

Chris Harvey

From: □□□ [cgylives@hct.co.kr]
Sent: Monday, November 10, 2008 3:42 AM
To: Chris Harvey; Chris Harvey(CCS)
Cc: □□□□□(HCT); □□□□□(HCT); □□□□□(HCT); □□□□□(HCT); □□□□□(HCT); □□□□□(HCT)
Subject: Fw: RE: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1b]
Attachments: RF25-MWM101 Test Report.pdf

Dear chris

We would like to follow your advice.
Please change EUT type & Emission Designator to a booster and D7W.
The first application for this project was 20th of October, I remember.
And we got the first notice on 1st of November, after 2weeks past form the first application.
I do not want to push you. But, frankly, we have got complain form the client.
Please be in hurry to the certificate.
If we are able to get the certificate on Tuesday, it will be great.
But, if we are not, please inform us the expecting date of issue for certificate.

Thank you & Best Regards,
(Ms.)GYE-YOUNG CHA --- EMC Part
HCT Co., Ltd.
San 136-1, Ami-ri, Bubal-eup, Icheon-si,
Kyoungki-do, Korea 467-701
TEL : (82-31)639-8539 FAX : (82-31)639-8525

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

From: □□□
To: □□□
Sent: Monday, November 10, 2008 9:39 AM
Subject: [Fwd: RE: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1b]

11/11/2008

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□□:RE: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1b
□□:Fri, 7 Nov 2008 07:20:40 -0500
□□ □□:Chris Harvey <charvey@ieee.org>
□□ □□:'□□□' <cschoi@hct.co.kr>, '□□□ \ (SJLEE\)' <sjlee@hct.co.kr>
□□:<[00b901c93d4d\\$906e8cb0\\$13714ac@LocalHost](mailto:00b901c93d4d$906e8cb0$13714ac@LocalHost)> <[002001c93e3f\\$ac7880d0\\$473714ac@LocalHost](mailto:002001c93e3f$ac7880d0$473714ac@LocalHost)> <59B82DE2A611449E94DE1DD7E20CD25F@ibm93bbd60a199>
<49116465.1020607@hct.co.kr>

Dear CS Choi and SJ Lee,

I am trying to work as quickly as possible on reviewing this application.

The FCC definitions of Booster and Repeater are:

Booster is a device that automatically reradiates signals from base transmitters without channel translation, for the purpose of improving the reliability of existing service by increasing the signal strength in dead spots. An "in-building radiation system" is a signal booster. These devices are not intended to extend the size of coverage from the originating base station. A booster can be either single or multiple channels.

Repeater is a device that retransmits the signals of other stations. Repeaters are different from boosters in that they can include frequency translation and can extend coverage beyond the design of the original base station. A repeater is typically single channel but can also be multiple channels.

According to your description of this bi-directional amplifier device it appears that it would be defined as a Booster for FCC approval.

Please note that 16QAM modulation using TDD has typically used emission designator D7W for FCC approvals. Since this device does not appear to generate the modulation, the emission designator would not include the Necessary Bandwidth portion of the designator. Please confirm that this is correct.

Currently the Grant would have the following parameters:

Equipment Class: TNB

Grant Parameters:

Grant Notes	FCC Rule Parts	Frequency Range (MHZ)	Output Watts	Frequency Tolerance	Emission Designator
	27	2640.5 – 2673.5	0.0995	.18818 ppm	D7W

Grant Comments:

Power listed is conducted. Professional installers must be provided with appropriate antenna installation instructions and transmitter operating conditions, including antenna co-location requirements of §1.1307(b)(3), for satisfying RF exposure compliance.

Best regards,

Chris Harvey

charvey@ieee.org

410-750-0860

From: □□□ [<mailto:cschoi@hct.co.kr>]

Sent: Wednesday, November 05, 2008 4:16 AM

To: Chris Harvey

Subject: Re: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1

Dear Chris Harvey,

I have some questions about modulation designator of this product.

Question #1>

I think this device is a repeater not a Amplifier

Most of repeater have the function to expand the coverage.

This device also has same function.

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You told me this device is not a repeater since this device doesn't support Frequency transmutation.
But this device is Wimax. Wimax use TDD Modulation which has the same TX and RX Frequency range.

Question #2>

I think D7W Emission designator is right. This unit operated by 16QAM modulated signals.
If not, could you let me know what designator should be used?
Please give me a advise.

Best Regards,
Chang Seok Choi

Chris Harvey ☐ ☐:

Dear Gye Young Cha,

I will address your additional questions here:

4. If the 3dBi antenna is always provided with the device then please provide the antenna specification sheet. If the antenna is selected by the network operator then the following comment will be used Grant:

"RF exposure compliance must be addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-location requirements of §1.1307(b)(3)."

5. The FCC Repeater/Amplifier guide defines different kind of devices and the testing and approval information. From the Block Diagram it appears that this device has amplifiers and mixers, but does not generate the modulation. It appears not to have frequency translation (same frequency in and out). If this is the case, then the Equipment Class would be AMP and Emission Designator field for the FCC would be just the 3-character Modulation descriptor. Please confirm if there is frequency translation and/or modulation creation in this device.

Also, FCC 2.201 is used to determine the 3-character modulation classification. The Code G7W is defined as:

—Phase modulation G

Two or more channels containing
quantized or digital information

..... 7

Combination of the above W

Please use FCC 2.201 information and confirm that this modulation classification is correct for this device.

Best regards,

Chris Harvey

charvey@ieee.org

410-750-0860

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

From: ☐☐ [mailto:cgyloves@hct.co.kr]

Sent: Tuesday, November 04, 2008 12:39 AM

To: Chris Harvey; Chris Harvey(CCS)

Cc: ☐ ☐ ☐ \(\HCT\); ☐☐ \(\SJLEE\)

Subject: Re: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1

Dear Mr. Harvey,

Thank you for your corporation.

I have a question about your comments.

4. The Test Report lists a 3dBi gain antenna for the MPE calculation, but this is not specified anywhere else in the application. The Grant will therefore include a comment that RF Exposure will be addressed at the time of licensing of this professionally installed device.

-> It means, do you need the Antenna Certification?

5. Please provide a justification for the 9M16G7W Emission Designator, including a description of each of the G7W characters of the modulation descriptor. Please see the

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FCC Repeater/Amplifier guide to properly classify this device

(<http://fjallfoss.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=20673&switch=P>).

-> The G7W is for KCC, Korea certificate, is there anyother mark for WiMax?

Please advise.

Thank you.

(Ms.) GYE-YOUNG CHA --- EMC Part

HCT Co., Ltd.

San 136-1, Ami-ri, Bubal-eup, Icheon-si,

Kyungki-do, Korea 467-701

TEL : (82-31)639-8539 FAX : (82-31)639-8525

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From: "SJLEE (SJLEE)" <sjlee@hct.co.kr>

To: "CSCHOI (HCT)" <cschoi@hct.co.kr>; "JINHAN (HCT)" <jinhan1189@hct.co.kr>; "KKDY (HCT)" <kkdy555@hct.co.kr>; "HSEKWAK (HCT)" <hsekwak@hct.co.kr>; "JAESANG (HCT)" <jaesang@hct.co.kr>; "KIMSSAM (HCT)" <kimssam@hct.co.kr>

Cc: "CGYLOVES (HCT)" <cgyloves@hct.co.kr>

Sent: Monday, November 03, 2008 9:46 AM

Subject: Fw: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1

> COMMENT>

>

>

> ----- Original Message -----

> From: <charvey-tcb@ccsemc.com>

> To: <sjlee@hct.co.kr>

> Cc: <charvey-tcb@ccsemc.com>; <lucy.tsai@ccsemc.com>

> Sent: Saturday, November 01, 2008 2:23 AM

> Subject: MTI Co., Ltd., FCC ID: SQD-RF25-MWM101, Assessment NO.: AN08T8524, Notice#1

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>> Dear SJ Lee,

>>

>> You are listed as the Technical Contact for the above referenced TCB application. The following item(s) need(s) to be resolved before the review can be continued:

>>

>> 1. The FCC has a policy to require that the exhibits submitted for a TCB application must be signed by the contact of record at the FCC, who is Hong Sup Byun , Director for MTI. The letters submitted have been signed by Hoyoung Lee, Manager. Please either change the contact person on file with the FCC or submit letters signed by Hong Sup Byun or submit a letter of authorization from Hong Sup Byun to Hoyoung Lee.

>>

>> 2. The Internal Photos exhibit submitted in this application has some internal photos and many PCB component and layer layout drawings. Please provide a replacement Internal Photos exhibit that shows the internal construction and cabling, and each side of all PCB's and modules, including the removal of RF Shields.

>>
>> 3. The Short Term Confidentiality request includes the Users Manual, but does not list the Tune-Up Procedure exhibit, which is extracted from the Users Manual. Please confirm that the Tune-Up procedure does not need Short-Term Confidentiality or revise the Confidentiality Request letter to include the Tune-Up Procedure exhibit in the STC.
>>
>> 4. The Test Report lists a 3dBi gain antenna for the MPE calculation, but this is not specified anywhere else in the application. The Grant will therefore include a comment that RF Exposure will be addressed at the time of licensing of this professionally installed device.
>>
>> 5. Please provide a justification for the 9M16G7W Emission Designator, including a description of each of the G7W characters of the modulation descriptor. Please see the FCC Repeater/Amplifier guide to properly classify this device
(<http://fjallfoss.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=20673&switch=P>).
>>
>> The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.
>>
>> Best regards,
>>
>> Chris Harvey
>> Charvey-tcb@ccsemc.com
>>
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>>
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>

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00000000 0020 0000 00

TEL:031-639-8539, CELL:016-9646-5424

E-mail : cschoi@hct.co.kr

<http://www.hct.co.kr>

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