

Non-Conformities FCC ID: EO9BCR900 (CKC CS Ref # E09-000153-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
x		1	The provided users manual was corrupted. Please send another copy.	Updated copy provided	Jay Holcomb 12/15/09
x		2	For the 15.231 test report, the carrier field strength limits are incorrect (see page 7). Please update test report to reflect proper spec limits for 15.231.	Request for update rescinded by CKC CS. Test report was correct for operation under 15.231(e), client requested update of application to 15.231(a).	Jay Holcomb 12/16/09
X		3	In the test reports on ~page 4, 15.31(e) voltage variations indicate that the product is battery powered and therefore the test is not applicable. However, since AC power line conducted emissions measurements are provided, and the operational description specifically states that the device is capable of operation while plugged into a USB port or charger, 15.31(e) requirements are mandatory. Please provide and updated test report including this information.	we ran the tests and have updated all the reports.	Jay Holcomb 12/16/09
X		4	For the 15.231 test report, no information was provided regarding pulse timing. The waiver request was recorded, however this does not obviate the requirement to demonstrate actual timing data. Please provide an updated test report containing timing information for both programming and normal operational modes.	Updated pulse timing included. Waiver request removed, operation under 15.231(a) permitted – see operational description section 2.2.1for details.	Jay Holcomb 12/16/09
X		5	In Annex D of the 15.231 test report outlines professional installation requirements. In order to apply for professional installation, please provide a cover letter with this specific request.	professional installation is not req'd, annex D has been removed	Jay Holcomb 12/15/09
X		6	The test reports indicate peripheral devices used, however the test setup photos do not show any connected peripherals. Please clarify whether ANSI C63.4 test setup requirements for connection of peripherals was satisfied during testing.	Updated test reports provided	Jay Holcomb 12/16/09
X		7	The test reports indicate a reverse SMA connector. Please clarify which type of reverse is used; reverse thread, reverse polarity?	RPSMA	Jay Holcomb 12/15/09
x		8	General Comment: in the 15.249 test report on page 10, the limit	Updated test report provided.	Jay Holcomb

			reported is the peak limit. Generally if the peak data are under the average limit, then displaying the average measurements is not mandatory. In this case, peak data should be compared to the average limit thus displaying the data more clearly. By using the peak limit only on this page, the reviewer must subtract 20dB from all the margins to ensure compliance was met. Note suggestion for future revision; no response to this item is necessary.		12/18/09
X		9	Page 15 of the 15.249 test report and page 25 of the 15.247 test report contain MPE calculations for mobile devices. Since the product has been tested for compliance as a portable device, MPE calculations are inappropriate (unless this portion of the transmitter is only operated in mobile usage conditions). Please clarify the RF exposure category of the equipment and/or provide updated test report without MPE calculations.	RF Category is Portable. 15.247 operation is exempt from SAR testing (EIRP < lower threshold).	Jay Holcomb 12/16/09
		10	The provided users manual is a draft. Prior to completion of these applications, a final copy is required.	See NC-2	
X		11	The users manual does not include the appropriate RF Exposure information regarding SAR testing and safe usage. The statement regarding 20cm separation is applicable only to mobile equipment, however the portable category +SAR testing is demonstration of compliance for a closer distance. Additionally the belt clip usage precludes users satisfying the 20cm separation during normal use. Warning against unapproved accessories, SAR values, general usage conditions, limitations or other pertinent information is required in the users manual. Further, the manual should caution the user against inappropriate usage.	Updated users manual provided	Jay Holcomb 12/16/09
x		12	The users manual does not contain information required by 15.105. As this equipment qualifies as a computer peripheral, the warning statement in 15.105 (for either class A or class B as appropriate) is required.	Updated users manual provided	Jay Holcomb 12/16/09
x		13	For the 15.247 test report, radiated spurious emissions on page 19: the emissions reported at 5448 and 7264 MHz fall within the 5350-5460 and 7250-7750 MHz restricted bands (respectively). The limit applied to these readings is inappropriate as also are the measurement bandwidths for this section. Please retest these emissions using appropriate bandwidth settings according to 15.209 requirements and provide an updated test report.	Updated test report provided	Jay Holcomb 12/16/09

			SAR REPORT		
X		14	Page 17 indicates GSM transmitter. Really!?	Updated SAR report provided	Jay Holcomb 12/16/09
X		15	No belt clip was used during testing. Please clarify type of belt clip(s) authorized for use with this equipment. Specifically, do any authorized belt clips contain metal components?	Updated with belt clip; belt clip contains metal, however SAR testing on belt clip side shows less tissue absorption than touch position.	Jay Holcomb 12/16/09
X		16	The users manual makes specific note regarding power output derating in order to pass SAR compliance, however there is no information in the SAR report for collocated transmitter testing with the BT device enabled. Please clarify.	Updated users manual and SAR report provided. Collocation and simultaneous transmission clarified.	Jay Holcomb 12/16/09
X		17	In accordance with KDB 450824, SAR probe calibration may be approved for calibration points >100MHz removed under certain conditions. SAR system validation is provided, however no indication of meeting the required tolerance for target values could be located. Please clarify compliance with SAR system validation requirements.	Updated SAR report Provided.	Jay Holcomb 12/16/09
X		18	RF exposure was not assessed for the ISM transmitter; no clarification on end usage conditions or justification for operational modes was could be located within the provided documentation (see also refernce in Item 9 and 11). In general the usage conditions may be understood to be hand-held only or may have other usage conditions attached. Please provide clear documentation of the modes of operation and RF Exposure category for each radio paying specific attention to simultaneous cotransmission configurations.	Updated operational description and SAR report provided; device operation cotransmission limited to MAS/BT or ISM(15.247)/BT, all other configurations operate independently and are thus exempt from RF Exposure evaluation for portable configuration.	Jay Holcomb 12/16/09
x		19	FCC KDB inquiry submitted regarding MAS SAR report and grant reporting requirements for SAR values. KDB# 304983.	FCC guidance obtained.	OET 12/18/09

Non-Conformities FCC ID: EO9BCR900 (CKC CS Ref # E09-000153-FCC-02)

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
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X		20	15.31(e) data provided in test reports indicates DC supply input voltage, however output power level information is required. If no changes observed in output power levels, please state as such. Note, this item does not apply to the part 101 report, however data is included within this report. Consider revision to part 101 report also.	Updated report provided.	Jay Holcomb 12/18/09
X		21	Previous item 10, although the required statements were included with the manual, page retains the DRAFT indication. Please provide a final copy of the users manual prior to application completion.	Updated users manual provided	Jay Holcomb 12/18/09
X		22	15.249 and 15.247 test reports make reference to SAR testing performed, however for 15.249 no RF exposure requirement exists, this rule part is categorically excluded. For 15.247, RF exposure evaluation is required, however power output levels did not necessitate SAR testing thus the test is exempt. However for MAS transmitter, EIRP is over the lower threshold for and is tested for SAR accordingly (even though the equipment is otherwise categorically exempt). Please modify statements in test report accordingly for the service type(s). Please also include a statement regarding simultaneous transmission for each service type (eg each report) thus providing clarity to the operational configurations requested in item 18 (note MPE section of 15.249 can be removed if so desired due to categorical exclusion).	Updated reports provided.	Jay Holcomb 12/18/09
X		23	For 15.231 test report note test report on page 1 at top of page still references 15.231(e).	Updated report provided.	Jay Holcomb 12/18/09
X		24	Per conference call information, we understand application for operation under 15.231(e) is rescinded in favor of operation under 15.231(a). Additionally, the waiver pursuant to the requirements of 15.213(e) is no longer valid and is to be removed from the application filing materials. Please confirm these changes are correct.	Updated report provided. Client conformed.	Jay Holcomb 12/18/09
X		25	For 15.231 report, please confirm whether equipment is manually or automatically triggered.	Updated report provided.	Jay Holcomb 12/18/09
X		26	For part 101 application filing, please provide the DC voltages and currents into several components in the final radio frequency amplifying device in accordance with 2.1033(c)(8).	Updated operational description provided.	Jay Holcomb 12/18/09
X		27	For part 101 please provide tune up information for the product's operation. If no tune up procedure exists, please state as such, however a document must be provided for this item (not required to be a signed document).	Tune up info provided.	Jay Holcomb 12/18/09

X		28	The test procedure listed for the part 101 testing includes ANSI C63.4, however this test procedure is inappropriate for this service type. The required test procedure is TIA/EIA 603-C (2004). Please evaluate test report for discrepancies according to test procedure differences and updated testing / test report as appropriate..	Updated report provided.	Jay Holcomb 12/18/09

The items indicated above must be submitted before processing can continue on the referenced application. Failure to provide the requested information within 60 days may result in application dismissal pursuant to Section 2.917(c) and forfeiture of the filing fee pursuant to Section 1.1106.

How to read the table:

OK column indicates closure by CKC CS.

ID column is for use with Agents to assist in identifying the probable source for closure.

A - Application issue

TL - Test lab issue

C - Client issue

R - Retesting may be necessary

column indicates unique or separate non-conformity items (note some items may be related).

Non-Conformity or Comment column indicates the evaluators specific question or comment.

Submitted response column indicates the response or a summary of the response provided.

Respondent / Date of Response column indicates the responding party or agent and the date of the response was either received or logged.