

Response to TCB Findings

1. Internal and external photos don't show the details of the device, such as component placement and traces well enough. Closer views are required with enough resolution and lighting to show details.

[Assembly drawings and additional photos supplied.](#)

2. The confidentiality request mentions assembly drawings. Please clarify which exhibit this is.

[Supplied.](#)

5. It appears from the manual that the device is designed to be installed by different Application Service Providers. Since the device has no external cover or case around it, it can only be certified as a module. For modular approvals of licensed devices the following must be satisfied;

a. The maximum antenna gain to allow compliance with RF exposure requirements at 20cm will be listed on the Grant of Certification, therefore we'll need an RF exposure exhibit with maximum conducted power at the antenna terminal and maximum antenna gain information.

[RF exposure exhibit supplied.](#)

b. Besides the label on the licensed module itself, there must be a second label that is visible on the final device with the following text: Contains "FCC ID: NJIAL250". Therefore a warning in the manual about this requirement must be included.

[Please see Pg 9 of the manual for the warning.](#)

6. An emission designator with necessary bandwidth must be selected and justified in accordance with 2.201 and 2.202. Please supply the emission designator.

[Emission designator supplied as an exhibit.](#)

7. Please clarify how the limit on Pg 17 (12kHz) has been determined.

[The voice deviation limiting specification comes from the EIA-690 - Minimum Standards for 800Mhz Cellular Subscriber Units, section 3.3.2.3.3. "The instantaneous peak and steady-state deviations shall not exceed the rated system peak frequency deviation of +/-12kHz at any audio frequency or reasonable change in input level while operating on any channel under the environmental test conditions described in 4."](#)

8. 22.915 has been removed from the rules. Instead the device must show compliance against 2.1047(a) and 2.1047(c) or (d) as appropriate. Please justify how the device complies with these sections.

[Please see "Response for Item 8" documents \(2 files\).](#)

9. The occupied bandwidth should be measured at 26dB points of the emission as explained in 22.917(b). It appears from the plot on Pg 28 that approximately 15dB point has been used. Please clarify.

[Please see "Response for Item 9" document.](#)

10. Does the device have the capability to transmit on multiple channels simultaneously. Please clarify.

[The device will only transmit on one channel at a time.](#)

11. Please specify the RBW and VBW settings of the spectrum analyzer used for conducted spurious emissions test at the antenna terminal.

The RBW setting was 100 kHz, and the VBW setting was 3 MHz for the scans from 3 MHz to 10 GHz.

12. For 2.1053 "Field Strength of Spurious Emissions" test "Signal Substitution Method" of TIA-603 must be followed. The emissions recorded must meet -13dBm limit of 22.917(a). Section 2.2.12 of the document explains the test method for this measurement. Please submit test data demonstrating compliance with this method.

[Please see revised test report.](#)

13. The ERP levels listed on Pg 65 of the report are much lower than the conducted ratings (around 30dBm) of the device. Please supply ERP calculation with the proposed antenna attached.

[Please see revised test report.](#)

14. Please supply the tune-up procedure for the device and clarify if the power output is variable.

[Supplied as an exhibit.](#)

15. DC voltages and currents in the final RF amplifier stage are required by 2.1033(c)(8). Please supply this information.

[Supplied as an exhibit.](#)