

# Canal

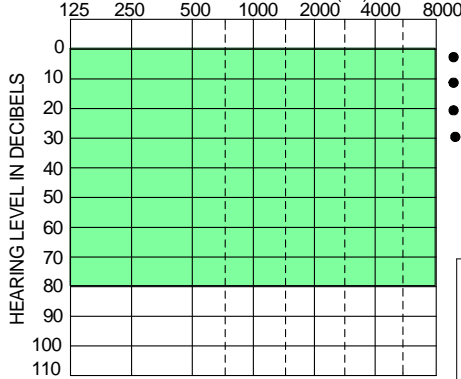
# ACCURIO

# Audina

HEARING INSTRUMENTS, INC.

Suggested Fitting Range

FREQUENCY IN HERTZ(Hz)



### STANDARD FEATURES

- On/off volume control
- Four(4) pin socket
- Windscreen
- Variable vent system
- Windscreen
- 1 year loss or damage
- 2 year warranty

### OPTIONS

- Programmable volume control
- Multi-memory(2-4)
- Programmable telephone coil
- Program thru faceplate
- Trimmer volume control
- On/off switch
- Foto-coat
- Flip Top wax trap
- Windscoop/windhood
- 10A Mini canal

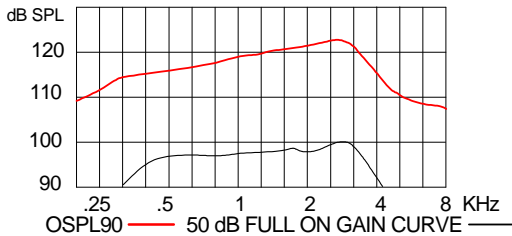
### Description

- The 312S ACCURIO is cutting-edge technology featuring the latest in 20 bit digital audio processing. Intuitive Feedback Cancellation and 128 band Adaptive Noise Reduction algorithms.
- Intuitive Feedback Reduction monitors for feedback 4000 times per second automatically reducing feedback without reducing gain. This allows for an extra 14dB of insertion gain. Spectral Information is maintained.
- Eight(8) bands of gain adjustment for precise target matching.
- Three(3) selectable speech enhancement filters.
- Four(4) selectable noise reduction algorithms.
- Three(3) adjustable crossover frequencies.
- Adjustable expansion (threshold and compression) in each channel for quieter performance.
- Three(3) selectable time constants for each channel.
- Highly configurable digital signal processor provides excellent versatility, with independent channel compression characteristics including four(4) parameter I/O adjustment.
- Full dynamic range, low noise and 16kHz bandwidth offers true, high fidelity audio processing without compromise. **8KHz bandwidth thru programming gives improved battery life.(see back of sheet for comparison)**
- AGC-o compression limiting.
- Effective dynamic range of 95dB.
- Low Battery Indicator.
- Multi Memory Tone Indicator with acoustic fade between memories for improved comfort.
- Programmable with HiPro or the Microconnect card and the Audina ezFit software(NOAH or stand alone).

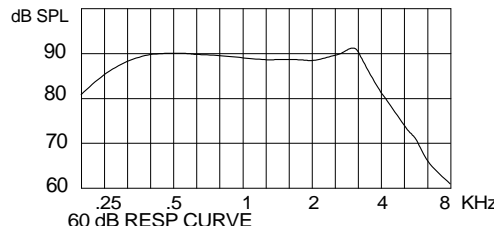
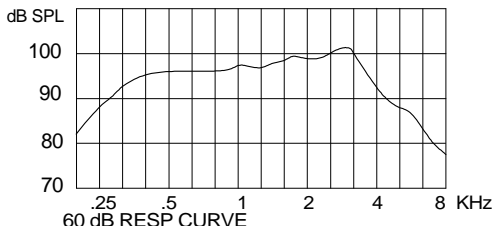
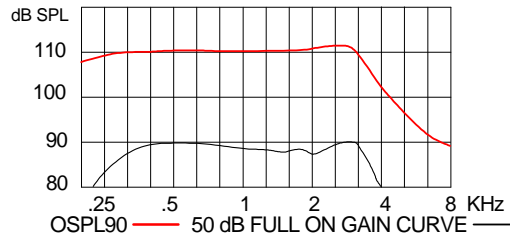
### Performance Data:

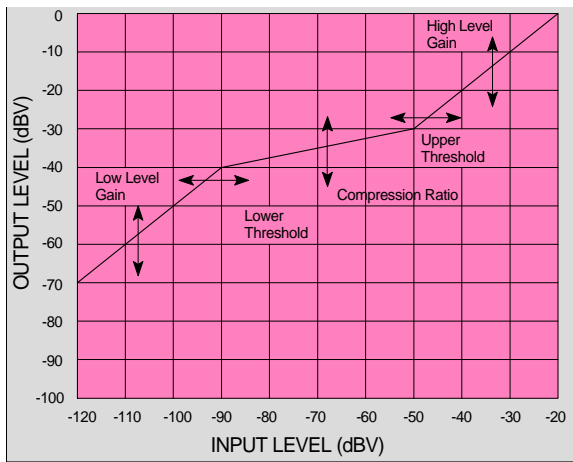
			Coupler 2cc IEC 118-7/94	Coupler MZ(711) IEC 118-0/94	Coupler 2cc ANSI S3.22-1996	Limits
SATURATION (OSPL 90)	Peak	dB SPL	112	122	112	+/- 3
	F Reference	dB SPL	111	121	111	+/- 3
	HF Average	dB SPL			111	+/- 3
Full-on Gain (Input: 50dB SPL)	Peak	dB	40	50	40	+/- 4
	F Reference	dB	38	48	38	+/- 4
	HF Average	dB			38	+/- 4
Nominal Reference Test Gain (RTG)		dB	28	38	34	
Frequency Range		Hz	200-6300			
Volume Control Range		dB	Programmable			
Total Harmonic Distortion at RTG:						
70 dB SPL in	500 Hz	%	1	1	1	<4
	800 Hz	%				
65 dB SPL in	1600 Hz	%	1	1	1	<4
		%				
Equivalent Input Noise Level		dB	28	28	28	<31
Maximum Telecoil Sensitivity	FOG; Input 10mA/m @ RTF	dB	90	95	94	
	RTG; Input 31.6mA/m @ RTF	dB				
	FOG; Input 31.6mA/m @ RTF	dB				
SPLITS @ RTF	HF Average	dB			93	
		dB			94	
STS		dB			1.0	
Supply Current at RTG	input dB SPL	mA	60		65	
			1.05		1.05	<1.25
Battery Life	Type 312 Zinc-Air(110mAh)	hrs	105	105		
	Type 10A Zinc-Air(60mAh)	hrs	55	55		
AGC @ 2KHz	Attack	mS	10	10	10	+/-50%
	Release	mS	700	700	700	+/-50%
Reference Test Frequency(RTF)		Hz	1600	1600	1000	

IEC 118-0



IEC 118-7/ANSI S3.22-1996





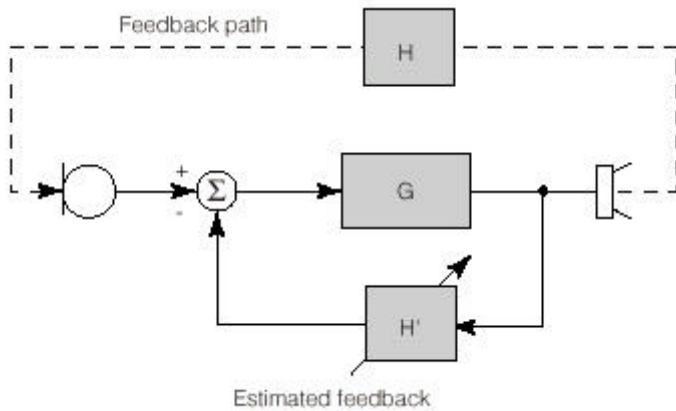
**CHANNEL PROCESSING**

This figure represents the I/O characteristics of independent AGC channel processing. The I/O curve can be divided into three(3) main regions:

- \*Low input level linear region
- \*Compression region
- \*High input level linear region (return to linear)

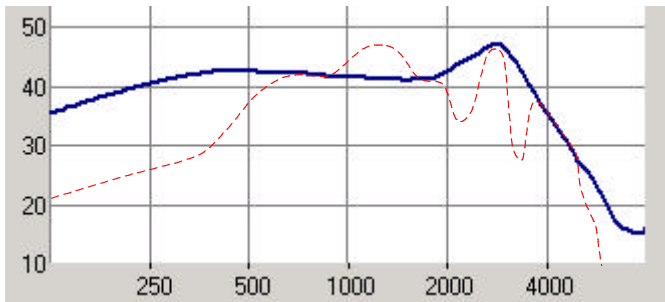
The I/O characteristics can be adjusted in three(3) ways:

- \*Low level gain
- \*Lower threshold
- \*Compression Ratio



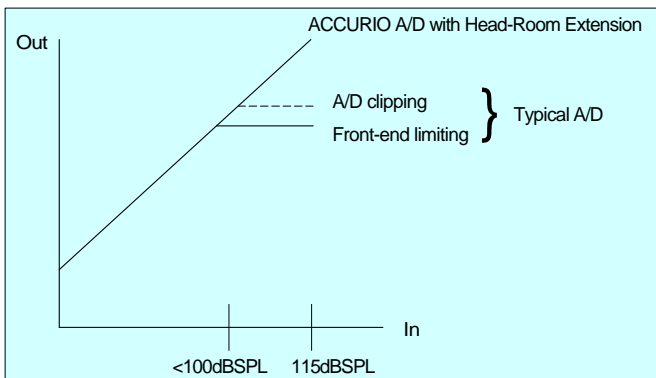
**Intuitive Feedback Reduction**

The intuitive feedback reduction (IFB) reduces the acoustic feedback by forming an estimate from the feedback signal and then subtracting this estimate from the hearing aid input. Therefore the forward path of the hearing is not affected. Unlike adaptive notch filter approaches, Accurio's IFB does not reduce the hearing aid's gain. The IFB is based on a time-domain model of the feedback path.



**Eight-Band Gain Adjustment**

- For precise target matching
- Low Frequency Shaping
- High Frequency Shaping
- Resonance Smoothing
- Feedback Notches
- Peak Shifting



**HIGH FIDELITY DIGITAL SYSTEM**

Dual A/D converters are combined with the Head-Room Extension Algorithm to yield a 16kHz bandwidth and a 95dB of full dynamic range hearing instrument.

**16KHz and 8KHz Bandwidth Battery Life Comparison**

Bandwidth	16KHz	8KHz
Battery Current	1.05mA	0.85mA
Battery Life 312/10A	105/55 Hrs	125/70 Hrs
Wear 15Hrs a day	7/3.5	4.5/7.25
Wear 12Hrs a day	8.75/4.5	8.25/5.75