

From: oetech@fccsun27w.fcc.gov
To: Tetsuya.Hashimoto@jp.ul.com
Date: 2010/12/17 23:53
Subject: Response to Inquiry to FCC (Tracking Number 265500) (TCB)



Office of Engineering and Technology

Inquiry:

Dear Sirs; Please refer the attachement. Best regards,

Response:

12/17/10

First category: Radio Frequency Exposure – MPE; SAR

Second category: Portable – Part 2.1093

Third category: Test Procedure for SAR

Subject: Confirmation for SAR test plan

general: application may be processed by TCB without applying PBA KDB 388624 procedures EXCEPT please inform TCB to list this inquiry number 265500 as associated in f731

– further reply herein not required unless there are other questions

一般: PBA KDB388624手順を適用せずに、アプリケーションはTCBによって処理可能。TCB、この問い合わせNo.265500を連絡し、f731申請時に関連していると記載してください。

– 他の質問がない場合、更なる回答はここに必要ではありません。

A1) OK(試験周波数5180MHzのみへの削減)

A2) OK(試験箇所の削減)

A3) OK(40MHzモードの省略)

A4) at quick look, seems OK. (10cm離れるので、加算は不要:248227では5cm以上ピークが離れるのであれば加算は不要 これを明記すればよいと思う。ビームフォーミング、時空間コードダイバーシティなどがないことは明記要)

KDB pub 248227 has basic MIMO SAR test guidance – TCB please confirm during processing.

A5) OK(ヘッドSARの削減)



31CE0283-HO_silex_11an_oet65_sartestplan-c.pdf

SECTION 1: Question

1. Can the SAR test frequency reduce to 5180MHz alone for all modes? Because the measured SAR (1g) value in the worst was less than 0.1W/kg (at IEEE 802.11a, antenna-Top). This SAR value was small than 0.8W/kg and the test frequency range was smaller than 100MHz (5180-5240MH, 60MHz). (->refer to KDB 447498, 1), e), i))
The reason of this small SAR number was, the antenna gain of this system is -3.5dBi (5200MHz). In addition the highest antenna gain when it was installed into the system, was -7.3dBi (including the RF cable loss of 1.3dBi) in cause of the shielding of the panel.
For the IEEE 802.11n, the smaller SAR was measured, because the each antenna power of IEEE 802.11n was 10dBm and this was smaller than 13dBm of IEEE 802.11a.

2. Can the SAR test applied direction of EUT reduce?
The measured SAR value was very small even the distance b/w the antenna and EUT surface was shorter than 10mm. Therefore the distance b/w the antenna and EUT surface that is greater than 10mm can reduce the SAR test procedure?

3. Can the SAR test of 11n(40HT) is omitted?
The measured worst antenna average power of 11n(40HT) mode was less than +0.25dB higher than corresponding 11n(20HT) mode. And the measured SAR value of 11n(40HT) was smaller than 11n(20HT) at the same antenna.
If the SAR test of 11n(40HT) is required, can the SAR test be only applied to the worst EUT side of the 11n(20HT) mode? (is this acceptable?)

4. For the multiple antenna (MIMO , 11n, Tx?3antenna) scenarios, Is it necessary to calculate the SUM-total of the each antenna's worst SAR in simultaneously transmission for the worst SAR. Because the antenna distances b/w each others were longer than 10cm.

5. Can the SAR test of Head liquid is omitted?
The EUT also touch the head of patient to make the X-ray image.
The measured SAR of body liquid was enough small. Therefore the SAR of head liquid can be omitted?
If the head SAR is required, can the front side (as patient touch side) be only measured? (is this acceptable?)

Do not reply to this message. Please select the [Reply to an Inquiry Response](#) link from the OET Inquiry System to add any additional information pertaining to this inquiry.