Quantum™ 12

ITE series

Signature features

12 channels

Next generation automatic with SmartFocus

Clients can experience superior automatic performance with the optimal blend of 3 listening environments. In addition, the integration of SmartFocus™ further improves speech understanding in noise or provides optimal comfort automatically

Natural Sound Balance

An adaptive feature to minimize artifacts that can occur when amplified sound combines in the ear canal with direct sound. Natural Sound Balance continuously monitors these sounds and makes precision adjustments to preserve a clear, balanced signal

Automatic Adaptation Manager

Allows for an automatic and smooth adjustment period for the client; providing the best possible first fit acceptance combined with maximum long-term benefit for speech understanding

Next generation feedback manager

Harnessing the power of Unitron's new Era™ platform, the next generation feedback manager offers maximum usable gain by suppressing feedback transients before they become audible

Self learning

Capable of learning client preferences for SmartFocus and volume control in all programs

Wireless technology

Binaural Phone – streams audio to the non-phone ear, allowing for binaural hearing while using a phone

DuoLink – program, volume and SmartFocus adjustments conducted on one hearing instrument are automatically transferred to the other ear

uDirect™ (optional) – wireless interface between hearing instruments and Bluetooth® enabled devices (eg. cell phones)

uTV™ (optional) – streams audio from a TV or audio source to the uDirect

Remote controls (optional)

Choice of remote controls for essential or fully featured functionality;
• Unitron remote control • Smart Control

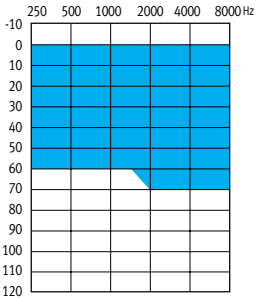
Smart Alert System (optional)

A unique solution that provides awareness of household alerts

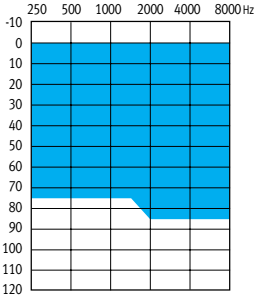
Additional features

- 3 manual + 3 wireless streaming programs
- IntelliVent technology
- Multiband adaptive directional microphone
- AntiShock™
- MyMusic™
- Speech enhancement LD
- Noise reduction
- Wind noise manager
- Data logging
- Easy-t
- DAI through uDirect
- Optional wireless programming with iCube

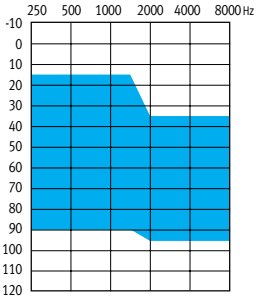
Fitting guides



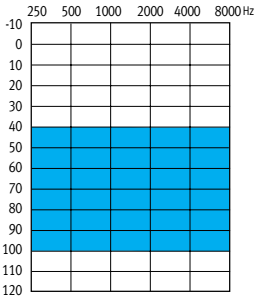
Quantum 12 M
(moderate power)



Quantum 12 P
(power)



Quantum 12 HP
(high power)



Quantum 12 SP
(super power)

Quantum 12 is suitable for fitting mild to severe hearing losses and can fit audiogram configurations ranging from reverse to precipitously sloping.

Quantum 12 ITEs offer flexible ordering!

Wireless and directional microphone guide:

13 Always wireless, always directional
312 Available any combination
10A Always non-wireless and omni microphone

Battery and style guide: S=Standard; O=Optional

Battery	FS	HS	CA	MC	CIC
13	S	O	O		
312	O	S	S	Omni	
10A	O	O	O	S	S

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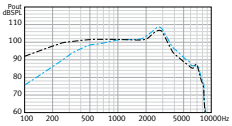
Quantum 12 ITE series

ANSI 3.22 2003/IEC 118-7 2CC COUPLER TECHNICAL DATA

	Quantum 12 M (moderate power)	Quantum 12 P (power)	Quantum 12 HP (high power)	Quantum 12 SP (super power)
Reference test frequency - IEC 118-7 (kHz)	1.6	1.6	1.6	1.6
OSPL90				
Maximum (dB SPL)	112	117	122	130
Nominal (dB SPL)	109	114	119	127
ANSI HFA (dB SPL)	103	109	114	120
at RTF (dB SPL)	103	109	113	127
Full on gain (input 50 dB SPL)				
Maximum (dB)	40	50	60	70
ANSI HFA (dB)	37	45	54	62
at RTF (dB)	35	43	53	70
Basic frequency response (ANSI 2003)				
Frequency range (Hz)	100-7500	100-7500	100-7100	100-5500
Reference test gain (dB)	26	32	37	43
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	--/180/260
Equivalent input noise at RTG (dB SPL)	19	19	19	19
Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	1.5/1.5/1.0	1.5/1.5/1.0	1/1/1	1/1/1
Induction coil sensitivity (ANSI 2003, 31.6 mA/m)				
HFA SPLITS/STS (dB SPL/dB)	88/2	94/2	99/2	104/1
Electromagnetic compatibility				
EMC immunity by ANSI C63.19-2001 EMC, omni/telecoil	M4/T4	M4/T4	M4/T4	M4/T4



Quantum P: mic at 70 dB SPL vs. induction coil at 100 mA/m

– – Mic

– – Induction coil

IEC 118-0 OES COUPLER TECHNICAL DATA

	Quantum 12 M (moderate power)	Quantum 12 P (power)	Quantum 12 HP (high power)	Quantum 12 SP (super power)
Reference test frequency - IEC 118-0 (kHz)	1.6	1.6	1.6	1.6
OSPL90				
Maximum (dB SPL)	120	123	128	133
at RTF (dB SPL)	111	118	121	132
Full on gain (input 50 dB SPL)				
Maximum (dB)	50	60	70	79
at RTF (dB)	44	52	62	76
Basic frequency response				
Frequency range (DIN 45605) (Hz)	100-8200	100-8200	100-7500	100-5500
Reference test gain (dB)	36	43	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	--/180/260
Equivalent input noise at RTG (dB SPL)	19	19	19	19
Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	2.0/2.0/1.5	2.0/2.0/1.5	1.0/1.5/1.0	1.5/1.5/1
Induction coil sensitivity				
at RTF (graph shown for 31.6 mA/m at RTG) (dB SPL)	96	102	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
Electromagnetic compatibility				
EMC immunity by IEC 60118-13, field strength 75/50 V/m, omni IRIL low/high band (dB SPL)	31/41	29/40	34/45	23/32

LEGEND

— Quantum 12 SP
— Quantum 12 HP
— Quantum 12 P
— Quantum 12 M

TEST CONDITIONS

Battery size: 10A/312/13; Source voltage: 1.3 V; Impedance: 7.5 Ohms; Vent: closed at canal end
Tubing 7mm (2cc/OES coupler) – Quantum 12 M, Quantum 12 P, Quantum 12 HP.
Tubing 9 mm (2cc coupler), Tubing 5mm (OES coupler) - Quantum 12 SP.
Measurement data obtained with hearing aid set to linear, omni mode with all adaptive features disabled.
We reserve the right to change specification data without notice as improvements are introduced.