



March 10, 2008

Richard Fabina
Examining Engineer
ATCBI

RE: FCC ID: HSW-Z2405HPA & IC: 4492A-Z2405HPA for Cirronet, Inc. Response To Comments

Dear Mr. Fabina:

In response to your comments regarding the above referenced FCC ID:

1. "The block diagram for this device shows both a low and high power version of this device. Please be informed that two separate FCC and IC numbers must be filed to market a low and high power version of this device. Please confirm which version of the device is being approved via this application. Make sure all documentation submitted supports this version. **YES, THERE IS A HIGH POWER AND A LOW POWER VERSION OF THIS DEVICE. SEPARATE APPLICATIONS FOR FCC AND IC HAVE BEEN FILED FOR EACH DEVICE. THIS APPLICATION IS FOR THE HIGH POWER VERSION (HPA).**
2. "Mark Tucker is listed as the contact person for Cirronet, Inc. on the FCC Grantee Code Database. As such, he is the authorized person to sign letters for Cirronet. Unfortunately Al Patrick has signed the FCC agent letter and the FCC confidentiality request letter submitted with this application. Please either provide a letter from Mark Tucker giving Al Patrick the authority to sign these letter for Cirronet on this application or submit new letters signed by Mark Tucker for this application." Mark Tucker is the President of Cirronet and typically does not sign these letters. **Al Patrick is the Compliance Engineer in charge of the Product compliance and he has always signed these letters in the ½ dozen applications granted by ATCB in the last year, including the ones in the application granted through ATCB last week. May we continue to do this or should I tell ATCB that your policy has changed and trouble them to provide new letters?**
3. "Please provide a schematic diagram and a parts list for this device...." **Schematic Diagram and Parts list have been uploaded.**
4. This application appears to be for a modular approval. As such, both and FCC cover letter and an IC cover letter exhibit must be submitted that request modular approval..." **Modular Approval Letter has been uploaded.**
5. "Please provide a completed and signed copy of Appendix A and B of RSS-102..." **Appendix A and B uploaded.**
6. "The model number shown on the IC application form (Z2405HPA) does not agree with the model number shown on the IC label and other supporting documentation (ZMN2405HPA). Please correct the incorrect exhibits. The IC label must display the model number in accordance with Section 5.2 of RSS-GEN" **The Model Number on the IC application has been corrected and uploaded.**
7. "Please correct the FCC application form to show DTS (Digital Transmission System) as the equipment code....." **Form 731 has been corrected and uploaded.**
8. "Please fill out the following items on the IC application form:" **Items completed.**
9. Please identify the FCC test procedure used for testing this DTS device in Section 2.1 of the test report." **Corrected Report uploaded.**
10. "Please confirm that Table 3 contains AC line conducted test results for both transmit and receive modes for this device. **Confirmed – Table 3 contains results for both transmit and receive modes.**
11. Please provide a brief paragraph that describes the AC line conducted emissions test procedure. **Corrected Report uploaded.**
12. "Please provide a more detailed operation description or zero span plots showing pulsed emissions from this transmitter...." **Plots provided.**
13. "Please remove all references from the test report to Section 15.249 of the FCC Rules..." **All references removed.**
14. In Section 2.12 of the test report, please provide a brief paragraph that describes the radiated test procedure used for measuring emissions form this device. I'm looking for statements to be added to the test report that say the device was rotated 360 degrees, measurement antenna was located 3



meters from the device, it was also raised and lowered between 1 and 4 meters in height and both antenna polarities (H or V) were checked over 30 Mhz to 25 Ghz to maximize emissions from this device." [Corrected Report has been uploaded.](#)

15. In Table 6 of the test report, please explain where the radiated emissions limits of 23174 and 19116 uV/m @ # meters come from....." [Limits removed.](#)
16. In accordance with Section 15.31 (m) of the FCC Rules and Section 4.3(g) of RSS-Gen, you must measure the low, middle and high channels of this device..." [Corrected report uploaded.](#)
17. Please redo your 6 dB bandwidth plots to show the total bandwidth with the delta marker function on the spectrum analyzer. You do not show the complete bandwidth in any submitted plot...." [Re-measured and corrected report uploaded.](#)
18. Please provide a brief paragraph that describes the radiated test procedure for output power measurements. [Corrected report uploaded.](#)
19. In Section 2.15 of the test report, it states the output power of this transmitter is set to + 16 dBm, but you only measure a maximum of 14.5 mW on one channel and less than 10 mW on the other two. Please explain this discrepancy." [DISCREPANCY EXPLAINED](#)
20. The band edge compliance measurements in Section 2.17 were made with a RBW of 100 kHz to show compliance to the 20 dB below carrier limits in 15.247(d)....." [ADDRESSED](#)
21. In Section 2.18 and Table 10 of the test report, please show all the correction factors and a sample calculation so I can verify the accuracy of the reported power spectral density levels." [Added and corrected report uploaded.](#)
22. Your MPE calculations are Section 2.19 of the test report are incorrect...." [Recalculated and corrected report uploaded.](#)
23. The user manual should provide further information and better detail to the OEM as to how to use the modular transmitter in order to maintain the modular transmitter approval and RF exposure compliance. IN order to make sure that the integrators are given enough information, please provide a revised user manual where the following or similar information has been added to it..." [A revised manual has been uploaded.](#)
24. For your information – I note that your AC lined conducted limits below 500 Khz are incorrect..." [will be more careful in the future – Corrected report is uploaded.](#)
25. For your information 2 – I notice that you provide no correction factors with your instrument readings...." [Noted, thank you. ...](#)"Other information should be added to a test report to enhance repeatable measurements. I am speaking of antenna height, antenna polarity, turn table position, and EUT orientation is X, Y or Z axis." [All this information is included in our data files, but not the final test report. Your advice is noted for future reference – thank you.](#)

Best Regards,

A handwritten signature in cursive script, appearing to read "Sandra McInnis".

Manager, US Tech – Agent for Cirronet