## **Chris Harvey**

From: SS [ssliou@etc.org.tw]

Sent: Wednesday, February 16, 2011 9:07 PM

To: charvey-tcb@ccsemc.com

Cc: R00/張文雄; R00/黄心怡; charvey@ieee.org

Subject: --Unscanned-- Re: TOA Corporation, FCC ID: DLAWM-5265, Assessment NO.: AN11T0030,

Notice#1

Attachments: Exhibit-C-Test\_Report\_rev.pdf; Exhibit-L-Tune\_Up Procedure.pdf; Exhibit-K-O\_D.pdf;

WM-5265 antenna.pdf; Exhibit-D-ID\_ Label rev.pdf; Exhibit-E-User\_Manual rev.pdf













Exhibit-C-Test\_Re Exhibit-L-Tune\_U Exhibit-K-O\_D.pdf WM-5265 Exhibit-D-ID\_ Exhibit-E-User\_Ma port\_rev.pdf ... p Procedure.pd... (12 KB) Intenna.pdf (48 KB Label rev.pdf (1... nual rev.pdf ...

Dear Chris,

- 1. The Schematics show many components that are changed depending on which band of operation the device is configured for. The available bands listed on the schematics (690-752MHz, 794-865MHz, 636-698MHz and 570-636MHz) do not align with the frequencies being requested in this application (576-606MHz and 614-698MHz). Please explain how the component changes on version and the Bank and Channel rotating switches are used to operate only in the requested frequencies of operation.
- A: Components are changed depending on the frequency band selected according to country regulations. For USA and Canada only frequency bands 576-606MHz and 614-698MHz are available.
- 2. Please provide a table of the 64 assigned frequencies compared to the rotary switch positions. The Manual has a table of frequencies that does not seem to match the available frequencies in this application (576-606MHz and 614-698MHz).
- A: The frequency table depends on customer required marketing region to assign and the band will comply with regulation requirement. For USA and Canada only frequency bands 576-606MHz and 614-698MHz are available.
- 3. The RF Power Measurement procedure for fundamental emission and spurious describes the use of the substitution Method of measurement as required by the FCC, but the test equipment list and the test setup diagrams do not show the use of the substitution antenna in place of the EUT.
- A: The test equipment list was revised. A note about the substitution antenna configuration was added to the test setup diagrams. Please refer to the revised test report.
- 4. The Occupied Bandwidth plots have been measured using a 10kHz RBW, but the BW used should be as close as possible to 1% of the emission Bandwidth (likely to be 2kHz for this device.)
- A: The occupied bandwidth plots were updated with 3kHz RBW. Please refer to the revised test report.
- 5. Please provide the Tune-Up Procedure and Schematic Diagram exhibits for this device as required by FCC 2.1033.
- A: Provided as attached.

Note: Components are changed depending on the frequency band selected according to country regulations. For USA and Canada only frequency bands 576-606 MHz and 614-698 MHz are available.

- 6. Please provide the Operational Description exhibit, which is required per FCC 2.1033, and is also listed in the Confidentiality Request letter.
- A: Provided as attached.

Note: Components are changed depending on the frequency band selected according to country regulations. For USA and Canada only frequency bands 576-606MHz and 614-698MHz are available.

- 7. The Antenna is not shown in the schematics (there are pads for RF1 & RF2) and it is not clearly visible in the photos. Please provide a description and specification of the antenna.
- A: The antenna is the wires connecting PCB and the microphone head. Please refer to attached photo.
- 8. The Manual states this device has a  $+/-40\,\mathrm{kHz}$  maximum deviation. This  $40\,\mathrm{kHz}$  is used for the Deviation (D) component and  $15\,\mathrm{kHz}$  is used for the Modulation (M) component in the  $2\mathrm{M}+2\mathrm{Dk}$  Emission Designator calculation.

Please show in the test report how these numbers are derived or state the occupied bandwidth in terms of values measured.

A: The emission designator calculation was revised in the test report according to the values measured. Please refer to the revised test report.

In addition, the user manual and ID label were also revised. Please find them as attached.

Best regards,

S. S. Liou Section Manager EMC Testing Dept. II Electronics Testing Center, Taiwan Tel: +886-2-26023052 ext. 20 Email: ssliou@etc.org.tw URL: http://www.etc.org.tw

---- Original Message ---From: <charvey-tcb@ccsemc.com>
To: <ssliou@etc.org.tw>
Cc: <charvey@ieee.org>

Sent: Wednesday, February 02, 2011 11:00 PM

Subject: TOA Corporation, FCC ID: DLAWM-5265, Assessment NO.: AN11T0030,

Notice#1

> Dear SS Liou,

> You are listed as the Technical Contact for the above referenced TCB > application. The following item(s) need(s) to be resolved before the

> review can be continued:

> 1. The Schematics show many components that are changed depending on which

> band of operation the device is configured for. The available bands
> listed on the schematics (690-752MHz, 794-865MHz, 636-698MHz and

> 570-636MHz) do not align with the frequencies being requested in this

> application (576-606MHz and 614-698MHz). Please explain how the component

> changes on version and the Bank and Channel rotating switches are used to

> operate only in the requested frequencies of operation.

> 2. Please provide a table of the 64 assigned frequencies compared to the

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> rotary switch positions. The Manual has a table of frequencies that does
> not seem to match the available frequencies in this application
> (576-606MHz and 614-698MHz).
> 3. The RF Power Measurement procedure for fundamental emission and
> spurious describes the use of the substitution Method of measurement as
> required by the FCC, but the test equipment list and the test setup
> diagrams do not show the use of the substitution antenna in place of the
> 4. The Occupied Bandwidth plots have been measured using a 10kHz RBW, but
> the BW used should be as close as possible to 1% of the emission Bandwidth
> (likely to be 2kHz for this device.)
> 5. Please provide the Tune-Up Procedure and Schematic Diagram exhibits for
> this device as required by FCC 2.1033.
> 6. Please provide the Operational Description exhibit, which is required
> per FCC 2.1033 , and is also listed in the Confidentiality Request letter.
> 7. The Antenna is not shown in the schematics (there are pads for RF1 &
> RF2) and it is not clearly visible in the photos. Please provide a
> description and specification of the antenna.
> 8. The Manual states this device has a +/-40 \,\mathrm{kHz} maximum deviation. This
> 40kHz is used for the Deviation (D) component and 15kHz is used for the
> Modulation (M) component in the 2M+2Dk Emission Designator calculation.
> Please show in the test report how these numbers are derived or state the
> occupied bandwidth in terms of values measured.
> The items indicated above must be submitted before processing can continue
> on the above referenced application. Failure to provide the requested
> information within 30 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.
> Revised documentation should not be emailed, but instead should be
> submitted through "Add Attachment" function at the UL-CCS website. Please
> have your Assessment Number and FCC ID/IC Certification number handy. You
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> may use the following link: https://cert.ccsemc.com/filing/

> Best regards,

> Chris Harvey

> Charvey-tcb@ccsemc.com