## **Mark Briggs**

To: Deniz Demirci

Subject: RE: TCB certification - On-Ramp Wireless Inc. Model ULPN110 (CG1386)

Deniz

Thank you for your response to our questions. This will be uploaded with the application documents.

Regards,

Mark

## **Mark Briggs**

Reviewing Engineer Elliott Labs - An NTS Company 41039 Boyce Road Fremont, CA 94538 mark.briggs@ntscorp.com

From: Deniz Demirci

Sent: Thursday, November 04, 2010 5:19 PM

To: Mark Briggs

Subject: RE: TCB certification - On-Ramp Wireless Inc. Model ULPN110 (CG1386)

Hi Mark,

The responses are in red fonts;

- 1) External Photos these appear to be for the developer board and not the module and could cause confusion as to what the device being certified is (module or developer board). We only need a photo showing the top and bottom of the module. You could use the rear view of the module (page 2, upper picture from internal photos) for the external rear view and a photograph of the front view (first photograph of internal photos). External photos are updated. Please see "External Photographs v2.pdf"
- 2) Attestation Letters from the block diagram and associated operational description it appears the device can be configured to operate from 2402 2480 MHz but the frequency range covered by the application is 2402 2476MHz. We will need a description/attestation explaining how operation for devices sold into Canada and USA is restricted to the frequencies covered by the application.

The commissioning procedure is described in "eNode\_Theory\_of\_Operation\_010-0003-00\_v2.1.pdf" 6.1.2 Interface section .This section was amended during previous application as an audit response) The customer has amended the user manual also as:

The air interface supports operation on channels in the 2402 MHz – 2476 MHz range for FCC/IC regulatory domains and 2402-2481 for the ETSI regulatory domain.

Before the ULP Node becomes operational it must undergo a commissioning procedure, during which critical information required for operation is entered into the device and stored in non-volatile storage. It is during the initial commissioning procedure that the regulatory domain under which the device will operate is set. Subsequent configuration of the device during operation is checked against the commissioned regulatory domain and non-permitted channels or transmit power levels are rejected and the device will not transmit until a permissible configuration per the commissioned regulatory domain is set.

3) The Company Number on the RSS 102 Annex A form is incorrect. As this device is exempt from RSS-120 and you have submitted Annex C form and technical brief justifying the exemption I do not think Annex A is required. If you wish to submit an Annex A please correct the company number on the form.

Please don't use the Annex A for the filing

4) The User Manual does not contain information to module integrator regarding the labeling of the host system or rf exposure statements that must be provided to the end user.

The user manual has been updated by the customer as;

4.3 Usage

FCC ID: XTE-ULPENODE110. IC: 8655A-ULPENODE110. This device is only authorized for use in portable applications. To meet FCC and other national RF exposure requirements the antenna for this device must be installed to ensure a separation distance of at least 20cm (8 inches) from the antenna to a person.

4.3.1 Integrators

A label showing the FCC ID and IC designators, listed above, must be affixed to the exterior of any device containing the eNode (if the eNode is not visible). The exterior label must include: Contains FCC ID: XTE-ULPENODE110, IC 8655A-ULPENODE110.

5) Test report – Power measurement (pages 21 – 23): Can you please clarify the method used – was this sample detector and power averaging over 100 traces or peak detector max hold? From the plots the number of averages appears to be 1 which is why I ask

The method was used: sample detector and power averaging over 100 traces

The Rohde & Schwarz FSEK spectrum analyzer shows the average counts on the screen but not on the plots.

The green "1SA" at right side of the plot means; Trace 1, sample detector

The green "1AV" at left side of the plot means: Trace 1, trace average

6) Test report – power density measurement: Pretty much the same question as from above; was this with averaging enabled or not?

The test method is the same as power measurement test method

7) Test report – transmitter and receiver radiated spurious: Can you please confirm the frequency range that was evaluated, was it from 30 MHz or was it just limited to above 1GHz?

EUT was tested form 30 MHz to 26 GHz with all configurations. There were no measurable emissions observed related to the transmitter in the 30 MHz – 1000 MHz range.

Best regards,

Deniz

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