Chris Harvey

From: Chris Harvey [Chrisharveyemc@comcast.net]
Sent: Tuesday, July 13, 2004 7:08 AM
To: Liming Xu (lxu@metlabs.com)
Cc: 'Marianne Bosley'
Subject: MT#15263 3eTI Application information needed

Dear Liming,

I have begun reviewing this application, but as you can see from the comments below, I am unable to get a complete picture of this application due to a very confusing group of conflicting and unclear documents. I have not completed the review, but need the following to be corrected and responded to by replacement exhibits so that the application can be properly reviewed for compliance with the FCC Rules.

No FCC ID number has been provided for this application. Please submit FCC ID Label and Label location exhibits with the FCC ID. Please revise the Test Report to include the FCC ID number of this device. If this EUT contains another Certified device (i.e. the PCMCIA Tx card), please ensure that the configuration information in the test report clearly identifies that device by FCC ID number.

This appears to be a professional installation Access Point device, but they are using N-connectors for antenna connections and have not indicated Professional Installation in the exhibits. Please provide a compliance declaration for FCC 15.203 with justification. Additionally, please show how the antenna is cables to this card (there do not appear to be any antenna connectors on the internal PCMCIA Card).

Schematics have been provided for the non-RF portion of this EUT, but no Confidentiality has been requested. Please confirm that Confidentiality is not desired by the applicant.

Conducted emissions, plots only show 150kHz to 500kHz, with marker on 214kHz, but data table has 200kHz data point and no 214kHz. Please correct discrepancy and include remaining plots into report.
According to the MPE document this unit uses a Gemtek card (FCC ID: MXF-M911031B) with a reported 5.5mW, the RF report shows 119mW and original Grant for Gemtek was for 16mW. According to the Operational Description exhibit, this device contains a card from Senao (FCC ID: NI3-2511CD-PLUS2) with a rated 200mW RF power, granted for 56mW. Please clarify the situation and correct the appropriate exhibits.

From the photos of the Gemtek Card (or Senao card) and internal photos of this Access point I can not tell how these antennas would connect to the Card (no connectors visible in card's photos on FCC web site.).

Report Table 1 title indicates 15.249 (should be 15.247). There are several locations in the report with variable names starting with '%%'. Please correct these typographical errors.

The Users Manual RF Exposure information and warnings about maintaining a specified minimum safe distance have not been submitted. Please provide a revised Users Manual including the RF Exposure information.

The operational Description Document indicates that this device can be operated being powered through a Power Over Ethernet (POE). I can not find any evidence of compliance with the technical requirements when this device is operated in this POE mode.

Please respond to all these requests in one resubmission and not one at a time. Please contact me if you have any questions.

Best regards,

Chris Harvey

Dear Liming,

I have begun reviewing this application, but as you can see from the comments below, I am unable to get a complete picture of this application due to a very confusing group of conflicting and unclear documents. I have not completed the review, but need the following to be corrected and responded to by replacement exhibits so that the application can be properly reviewed for compliance with the FCC Rules.

Q1. No FCC ID number has been provided for this application. Please submit FCC ID Label and Label location exhibits with the FCC ID. Please revise the Test Report to include the FCC ID number of this device. If this EUT contains another Certified device (i.e. the PCMCIA Tx card), please ensure that the configuration information in the test report clearly identifies that device by FCC ID number.

A1. Chris Harvey: FCC ID is apparently FCC ID: QVT-531AP, which matches report and label, which have both been updated/submitted.
Chris Harvey: I can not find a label location drawing/photo/diagram.

Q2. This appears to be a professional installation Access Point device, but they are using N-connectors for antenna connections and have not indicated Professional Installation in the exhibits. Please provide a compliance declaration for FCC 15.203 with justification. Additionally, please show how the antenna is cables to this card (there do not appear to be any antenna connectors on the internal PCMCIA Card).

A2. Liming Xu: ***Frank Li will answer this.
CLIENT COMMENT: We will add sentence on the manual to call "professional installation is required". The cable was on top side of the 2mm MMC connector, and I can send you a top side photo.
Chris Harvey: Need photo of construction as to how the card is cabled.
From 9/10/04 Please send the photo of the connectorized PCMCIA card with 2mm MMC to N-Connector cable attached, showing how this device is constructed. As for the professional Installation, there needs to be evidence in the application of compliance with FCC 15.203, which would require an indication that this is to be professionally installed, an indication that this is a device not available to the general public (please see the FCC interpretation attached).

Q3. Schematics have been provided for the non-RF portion of this EUT, but no Confidentiality has been requested. Please confirm that Confidentiality is not desired by the applicant.

A3. Liming Xu: TCB

Chris Harvey: No confidentiality document has been provided and thus the entire application should be public record.

Q4. Conducted emissions, plots only show 150kHz to 500kHz, with marker on 214kHz, but data table has 200kHz data point and no 214kHz. Please correct discrepancy and include remaining plots into report.

A4. Liming Xu: CK should fix this
Chris Harvey: There is still the 200kHz vs. 214kHz issue, but all the plots have been provided. This is closed.

Q5. According to the MPE document this unit uses a Gemtek card (FCC ID: MXF-M911031B) with a reported 5.5mW, the RF report shows 119mW and original Grant for Gemtek was for 16mW. According to the Operational Description exhibit, this device contains a card from Senao (FCC ID: NI3-2511CD-PLUS2) with a rated 200mW RF power, granted for 56mW. Please clarify the situation and correct the appropriate exhibits.

A5. Liming Xu: Yes, this device contains a card from Senao (FCC ID: NI3-2511CD-PLUS2) with a rated 200mW RF power, granted for 56mW. The 3eTI increased RF power level to 119mW as a new application (New FCC ID)

Q6. From the photos of the Gemtek Card (or Senao card) and internal photos of this Access point I can not tell how these antennas would connect to the Card (no connectors visible in card's photos on FCC web site.).

A6. Liming Xu: Need to take an additional photo.
CLIENT comment: It is on the top like most cardbus external antenna WLAN cards.
Chris Harvey: Photo Not provided.

Q7. Report Table 1 title indicates 15.249 (should be 15.247). There are several locations in the report with variable names starting with '%%'. Please correct these typographical errors.

A7. Liming Xu: To CK?
Chris Harvey, errors still in report, but these are now minor and I'll treat them as insignificant typos. OK.

Q8. The Users Manual RF Exposure information and warnings about maintaining a specified minimum safe distance have not been submitted. Please provide a revised Users Manual including the RF Exposure information.

A8. Liming Xu: Ok
Chris Harvey: There is a 20cm statement but there is no reference as to this being for FCC RF Exposure requirements. The User and

Installer need to be clearly informed as to the reason for this required separation.

Q9. The operational Description Document indicates that this device can be operated being powered through a Power Over Ethernet (POE). I can not find any evidence of compliance with the technical requirements when this device is operated in this POE mode.

A9. Liming Xu: This issue should be describe in FCC ID: NI3-2511CD-PLUS2 (this application only RF power level increased)
Chris Harvey: This device can be powered using the Power-Over-Ethernet (PoE) option, but I can not find evidence of Conducted Emissions compliance using this power option. Has this device been tested in the PoE configuration? If yes, which tests were performed in this configuration?

Please respond to all these requests in one resubmission and not one at a time. Please contact me if you have any questions.

Best regards,

Chris Harvey

Chris Harvey

From: Chris Harvey [Chrisharveyemc@comcast.net]
Sent: Wednesday, October 06, 2004 10:05 PM
To: 'Marianne Bosley'
Cc: 'Hoosam Bandukwala'; Liming Xu (lxu@metlabs.com)
Subject: Additional Request for Information Aeptec FCC ID: QVT-531AP MT#15263

I have re-reviewed the entire application and find that the following items need to be resolved:

1. I can not find a label location drawing/photograph. Please provide this exhibit.

2. Please provide a photograph showing the RF card cabled, clearly showing the method of cabling from the card to the N-connectors.

3. Placing a single statement in the manual indicating that this is professionally installed does not meet the intent of the FCC requirement. Here is the wording from the request of 9/10/04 (provided with the FCC Professional Installation and 15.203 requirements) which still remains open:

   > As for the professional Installation, there needs to be evidence in the application of compliance with FCC 15.203, which would require an indication that this is to be professionally installed, an indication that this is a device not available to the general public (please see the FCC interpretation attached).

4. There has been no request for confidentiality submitted, and therefore all exhibits submitted will become public.

5. The 20cm separation statement in the manual does not indicate that this is for RF Exposure purposes, which is an explicit requirement of 15.247.

6. This device can be powered using the Power-Over-Ethernet (PoE) option, but I can not find evidence of Conducted Emissions compliance using this power option. Has this device been tested in the PoE configuration? If yes, which tests were performed in this configuration?

Please respond to all these requests in one resubmission and not one at a time. Please contact me if you have any questions.

Best regards,

Chris Harvey

Chris Harvey

From: Christina Karlhoff [CKarlhoff@metlabs.com]
Sent: Wednesday, November 17, 2004 1:35 PM
To: 'Chris Harvey'; Chris Harvey; Chris Harvey
Cc: Hoosamuddin Bandukwala; Liming Xu
Subject: RE: MT15263 Additional Request for Information Aeptec FCC ID: QVT-531AP
Importance: High

Chris, Please see responses to your RT below in red text. Let me know if you need anything else. Thanks!

-----Original Message-----
From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Wednesday, October 06, 2004 10:05 PM
To: 'Marianne Bosley'
Cc: 'Hoosam Bandukwala'; Liming Xu (lxu@metlabs.com)
Subject: Additional Request for Information Aeptec FCC ID: QVT-531AP MT#15263

1. I can not find a label location drawing/photograph. Please provide this exhibit.

Customer has provided us the label location exhibit. See attached - also located in the project's certifcation review folder, Path: H:\METrak Job Folders\2004\A\AEPTEC Microsystems - 3ET\15263\DOC\FCC\Certification Review\rev docs per RT

Customer will further provide a drawing. [it hasn't been sent as yet, but the photo i believe should suffice...?] When i do recieve the drawing, it will be placed in the same revised docs per RT subfolder

2. Please provide a photograph showing the RF card cabled, clearly showing the method of cabling from the card to the N-connectors.

EMC has provided pictures of this-- see attached pdf entitled "RF cabling and N connector". See attached - also located in the project's certifcation review folder.

Additionally, the WLAN card datasheet, a .pdf document [entitled "NL-2511CD-PLUS-EXT2"], was sent by the customer to provide RF connector information on 16 Sep 2004. [seemed a related item to your RF cable ID-ing request, so i thought i'd reference it as well].

3. Placing a single statement in the manual indicating that this is professionally installed does not meet the intent of the FCC requirement. Here is the wording from the request of 9/10/04 (provided with the FCC Professional Installation and 15.203 requirements) which still remains open: As for the professional Installation, there needs to be evidence in the application of compliance with FCC 15.203, which would require an indication that this is to be professionally installed, an indication that this is a device not available to the general public (please see the FCC interpretation attached).

Customer provided revised manual: He states "All modifications are in p17 and p18"; see attached [filename suffix -UG lowres.pdf]- also located in the project's certification review folder.

4. There has been no request for confidentiality submitted, and therefore all exhibits submitted will become public.

Customer has provided Confidentiality Statement. See attached - also located in the project's certifcation review folder.

5. The 20cm separation statement in the manual does not indicate that this is for RF Exposure purposes, which is an explicit requirement of 15.247.

Amended 15.247 20cm separation statement provided by customer. See attached - also located in the project's certifcation review folder.

6. This device can be powered using the Power-Over-Ethernet (PoE) option, but I can not find evidence of Conducted Emissions compliance using this power option. Has this device been tested in the PoE configuration? If yes, which tests were performed in this configuration?

Response from customer:

> The 3e-531AP has both AC and PoE power input options. The AC is the primary power supply and we have the internal AC/DC to convert it. The PoE (power over Ethernet) is the optional power, if customer has the PoE supply and do not use the AC power, or use the PoE as a UPS backup power.
>
> The AC and PoE never operate at the same time. The PoE power will not be turned on whenever the AC plug in. We used a pair of diodes to control the PoE power on.
>
> The PoE is IEEE 802.3af standard, and it is a 48V DC powers supply to feet into 4 unused wires in the cat5E cable and RJ45 with the Ethernet connection. I attached the IEEE 802.3af spec to you. We do not make the PoE power supplies. All PoE power supplies and power injectors are FCC tested when they sell in US. I attached the 3Com PoE products spec that is a FCC class A product.

The aforementioned standard and spec are located in the project's certifcation review folder, "rev docs per RT" sub-folder. Path: H:\METrak Job Folders\2004\A\AEPTEC Microsystems - 3ET\15263\DOC\FCC\Certification Review\rev docs per RT

I have additionally attached all relevant items to this email.

Please respond to all these requests in one resubmission and not one at a time.
Please contact me if you have any questions. OK =D

Best regards,

Chris Harvey

Chris Harvey

From: Chris Harvey [Chrisharveyemc@comcast.net]
Sent: Wednesday, October 06, 2004 10:05 PM
To: 'Marianne Bosley'
Cc: 'Hoosam Bandukwala'; Liming Xu (lxu@metlabs.com)
Subject: Additional Request for Information Aeptec FCC ID: QVT-531AP MT#15263

I have re-reviewed the entire application and find that the following items need to be resolved:

1. I can not find a label location drawing/photograph. Please provide this exhibit.

2. Please provide a photograph showing the RF card cabled, clearly showing the method of cabling from the card to the N-connectors.

3. Placing a single statement in the manual indicating that this is professionally installed does not meet the intent of the FCC requirement. Here is the wording from the request of 9/10/04 (provided with the FCC Professional Installation and 15.203 requirements) which still remains open:

   > As for the professional Installation, there needs to be evidence in the application of compliance with FCC 15.203, which would require an indication that this is to be professionally installed, an indication that this is a device not available to the general public (please see the FCC interpretation attached).

4. There has been no request for confidentiality submitted, and therefore all exhibits submitted will become public.

5. The 20cm separation statement in the manual does not indicate that this is for RF Exposure purposes, which is an explicit requirement of 15.247.

6. This device can be powered using the Power-Over-Ethernet (PoE) option, but I can not find evidence of Conducted Emissions compliance using this power option. Has this device been tested in the PoE configuration? If yes, which tests were performed in this configuration?

Please respond to all these requests in one resubmission and not one at a time. Please contact me if you have any questions.

Best regards,

Chris Harvey

Chris Harvey

From: Christina Karlhoff [CKarlhoff@metlabs.com]
Sent: Wednesday, November 17, 2004 1:35 PM
To: 'Chris Harvey'; Chris Harvey; Chris Harvey
Cc: Hoosamuddin Bandukwala; Liming Xu
Subject: RE: MT15263 Additional Request for Information Aeptec FCC ID: QVT-531AP
Importance: High

Chris, Please see responses to your RT below in red text. Let me know if you need anything else. Thanks!

-----Original Message-----
From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Wednesday, October 06, 2004 10:05 PM
To: 'Marianne Bosley'
Cc: 'Hoosam Bandukwala'; Liming Xu (lxu@metlabs.com)
Subject: Additional Request for Information Aeptec FCC ID: QVT-531AP MT#15263

1. I can not find a label location drawing/photograph. Please provide this exhibit.

Customer has provided us the label location exhibit. See attached - also located in the project's certifcation review folder, Path: H:\METrak Job Folders\2004\A\AEPTEC Microsystems - 3ET\15263\DOC\FCC\Certification Review\rev docs per RT

Customer will further provide a drawing. [it hasn't been sent as yet, but the photo i believe should suffice...?] When i do recieve the drawing, it will be placed in the same revised docs per RT subfolder

2. Please provide a photograph showing the RF card cabled, clearly showing the method of cabling from the card to the N-connectors.

EMC has provided pictures of this-- see attached pdf entitled "RF cabling and N connector". See attached - also located in the project's certifcation review folder.

Additionally, the WLAN card datasheet, a .pdf document [entitled "NL-2511CD-PLUS-EXT2"], was sent by the customer to provide RF connector information on 16 Sep 2004. [seemed a related item to your RF cable ID-ing request, so i thought i'd reference it as well].

3. Placing a single statement in the manual indicating that this is professionally installed does not meet the intent of the FCC requirement. Here is the wording from the request of 9/10/04 (provided with the FCC Professional Installation and 15.203 requirements) which still remains open: As for the professional Installation, there needs to be evidence in the application of compliance with FCC 15.203, which would require an indication that this is to be professionally installed, an indication that this is a device not available to the general public (please see the FCC interpretation attached).

Customer provided revised manual: He states "All modifications are in p17 and p18"; see attached [filename suffix -UG lowres.pdf]- also located in the project's certification review folder.

4. There has been no request for confidentiality submitted, and therefore all exhibits submitted will become public.

Customer has provided Confidentiality Statement. See attached - also located in the project's certifcation review folder.

5. The 20cm separation statement in the manual does not indicate that this is for RF Exposure purposes, which is an explicit requirement of 15.247.

Amended 15.247 20cm separation statement provided by customer. See attached - also located in the project's certifcation review folder.

6. This device can be powered using the Power-Over-Ethernet (PoE) option, but I can not find evidence of Conducted Emissions compliance using this power option. Has this device been tested in the PoE configuration? If yes, which tests were performed in this configuration?

Response from customer:

> The 3e-531AP has both AC and PoE power input options. The AC is the primary power supply and we have the internal AC/DC to convert it. The PoE (power over Ethernet) is the optional power, if customer has the PoE supply and do not use the AC power, or use the PoE as a UPS backup power.
>
> The AC and PoE never operate at the same time. The PoE power will not be turned on whenever the AC plug in. We used a pair of diodes to control the PoE power on.
>
> The PoE is IEEE 802.3af standard, and it is a 48V DC powers supply to feet into 4 unused wires in the cat5E cable and RJ45 with the Ethernet connection. I attached the IEEE 802.3af spec to you. We do not make the PoE power supplies. All PoE power supplies and power injectors are FCC tested when they sell in US. I attached the 3Com PoE products spec that is a FCC class A product.

The aforementioned standard and spec are located in the project's certifcation review folder, "rev docs per RT" sub-folder. Path: H:\METrak Job Folders\2004\A\AEPTEC Microsystems - 3ET\15263\DOC\FCC\Certification Review\rev docs per RT

I have additionally attached all relevant items to this email.

Please respond to all these requests in one resubmission and not one at a time.
Please contact me if you have any questions. OK =D

Best regards,

Chris Harvey

Dear Liming,

I have begun reviewing this application, but as you can see from the comments below, I am unable to get a complete picture of this application due to a very confusing group of conflicting and unclear documents. I have not completed the review, but need the following to be corrected and responded to by replacement exhibits so that the application can be properly reviewed for compliance with the FCC Rules.

Q1. No FCC ID number has been provided for this application. Please submit FCC ID Label and Label location exhibits with the FCC ID. Please revise the Test Report to include the FCC ID number of this device. If this EUT contains another Certified device (i.e. the PCMCIA Tx card), please ensure that the configuration information in the test report clearly identifies that device by FCC ID number.

A1. Chris Harvey: FCC ID is apparently FCC ID: QVT-531AP, which matches report and label, which have both been updated/submitted.
Chris Harvey: I can not find a label location drawing/photo/diagram.

Q2. This appears to be a professional installation Access Point device, but they are using N-connectors for antenna connections and have not indicated Professional Installation in the exhibits. Please provide a compliance declaration for FCC 15.203 with justification. Additionally, please show how the antenna is cables to this card (there do not appear to be any antenna connectors on the internal PCMCIA Card).

A2. Liming Xu: ***Frank Li will answer this.
CLIENT COMMENT: We will add sentence on the manual to call "professional installation is required". The cable was on top side of the 2mm MMC connector, and I can send you a top side photo.
Chris Harvey: Need photo of construction as to how the card is cabled.
From 9/10/04 Please send the photo of the connectorized PCMCIA card with 2mm MMC to N-Connector cable attached, showing how this device is constructed. As for the professional Installation, there needs to be evidence in the application of compliance with FCC 15.203, which would require an indication that this is to be professionally installed, an indication that this is a device not available to the general public (please see the FCC interpretation attached).

Q3. Schematics have been provided for the non-RF portion of this EUT, but no Confidentiality has been requested. Please confirm that Confidentiality is not desired by the applicant.

A3. Liming Xu: TCB

Chris Harvey: No confidentiality document has been provided and thus the entire application should be public record.

Q4. Conducted emissions, plots only show 150kHz to 500kHz, with marker on 214kHz, but data table has 200kHz data point and no 214kHz. Please correct discrepancy and include remaining plots into report.

A4. Liming Xu: CK should fix this
Chris Harvey: There is still the 200kHz vs. 214kHz issue, but all the plots have been provided. This is closed.

Q5. According to the MPE document this unit uses a Gemtek card (FCC ID: MXF-M911031B) with a reported 5.5mW, the RF report shows 119mW and original Grant for Gemtek was for 16mW. According to the Operational Description exhibit, this device contains a card from Senao (FCC ID: NI3-2511CD-PLUS2) with a rated 200mW RF power, granted for 56mW. Please clarify the situation and correct the appropriate exhibits.

A5. Liming Xu: Yes, this device contains a card from Senao (FCC ID: NI3-2511CD-PLUS2) with a rated 200mW RF power, granted for 56mW. The 3eTI increased RF power level to 119mW as a new application (New FCC ID)

Q6. From the photos of the Gemtek Card (or Senao card) and internal photos of this Access point I can not tell how these antennas would connect to the Card (no connectors visible in card's photos on FCC web site.).

A6. Liming Xu: Need to take an additional photo.
CLIENT comment: It is on the top like most cardbus external antenna WLAN cards.
Chris Harvey: Photo Not provided.

Q7. Report Table 1 title indicates 15.249 (should be 15.247). There are several locations in the report with variable names starting with '%%'. Please correct these typographical errors.

A7. Liming Xu: To CK?
Chris Harvey, errors still in report, but these are now minor and I'll treat them as insignificant typos. OK.

Q8. The Users Manual RF Exposure information and warnings about maintaining a specified minimum safe distance have not been submitted. Please provide a revised Users Manual including the RF Exposure information.

A8. Liming Xu: Ok
Chris Harvey: There is a 20cm statement but there is no reference as to this being for FCC RF Exposure requirements. The User and

Installer need to be clearly informed as to the reason for this required separation.

Q9. The operational Description Document indicates that this device can be operated being powered through a Power Over Ethernet (POE). I can not find any evidence of compliance with the technical requirements when this device is operated in this POE mode.

A9. Liming Xu: This issue should be describe in FCC ID: NI3-2511CD-PLUS2 (this application only RF power level increased)
Chris Harvey: This device can be powered using the Power-Over-Ethernet (PoE) option, but I can not find evidence of Conducted Emissions compliance using this power option. Has this device been tested in the PoE configuration? If yes, which tests were performed in this configuration?

Please respond to all these requests in one resubmission and not one at a time. Please contact me if you have any questions.

Best regards,

Chris Harvey