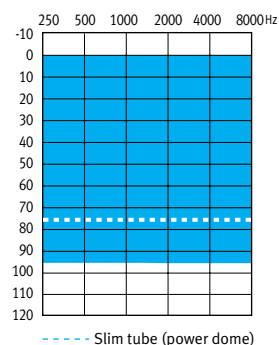
## Accessories (optional)

	Quantum <sup>2</sup> 20	Quantum <sup>2</sup> 16	Quantum <sup>2</sup> 10	Quantum <sup>2</sup> E
Remote control	•	•	•	•
Smart Control remote	•	•	•	•
uDirect 2	•	•	•	
uTV 2	•	•	•	
uMic	•	•	•	

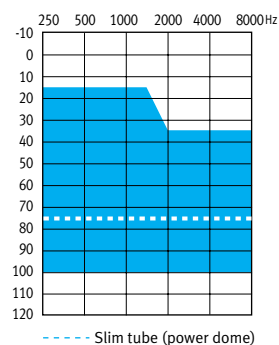
## Class

	Standard	High power
Peak output / gain 2cc filtered earhook	132 / 63	133 / 70
Peak output / gain slim tube	126 / 55	130 / 65
Battery size	13	13

## Fitting guides



## Standard



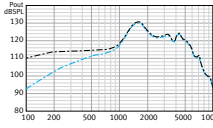
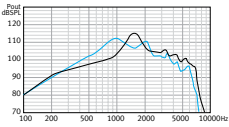
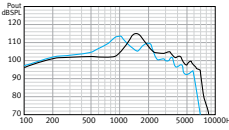
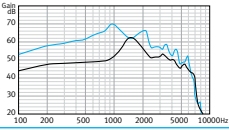
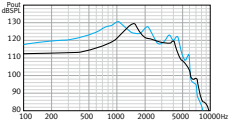
## High power

# Quantum<sup>2</sup> BTE series

Standard slim tube (optional)    Standard earhook (standard)    High power slim tube (optional)    High power earhook (standard)

## ANSI 3.22 2009/IEC 118-7 2cc coupler technical data

	Standard slim tube (optional)	Standard earhook (standard)	High power slim tube (optional)	High power earhook (standard)
Reference test frequency - IEC 118-7 (kHz)	2.5	1.6	2.5	1.6
<b>OSPL<sub>90</sub></b>				
Maximum (dB SPL)	126	132	130	133
Nominal (dB SPL)	123	129	127	130
HFA - OSPL <sub>90</sub> (dB SPL)	114	122	112	125
at RTF (dB SPL)	109	127	109	123
<b>Full on gain (input 50 dB SPL)</b>				
Maximum (dB)	55	63	65	70
HFA - FOG (dB)	46	52	50	64
at RTF (dB)	42	61	47	60
<b>Reference test setting (RTS)</b>				
Frequency range (Hz)	100-7100	100-7100	100-6900	100-6000
Reference test gain (dB)	37	45	35	47
Current drain at RTS (mA)	1.2	1.2	1.3	1.3
Typical battery life (h)	260	260	240	240
Equivalent input noise at RTS (dB SPL)	19	19	20	19
Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	2/1/1.5	3/4/1.5	1/1/1	3/1.5/1
<b>Induction coil sensitivity (31.6 mA/m)</b>				
HFA SPLITS/STS-RSETS (dB SPL/dB)	98/0	107/0	93/0	107/0



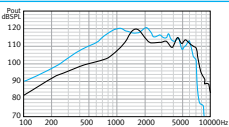
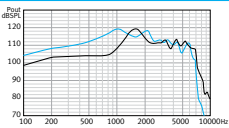
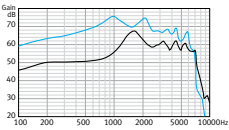
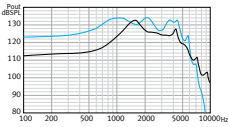
Standard: mic at 70 dB SPL vs induction coil at 100 mA/m  
 --- Mic  
 - - - Induction coil

### Electromagnetic compatibility

EMC immunity by ANSI c63.19-2001 EMC, omni/telecoil	M4/T4	M4/T4	M4/T4	M4/T4
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## IEC 118-o OES coupler technical data

	Standard slim tube (optional)	Standard earhook (standard)	High power slim tube (optional)	High power earhook (standard)
Reference test frequency - IEC 118-o (kHz)	2.5	1.6	2.5	1.6
<b>OSPL<sub>90</sub></b>				
Maximum (dB SPL)	128	134	131	135
at RTF (dB SPL)	120	134	124	130
<b>Full on gain (input 50 dB SPL)</b>				
Maximum (dB)	59	67	70	75
at RTF (dB)	53	67	60	67
<b>Basic frequency response</b>				
Frequency range (DIN 45605) (Hz)	100-7500	100-7100	100-6700	100-6200
Reference test gain (dB)	45	59	49	55
Current drain at RTG (mA)	1.2	1.2	1.3	1.3
Typical battery life (h)	260	260	240	240
Equivalent input noise at RTG (dB SPL)	19	19	12	19
Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	2/1/1.5	3/4/1.5	2/2/1	4/2.5/1.5
<b>Induction coil sensitivity</b>				
at RTF (graph shown for 31.6 mA/m at RTG) (dB SPL)	109	121	108	116
Maximum (1 mA/m at full on gain) (dB SPL)	89	100	99	104
at RTF (1 mA/m at full on gain) (dB SPL)	84	100	91	99



### Electromagnetic compatibility

EMC immunity by IEC 60118-13, 2011 field strength 90/50/35 V/m, omni IRIL low/medium/high band (dB SPL)	32/27/42	32/27/42	37/52/55	37/52/55
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### Legend

- Standard
- High power

### Test conditions

Earhook: filtered; Battery size: 13; Source: voltage 1.3 V; Tubing: length 25 mm, inside diameter 1.93 mm  
 Hearing instrument set to Unitron TrueFit test settings.  
 Domes should never be fit on patients with perforated eardrums, exposed middle ear cavities, or surgically altered ear canals.  
 In the case of such a condition, we recommend use of a customized earmold.  
 Sound pressure level of these hearing aids exceeds 132 dB SPL.  
 We reserve the right to change specification data without notice as improvements are introduced.