

From: khpark@hct.co.kr
Sent: Monday, January 12, 2004 4:03 AM
To: Steve Cheng (CCS); MIKE KUO (CCSEMC)
Cc: SCOTT WANG(CCS); ??? \ (HCT\); KiSoo Kim (HCT)
Subject: Re: Regarding the FCC applications (project: AN03T3536 HYUNDAI PP4TX-60B)

Dear Mr. Sir,

How are you ?

According to your requests on the below questions, we'd like to send the answers on each questions under each question as belows;

- 1) FCC ID: PP4TX-60B
- 2) Assessment no.: AN03T3536 (belows test report uploaded)

If you have any questions or comments, please do not hesitate to contact us.

Best Regards,

KiSoo Kim - HCT

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

From: "Steve Cheng" <SCheng@CCSEMC.com>
To: "'???' " <khpark@hct.co.kr>
Cc: "Mike Kuo" <MKUO@CCSEMC.com>; "Scott Wang" <SWang@CCSEMC.com>; "??? \ (HCT\)" <moon@hctec.co.kr>; "KiSoo Kim (HCT)" <kisookim@hctec.co.kr>
Sent: Saturday, January 10, 2004 5:26 AM
Subject: RE: Regarding the FCC applications (project: AN03T3536 HYUNDAI PP4TX-60B)

> Dear Mr. Lee,
>
> I found one more question during the final review, sorry for the
> overlooking. Per "FCC OET BULLETIN 65 SUPPLEMENT C"
>
> Transmitters that are designed to operate in front of a person's face, in
> push-to-talk
> configurations, should be tested for SAR compliance with the front of the
> device positioned at 2.5 cm
> from a flat phantom.
>
> Since you added PTT function to the Unit, Please supply this test data. I am
> preparing files to FCC now, upon I received the good PTT test data, I can
> issue grant immediately.

==> We've retested and revised the test report.

(With PTT function: CDMA, PCS / Without PTT function: AMPS)

Please find the attached test report.

(filename : COVER LETTER(page1), ATT. C (RF REPORT TX-60P (page1)),
ATT. N (SAR REPORT (page1, 12, 13, 25, 26)), ATT. O (SAR TEST DATA (page9,
10, 11, 12, 19, 20) -4 of 4-
ATT. P (SAR TEST SET-UP PHOTO(page 10, 11)), ATT. Q (DIPOLE VALIDATION
PLOTS(page4, 6, 9, 11, 14, 16))

> Thanks and best regards,

> Steve

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

> From: khpark@hct.co.kr [mailto:khpark@hct.co.kr]

> Sent: Thursday, January 08, 2004 11:14 PM

> To: MIKE KUO (CCSEMC); Steve Cheng

> Cc: SCOTT WANG(CCS); ??? \ (HCT\); KiSoo Kim (HCT)

> Subject: Re: Regarding the FCC applications (project: AN03T3536 HYUNDAI
> PP4TX-60B)

>

>

> Dear Sir,

>

> According to your request on the below questions, we'd like to send the
> answers

> on each questions under each question as belows;

>

>

>

> 1) FCC ID: PP4TX-60B (Model: TX-60P)

>

> 2) Assessment no.: AN03T3536 (belows test report uploaded)

>

> 3) Upload Date: January 9, 2004

>

>

> If you have any questions or comments, please do not hesitate to contact
> us.

>

>

>

> Best Regards,

>

>

> KiSoo Kim - HCT

>

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

> From: Steve Cheng

> To: '???'

> Cc: Mike Kuo

> Sent: Friday, January 09, 2004 12:13 PM

> Subject: RE: Regarding the FCC applications (project: AN03T3536 HYUNDAI

> PP4TX-60B)
>
>
> Dear Mr. Kim,
>
> Re: Question #9: 4.3.2 Modulation levels and response of modulation limiting
> circuitry
> Test plots seem not showing the proper results, and are not consistent with
> the test procedure described in the test report. Please explain which
> standard was followed and re-perform the test if required.
>
> My question is: In the test procedure you mention that measurement will
> start from 0 to +30dB, however, actual test was performed at 0 to -30dB and
> this is not enough to reveal the capability of limiting circuit's. Please
> retest from 0 to +30dB or some other justifiable level.
>
> ==> We've retested RF test. (page: 61)
> Please find the attached test report. (filename : ATT. D (TEST
> plot)
>
>
> Best regards,
> Steve
>
> -----Original Message-----
> From: khpark@hct.co.kr [mailto:khpark@hct.co.kr]
> Sent: Thursday, January 08, 2004 12:29 AM
> To: Steve Cheng
> Cc: KiSoo Kim (HCT); SCOTT WANG(CCS); MIKE KUO (CCSEMC)
> Subject: Re: Regarding the FCC applications (project: AN03T3536 HYUNDAI
> PP4TX-60B)
>
>
> Dear Sir,
>
> According to your request on the below questions, we'd like to send the
> answers
> on each questions under each question as belows;
>
>
>
> 1) FCC ID: PP4TX-60B (Model: TX-60P)
>
> 2) Assessment no.: AN03T3536 (belows test report uploaded)
>
> 3) Upload Date: January 8, 2004
>
>
> If you have any questions or comments, please do not hesitate to contact
> us.
>
>
>
> Best Regards,
>
>
> KiSoo Kim - HCT

>
>
> ----- Original Message -----
> From: Steve Cheng
> To: '???'
> Cc: ??? \(\HCT\) ; KiSoo Kim (HCT) ; ??? \(\HCT\) ; Mike Kuo
> Sent: Thursday, January 08, 2004 12:58 PM
> Subject: RE: Regarding the FCC applications (project: AN03T3536 HYUNDAI
> PP4TX-60B)
>
>
> Dear Mr. Kim,
>
> Review has been completed and There are two more questions, . Please address
> them at your earlier convenience. Thanks.
>
> RT for project: AN03T3536 HYUNDAI PP4TX-60B
>
> Subject:
>
> Question #9: 4.3.2 Modulation levels and response of modulation limiting
> circuitry
> Test plots seem not showing the proper results, and are not consistent with
> the test procedure described in the test report. Please explain which
> standard was followed and re-perform the test if required.
>
> ====> We've revised the report (TEST REPORT: page 9).
> Please find the attached test report. (filename : ATT. C (RF
> REPORT TX-60P)
>
>
> Question #10: Please verify if measured ERP (26.383) on 900M AMPS is
> correct. According to the report, conducted power is 26.83 and the highest
> antenna gain in AMPS mode is -2.5dBi (per antenna spec).
>
> ====> We've revised the antenna gain (page 5).
> Please find the attached test report. (filename : Antenna
> Spec(TX-60P)
>
> For your info: Per FCC "Amendment to FCC Part 22H / 24E Block Edge
> Requirements" released on Aug. 09, 2003. Block Edge measurement for all
> sub-blocks is not required anymore. Please see below for detail.
> Amendment to FCC Part 22H / 24E Block Edge Requirements
> Based on comments from manufacturers concerning our recent policy relating
> to block edge measurements and after further review of the updated rules
> under Parts 22H and 24E, we are amending the requirements for demonstrating
> block edge compliance. We will only require a plot showing block edge
> compliance at the upper and lower band edge frequencies for both Part 22 and
> 24 transmitters.
>
>
> Best Regards
>
> Steve Cheng / TCB Technical Reviewer
> Compliance Certification Services
> 561F Monterey Road
> Morgan Hill, CA 95037

> Tel:(408) 463-0885 x: 119
> Fax:(408) 463-0888
> scheng@ccsemc.com
> http://www.ccsemc.com
> -----Original Message-----
> From: khpark@hct.co.kr [mailto:khpark@hct.co.kr]
> Sent: Monday, January 05, 2004 6:11 AM
> To: MIKE KUO (CCSEMC); Steve Cheng (CCS)
> Cc: ??? \(\HCT\); SCOTT WANG(CCS); KiSoo Kim (HCT); ??? \(\HCT\)
> Subject: Fw: Regarding the FCC applications (project: AN03T3536 HYUNDAI
> PP4TX-60B)
>
>
> Dear Sir,
>
> How are you ?
>
> According to your request on the below questions, we'd like to send the
> answers
> on each questions under each question as belows;
>
>
>
> 1) FCC ID: PP4TX-60B (Model: TX-60P)
>
> 2) Assessment no.: AN03T3536 (belows test report uploaded)
>
> 3) Upload Date: January 5, 2003
>
>
> If you have any questions or comments, please do not hesitate to contact
> us.
>
>
> This project should be completed within January 6, 2003 if as soon as
> possible.
>
>
> Thanks and Best Regards,
>
>
> KiSoo Kim - HCT
>
>
> ----- Original Message -----
> From: Steve Cheng
> To: '???'
> Cc: Mike Kuo ; Scott Wang
> Sent: Thursday, January 01, 2004 12:54 PM
> Subject: RE: Regarding the FCC applications
>
>
> Dear Mr. Lee,
>
> Below is review questions for AN03T3536, the review is not yet completed and
> I may issue more questions later.
>

> RT for project: AN03T3536 HYUNDAI PP4TX-60B
>
> Subject:
>
> Question #1: ATTACHMENT B - ATTESTATION STATEMENT is a blank document
> please conform.
>
> =====> We've revised the Attestation Statement.
> Please find the attached test report. (filename : ATT. B
> (ATTESTATION STATEMENT)
>
> Question #2: ATT. F (TEST SETUP PHOTO RF).doc, photo 2 seems intended to
> show vertical position with retracted antenna, but it is duplicating photo
> 3.
>
> =====> We've revised the ATT. F (TEST SETUP PHOTO RF).
> Please find the attached test report. (filename : ATT. F (TEST
> SETUP PHOTO RF)
> Photo 2: Dipole antenna (Vertical) / Photo 3: Dipole antenna
> (Horizontal)
>
> Question #3: Does both EMC and SAR used the same method in measuring the RF
> conducted power?
>
> =====> We've EMC and SAR used the same conducted power test.
> (AMPS: 26.5dBm / CDMA: 25dBm / PCS CDMA: 24.5dBm)
>
> Question #4: P7 of test report, section 4.2 Effective Radiated Power, item
> (5) shall refer to (3). Also, what BW was used during the ERP/EIRP carries
> signal measurement? According to item (7)?
> 3) Record the field strength meter's level.
> 4) Replace the EUT with / 2 dipole antenna that is connected to a calibrated
> signal generator.
> 5) Increase the signal generator output till the field strength meter's
> level is equal to the item(4).
> 6) The signal generator output level is the rating of effective radiated
> power(ERP).
> 7) The instrument settings used (RBW/ VBW) during ERP/ EIRP output power
> measurement are as
> Below;
> -. Below 1GHz : RBW 100KHz, VBW 300KHz
> -. Above 1GHz : RBW 1MHz, VBW 1MHz
>
> =====> The instrument settings used (RBW/VBW) during ERP/EIRP output power
>
> measurement and radiated spurious emission are as below ;
> -. Below 1GHz : RBW 3MHz, VBW 3MHz / -. Above 1GHz : RBW 3MHz,
> VBW 3MHz
>
> We've revised the RF TEST REPORT.
> Please find the attached test report. (filename : ATT. C (RF REPORT
> TX-60P)
>
>
> Question #5: P1 of Test plots the un-modulated carries has roughly 24dBm,
> and according to FCC test procedure that AMPS emission mask shall refer to
> the un-modulated carrier level,. However, all mask is refer to unknown

> level. Please clarify.
>
> ====> We've retested RF test. (AMPS un-modulated carries page: 2)
> Please find the attached test report. (filename : ATT. D (TEST
> plot)
>
>
> Question #6: From P1 of test plot file. Conducted power used in EMC test is
> around 24dBm. However, SAR test used 26.5dBm. Please explain why used higher
> conducted RF power in SAR test?
>
> ====> We've retested page 1 (conducted power: AMPS Mode: 26.5dBm)
> We've EMC and SAR used the same power test.
> (AMPS: 26.5dBm / CDMA: 25dBm / PCS CDMA: 24.5dBm)
>
> Question #7: It seems there are two hot spots on all body worn
> configuration when antenna is in extended position. However, test plots
> recorded only one. Please re-submit all the body worn configuration with
> antenna in extended position.
>
> ====> We've retested the second hot spot(PCS band) as attached files. (page:
> 8)
> Please find the attached test report. (filename : ATT. O (SAR TEST
> DATA) -4 of 4-)
>
> Question #8: P124 of users manual mentioned that "ACCESS THE INTERNET"
> function is available on this product, and accordingly this product is
> considered to be a class B digital device too, please submit 15.207 and
> 15.209 data if applicable.
>
> ====> We've attachment EMI REPORT.
> Please find the attached test report. (filename : Test-Report(Part
> 15) EMI)
>
> The items indicated above must be submitted before processing can continue
> on the above referenced application. Failure to provide the requested
> information within 60 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
>
> Steve Cheng / TCB Technical Reviewer
> Compliance Certification Services
> 561F Monterey Road
> Morgan Hill, CA 95037
> Tel:(408) 463-0885 x: 119
> Fax:(408) 463-0888
> scheng@ccsemc.com
> http:\\www.ccsemc.com
> << File: ATT. D (TEST plot).doc >> << File: upload-4.jpg >>
>