

A Series

HI-G5A/HB-G2A

- ◆ Digital signal processing in 32 bands

- ◆ The ADRO® rules

The ADRO (Adaptive Dynamic Range Optimization) rules are used to make low sounds louder enough to listen to and loud sounds comfortable level.

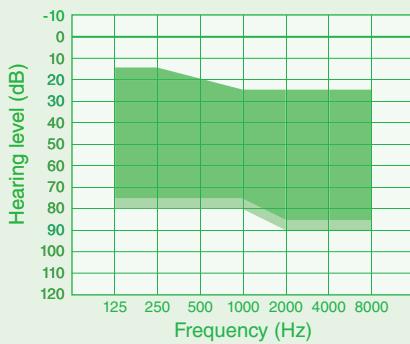
- ◆ Slow shift in gain

Slow shift in gain can provide more natural hearing.



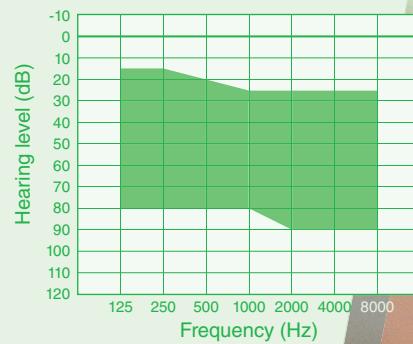
CIC
HI-G5A

Mild
Moderate
Severe

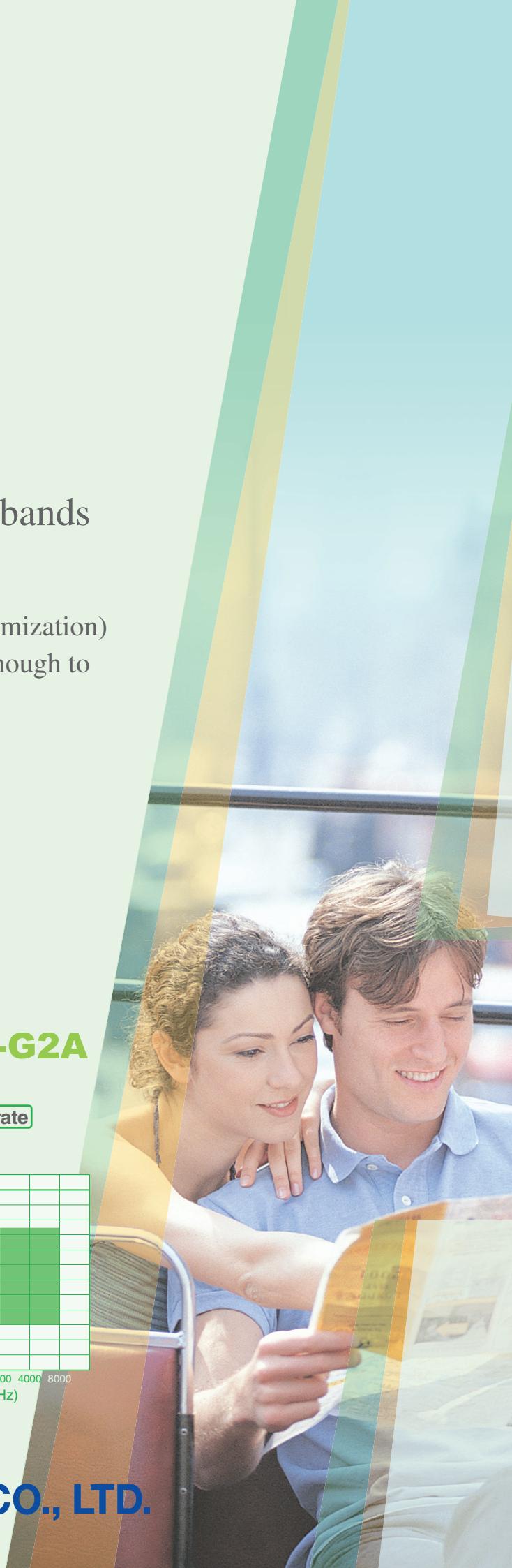


BTE
HB-G2A

Mild
Moderate
Severe



RION CO., LTD.

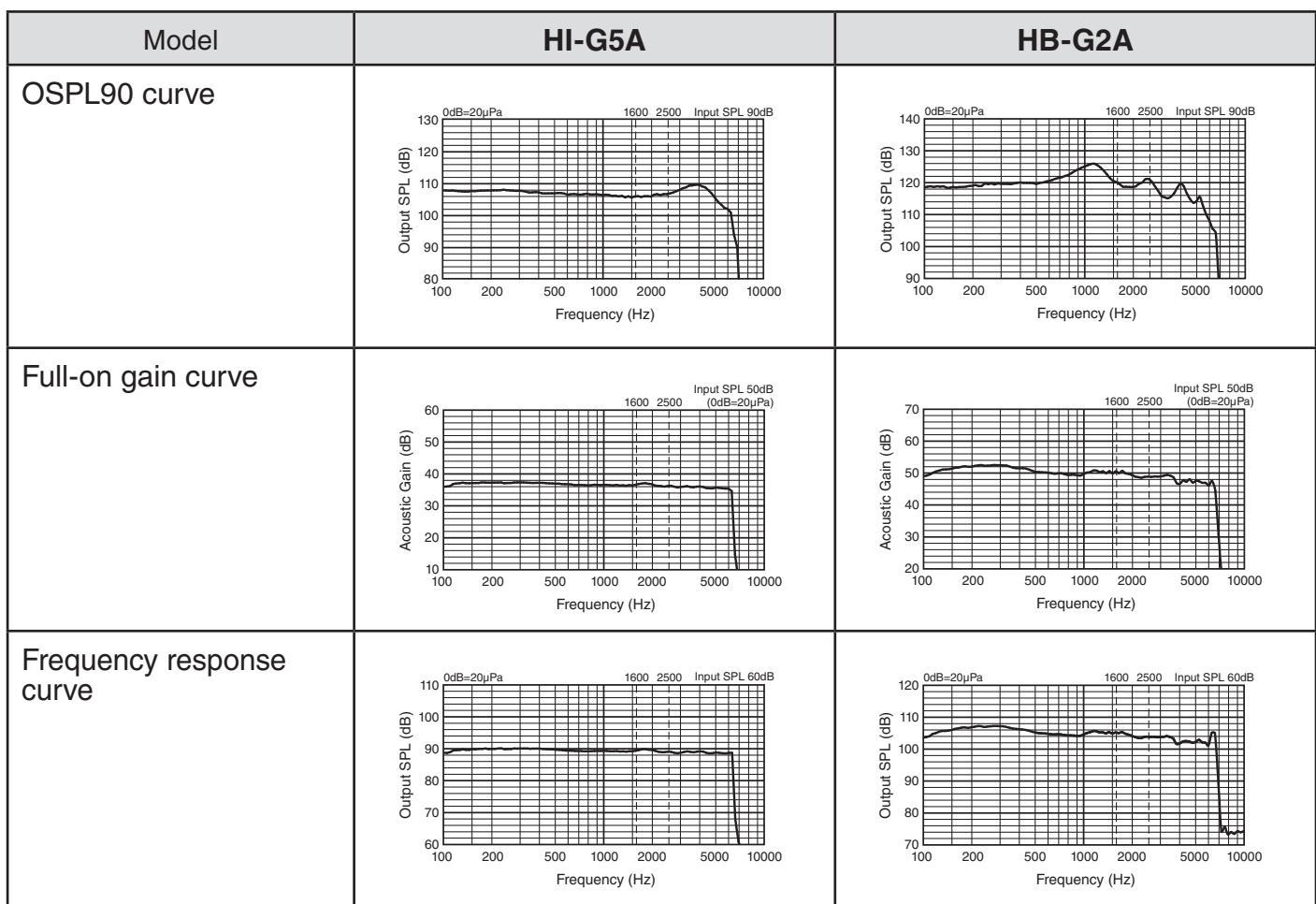


Specifications

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

(Typical value)

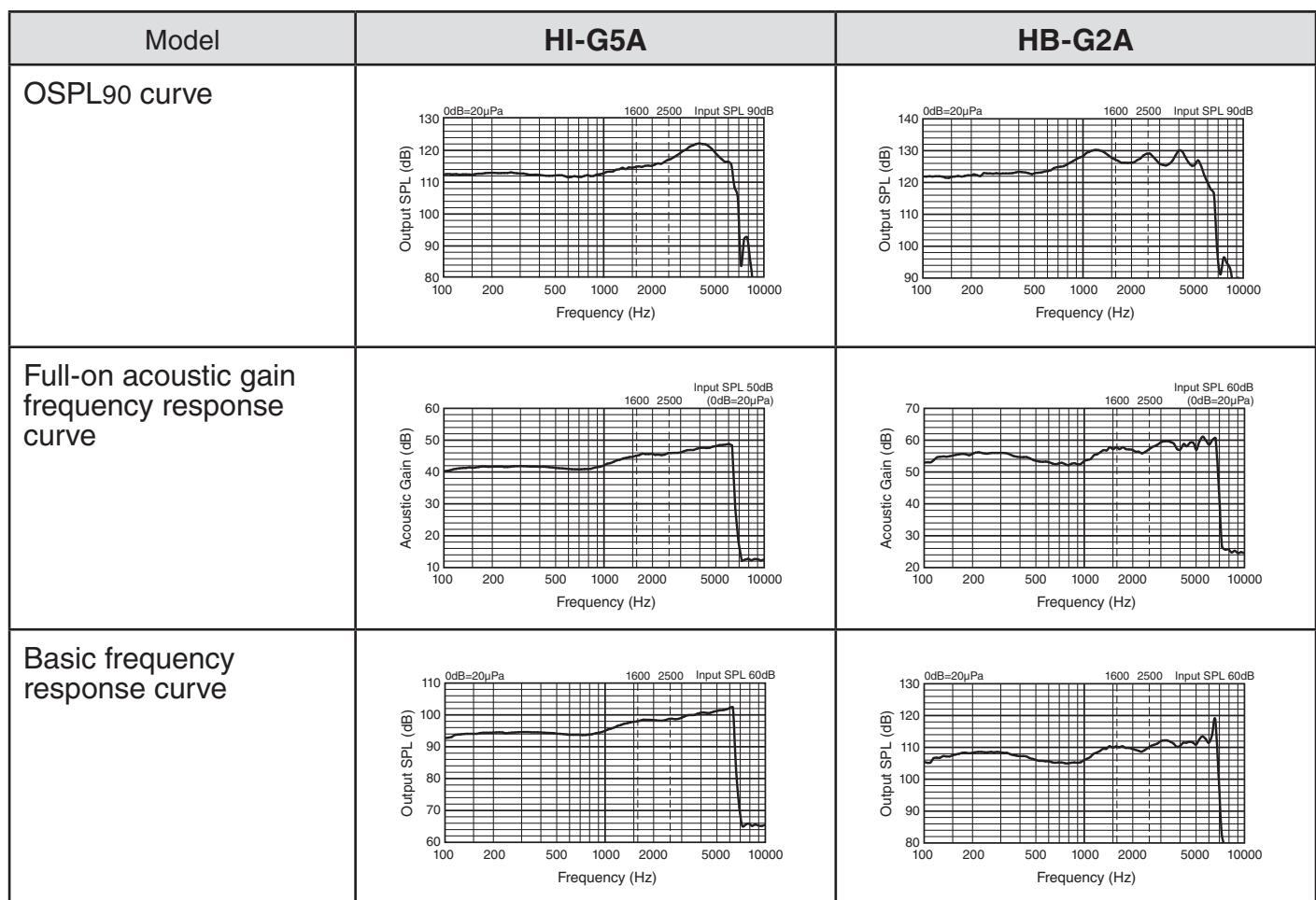
Model	HI-G5A	HB-G2A (with E1 hook)
Maximum-OSPL90	109 dB (3900 Hz)	126 dB (1150 Hz)
HFA-OSPL90	106 dB	122 dB
HFA-full-on Acoustic Gain	37 dB	49 dB
Reference Test Gain	29 dB	45 dB
Frequency Range	200 Hz to 5000 Hz	
Equivalent Input Noise Level	27 dB	26 dB
Total Harmonic Distortion	500 Hz: 2% 800 Hz: 2% 1600 Hz: 2%	500 Hz: 4% 800 Hz: 2% 1600 Hz: 2%
Operating Switch	Case Switch	O-M2-M
Output Limiting Control	MOL	
Gain Control	GAIN (range: 67 dB)	Main VR (range: 10 dB) GAIN (range: 77 dB)
Battery Type/Supply Voltage	10/1.3 V	13/1.3 V
Battery Current	0.74 mA	0.88 mA
Battery Life	Approx. 100 hours	Approx. 300 hours
Dimensions/Weight	—	3.80 × 1.34 × 0.88 cm / 3.6 g (excluding battery)



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

(Typical value)

Model	HI-G5A	HB-G2A (with E1 hook)
Reference Test Frequency	1600 Hz	
OSPL90	104 dB	127 dB
	500 Hz 112 dB	123 dB
	Peak 122 dB	130 dB
Full-on Acoustic Gain	45 dB	58 dB
Equivalent Input Noise Level	25 dB	24 dB
Total Harmonic Distortion	500 Hz: 3% 800 Hz: 3% 1600 Hz: 2%	500 Hz: 4% 800 Hz: 2% 1600 Hz: 2%
Operating Switch	Case Switch	O-M2-M
Output Limiting Control	MOL	
Gain Control	GAIN (range: 67 dB)	Main VR (range: 10 dB) GAIN (range: 77 dB)
Battery Type/Supply Voltage	PR536/1.3 V	PR48/1.3 V
Battery Current	0.74 mA	0.81 mA
Battery Life	Approx. 100 hours	Approx. 320 hours
Dimensions/Weight	—	3.80 × 1.34 × 0.88 cm / 3.6 g (excluding battery)



Specifications subject to change without notice.

The ADRO® rules

Harnessing the power of Digital Signal Processing (DSP), ADRO® is a flexible amplifier and provides benefits to users of hearing aids; headsets (including Bluetooth headsets); and mobile phones. ADRO® is dynamic and adapts automatically to different sound environments, providing superior audibility and loudness comfort, automatic optimization of speech intelligibility in noise, and high quality sound in any environment.

The gain will change according to the following rules.

1. The Comfort Rule

Reduces the gain in a frequency band if the 90th percentile estimate is higher than the Comfort Target. The Comfort Target in each frequency band is determined during the fitting process.

2. The Audibility Rule

Increases the gain in a frequency band if the 30th percentile estimate is below the Audibility Target.

3. The Maximum Output Rule

Prevents sudden high level sounds reaching uncomfortable levels by ensuring that individual frequency components cannot be larger than the Maximum Output Limits specified during the fitting process.

4. The Maximum Gain Rule

Limits the loudness of very low-level sounds by not allowing the gain in any band to exceed the maximum value specified by during the fitting process.

Fig. 1 Input sound

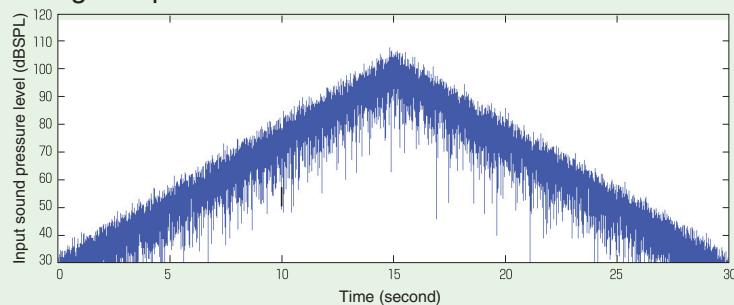


Fig. 2 Output sound

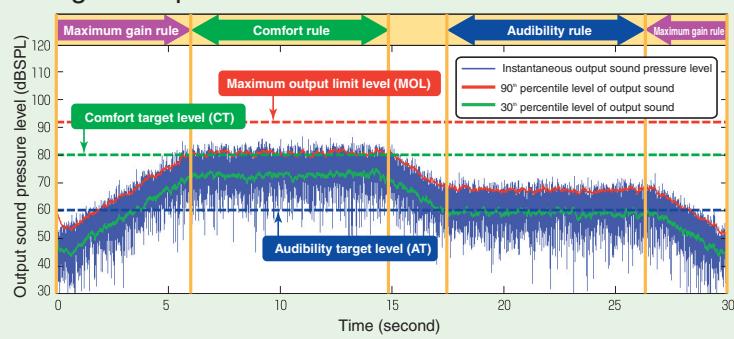


Fig. 1 shows the change in input sound pressure over time. The input sound is white noise and it continuously increases for the first 15 seconds and decreases for the next 15 seconds.

Fig. 2 shows the change in level of output sound of 1-kHz band.

The output sound level is controlled so that it is to stay between the audibility target level and the comfort target level. This operation is equivalent to user's volume adjustment; decrease the gain for louder sounds and increase it for lower sounds.



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