

Marie Confroy

From: Shawn McMillen
Sent: Wednesday, October 19, 2005 1:10 PM
To: Marie Confroy
Cc: Chris Harvey
Subject: RE: EMC18301 Firetide FCC TCB certification for models: HP3103 (FCCID REP-3100-2) and HP3203 (FCCID REP-3200-2)

Hi Marie. The frequency ranges below corresponding to the applicable emission designator are correct. The previously submitted documentation supports both in and out of band emissions.

Sincerely,
Shawn McMillen

-----Original Message-----

From: Marie Confroy
Sent: Wednesday, October 19, 2005 9:52 AM
To: Shawn McMillen
Cc: Chris Harvey
Subject: FW: EMC18301 Firetide FCC TCB certification for models: HP3103 (FCCID REP-3100-2) and HP3203 (FCCID REP-3200-2)
Importance: High

Hello Shawn,

Please confirm that the test documentation, including Emission Mask, meets the requirements of the technical specifications Chris has outlined below. In addition, please confirm that the previously submitted documentation for this application is sufficient in demonstrating that the revisions may be made.

Upon receipt of your e-mail, I will make the necessary changes to both Part 90 Grants and e-mail the updated documentation to the customer. Thank you very much! Have a beautiful day!

Cheers!

Marie Ann Confroy
Documentation Department
MET Laboratories
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mconfroy@metlabs.com

-----Original Message-----

From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Wednesday, October 19, 2005 12:34 PM
To: SMcMillen@metlabs.com; Mconfroy@metlabs.com
Cc: CAnicet@metlabs.com; Jsuh@metlabs.com
Subject: RE: EMC18301 Firetide FCC TCB certification for models: HP3103 (FCCID REP-3100-2) and HP3203 (FCCID REP-3200-2)

Please note that the Grant Parameters are likely to follow this information below:

FCC ID: REP-3200-2
EUT Description: HotPort Wireless Node

Frequency Output Frequency Emiss

Grant Notes	FCC Rule Parts	Range (MHZ)	Watts	Tolerance	Design
	90Y	4950 - 4980	0.185	1.5 ppm	16M4C
	90Y	4945 - 4985	0.185	1.5 ppm	8M28C
	90Y	4942.5 - 4987.5	0.185	1.5 ppm	4M17C

FCC ID: REP-3100-2

EUT Description: HotPoint Wireless Mesh Node

Grant Notes	FCC Rule Parts	Frequency Range (MHZ)	Output Watts	Frequency Tolerance	Emission Design
	90Y	4950 - 4980	0.185	1.5 ppm	16M4C
	90Y	4945 - 4985	0.185	1.5 ppm	8M28C
	90Y	4942.5 - 4987.5	0.185	1.5 ppm	4M17C

Please note that the center frequency for the low channel and high channel for each channel bandwidth has been adjusted.

Chris Harvey

Chris Harvey EMC Consultants, Inc.
charvey@ieee.org
cell 443-622-3300

-----Original Message-----

From: SMcMillen@metlabs.com [mailto:SMcMillen@metlabs.com]
Sent: Wednesday, October 19, 2005 12:21 PM
To: Chrisharveyemc@comcast.net; Mconfroy@metlabs.com
Cc: CAnicet@metlabs.com; Jsuh@metlabs.com; SMcMillen@metlabs.com
Subject: RE: EMC18301 Firetide FCC TCB certification for models: HP3103 (FCCID REP-3100-2) and HP3203 (FCCID REP-3200-2)

Hi All. Chris and I just discussed the Firetide and all that is required it to extend the frequency band from 4940.5 - 4989.5 MHz rather than the 4850 - 4980 that is indicated. All the testing has been done to support the applicable rule part. I imagine some sort of declaration is required. I think Chris mentioned that.
Shawn

-----Original Message-----

From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Wednesday, October 19, 2005 7:54 AM
To: 'Marie Confroy'
Cc: 'Cheryl Anicete'; 'Jay Suh'; 'Shawn McMillen'
Subject: RE: EMC18301 Firetide FCC TCB certification for models: HP3103 (FCCID REP-3100-2) and HP3203 (FCCID REP-3200-2)

Marie, I just received a message from Paul at Firetide indicating that he was noticing an error on the Grant for the 5MHz and 10MHz channel bandwidths.

I had posed this specific question before recommending for Grant and got the following exchange:

Q2. Please confirm that each of the Channel Bandwidths uses the operating band 4950-4980, because it is possible to use wider operating band for the 5MHz and 10MHz channel bandwidths. If a wider operating band is desired for the 5MHz and 10MHz Channel Bandwidths, additional supporting test is likely to be needed.

Response to Q2:

All of the modulated bandwidths remain within the designated operating frequency range

The data in the application only supports the 4950-4980MHz bands since there is no band edge data for the 5MHz and 10MHz channel bandwidth if using a different frequency plan.

We need to discuss this internally before we communicate anything to Paul/Firetide.

Thanks,
Chris

Chris Harvey

Chris Harvey EMC Consultants, Inc.
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-----Original Message-----

From: Marie Confroy [mailto:Mconfroy@metlabs.com]

Sent: Friday, October 14, 2005 12:49 PM

To: 'Chris Harvey'

Cc: Cheryl Anicete; Jay Suh; Shawn McMillen

Subject: EMC18301 Firetide FCC TCB certification for models: HP3103 (FCCID REP-3100-2) and HP3203 (FCCID REP-3200-2)

Importance: High

Hello Chris!

All items in your technical request below have been addressed. The revised test reports and the information requested from the customer have all been submitted. I have updated the network files as appropriate. I have also updated METrak as necessary.

In addition, please find Shawn's response to your request for additional technical information attached to this e-mail. I have saved this under the Certification Review folder for this project. Please continue your technical review for the HP 3103 FCCID REP-3100-2 and the HP 3200 FCCID REP-3200-2.

Please let me know if any additional information is required. Thank you very much!
Have a beautiful day!

Cheers!

Marie Ann Confroy
Documentation Department

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-----Original Message-----

From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]

Sent: Thursday, October 13, 2005 1:33 PM

To: mconfroy@metlabs.com

Subject: MT#18301 FCC ID: REP-3100-2 Request for Information

Marie, I have performed the review of the above referenced TCB application. Please address the following items with the MET California contacts so that I can continue the review of this application. Also, you may wish to address

these similar items for FCC ID: REP-3200-2, which is in review today.

1. The test report states Emission Designator as 20M1G7D, which is not allowed to be greater than 20MHz. The data does not support 20M1, but looks like it does fit into the 20MHz maximum channel bandwidth. Additionally, there should be 2 additional Emission Designators for the 5 MHz and 10 MHz Channel Bandwidths of this device. Please additionally justify/describe the G7D designation for this OFDM modulation.

2. Please confirm that each of the Channel Bandwidths uses the operating band 4950-4980, because it is possible to use wider operating band for the 5MHz and 10MHz channel bandwidths. If a wider operating band is desired for the 5MHz and 10MHz Channel Bandwidths, additional supporting test is likely to be needed.

3. The Test Report shows 5, 10 and 20 MHz Channel Bandwidths. The power spectral density table has a column labeled Measured Power. Please re-label this table as Measured Power Spectral Density.

4. Please confirm that the measuring instrumentation and detector used for the average power measurements is measured over any interval of continuous transmission calibrated in terms of an RMS-equivalent voltage.

5. It is not clear from the test report if the Occupied Bandwidth measurements are performed using the 99% bandwidth as required by the FCC. The measured 99% bandwidth must be contained in the authorized bandwidth (channel bandwidth) as well as complying with the Emission Mask. It appears as though the Occupied Bandwidth measurements show signals slightly over the emission mask L for the 5MHz and 10MHz Channel Bandwidths. Please clarify these measurement data/plots. The test report indicates that the device complies with Emission Masks L and masks M, however, this device has RMS Average Power <20dBm, which requires compliance with Mask L. Please clarify this section of the test report as well as a calculation of the Mask used for measurement.

6. The following items pertain to either missing or incorrect exhibits: The Tune-up procedure document submitted is actually a specification sheet for the WNC WLAN mini-PCI module CM9 (please note that 4.9GHz Public Safety operation is not listed on this document). Please supply a Tune-up procedure exhibit for this device, even if it is a document that indicates there is no Tune-up required. The following items must be submitted for licensed devices in accordance with FCC 2.1033 (c):

2.1033 (c) (8) The dc voltages applied to and dc currents into the several elements of the final radio frequency amplifying device for normal operation over the power range.

2.1033 (c) (9) Tune-up procedure over the power range, or at specific operating power levels.

The Block diagram exhibit documents the test configuration block diagram and not a device block diagram. Please submit a operational/system block diagram for this device.

Internal photographs do not show the detail of the RF card installed in this device. Please submit photographs of both sides of the Radio Module, with and without RF shields.

I am still waiting for antenna specification information and the RF Module schematics for both of these devices.

Chris Harvey

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