

RE: FCC ID: PHX-CPE25300_ATCB005574

1. Please provide the tune up procedure for the device.

[The Tune-up Procedure has been uploaded to the ATCB web site.](#)

2. Please note that the FCC has recently expressed concern that test labs are not testing products using approved test methods. Please note that the test report provided does not adequately address how the testing was performed. Also, while you mention TIA603, you state a much earlier version than what is accepted by the FCC. Please note that the FCC wants to see testing in accordance with TIA 603 C 2004. Please update the report reference to show the proper test methods and please provide specific indications for each test as to the procedure used to make measurements. Please note that a simple reference to TIA 603 is not sufficient to indicate just how the device was tested.

[A revised Test Report has been uploaded to the ATCB web site.](#)

3. Please explain in what manner ANSI C63.4 was used in testing this device. Please note that TIA603 only states that the EUT setup is to follow ANSI C63.4.

[A revised Test Report has been uploaded to the ATCB web site.](#)

4. Please note that part 27 specifically states that it is the peak power that is to be measured. Please note that while Part 27 says that measurements are to be PEAK power made using an analyzer that has been calibrated in terms of rms-equivalent voltage, this does not mean the measurement itself is RMS. Please note that the test report states that for power measurements the analyzer was set to RMS detector. The measurement is to be made with the analyzer in peak detector. Please explain and please correct as necessary to provide the proper Peak transmit power value.

[A revised Test Report has been uploaded to the ATCB web site.](#)

5. Please note that BRS and EBS stations are subject to EIRP limits as well as peak transmit power limits. Please note that mobile stations in the BRS and EBS bands are limited to 2Watts EIRP. Please note that the max output power of the device is said to be 0.501W and the antenna gain is said to be 7.81dBi. This gives a rough calculated EIRP of 34.81dBm or 3.025W. This exceeds the limit for BRS/EBS mobile and other user devices under 27.50(h)(2). Please also note that in accordance with TIA603 the EIRP value must be measured and not calculated. Please explain and please correct/measure EIRP as necessary to comply with BRS/EBS rules.

[The CPEi25300 device is a Temporary Fixed product and complies to the 2 watt limit requirements for an "other user station" as defined in the FCC rules contained in 27.50\(h\)\(2\): All user stations are limited to 2.0 watts transmitter output power. The reference to "Mobile stations are limited to 2 watts" test report has been revised to read "User stations are limited to 2 watts".](#)

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6. Please note that the report states use of 27.53(l)(4) as the emissions limits for both conducted and radiated measurements. Please note that there is no 27.53(l)(4) paragraph and 27.53(l) does not apply to this type device. Do you mean 27.53(m)(4)? If so, please note that the limits beyond 5.5MHz removed from the band edges is $55 + 10 \log (P)$ dB not $43_{-10} \log P$. Please review the part 27 rule part and provide proper reference to the associated emissions limits. Please correct the report as necessary.

[A revised Test Report has been uploaded to the ATCB web site.](#)

7. Please note that EIRP for licensed devices is not a reverse calculated field strength but is instead a measured EIRP value using the antenna substitution method as required by TIS603. Please provide proper measurement data using the accepted antenna substitution method as prescribed by TIA603 and as required by FCC.

[The CPEi25300 device is a Temporary Fixed device. The power limitations for this category are 2 watts conducted transmitter power.](#)

8. Please adequately explain the modes of operation used during testing of the device.

[The modes of operation for the product are listed on page 8 of the revised test report. The laptop PC executed a test utility which was provided by the applicant to control the EUT transmitter at specific power levels during the testing, a comparison of all modulations of uplink transmissions was performed to determine the worst case modulation. The EUT was then set to the worst case modulation observed during the comparison to test all items. The worst case modulation observed for a 5MHz bandwidth was, QPSK \$\frac{3}{4}\$, and for a 10MHz bandwidth, QPSK \$\frac{1}{2}\$.](#)