

Response for Request for information for

Re: FCC ID: QLBPTSS2003
Applicant: Cirronet
Correspondence Reference Number: N/A
731 Confirmation Number: N/A

- 1) You state that there is no tune up procedure except for establishing the center frequencies. How is the power out of the device set at the time of manufacture so as not to exceed the limits as reported in the application?

The RF transmitter chain in the DR-10110 submission has been designed to produce a maximum power of 24 dBm or 250 mW. The unit sent to US-Tech for certification had the same peak output power. Measured field strength data for that unit shows our emissions are far below the allowed 740mV/m limit.

- 2) Please provide the parts list as required by 2.1033.

This has been uploaded.

- 3) A note on the external photos states that you do not use the two antenna terminals on the back right of the unit. However, the schematics are not clear as to which antenna terminals are selected (i.e. which jumpers are used in this device). Also, the manual indicates that selection is possible between antenna sets A and B. This appears to be selecting the four possible antenna connectors. Please clarify which jumpers on the schematics are used and which are not. Please clarify what the designations in the manual mean in relation to actual selectable antennae. Also, please explain how the two unused antenna connectors are prevented from use at the time of manufacture. Alternately, please show photos of this device without the unused connectors.

Some background about this product first. This device can contain two different radios. In December of 2002, we submitted and received certification of this device with a 608-614 MHz radio inside (FCC ID: BQI02DR-10100). When in this configuration, the device only uses the two antenna ports on the right side of the photo. These ports are clearly labeled as 608 MHz.

This submission uses the same product but with a different WMTS radio operating over the 1395-1432.5 MHz band. When in this configuration, the device uses only the two antenna ports used on the left side of the photo and labeled as 1400 MHz. In either case, this product only has one or the other radio inside - never both. Therefore only two of the antenna jacks

are usable at any time.

To state again, only the two antenna jacks shown on the left-most side of the unit in photo 2 of the EUT are used in this submission. Two RF ports, labeled 1 and 2, are provided for diversity purposes - i.e. the radio inside the unit can select either port 1 or 2 to transmit or receive with. These two ports are clearly labeled underneath showing operation at 1400 MHz. The other two ports, labeled not used in this device are not connected to any radiating device and are attached only for manufacturing convenience.

- 4) Please note that there appears to be a shielded section on the top of the transceiver board. Please remove this shield and provide photos of the circuitry underneath. Alternately, if this is not a shield, please explain what it is.

This has been uploaded

- 5) Please note that the data in the fundamental field strength table on page does not match your sample calculation. Please note that the calculated field strength would seem to be $\text{antilog}(-0.2+107+29.4)/20=\text{antilog}(106.8+29.4)=\text{antilog}(136.4/20)=6.6\text{V}$. Please also note that the cable and antenna factors in the first table do not match those in the other tables. Please provide your cable and antenna factors so a correct evaluation of the correct field strengths can be made. Alternately, please correct your report to provide accurate measurement data for the fundamental field strengths of the EUT.

A corrected Test report has been uploaded

- 6) Please define what your 'slow' hopping statement means more clearly. You state the device is a Frequency Hopping Spread Spectrum type" transmitter. What does this mean? Is it a Spread Spectrum device? If it is a spread spectrum device, please provide evidence of the pseudo random frequency generation? IF it is not a spread spectrum, please clearly identify the type.

This device has been designed for WMTS only - not 15.247. The device does utilize slow frequency hopping as an access technique. However, the unit has been designed for WMTS requirements and is being submitted as such. The information required in 15.247 submissions regarding hop tables, pseudorandom operation and the like does not apply here.

- 7) The plots provided would tend to say that the emissions designator may not be accurate. Please provide measurement data using correct Res BW to justify the emissions designator.

A mistake was made and data from the previous submission (BQI02DR-10100) was inadvertently used. The correct designator for this device should be: 600KFXD

- 8) Please note that your temperature data is insufficient to show compliance to 2.1055 and 95.1115e. 2.1055b states, "Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range." The range of operation has not been specified in the documentation provided and therefore you are responsible to show compliance to the temperatures in the generic temperature stability section in 2.1055. Please provide temperature measurements for every 10 degrees C for the full range of temperature variations. Alternately, please provide the technical specifications from the manufacturer giving the temperature range of the device and provide temperature stability measurements for every 10 degrees in that range as specified in CFR 47.

A new report including this has been uploaded.