Mark,
After contacting other branch members I've determined that we can allow a Class II permissive change to extend the frequency range because this in not a hardward change but only a software change. Adding a different antenna will require new testing and submitting the test results with that antenna for the filing. When the grant is done, the frequency range can be corrected.
Yes, a TCB can do a mobile WMTS device.
I trust that this has responded to this inquiry.
Rich Fabina

>>> Mark Tucker 06/03/03 12:30PM >>>

Rich,

Per the Email correspondence below, I'm contacting you directly to go over the details of our proposed Class II permissive change for BQI02DR-10100.

Tim Johnson of American TCB went into some detail below about what we propose but I thought I'd start from the beginning and give you the complete story.

The product submitted under ID number BQI02DR-10100 was certified in December of 2002. We, Cirronet Incorporated, are the designer and manufacturer of this product. GE Medical is the owner and installer of the product. (Note that the submission was actually entered under their older company name - Data Critical.)

This submission qualified under the WMTS rules for 608-614 MHz operation. The system is basically a 15.247-type frequency hopping link with the typical Access-Point-talking-to-many-remotes-topology. At the time of submission we used a total of 32 channels in our hop-set ranging from 608.6656 MHz to 612.898133 MHz. Channel centers were spaced 136.533 KHz. These channels were chosen because of anticipated out-of-band occupancy issues and the fact that our hop-set length could not exceed 32 channels. We initially thought that we would need about 600 KHz of bandwidth at the lower band-edge to meet out of band emissions. Starting at 608.6656 MHz and working up 32 channels in 136.533 KHz steps gave us our highest channel - 612.898133 MHz.

Since that submission, we've learned two things that lead us to request extra channels for our hop-set. The first is that we were too conservative in requiring 600 KHz of guard bandwidth at the lower edge of the band. Based on our reading of the submission test results, it now appears that we only need approximately 400 KHz of guard band. Given our channel spacing, this allows the addition of 2 channels at the lower end of the band and up to 5 new channels at the top of the band to our hop-set. We will still have a hard-coded limit of 32 channels in our hop-set but the idea would be to drop some of the middle channels (see next paragraph) and use more of the edge frequencies in normal operation.

The other factor driving us to request extra channels is the availability of spectrum at 608-614 MHz in many hospitals. GE Medical has found that many of the incumbent radios in typical hospital installations occupy the middle of this band. This effectively leaves only the outer edges of the band for GE's system to operate. The 1.5 MHz sub-band operation required for all 95H certified products working in this band can sometimes be used to mitigate the problem. However, we think a better solution is to add channels near the band edges, redesign the hop-sets to more effectively utilize the spectrum near those edges, and leave the incumbents to occupy the middle of the band. This way, mutual interference will be avoided and the spectrum will be better shared.

We only propose adding channels to the hop-set. The actual hopping mechanism, acquisition technique, multiple access techniques, etc. outlined in the original submission remains unchanged.

From your note to Tim Johnson below, I was under the impression that I needed a written go-ahead from you stating whether or not this was a justifiable Class II permissive change. Assuming my above explanation is adequate, and you agree with our contention that this constitutes a reasonable Class II permissive change, could I receive some acknowledgement from you via email?

Thanks,

Mark Tucker
VP of Engineering
Cirronet

>Subject: Re: Question regarding PC
>Date: Fri, 30 May 2003 13:03:00 -0400
>From: "Rich Fabina" < RFABINA@fcc.gov>
>To: < tjohnson@AmericanTCB.com>
>X-OriginalArrivalTime: 30 May 2003 17:07:18.0728 (UTC)
>FILETIME=[ED437C80:01C326CD]
>
>Tim,
>
>Have the applicant contact me so we can correct the original grant. Once the
>grant is corrected, I see no reason why a TCB cannot do a Class II permissive
>change on a mobile WMTS device under Part 95.
>
>If it is a portable WMTS device, a TCB would be limited to evaluating SAR
>between 300 and 3,000 MHz per Supplement C of OET Bulletin 65.
>
>Rich Fabina
>
> >>> Original Message >>>
>Rich,
>
>We have been asked by a company regarding a possible Permissive Change
>application: The manufacturer has been asked by their vendor to complete
>this application as quickly as possible and therefore needs to confirm the
>information below as soon as possible
>
>They previously approved a device under Subpart H (Wireless Medical
>Telemetry Service) of Part 95. The device is a frequency hopping access
>point installed in hospital ceilings for communication with other medical
>equipment (mobile device).
>
>The complete hopping table was not included in the original submittal
>because the manufacturer doing the approval for their vendor was originally
>instructed that they did not need the whole hopping table. Therefore a few
>channels at the top and bottom of the band were not included in the
>submittal. The original capability was possible, but it wasn't approved
>for its full range because of information received by the manufacturer from
>their vendor.
>
>Now the vendor has asked to add an antenna under a permissive change, but
>they have also asked to add the 2 or 3 channels to the top and bottom of
>the band that were left off. Please note that there are not any hardware
>changes to the device to add these channels and therefore this should meet

>the requirements of 2.1043 since there are no changes to the basic
>determining circuitry itself. This change is made strictly by extending
>the hopping tables within the software of the unit.
>
>Regarding this, they have the following 2 questions:
>
>1) Can extending the frequency range be done as a permissive change, and if so
>
>2) may a TCB approve this application?
>
>Thank You,
>
>Timothy R. Johnson, NARTE Certified EMC Engineer (No. EMC-002205-NE)
>Examining Engineer
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>McLean, VA 22101
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