U.S. TECH

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COMPLIANCE WITH CONFIDENCE

January 23, 2004

RE: Response to Data Critical Corporation ATCB Comment_012104.pdf

FCC ID: BQI02DR-10100

I have a few comments on the above referenced Application.

1) FYI…..A confidentiality letter was provided. However the items listed were not provided, nor are they necessary for this application. Therefore this exhibit is being ignored.

   Acknowledged.

2) Please provide a separate cover letter explaining the purpose of the Class II Permissive Change. This should adequately address the differences/changes of the device and justification for Class II Permissive Change. It is also important in certain cases to mention what has not been changed.

   US Technologies has uploaded a Letter explaining the purpose of the Class II Permissive Change, adequately addressing the differences/changes of the device and justification for Class II Permissive Change.

3) The external photographs of the device on the test site do not show the correct device being tested as originally approved. Was the correct device tested?

   The correct device was tested. The DR-10000 photos were mistakenly added to the DR-10100 report, The report has been corrected.

4) Please add the signature of the responsible party to the report.

   The signature of the responsible party has been added to the report. The report has been corrected.

5) Please provide a separate exhibit containing just the test configuration photographs only.

   A separate exhibit containing just the test configuration photographs only has been uploaded

6) Page 10 of 56 appears to contain frequencies outside of the TX band authorized. Please explain.

   These frequencies were additional information supplied by the client that is not pertinent to the operating frequencies of the EUT. They have been removed from the Test Report.

7) Page 9 and 11 appear to contain the same frequency list. Please explain.

   These pages do contain the same frequency list. Page 9 was provided to exhibit the original frequency list. Page 11 lists the additional frequencies added to the unit from the frequency list. We have deleted page 9 from the report, and retained page 11 to exhibit the additional frequencies added to the EUT from the frequency list.

8) Page 11 appears to list channel 0h, which doesn't exist. Please explain.

Channel 0h was a typographical error, from the manufacturer's original list of added frequencies, provided to US Technologies. A corrected exhibit has been provided.

9) The power measurements do not appear to match the plots. Please explain.

The data tables are quasi-peak data. The plots provided were erroneous. US Tech confirms the accuracy of the quasi peak data provided. We have removed the plots from the report.

10) Please call to discuss peak emissions given in section 2.8 and the average measurements given in section 2.9 of the test report. Note that 95H does not reference peak emissions, although they are necessary in order to derive the average measurements.

Peak measurements were taken to help derive the average measurement. Peak plots will be removed, as they were provided for informational purposes only.

11) The device should be placed into a continuous mode of TX for spurious emissions testing where possible. It appears that this may have been done for one set of measurements and not the other. The monopole appears to be tested correctly, while the patch antenna appears that emissions were pulsing. Testing with the device hop stopped for these measurements > 1 GHz is based on principles regarding good engineering practice of measurement of pulsed emissions and the acceptability of the FCC of how to measure pulsed emissions. However, the plots provided appear to show the device was transmitting with some type of duty cycle. Please explain the duty cycle present during testing (TX on time, TX off time, period, etc.). This information is necessary to ensure the bandwidths used during testing are acceptable. Also, how was the device effectively maximized given the periodic nature of the signal. Additionally it appears that some data may not have been properly maximized.

The duty cycle is as follows:
Period: 35 milliseconds
Tx on time: 1 millisecond

The US Tech technician conducting the testing was aware of the periodic nature of the signal and exercised diligent care in manipulating the unit and cables. He also exercised strong diligence in recording the peak value for each fundamental signal in all channels.

In addition, we have spot checked the 2 worst case harmonics for Spurious emissions and verify the data accuracy.

11) Please provide information at the band edges of 608 - 614 MHz for the lowest and highest channels to show compliance to the 200 uV/m requirement.

Band edge plots have been uploaded for highest and lowest channels

Sincerely,

Louis A. Feudi
Operations Manager