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Currently Display Inquiry Tracking Number: 815417

Contact Information:

Customer First Name: **Hank**
Customer Last Name: **Chung**
Telephone Number: **8865935343**
Extension: **1746**
E-mail Address: **hank@adt.com.tw**

Address:

Line 1: **No.81-1,Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiu**
Line 2:
P.O. Box:
City: **N/A**
State:
Zip Code:
Country: **Taiwan**

Inquiry Details:

First Inquiry Category: **Radio Frequency Exposure - MPE; SAR**
Second Inquiry Category: **Evaluation of SAR**
Third Inquiry Category: **802.16e (e.g. WiMAX)**

Dear Sir/Madam,
This product is 802.16e/Wimax device which is 2.5GHz Wimax with 5MHz and 10MHz bandwidth.
We follow 802.16e/WiMAX Permit-But-Ask and SAR Guidance requirement and provide necessary infromation to you.
The product is USB dongle without swivel antenna and connector, for this kind of product that need to submit a KDB inquiry to determine the SAR test requirements,please refer to the attachment for the EUT detail.
The SAR test proposal, we refer to KDB 447498 requirement.
The SAR test configurations are show in the attachment, can we follow this test proposal as the attached file (SAR proposal.pdf) we provided to perform SAR measurement?

Please advise if more information is required.
Regards,

---**Reply from Customer on 09/24/2009**---

Dear Sir/Madam,

The submitted result isn't copy from pba application for a different device.
The device is Beceem chipset, some parameter as same previously Beceem chipset.
All of parameter had confirmed by Beceem again, and they provide system operating prarmeters to us.
(see "Beceem.pdf"attachement as Beceem reply by email)
The result is from AWB's device for peak to average ration, duty cycle and scaling factor, not copy other device.

Please advise if more information is required.

Regards,

---**Reply from Customer on 10/14/2009**---

Dear Sir/Madam,

The KDB 815417 and 487076 are that same chip call BCSM 250.(Beccem chip).

So the " Wimax device and system operating parameters" information will just be same.

Others materials (dutcycle plot ,peak to average ration, power , scaling factor) come from AWB sample, not same as KDB 487076.

We select some data to prove between the two KDB.(See attachment "paper.pdf")

Please advise if more information is required.

Regards,

---**Reply from Customer on 11/02/2009**---

Dear Sir/Madam,

To six question below, we have done the following answers.

About Question 1:
The maximum DL:UL is 29:18 that with control and traffic symbols.
You can see attachemet "Time vector plots.pdf" and "System operating parameters.pdf" about more detail RF parameters.

About Question 2:
Its uplink is capable of both10 MHz and 5 MHz bandwidths. Its uplink is capable of both 10 MHz and 5 MHz bandwidths.
For the 10 MHz bandwidth,it has 35 sub-channels structured from 1024 subcarriers; 184 are used as spare/safeguard subcarriers, leaving 840 available for transmission. From this, 560 subcarriers for data transmission with 280 subcarriers intended for pilot use. For the 5 MHz bandwidth, it contains 17 sub channels using 512 subcarriers; 104 subcarriers as spare/safeguard subcarriers, 272 for data transmission, and 136 for pilot.
The up-link sub-frame is triggered by an Allocation Start Time contained in the information of UL-MAP.
This information specifies the starting times of the Uplink and Downlink frames. In any UL sub-frame, the duty factor ranging and bandwidth information is used to ensure optimal system operation. In normal device transmission the device will transmit control signaling at the first 3 uplink symbols and then use the rest of the uplink symbols for data traffic bursts in the uplink sub-frame. Since the first 3 symbols are also used for ranging detection purposes and are shared among other device users, its transmitting power is much smaller than the data burst symbol power. During the testing modes the first 3 symbols have no power output and the data traffic bursts are always running at the maximum output power level. In the real usage, the data burst power will be adjusted according to the signal strength of the communication. In this way, by using the test mode arrangement we are transmitting at a worst case RF level.
You can see attachemets " Time vector plots.pdf" and "Time vector values.pdf"

About Question 3:
You can see attachemet " SAR duty-factor scaling.pdf".
We will show the maximum power with duty factor scaling in the SAR final report.

About Question 4:
We will revised to be consistent with this DL/UL # of symbols ration in the final SAR report.

About Question 5:
About PAR and SAR error, we will use your acceptable test mode and select worst mode by investigate to do it in final SAR report.

About Question 6:
You can see attachments "SAR measurement configurations.pdf" , " Test setup.pdf" and "signal generator.pdf".

Additional attachments "power measurement.pdf"

Please advise if more information is required.

Regards,

Response(s):

--OET response sent on Sep 21 2009 12:13PM--
The submitted result is a "copy and paste" report from pba application for a different device. PBA applications for WIMAX SAR test results compliance must be specific to the device. Please explain the reason for the word for word "copy and paste" report from different device. Was any test conducted on your device to demonstrate compliance?
PBA application to demonstrate WiMAX SAR test compliance MUST be specific to the device and your application does not demonstrate that, hence cannot be granted

--OET response sent on Oct 5 2009 1:02PM--
WiMAX SAR report for this device represents same copy from PBA 487076 application submitted by same person namely Mr Chung. WiMAX SAR tset report must be specific to the device unless any similarities can be proven. For example:

1.The recommended SAR test configuration is to have both the control and traffic symbols configured at their corresponding maximum power levels at the maximum DL:UL symbol ratio specific to the device. However, when the recommended test configurations are not supported by the test software, signal generator, communication test set or due to other setup constraints, the highest duty factor achievable, with respect to applicable DL:UL symbol ratios and control symbols specific to the device, must be considered. All measured SAR must be scaled with respect to the maximum device and system operating conditions to demonstrate compliance.

2.You time vector plots can only be acceptable when it can adequately verify the WiMAX parameters specific to your device. Time vector plots are used to verify measured parameters such as frame length,# of UL data symbols used in DL:DU ratio, duty factor and Crest factor. . . The measurement tool needs to have the specifi required bandwidth, frequency, and dynamic power range to make these measurements. Please provide plots for each bandwidth/ modulation/channel that can be used to verify these measured parameter

3. Maximum power shown on grant must be used in the SAR duty-factor scaling factor determination . The formula for the"maximum rated power" as described in the FCC WiMAX document, with "actual_output" being what is measured for each specific SAR test. Use the actual power on the grant to determine the UL control symbol maximum average power , and the Scaling Factor SF.

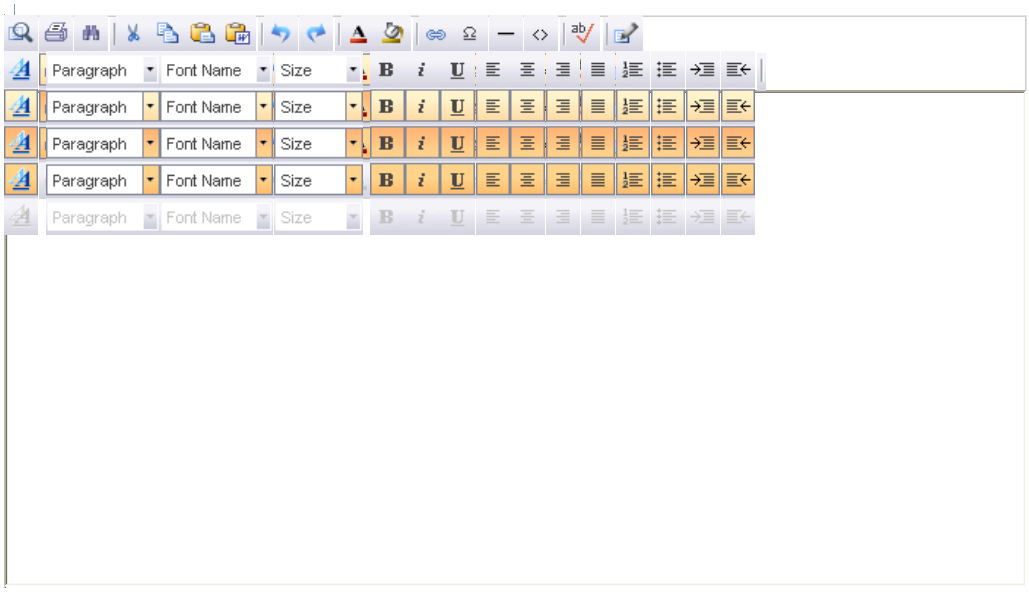
4.In the SAR report, and optionally within this pre-test consultation, all descriptions related to device configuration and test setup, and results reporting, need to be revised to be consistent with this DL/UL #-ofsymbols ratio.

5.To support SAR results, linearity evaluation data in accordance with FCC WiMAX document is needed; i.e. as a minimum measure at high, mid, and way-low powers and provide a plot as described in FCC WiMAX document.
6. Detail description of WiMAX test configuration and set up specific to the device is needed not a copy from other device

--OET response sent on Oct 14 2009 12:55PM--
Please carefully respond to questions 1-6 and ensure test results and report are in compliant.
--OET response sent on Nov 13 2009 10:35AM--
Test lab may now proceed with submittal to TCB.Please be reminded that pertinent concerns regarding Time vector plots for each channel/BW/modulation which verify Duty factor, DL:UL ratio, Peak to average ratio, compensation factor, Scaling factor, SAR results that demonstrates linearity

evaluation data in accordance with FCC WiMAX document ; i.e. as a minimum measure at high, mid, and way-low powers and provide a plot as described in FCC WiMAX document must be being addressed during Final SAR test report process. All test report must be specific to this device , not a copy and paste from other application

Enter any additional comments below:



Proceed Clear

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