

From: Rosenberg, Drew
Sent: Monday, February 02, 2009 12:33 PM
To: 'TCB Admin'
Subject: RE: Non-Conformities FCC ID: EO9DCU5310 (CKC CS Ref # E09-000005-FCC-01)

Categories: Mobile
 Non-conformity #6 – Tune up procedure

Tune up procedure:

There is no tune-up procedure for this device. The frequency and amplitude of the transmitter cannot be changed by the end user. Routine calibration is performed whenever the device is returned for service.

DC Voltage:12V

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From: TCB Admin [mailto:TCBAdmin@ckccertification.com]
Sent: Tuesday, January 27, 2009 4:46 PM
To: Rosenberg, Drew
Subject: FW: Non-Conformities FCC ID: EO9DCU5310 (CKC CS Ref # E09-000005-FCC-01)

Dear Drew,

Please see non-conformities from the Technical Review and any open Non-Conformities from the Administrative review. If you have any questions please feel free to ask.

Non-Conformities FCC ID: EO9DCU5310 (CKC CS Ref # E09-000005-FCC-01)

The items listed below represent requests for information following review of this application for certification under United States (FCC) regulations. Further question may arise pending review of responses to these items.

OK	ID	#	Non-Conformity or Comment	Submitted Response	Respondent / Date of Response
	C	1	Block Diagram was not provided. Please Provide a Block Diagram of the device for certification.	New Block Diagram Provided.	Drew Rosenberg 1/25/09
	C	2	Label Photo Missing. There was a Photo provided of the Label Placement but there was not a photo or drawing provided of the label itself. Please Provide a Photo or Drawing of the Label.		
	C	3	IC and FCC Confidentiality Letters must stand alone. The letter that you provided covers both IC and the FCC. Please provide separate letters for each Agency that you are filing with addressed to the individual Agencies. Letters must also be signed.		
	C	4	Stacy Destito is the Authorized individual for Itron, Inc. Grantee Code EO9. There is not an authorization letter on file that allows you (Drew Rosenberg) to sign letters on behalf of Stacy Destito and/or Itron, Inc. In accordance with FCC Policy (KDB 852134), please provide all cover letters signed by the authorized individual named in the applicant's grantee code information or by an authorized designee. In the latter case, please also provide letters of authorization signed by the authorized individual designating the alternate(s). In all cases, a paper trail must be demonstrated leading back to the person named under the grantee code.	Letter provided from Stacy Destito appointing Drew Rosenberg as an authorized person, able sign letters.	Drew Rosenberg / Stacy Destito 1/26/09

C	6	Tune up procedure is missing from the application. Please provide the required document needed to licensed device.		
TL	7	Page 2 of the test report 15.247 fcc-ic_915MHz_MC3_DL10 listed the power in units other than watt. Please provide a updated test report presenting RF Output power as stated in 15.247 (b)(2).		
C	8	The provided operational description does not provide sufficient circuit detail. Please provide a revised operational description addressing the ground system and antenna, please verify whether the Part 101 antenna is shared with the part 15 RF circuit, In addition, please address signal information including modulation type.		
C	9	The provided internal photographs are not legible. Please provide detailed internal photographs, due to the size of the PCB, the photograph may need to be sectioned and photographed with macro mode. Identity of frequency determining RF component such as crystal shall be legible.		
C	10	The external photos do not show the two sides. Please provide additional photograph showing the left and right side of the device. In addition, please provide a detail photo where the RF port and I/O ports can be identified.		
C	11	From the photograph, this device appears to be a portable device where emission profile of three orthogonal orientations needs to be investigated. However it is not clear whether the emission profile of three orthogonal orientations were investigated and the worst case was presented for the report. Please verify whether the worse case of the three orthogonal orientations was investigated. Alternatively IF the only possible orientation to be used in the field is identical to the position as tested, then a statement claiming as such is sufficient to meet compliance		
TL	12	Description of test setup is not available. From the setup photo Test Setup Photos 15.247.doc, only a transmitting antenna was placed on the turn table. Please provide a test description or revised photograph addressing the connection of RF and I/O port during the test for 15.247.		
TL	13	The user manual indicates a GPS antenna can be attached to the device, however there is no indication whether a GPS antenna was attached to the device during the test. Please clarify whether a GPS antenna was attached to the device during the test. Alternatively compliance to 15.111 suffices to meet this non-compliance.		
TL	14	Page 3 of the test report identifies the device is to be powered with mobile battery system. however there is no indication of a fresh battery being used nor a external power supply that provides the exact output voltage to that of a mobile battery system. Please verify whether a freshly charged automobile battery was used, alternative please identify the DC voltage being used during the test if an external power supply was used.		
TL	15	The radiated and conducted spurious emission was performed from 9kHz-GHz, however there is no indication of appropriate RBW and detector function being employed for measurement covering 9kHz-9.4GHz. Please provide a revised test report 15.247 fcc-ic_915MHz_MC3_DL10.		
TL	16	Page 18 of the rest report 15.247 fcc-		

			ic_915MHz_MC3_DL10, a correction factor has been added to the limit line, which is not appropriate. Please provide a revised test report with the limit expressed in the same emission level as stated in the requirement, with any applicable correction factor presented in a separated column.		
	TL	17	<p>Page 18 of the rest report 15.247 fcc-ic_915MHz_MC3_DL10, In accordance with FCC DA00-705, "The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20\log(\text{dwell time}/100 \text{ ms})$."</p> <p>Please provide a revised test report showing Peak reading, averaged reading measured with VBW=10Hz and a "further adjusted" average reading using a duty cycle correction if the average reading measured with VBW at 10Hz did not meet the limit.</p> <p>Please provide an updated user manual incorporating the statement required by 15.21</p>		
	C	18	Per 15.203, part 15 intentional radiator shall employ unique antenna connector, unless the device is to be professionally installed. Please clarify whether antenna connector other than BNC, TNC, N, CMA, MMCX, F or other commonly available antenna connector was used for the Part 15 transmitter.		
	TL	19	The bandedge plot of page 24 and page 25 of the test report 15.247 fcc-ic_915MHz_MC3_DL10 does showed compliance at 908 and 924 MHz. please proved a revised test report show compliance at the assigned band of 902-928MHz		
	A	20	Emission designator listed on the application report and TCB website is 11K0A2D. However emission designator listed on IC application for the same device is A3D with a measured 99%BW of 3.64kHz, which would make the emission designator 3K64A3D. Please verify which emission designator is correct 11K0A2D or 3K64A3D.		
	TL	21	Power listed on page 2 of the test report FCC part 101 and IC rss119 MC3 DL10 is in dBw, please provide a revised test report expressing output power in W, in addition to dBw.		
	C	22	DC voltage and current into the final several elements of the final radio frequency amplifying device is not provided. Please furnish information required to meet 2.1033 (c) (8)		
	C	23	Please provide tune up procedure to meet 2.1033 (c) (9) requirement.		
	TL	24	Conducted spurious at antenna terminal is missing from the test report FCC part 101 and IC rss119 MC3 DL10. Please provide a revised test report meeting 2.1051 requirement.		
	TL	25	The provided setup photograph, "Test Setup Photos Part 101.pdf "does not include the transmitting antenna. Please provide a setup photograph and test condition to clarify whether the test setup meets the radiate spurious emission 2.1053 under normal conditions of installation		

			and operation		
	TL	26	Page 18 of the user manual TDC-0770.pdf indicates an optional Side looker Antenna can be used with the device. However this antenna was not used in the evaluation of the RF profile nor any detail of this antenna was provided. Please provide a revised test report with the inclusion of a Side Looker antenna to justify a worse case emission profile was evaluated.		
	TL	27	The radiated and conducted spurious emission was performed from 9kHz-GHz, however there is no indication of appropriate RBW and detector function being employed for measurement covering 9kHz-9.4GHz. Please provide a revised test report FCC part 101 and IC rss119 MC3 DL10.		
	C	28	Antenna installation instruction in the user manual is missing a statement addressing antenna separation for RF exposure compliance. Please provide a update user manual with antenna separation distance identified in the antenna installation section,		
	C	29	Please provide an updated label with labeling requirements in accordance with 15.19		
	C	30	Please provide an updated user's manual incorporating the statement required by 15.21		
	C	31	It is unclear how the device complies to 101.141 requirement. Please provide a description of bit rate complying with 101.141 requirement.		
	TL	32	The transmit signal of device is declared as Amplitude modulated however the provided emission mask complies to 101.111 (a)(5) is designated for transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a 12.5 KHz bandwidth. Please confirm whether the correct emission mask was used for the applicable modulation type.		