

Chris Harvey

From: Chris Harvey
Sent: Monday, September 24, 2001 10:04 AM
To: 'Andy Crisp'; Chris Harvey
Cc: Jeff Hickey; GSM circular list; Laurence Richardson
Subject: RE: Telular FCC application comments to Metlabs questions.
Andy, we will await the amended report to continue the review of the application.

I have received a clarification from the reviewing engineer regarding his original question #2. He did have a typographical error in his later portion of the request. the request should have read as follows:

- > 2. A video filter (i.e., VBW < RBW) was used to demonstrate band edge
- > compliance. FCC policy has always required that constant envelope
- > modulation schemes (such as GMSK, as used by GSM devices like the EUT) must
- > use peak detection (i.e., RBW < VBW). This applies both to spurious
- > emissions tests and output power tests. Both of these must be re-measured
- > using a RBW < VBW, and new data submitted.

It does appear as though there may be some additional re-tests that will be required per this corrected message.

Also, for clarification, the Occupied Bandwidth plots that are being requested can be used as the means for justifying the Necessary Bandwidth portion of the Emission Designator.

Please let me know if I can be of further assistance.

Best regards,

Chris Harvey

Chris Harvey

EMC Lab Director, MET Laboratories, Inc.
1-800-638-6057 x-310
charvey@metlabs.com

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

From: Andy Crisp [SMTP:andy.crisp@7layers-UK.com]
Sent: Friday, September 21, 2001 4:06 AM
To: Chris Harvey
Cc: Jeff Hickey; GSM circular list; Laurence Richardson
Subject: RE: Telular FCC application comments to Metlabs questions.

Chris,

the amended test report was not meant to be included in this e-mail, these were just comments to your previous questions. We do not want to send an amended report yet until the comments we have raised, towards the questions from the engineer who is assessing the application, are dealt with and we both agree on the correct format of the new amended report. By doing this way , will avoid the need to have to produce a further amended report.

As soon as you get any feed back from the engineer who is assessing the application, please could you contact me as soon as possible so we can discuss the outcome of his assessment to our comments.

Best regards

Andy Crisp

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

From: Chris Harvey [mailto:CHarvey@metlabs.com]

Sent: 20 September 2001 16:09

To: 'Andy Crisp'

Cc: Marianne Bosley

Subject: RE: Telular FCC application comments to Metlabs questions.

Andy, I did not receive an attachment in this e-mail (amended test report as indicated below). Please send again.

> -----Original Message-----

> From: Andy Crisp [SMTP:andy.crisp@7layers-UK.com]

> Sent: Thursday, September 20, 2001 10:51 AM

> To: Chris Harvey

> Cc: Laurence Richardson; GSM circular list

> Subject: Telular FCC application comments to Metlabs questions.

>

> Chris,

>

> good to speak to you, and as discussed in our telephone
> conversation, here are the comments (in bold) to the questions raised over
> the Telular application, and some actions rectifying issues in a new
> amended test report.

>

>

>

> -----Original Message-----

>

> From: Chris Harvey [mailto:CHarvey@metlabs.com]

>

> Sent: 10 September 2001 22:18

>

> To: 'david.trevayne-smith@7layers-uk.com'; 'andy.crisp@7layers-uk.com'

>

> Cc: Marianne Bosley

>

> Subject: FW: Telular (7Layers) FCC ID:MTF00701 MET#11225

>

>

>

> Andy and David , attached is the outcome of the initial technical review
> for the Telular application referenced above. We will need continue the
> review upon receipt of additional information.

>

> This is a mobile Part 24E device.

>

> The following items need to be either re-tested or somehow addressed:

>

> 1. You have listed the power as 1.54 W EIRP, without providing any

>

> justifications or calculation to support this statement. The FCC RF

> Exposure Categorical Exclusion is for Mobile Devices that have less than

> 3W ERP. Please provide the ERP value for this application. It is likely
> that we will not need to perform the review of the SAR report that has
> been provided.
>
> The test house has modified the results in the amended test report, to
> indicate ERP showing any calculations.
>
>
>
> 2. A video filter (i.e., $VBW < RBW$) was used to demonstrate band edge
> compliance. FCC policy has always required that constant envelope
> modulation schemes (such as GMSK, as used by GSM devices like the EUT) must
> use peak detection (i.e., $RBW > VBW$). This applies both to spurious
> emissions tests and output power tests. Both of these must be re-measured
> using a $RBW > VBW$, and new data submitted.
>
> Looking at the test report, all plots show that a resolution bandwidth
> greater than the Video bandwidth was used e.g pages 10 - 37.
>
>
>
> 3. Please provide raw data, sample calculations, and test procedures used
> to measure output power, EIRP, and spurious radiated emissions. Simply
> providing summary sheets indicating final levels is not sufficient.
>
> The test house has modified the results in the amended test report, to
> indicate raw data and sample calculations and test procedures.
>
>
>
> 4. Please provide occupied bandwidth plots.
>
> Looking at the test report, all plots show in effect occupied bandwidth as
> they each have a limit line around it showing the bandwidth specification.
> e.g pages 10 - 37.
>
>
>
> 5. Please propose an emission designator, and justify the proposed choice.
> Typically GMSK Modulated signals for 24 Subpart E have something like
> 340KGXW
>
> Still awaiting confirmation from Telular of the emission code.
>
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>
> 6. As a mobile device, as far as RF Exposure is concerned, the FCC
> generally requires that a statement be included in the installation
> instructions of the User's Manual specifying a minimum separation distance
> of 20 cm between the antenna and all persons during normal operation, in
> order to comply with FCC RF Exposure limits. Please provide the statement
> that Telular will provide (and its location, recommended to be with the
> other FCC statements, in a prominent location).
>
> Still awaiting instruction from Telular on the proposed action they will
> be taking.

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> 7. The Frequency Stability data provided does not show the drift of
> frequency from the nominal frequency. Please provide data that indicates
> the frequency drift in Hz or in PPM as this information is required for
> the Grant.
>
> The test house has modified the results in the amended test report, to
> indicate frequency drift in PPM.
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> Please let me know if you have questions regarding these issues.
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> Best regards,
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> Chris Harvey
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> Chris Harvey
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>
> charvey@metlabs.com <mailto:charvey@metlabs.com>
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>
> Best regards,
>
> Andy Crisp
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