

Marianne Bosley

From: Kerwinn Corpuz
Sent: Tuesday, August 17, 2004 1:10 PM
To: 'Chris Harvey'
Cc: Alvin Ilarina; Marianne Bosley
Subject: RE: unofficial RT on the MT#15733 LPN Wireless application Pt. 90 4940-4990MHz

Hi Chris,
Per Question 1 listed below (Frequency Stability / FCC 2.1055) test is complete for Voltage VS Frequency and Temperature VS Frequency. Please see all results added to report, Section 8.1, page 41 of 52.

Per Question 2 listed below (Channel Plan) for 1 to 5 MHz Channel Bandwidth, client modified the EUT manual to Section 4.5, please see section 4.5 for Frequency Selection.

Another question was to add a note to report mentioning, "for 5 MHz channel BW, during test, transmitter was operating at channel 1 and 18 for test purpose only". Please see this note from report, Mode of Operation, page 8 of 52.

If there are any other concerned questions, please let me know.

Regards,
Kerwinn

-----Original Message-----

From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Thursday, August 05, 2004 8:51 AM
To: KCorpuz@metlabs.com
Cc: Allarina@metlabs.com; MBosley@metlabs.com
Subject: RE: unofficial RT on the MT#15733 LPN Wireless application Pt. 90 4940-4990MHz

Kerwin,

I think that the manufacturer needs to be able to restrict operation in the wider channel bandwidth channels in accordance with the FCC 90.1213 channel plan. They should be able to provide documentation of compliance with this provision:

[§ 90.1213 Band plan.](#)

The following channel center frequencies are permitted to be aggregated for channel bandwidths of 5, 10, 15 or 20 MHz. Channel numbers 1 through 5 and 15 through 18 are 1 MHz channels and channels numbers 6 through 14 are 5 MHz channels.

Center frequency (MHz)	Channel Nos.
4940.5	1
4941.5	2
4942.5	3
4943.5	4
4944.5	5
4947.5	6
4952.5	7
4957.5	8
4962.5	9
4967.5	10
4972.5	11
4977.5	12
4982.5	13
4985.5	14
4986.5	15
4987.5	16
4988.5	17
4989.5	18

Even though you were able to perform testing of the 5MHz channel bandwidth signal operating at 4940.5, as long as there is an indication that this was just a test mode and that this device would not be capable of operating in that bandwidth at that channel, and that the operator only has availability of the channel selection per the 90.1213 Channel Plan, you should be OK to not need to re-measure for this compliance.

Frequency Stability for 48VDC powered equipment still falls into the 85% and 115% of nominal (40.8VDC & 55.2VDC).

I am still going through this application so there may be more RT later.

Have a great day. Call me if you need,

Chris

-----Original Message-----

From: KCorpuz@metlabs.com [mailto:KCorpuz@metlabs.com]

Sent: Wednesday, August 04, 2004 5:32 PM

To: Chrisharveyemc@comcast.net

Cc: Allarina@metlabs.com; MBosley@metlabs.com

Subject: RE: unofficial RT on the MT#15733 LPN Wireless application Pt. 90 4940-4990MHz

Hmmm, sounds like a retest for the 5 MHz channel bandwidth. Should I also do an investigation with 2 MHz?

For the Frequency Stability, do I need to reduce to end point of the 48Vdc still? Wanted to make sure just because it's a guinea pig. Also 2.1055 mentioned only handheld units powered with battery, to be reduced to end point of the battery.

I'll see what I can do in providing you these results ASAP.

Kerwinn

-----Original Message-----

From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]

Sent: Wednesday, August 04, 2004 1:04 PM

To: Kerwin Corpuz

Cc: Alvin Ilarina; 'Marianne Bosley'

Subject: unofficial RT on the MT#15733 LPN Wireless application Pt. 90 4940-4990MHz

I am still reviewing this application and the formal RT will come upon completion of this review, but I wanted to give you a heads-up on the items that I will need and so this information will be duplicated in the formal RT:

There are no previous FCC approvals for this Subpart. Can you say guinea pig? ☺

I can not find RF Exposure MPE (for fixed p-2-p operation) exhibit.

90.213 Frequency Stability does not have a tolerance limit for signals above 2450MHz, however note 10 of the table indicates that Frequency Stability to be specified by the station authorization. Please provide the frequency stability measurements per FCC 2.1055.

The EUT has 1, 2 and 5MHz channel bandwidths available. If they use a 5MHz channel BW at 4940.5MHz, the EUT will be transmitting out of band. The plots of the 5MHz BW signal at 4940.5 seem to show intended signals out of band (below 4940MHz). This may be a problem, but needs further research.