# **Cochlear Nucleus 8 vs Kanso 2 - Comprehensive Comparison**

## **Executive Summary**

Both processors offer NO direct connection to computers (Windows or MacBook). For computer audio, you'll need the **True Wireless Mini Microphone 2+** accessory, which connects to both processors via its built-in 2.4 GHz wireless technology and to your computer via its line-in jack.

**TWMM 2+ Size**:  $61 \text{mm} \times 28.5 \text{mm} \times 22 \text{mm} = 2.4" \times 1.1" \times 0.9"$ 

#### **Shared Features**

Feature	Nucleus 8	Kanso 2
Connectivity		
Direct streaming	✓ Apple/Android phones	✓ Apple/Android phones
Computer connection	X Requires Mini Mic 2+	X Requires Mini Mic 2+
True Wireless accessories	✓ Mini Mic 2+, TV Streamer	✓ Mini Mic 2+, TV Streamer
Smart App control	✓ Nucleus Smart App	√ Nucleus Smart App
Performance		
SmartSound iQ	✓	✓
• ForwardFocus	✓	✓
Water resistance	✓ IP68 (1m, 60 min)	√ IP68 (1m, 60 min)
Warranty	√ 5-year	√ 5-year
4	·	•

### **Distinctive Features**

Feature	Nucleus 8	Kanso 2
Physical Design	Behind-the-ear (BTE)	Off-the-ear (OTE)
	Multiple retention options:	Single-unit design
	- Earhook	- Less to track/lose
	- Snugfit (3 sizes)	- No cables/coils to manage
	- Safety cord/lines	- Built-in retention
	- Earmold adapter (custom)	- Battery locked in
	More parts to track	Simpler/fewer parts
Performance		
SCAN technology	SCAN 2 (enhanced)	SCAN (standard)
	- 8% better noise classification	- Standard noise detection
	- 11% overall improvement	- 6 scene types
• ForwardFocus	Improved version	Standard version
	- 5 dB SRT improvement	- Standard performance
	(compared to BEAM directional)	(reduces rear noise)
	- More powerful noise reduction	- Basic noise reduction
Future ready	Bluetooth LE Audio ready*	Current Bluetooth only
Battery & Charging		
Battery type	Removable modules	Built-in rechargeable
Battery life	35h (disposable)	18h rechargeable
	19h (compact), 51h (extended)	(real-world > 16h)
• Charging	Separate charger	Wireless charging case
Field flexibility	Can swap battery modules	Required portable charger
Amateur Radio Considerations		
	Can jerry-rig with spare modules	3-4h charge time needed
	Multiple battery options	Fixed battery design
	More complex, more flexible	Simpler but less flexible
4	•	•

## **Key Insight: ForwardFocus Quantification**

### Improved ForwardFocus (Nucleus 8) provides:

- 5 dB SRT (Speech Reception Threshold) improvement in clinical trials
- Significant improvement in spatially-separated noise environments
- "More powerfully reduces" background noise compared to standard version

**Standard ForwardFocus (Kanso 2)** reduces noise from behind but has not been specifically quantified separately

### **Key Takeaway for Your Decision**

#### For your Amateur radio needs:

- 1. Nucleus 8 advantages:
  - Can jerry-rig with spare battery modules (better for field use)
  - Multiple retention options including custom earmold
  - More complex but more flexible for emergency situations
- 2. Kanso 2 advantages:
  - Fewer parts to track/lose (critical in field operations)
  - 16-18 hour battery life sufficient for most ops
  - Simpler design = less that can go wrong

Choose based on whether you prioritize **field flexibility** (Nucleus 8) or **simplicity/reliability** (Kanso 2).

#### **Amateur Radio Considerations**

RF Safety: Your Amateur radio operations are perfectly safe!

- 100W HF EFRW at 20': Well beyond required safety distance
- **5W VHF/UHF HT at 1 meter**: Extremely low power, no concerns
- Professional studies confirm medical RF devices much closer to implants have no adverse effects
- Going QRP isn't necessary for safety operate at full legal power with confidence

For CI600 series implants (likely your CI6200):

- Designed to handle much stronger EMF/RF than Amateur radio
- MRI-tested up to 3T with magnet in place
- No technical literature suggests Amateur radio poses any CI risk
- Standard safety warnings cover extreme cases (MRI, electrosurgery) not typical ham operations

<sup>\*</sup>Bluetooth LE Audio requires future firmware update