

# Quantum<sup>2</sup>

Quantum<sup>2</sup> 20, Quantum<sup>2</sup> 16, Quantum<sup>2</sup> 10, Quantum<sup>2</sup> E  
ITE 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 (with wireless)	•	•	•	
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 (optional)	•	•	•	•
MyMusic	Automatic	•	•	•

## In all technology levels

3 wireless programs (not available on E), data logging, wind noise manager, DuoLink (with wireless), IntelliVent technology and tinnitus masker

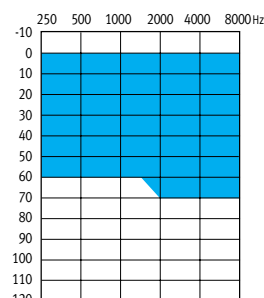
## Accessories (optional)

	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 (with wireless)	•	•	•	
uTV 2 (with wireless)	•	•	•	
uMic (with wireless)	•	•	•	

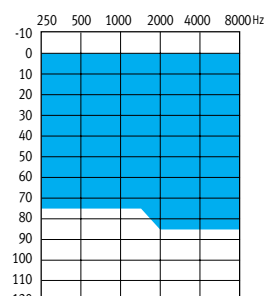
## Battery size

Battery size	Full shell	Half shell	Canal	Mini canal	CIC	Wireless	Microphone
13	Standard	Optional	Optional	N/A	N/A	Yes	Directional
312	Optional	Standard	Standard	N/A	N/A	Optional	Directional
10A	Optional	Optional	Optional	Standard	Standard	N/A	Omni

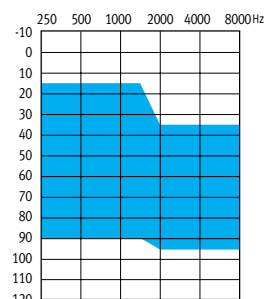
## Fitting guides



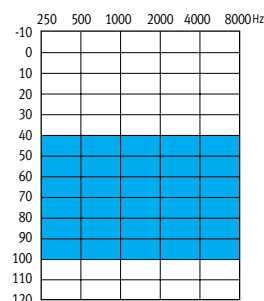
Moderate power



Power



High power



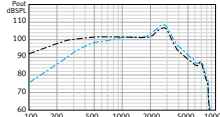
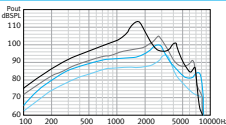
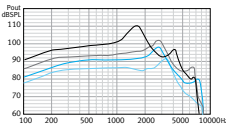
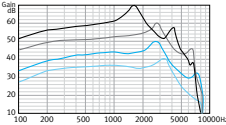
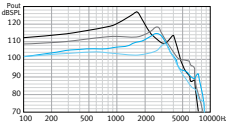
Super power

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

Moderate power      Power      High power      Super power

## ANSI 3.22 2009/IEC 118-7 2005 2cc coupler technical data

Reference test frequency - IEC 118-7 (kHz)	1.6	1.6	1.6	1.6
<b>OSPL90</b>				
Maximum (dB SPL)	112	118	122	130
Nominal (dB SPL)	109	115	119	127
HFA - OSPL90 (dB SPL)	103	111	114	120
at RTF (dB SPL)	103	109	113	127
<b>Full on gain (input 50 dB SPL)</b>				
Maximum (dB)	40	50	60	70
HFA - FOG (dB)	37	46	54	62
at RTF (dB)	35	43	53	70
<b>Reference test setting (RTS)</b>				
Frequency range (Hz)	100-7500	100-7500	100-7100	100-5500
Reference test gain (dB)	26	34	37	43
Current drain at RTS (mA) 10A/312/13	1.2/1.2/1.2	1.4/1.4/1.4	1.2/1.2/1.2	--/1.2/1.2
Typical battery life (h) 10A/312/13	80/150/260	70/130/220	80/150/260	--/150/260
Equivalent input noise at RTS (dB SPL)	19	19	19	19
Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	1.5/1.5/1.0	1.5/1.5/1.5	1/1/1	1/1/1
<b>Induction coil sensitivity (31.6 mA/m)</b>				
HFA SPLITS/STS (dB SPL/dB)	88/2	95/1	99/2	104/1



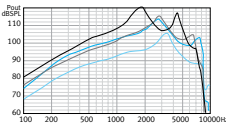
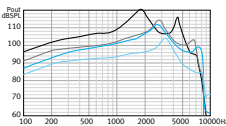
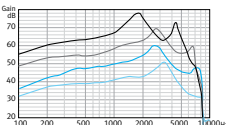
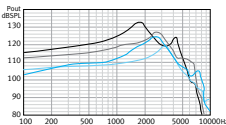
Power: mic at 70 dB SPL vs. induction coil at 100 mA/m  
 - - Mic  
 - - Induction coil

### 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

Reference test frequency - IEC 118-o (kHz)	1.6	1.6	1.6	1.6
<b>OSPL90</b>				
Maximum (dB SPL)	120	124	128	133
at RTF (dB SPL)	111	119	121	132
<b>Full on gain (input 50 dB SPL)</b>				
Maximum (dB)	50	60	70	79
at RTF (dB)	44	53	62	76
<b>Basic frequency response</b>				
Frequency range (DIN 45605) (Hz)	100-8200	100-8200	100-7500	100-5500
Reference test gain (dB)	36	44	46	57
Current drain at RTG (mA) 10A/312/13	1.2/1.2/1.2	1.2/1.2/1.2	1.2/1.2/1.2	--/1.2/1.2
Typical battery life (h) 10A/312/13	80/150/260	80/150/260	80/150/260	--/150/260
Equivalent input noise at RTG (dB SPL)	19	19	19	19
Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	2/2/1.5	2.5/2.5/2	1/1.5/1	1.5/1.5/1
<b>Induction coil sensitivity</b>				
at RTF (graph shown for 31.6 mA/m at RTG) (dB SPL)	96	104	106	119
Maximum (1 mA/m at full on gain) (dB SPL)	83	92	102	110
at RTF (1 mA/m at full on gain) (dB SPL)	76	85	94	108
<b>Electromagnetic compatibility</b>				
EMC immunity by IEC 60118-13, 2011 field strength 90/50/35 V/m, omni, IRIL low/medium/high band (dB SPL)	26/30/35	26/30/35	26/30/35	26/30/35



### Legend

- Super power
- High power
- Power
- Moderate power

### Test conditions

Battery size: 10A/312/13; Source voltage: 1.3 V; Vent: closed at canal end  
 Tubing 7mm (2cc/OES coupler) – Quantum<sup>2</sup> M, Quantum<sup>2</sup> P, Quantum<sup>2</sup> HP.  
 Tubing 9 mm (2cc coupler), Tubing 5mm (OES coupler) - Quantum<sup>2</sup> SP.  
 The hearing instrument set to Unitron TrueFit test settings.  
 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.