

Date: 05/13/2025  
 FCC ID: 2AHPN-BE2882

To the attention of:  
 Federal Communications Commission  
 Authorization and Evaluation Divisions

## Declaration letter of device comparison R1 INT ER 3B HW4 AND R1 INT RW 3B HW4

We, HARMAN, would like to apply for a Family certification for the following device:

Product Type: Automotive Infotainment Unit with Bluetooth/WLAN  
 Variants: R1 INT ER 3B HW4 / R1 INT RW 3B HW4  
 Manufacturer: HARMAN  
 Applicant's complete, legal business name: Harman International Industries, Incorporated

We declare the following device information and comparison between variants:

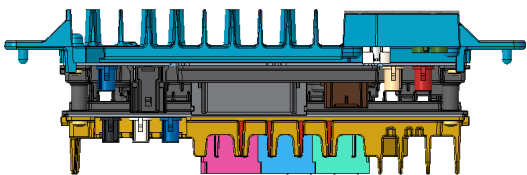
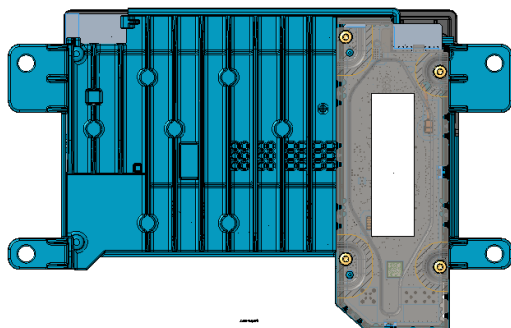
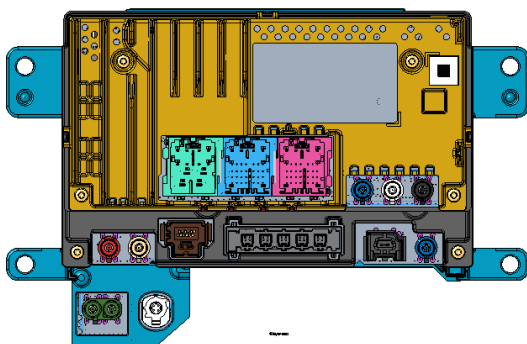
R1 INT ER 3B HW4	R1 INT RW 3B HW4
<ul style="list-style-type: none"> <li>Bluetooth/WLAN transmitter Model AW690HNI is manufactured by NXP Semiconductor.</li> <li>Two integrated antennas (BT/Wi-Fi 2.4G and Wi-Fi 5G)</li> <li>The intended operational frequency band for the integrated Bluetooth transmitter is 2402 – 2483.5 MHz with 79 frequency hopping channels with the max antenna gain of -1.24 dBi. Bluetooth TX Power class 1.5. BTLE interface which is included in the block diagram will be disabled by Software after system wakeup. The Max antenna gain @ 5GHz is as follows:               <ul style="list-style-type: none"> <li>Integral / 2.67 dBi for Subband U-NII-1</li> <li>Integral / 1.52 dBi for Subband U-NII-3</li> </ul> </li> <li>The second PCBA antenna manufactured by Harman that is used for 2.4GHz Wi-Fi WLAN with the max antenna gain of - 0.12 dBi. This is permanently affixed to the interior of the device and is non-removable and cannot be modified by normal means.</li> </ul>	<ul style="list-style-type: none"> <li>Bluetooth/WLAN transmitter Model AW690HNI is manufactured by NXP Semiconductor.</li> <li>Two integrated antennas (BT/Wi-Fi 2.4G and Wi-Fi 5G)</li> <li>The intended operational frequency band for the integrated Bluetooth transmitter is 2402 – 2483.5 MHz with 79 frequency hopping channels with the max antenna gain of -1.24 dBi. Bluetooth TX Power class 1.5. BTLE interface which is included in the block diagram will be disabled by Software after system wakeup. The Max antenna gain @ 5GHz is as follows:               <ul style="list-style-type: none"> <li>Integral / 2.67 dBi for Subband U-NII-1</li> <li>Integral / 1.52 dBi for Subband U-NII-3</li> </ul> </li> <li>The second PCBA antenna manufactured by Harman that is used for 2.4GHz Wi-Fi WLAN with the max antenna gain of - 0.12 dBi. This is permanently affixed to the interior of the device and is non-removable and cannot be modified by normal means.</li> </ul>

**HARMAN**

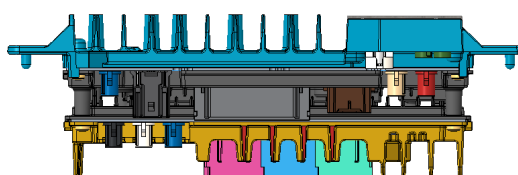
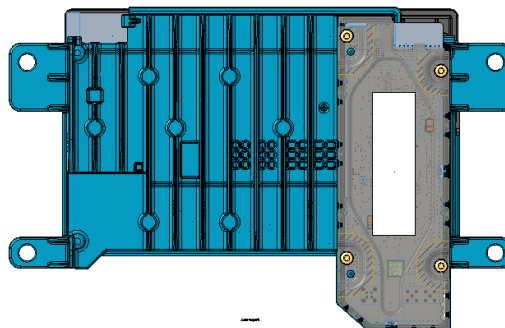
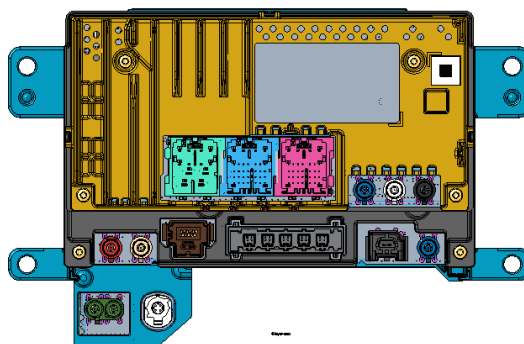
30001 Cabot Drive  
Novi, MI 48377 USA  
+1.248.785.2361  
+1.248.994.2703



- **Transmission modes:**
  - 2.4 GHz, 11b/g/n/ac (20MHz)
  - 5 GHz: 11a/n/ac (20, 40, 80 MHz)
  - All data rates of these standards are supported. (6-54 Mbit/s; MCS0-9)
- Dimensions: 23 cm X 16 cm X 9 cm  $\approx$  0.5Kg
- 3 of large connectors/Active Noise Cancellation
- The ER variant has an additional EU DAB tuner and FM antenna. ***This is the highest populated variant.***



- **Transmission modes:**
  - 2.4 GHz, 11b/g/n/ac (20MHz)
  - 5 GHz: 11a/n/ac (20, 40, 80 MHz)
  - All data rates of these standards are supported. (6-54 Mbit/s; MCS0-9)
- Dimensions: 23 cm X 16 cm X 9 cm  $\approx$  0.5Kg
- 3 of large connectors/Active Noise Cancellation
- No DAB Technology
- No FM antenna



Best regards

Pranav Patel  
Sr. Engineer, Certification

**HARMAN**  
Harman International Industries,  
Incorporated  
30001 Cabot Drive  
Novi, MI 48377 USA