

DIGITALIAN

U Series

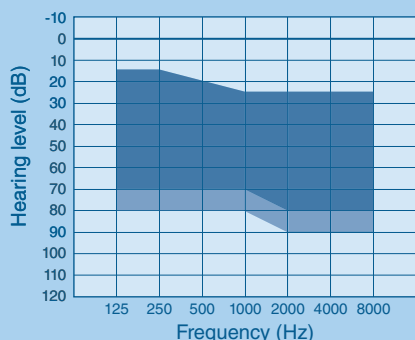
HI-G5U/HI-G6U/HB-G2U

- ◆ Ten-band four-channel digital signal processing
- ◆ Superb feedback canceller
- ◆ Minimization of users' own muffled voice
- ◆ Less chances of failing to catch words and asking to repeat them



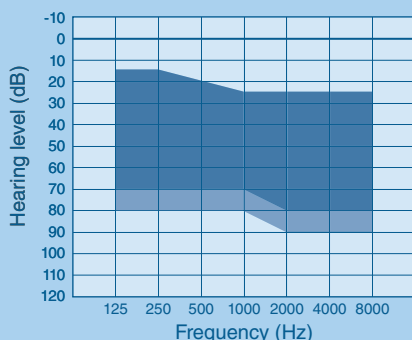
**CIC
HI-G5U**

Mild
Moderate
Severe



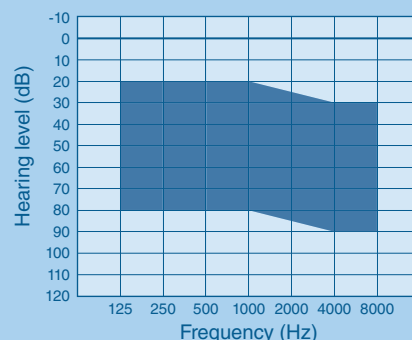
**Canal
HI-G6U**

Mild
Moderate
Severe



**BTE
HB-G2U**

Mild
Moderate
Severe

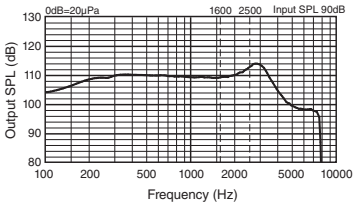
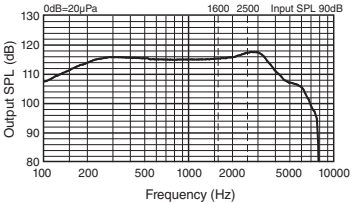
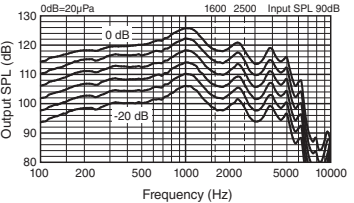
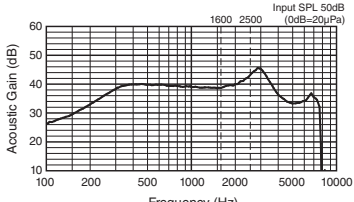
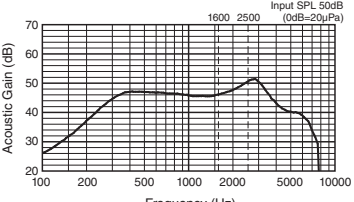
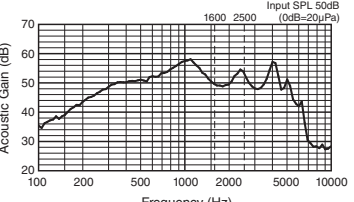
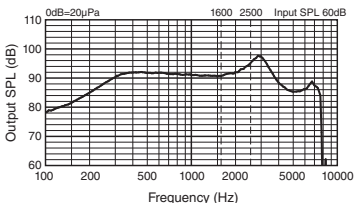
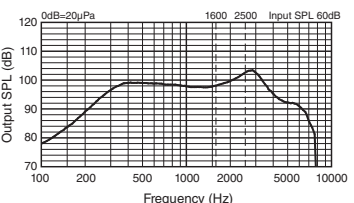
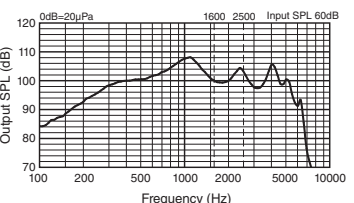


Specifications

TECHNICAL DATA (According to ANSI standard S3.22 2003)

(Typical value)

Model		HI-G5U	HI-G6U	HB-G2U (with E1 hook)
Maximum-OSPL90		114 dB (3000 Hz)	117 dB (3000 Hz)	125 dB (1100 Hz)
HFA-OSPL90		110 dB	116 dB	121 dB
HFA-full-on Acoustic Gain		40 dB	47 dB	54 dB
Reference Test Gain		33 dB	39 dB	44 dB
Frequency Range		200 Hz to 5000 Hz		100 Hz to 6500 Hz
Equivalent Input Noise Level		25 dB	25 dB	24 dB
Total Harmonic Distortion		500 Hz: 1% 800 Hz: 1% 1600 Hz: 1%	500 Hz: 1% 800 Hz: 1% 1600 Hz: 1%	500 Hz: 7% 800 Hz: 7% 1600 Hz: 5%
AGC		Input AGC/OPC (Output AGC)		
Attack/ Recovery Time	Input AGC	Single Mode	Attack: 3 msec Recovery: 120 msec	
		Double Mode	Attack: 3 msec or 100 msec Recovery: 100 msec or 2 sec	
		Triple Mode	Attack: 3 msec or 400 msec Recovery: 100 msec or 600 msec or 15 sec	
	Output AGC		Attack: 3 msec Recovery: 50 msec	
Operating Switch		Case Switch		O-M2-M
Output Limiting Control		OPC (range: 20 dB)		
Gain Control		GAIN (range: 57 dB)		Main VR (range: 23 dB) GAIN (range: 19 dB)
Battery Type/Supply Voltage		10/1.3 V	312/1.3 V	13/1.3 V
Battery Current		0.97 mA	1.15 mA	0.98 mA
Battery Life		Approx. 70 hours	Approx. 120 hours	Approx. 270 hours
Dimensions/Weight		—		3.80 × 1.34 × 0.88 cm / 3.6 g (excluding battery)

Model	HI-G5U	HI-G6U	HB-G2U
HI-G5U, HI-G6U: OSPL90 curve HB-G2U: OSPL90 curve and effect of output limiting control			
Full-on gain curve			
Frequency response curve			

TECHNICAL DATA (According to IEC standard Pub. 60118-0-1983 Amendment 1-1994)

(Typical value)

Model		HI-G5U	HI-G6U	HB-G2U (with E1 hook)
Reference Test Frequency		1600 Hz		
OSPL ₉₀		117 dB	123 dB	126 dB
	500 Hz	114 dB	120 dB	124 dB
	Peak	125 dB	128 dB	131 dB
Full-on Acoustic Gain		48 dB	54 dB	58 dB
Equivalent Input Noise Level		27 dB	26 dB	32 dB
Total Harmonic Distortion		500 Hz: 3% 800 Hz: 3% 1600 Hz: 2%	500 Hz: 2% 800 Hz: 3% 1600 Hz: 2%	500 Hz: 7% 800 Hz: 7% 1600 Hz: 5%
AGC		Input AGC/OPC (Output AGC)		
Attack/ Recovery Time	Input AGC	Single Mode	Attack: 3 msec Recovery: 120 msec	
		Double Mode	Attack: 3 msec or 100 msec Recovery: 100 msec or 2 sec	
		Triple Mode	Attack: 3 msec or 400 msec Recovery: 100 msec or 600 msec or 15 sec	
	Output AGC	Attack : 3 msec Recovery : 50 msec		
Operating Switch		Case Switch		O-M2-M
Output Limiting Control		OPC (range: 20 dB)		
Gain Control		GAIN (range: 57 dB)		Main VR (range: 23 dB) GAIN (range: 19 dB)
Battery Type/Supply Voltage		PR536/1.3 V	PR41/1.3 V	PR48/1.3 V
Battery Current		0.87 mA	1.02 mA	0.9 mA
Battery Life		Approx. 90 hours	Approx. 150 hours	Approx. 290 hours
Dimensions/Weight		—		3.80 × 1.34 × 0.88 cm / 3.6 g (excluding battery)

Model	HI-G5U	HI-G6U	HB-G2U
HI-G5U, HI-G6U: OSPL ₉₀ curve HB-G2U: OSPL ₉₀ curve and effect of output limiting control			
Full-on acoustic gain frequency response curve			
Basic frequency response curve			

Specifications subject to change without notice.

Feedback Canceller

The adaptive filter suppresses acoustic feedback without lowering the gain at high frequencies.

Figure 1 shows how acoustic feedback is restricted. When the Adaptive Feedback Canceller (AFBC) is set to "Off", a significant peak around 3.5 kHz appears which causes acoustic feedback. But when AFBC is set to "ON", the feedback is restricted without decreasing the high-frequency gain.

Figure 2 shows how acoustic feedback does not occur even when the gain is increased.

Effect of Feedback Canceller

Figure 1

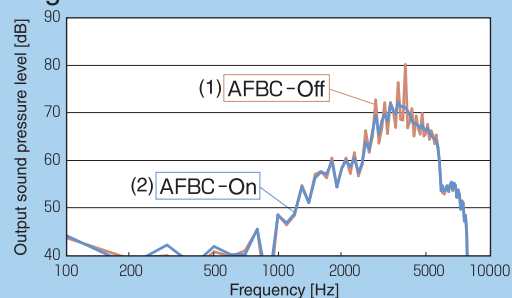
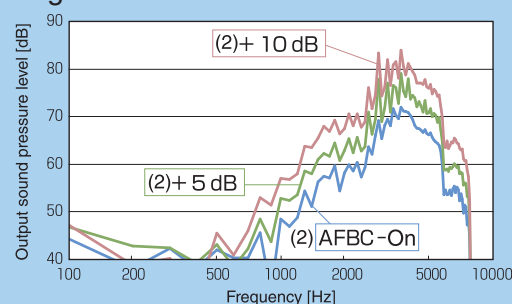


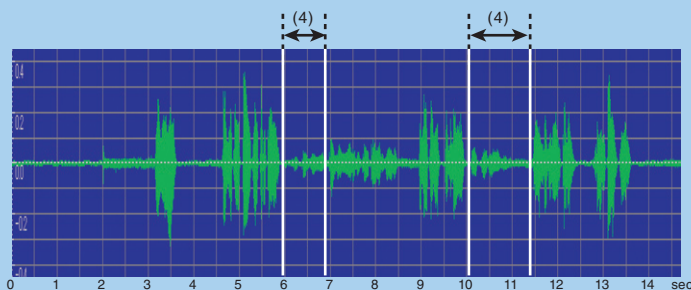
Figure 2



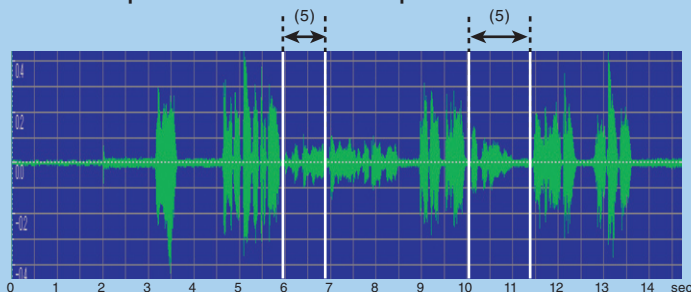
Three Time Constant Modes

Triple mode of the U series compares the volumes and characteristics of various sounds caught by the hearing aid and automatically selects an optimal time constant. This mode helps the users to catch every important word on any occasion.

Dynamic compression mode: Double



Dynamic compression mode: Triple



If the input sound is conversation, long recovery time is selected. If, as shown in this example, loud and small voices are input in turn, the small voice is not sufficiently amplified due to long recovery time (4). In Triple mode, in contrast, the third recovery time is selected due to the standby function, conversation in small voice following the one in loud voice (5) is also amplified.



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