## **Doug Noble**

From: Timothy R. Johnson <tjohnson@acbcert.com>
Sent: Wednesday, October 23, 2013 12:04 PM

**To:** doug@acbcert.com

**Subject:** Fwd: RE: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | |

Model: ZBZWUS

Doug....Please document then release grant.

Tim

DKIM-Signature: v=1; a=rsa-sha256; q=dns/txt; c=relaxed/relaxed; d=hbcompliance.com; s=default;

h = Content-Type: MIME-Version: Message-ID: Date: Subject: In-Reply-To: References: Cc: To: From: Reply-To: References: Cc: To: From: Referenc

To; bh = AFVDR6VVB5nyQJqAv5HKksfo19WqC0o3Y5vInB8UEuA =;

b=EXiR4B1adql8ldFjeE06Km/PAGcvtNKNKaaSLxLUZQgv8Cjju0CbRrf/rO4WFZLAEMxb0chu4Fqbb

1mq1385+rVbb2c/xcdmmCwapXlMczGmEAJ/RVinIDZq+UIi92Zy;

Reply-To: <hoosam@hbcompliance.com>

From: Hoosamuddin Bandukwala <hoosam@hbcompliance.com>

To: "Timothy R. Johnson" <tjohnson@acbcert.com>

CC: <doug@acbcert.com>

Subject: RE: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | Model: ZBZWUS

Date: Wed, 23 Oct 2013 11:30:34 -0700 Organization: H.B Compliance Solutions X-Mailer: Microsoft Office Outlook 12.0

Thread-Index: Ac7Pf1CUmjGZFXBaRQ+I0JBhEEzJQwAnbk1Q

X-Identified-User: {1212:host376.hostmonster.com:hbcompli:hbcompliance.com} {sentby:smtp auth

68.107.217.130 authed with hoosam@hbcompliance.com}

X-MS-Exchange-Organization-PCL: 2

X-MS-Exchange-Organization-Antispam-Report: DV:3.3.13014.1076;OrigIP:74.220.217.7

X-MS-Exchange-Organization-SCL: 0

X-MS-Exchange-Organization-AuthSource: SERVER7.usacb.acbcert.com

X-MS-Exchange-Organization-AuthAs: Anonymous

Hello Tim.

The current device that is for review is a Z-Wave transmitter. This is not a pulse device. Per the FCC 15.35 the 20Hz is for pulsed device only. When initially the project was submitted for review and you raised the concerned on the QP measurement we did find that something during the test mode transmission the QP signal was dropped significantly. We looked into this matter and requested the customer to send us the proper test file that represents the actual modulation and not just a CW. The Antenna of this device also had some problem which was replaced by same type and gain that made the readings different. Once this was done the levels were still over so the power level was dropped down and all the fundamental and harmonic measurements were redone.

Please give me a call if you need any further explanation.

Thank you

## Best Regards

## Hoosamuddin S. Bandukwala

President

H.B. Compliance Solutions

Email: mailto:hoosam@hbcompliance.com

Phone: +1 480-684-2969

Web: www.hbcompliance.com

From: jettzeneddie@gmail.com [ mailto:jettzeneddie@gmail.com]

Sent: Tuesday, October 22, 2013 4:35 PM

To: Hoosam Test Lab

Subject: Fwd: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | | Model: ZBZWUS

Sent from my Sprint phone.

---- Forwarded message -----

From: "Timothy R. Johnson" <tjohnson@acbcert.com>

To: <<u>doug@acbcert.com</u>>

Subject: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | Model: ZBZWUS

Date: Tue, Oct 22, 2013 16:23

This has nothing to do with the lab, and is an equipment functionality issue that must be present so any QP measurement made is considered valid...Please reverify that the device confirmed to be operational with a 20 Hz rep rate or more? This would require that a complete packet is sent once every 50 ms or less.

Tim

At 04:12 PM 10/22/2013 -0700, you wrote:

Will this work?

Doug

From: Hoosamuddin Bandukwala [ mailto:hoosam@hbcompliance.com]

**Sent:** Tuesday, October 22, 2013 4:11 PM

To: doug@acbcert.com

Subject: RE: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | | Model: ZBZWUS

Yes the lab did observe the rule for using the 20Hz rep rate as defined under the FCC 15.35 rule section for performing the Q.P measurements

Thank you

Regards

Hoosamuddin S. Bandukwala

President

H.B. Compliance Solutions

Email: mailto:hoosam@hbcompliance.com

Phone: +1 480-684-2969

Web: www.hbcompliance.com

From: Doug Noble [mailto:dnoble@acbcert.com]

Sent: Tuesday, October 22, 2013 2:42 PM

To: hoosam@hbcompliance.com

Subject: RE: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | | Model: ZBZWUS

I understand that but the QP measurement needs to be done with the 20Hz rep rate. I just need a statement from the lab that they observed the rule 15.35 using the 20Hz rep rate.

Thanks, Doug

From: Hoosamuddin Bandukwala [mailto:hoosam@hbcompliance.com]

Sent: Tuesday, October 22, 2013 1:09 PM

To: doug@acbcert.com

Subject: RE: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | | Model: ZBZWUS

Hello Doug,

The report was updated to reflect the Q.P measurement for the Fundamental. Please look at table 13.

Regarding the 20Hz comment I think this issue came up because there was almost 10dB difference b/w peak and Q.P measurement which if you look at the harmonics measurement which were all re-taken with a normal modulated signal the difference is much small.

Best Regards

## Hoosamuddin S. Bandukwala

President

H.B. Compliance Solutions

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Phone: +1 480-684-2969

Web: www.hbcompliance.com

From: Doug Noble [mailto:dnoble@acbcert.com]
Sent: Tuesday, October 22, 2013 11:31 AM

To: hoosam@hbcompliance.com

Subject: www.acbcert.com ATCB014697 | 2AAU7-ZBZWUS | 11391A - ZBZWUS | | Model: ZBZWUS

Regarding <u>www.acbcert.com</u> application:

ATCB ID: ATCB014697 FCC ID: 2AAU7-ZBZWUS IC: 11391A - ZBZWUS TCF:

Model Number: ZBZWUS Device Name: Zipabox Account name: HBCS

Hi Hoosam,

I don?t see that this question has been addressed in the test report.

Kindly note that the limit for 15.249 for < 1 GHz is actually a QP / peak limit. In general the peak value is expected to meet the limit. There is not an average limit for < 1 GHz. See 15.249 (e) and other FCC sections. Kindly note that a QP measurement may be made, but the 20 Hz Rep rate of 15.35 must be present during test. In general this typically means a peak to QP difference of only a few dB is expected. 10 dB or more suggests the 20 Hz Rep Rate was not present during test. If the QP reading is not valid, then this device does not appear to be compliant to the FCC rules under 15.249 without power reduction.

**Douglas E. Noble** *iNARTE ATL-0142-E* 

Examining Compliance Engineer American Certification Body

ACB

Certification for the Wireless Industry

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Timothy R. Johnson, iNARTE Certified EMC Engineer (No. EMC-002205-NE) and Wireless Device Certification Professional (No. WDCP-100101)

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