



April 18<sup>th</sup>, 2012

Office of Engineering and Technology  
Laboratory Division  
Equipment Authorization Branch  
FCC Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046

Att: Mark Neumann

Subject: Response to FCC's Correspondence Reference Number 41428 for  
FCC ID: AZ492FT4904 and EA 328447 dated March 21, 2012.

Dear Mark:

See below for the responses.

1) We are willing to consider RF Test Report, MPE Measurement, and SAR calculation results from previous applications provided that they are accompanied by sufficient documentation to confirm electrical equivalency between the originally tested radio and FCCID AZ492FT4904. However, the application must be complete in its entirety; therefore, please include exhibits providing the following:

a) Side by side comparisons of internal photos of each of the devices originally tested and FCCID AZ492FT4904. The photos must clearly show the RF boards and outputs for each device.

[Side by side comparisons of the internal photos of the RF boards are provided at the end of this document.](#)

b) Side by side comparisons of schematics for each of the devices originally tested and FCC ID: AZ492FT4904.

[FT4904\\_Ex5a\\_Schematics\\_20111017.pdf](#) provides the complete schematic for the transmitter that is part of FCC ID: AZ492FT4904 - UHFR1 (40W) and UHF R2 (45W) dual band radio. Please use this schematic for the filing as it has been modified to remove receiver related details.

[FT4894\\_Ex5a\\_Schematics.pdf](#) provides the complete schematic for the transmitter that is part of FCC ID: AZ492FT4894 – UHF R1 40W single band radio.

[FT4896\\_Ex5a\\_Schematics.pdf](#) provides the complete schematic for the transmitter that is part of FCC ID: AZ492FT4896-UHF R2 single band radio.

c) An attestation of electrical equivalency between each of the devices originally tested and FCCID AZ492FT4904.

This radio (FCC ID: AZ492FT4904) is identical to the previous radios (FCC IDs: AZ492FT4894 & AZ492FT4896) in terms of layout, components, matching network, all the transmitter performance including but not limited to efficiency, transmitter current for a given output power, except that both transmitters are in the same housing.

d) For the Exhibit 6 Test Report, please provide a summary table showing the FCC ID of the device originally tested and the date of the test.

FCC ID: AZ492FT4904 is a UHF R1 (40W) and UHF R2 (45W) dual band radio. The UHF R1 portion of the data included for this filing (FCC ID: AZ492FT4904) was used during the approval of FCC ID: AZ492FT4894 (UHF R1 40W single band) in August of 2010. The UHF R2 portion of the data included in this filing (FCC ID: AZ492FT4904) was used during the approval of FCC ID: AZ492FT4896 (UHF R2 single band) in February 2011.

2) Much of the text in Exhibit 6G (Radiated Spurious Emissions) in the test report is illegible. Please correct and resubmit.

[FT4904\\_ex6\\_Test\\_Data\\_Amended 20120415.doc](#) provides latest format for the test data.

3) The maximum operating power for the DUT is 54 watts in the 485-512 MHz frequency band. This operating power does not appear to be covered by the prior test reports (including SAR) for the previously tested devices. Please clarify how authorization at 54 watts in this band is justified.

The maximum operating power for the DUT is 48 Watts instead of 54 Watts in the 485-512 MHz frequency band.

4) Please provide a copy of the installer's manual for the DUT. The manual must address installation separation distances for both automobiles and motorcycles.

See the attached RF Safety Guide with a note on Page 5 that refers to Vehicles, including Motorcycles. Please note that this will be a running change for the RF Safety Guide.

Also, see the attached Installation Instructions manual.

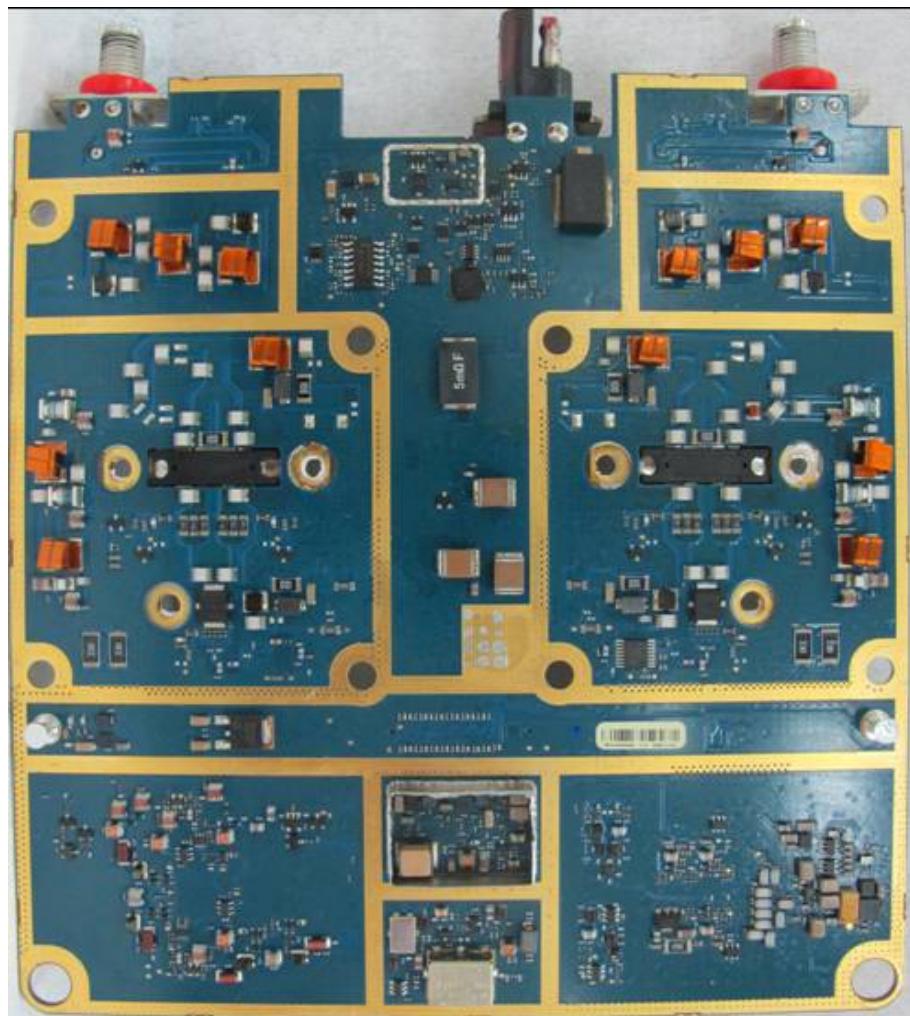
The specified weather enclosure in motorcycle installation manual (chapter 5) has a length of 38cm. By default the antenna cannot be closer than 30cm to the motorcycle operator. Motorola RF Safety Guide (page7) specifies the use of Motorola accessories.

Sincerely,

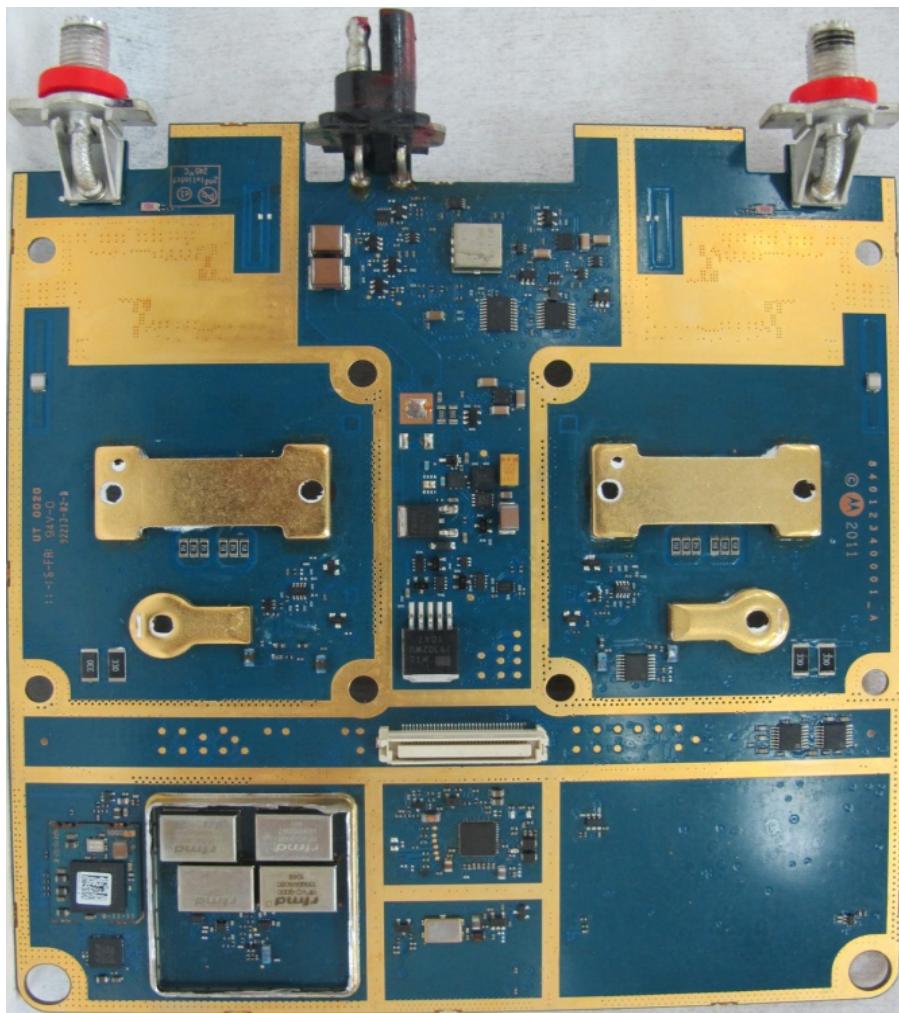


Mike Ramnath (signed above)  
Manager, Regulatory Compliance  
Email: [Mike.Ramnath@motorolasolutions.com](mailto:Mike.Ramnath@motorolasolutions.com)

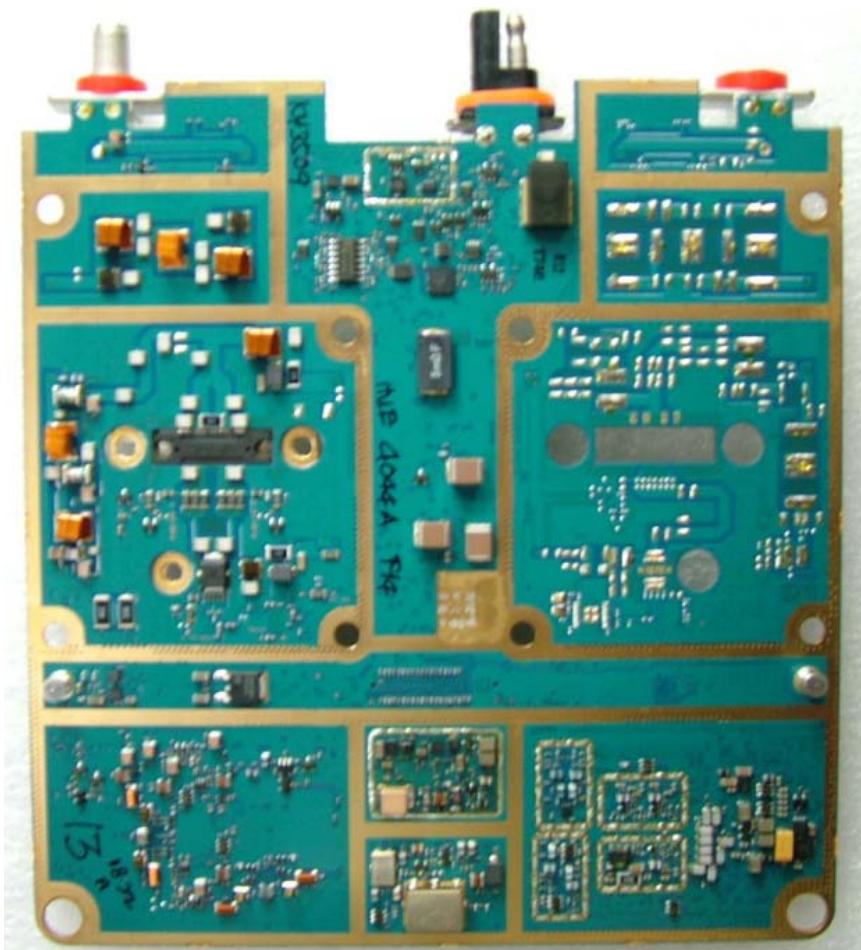
**FCC ID: AZ492FT4904 – RF Board (Top Side Without Shield)**



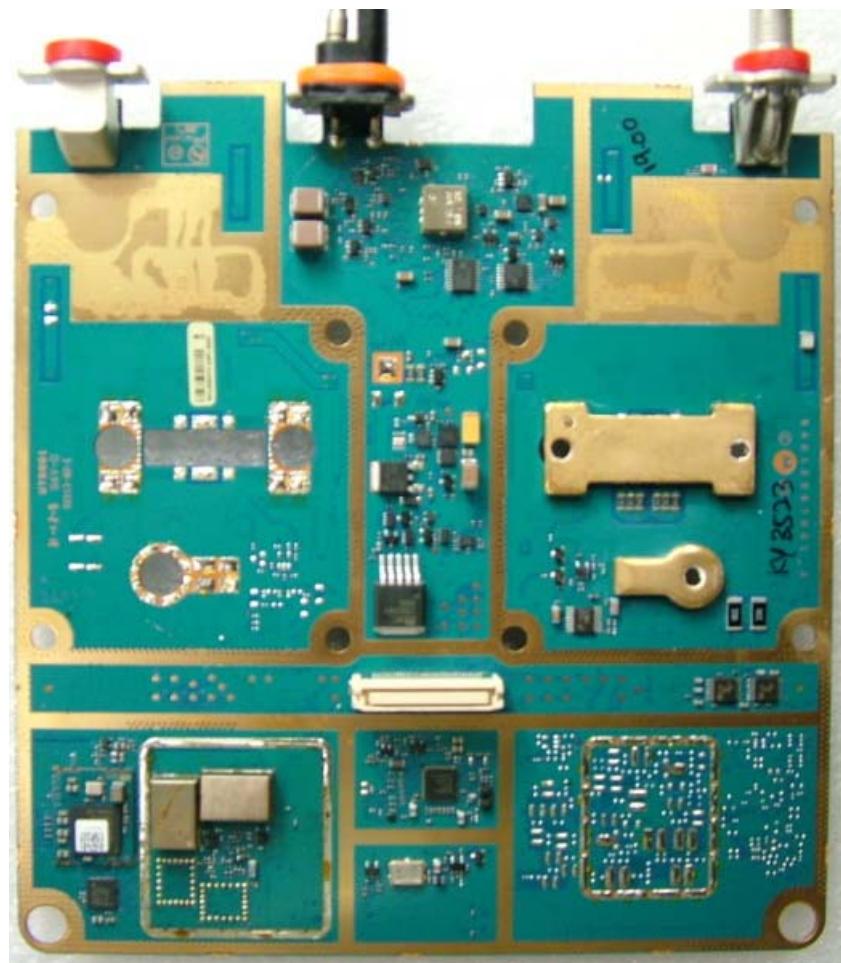
**FCC ID: AZ492FT4904 – RF Board (Bottom Side Without Shield)**



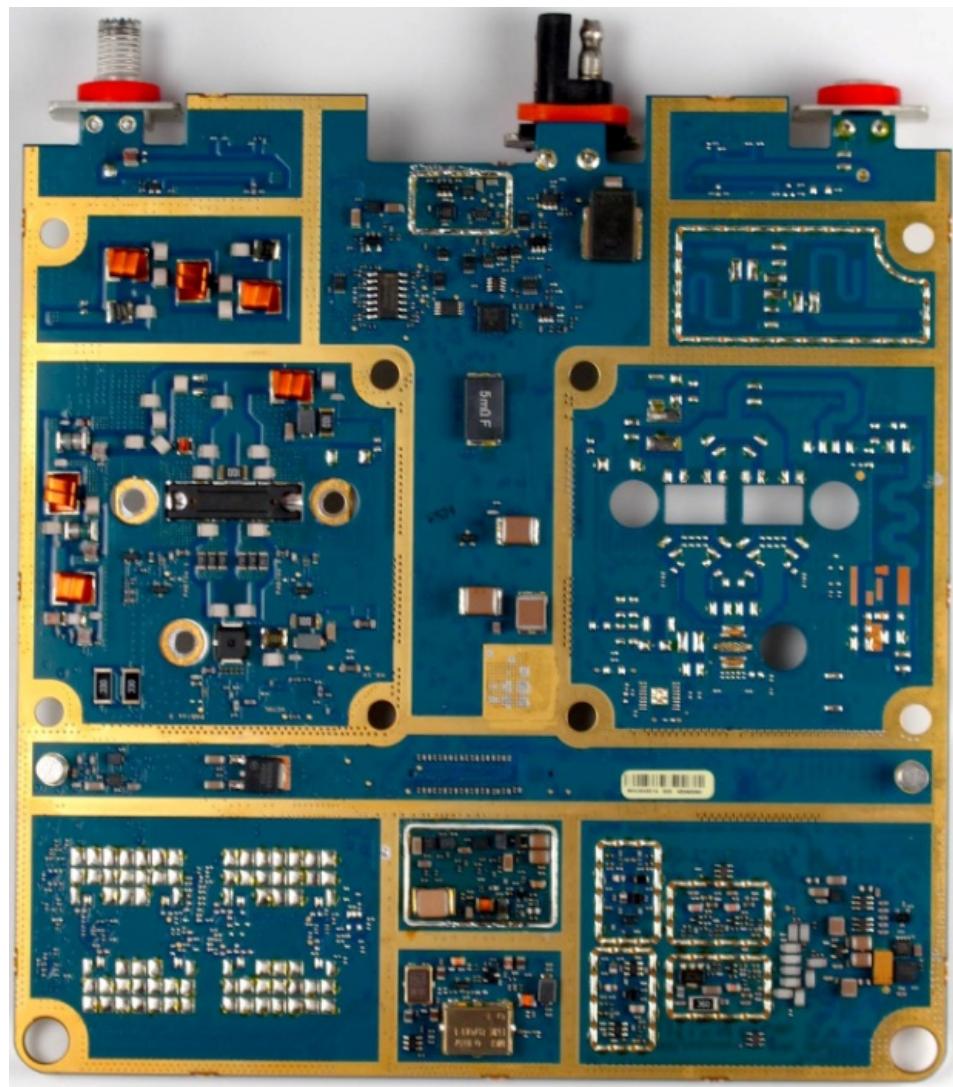
**FCC ID: AZ492FT4894 – RF Board (Top Side Without Shield)**



**FCC ID: AZ492FT4894 – RF Board (Bottom Side Without Shield)**



**FCC ID: AZ492FT4896 – RF Board (Top Side Without Shield)**



**FCC ID: AZ492FT4896 – RF Board (Bottom Side Without Shield)**

