

From: Tom Cokenias [tom@tncokenias.org]
Sent: Monday, January 13, 2003 11:23 AM
To: mkuo@ccsemc.com
Subject: Invensys Metering Systems, FCC ID:KCHMXU510, AN02T2456

Mike,

Please get back to me on whether answers to 1 and 2 are ok. Invensys needs this by the end of the week. Answer 3 I am waiting from Tim Harrington per his email below. If I don't get an answer Invensys instructed me to go ahead with the 20 cm statement, but they are not pleased with it:

Question #1: Internal photos is listed in the request for confidentiality letter. It is FCC policy not to grant internal photos as confidential document. Please remove this request and provide revised letter.

ANS1 The entire unit will be enclosed in black opaque potting material. The circuit boards would be ruined if one tried to remove the potting solution from a production unit. As such, an interested party would not be able to view the circuit boards, hence this request that photographs be kept confidential.

Question #2: Page 3 of test report (Radiated spurious emission tabular data @ 903.8 Fundamental frequency), the average reading of fundamental frequency is 11.2 dBuV/m but the peak reading is 94.1dBuV/m. Please explain the huge difference between peak and average reading. In addition, average reading of fundamental is lower than spurious emissions which does not comply with 15.215(b) requirements.

ANS2. The entry was a typo, it should have been 111.2 dBuV/m. Attached is corrected data sheet.

Question #3: There is no RF warning statement in the user manual, suggest wordings may be " IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter." Please provide revised user manual to comply this requirement.

ANS3 See above and email below:

>
>From: "Tim Harrington" <THARRING@fcc.gov>
>To: "Joe Dichoso" <JDICHOSO@fcc.gov>, <tom@tncokenias.org>
>Cc: "Andrew Leimer" <ALEIMER@fcc.gov>, "Martin Perrine" <MPERRINE@fcc.gov>,
> "Rich Fabina" <RFABINA@fcc.gov>, "Steven Dayhoff" <SDAYHOFF@fcc.gov>,
> "Tim Harrington" <THARRING@fcc.gov>
>X-OriginalArrivalTime: 07 Jan 2003 22:25:48.0090 (UTC)
>FILETIME=[BA4279A0:01C2B69B]
>
>
>You asked us this question last May, Tom.
>I've been working on a policy and should be able to get back to you within the
>next few days.
>

>
> >>> Joe Dichoso 01/07/03 05:21PM >>>
>You too Tom, Thanks for the Sees Candies.
>For mobile devices, the 20 cm distance is maintained.
>If you do not want the 20 cm RF safety distance, then you need to evaluate as
>portable(<20 cm).
>FYI... Mobile to portable requires a new FCC identifier.
>Please contact Tim Harrington for future RF safety questions.
>Regards,
>Joe
>
> >>> Tom Cokenias 01/06/03 03:00PM >>>
>Happy New Year Joe,
>
>I wish you and yours a healthy and prosperous 2003 (world peace too
>if that's possible)
>
>I have an RF exposure question. It involves a 902-928 MHz DTS radio
>used in a utility meter.
>
>Peak power is less than 23 dBm (22.6 measured)
>Maximum antenna gain is 2.2 dBi
>Far field MPE calculation is 6.3 cm
>
>The EUT transmits in bursts of 72msec. Under typical usage, there
>are 5-10 burst transmissions per month.
>
>The utilities that buy this product have expressed hardship in
>maintaining a 20cm separation under all installation conditions, such
>as when meters are located on outside walls near sidewalks and
>alleyways. To insure 20 cm separation under all conditions, long
>standing practices would have to be modified and existing meter
>locations would not be able to take advantage of a wireless
>replacement unit.
>
>Source based averaging would bring TX power levels down to an
>equivalent of about 1.5 mW, and calculated MPE of 0.4cm.
>
>Does the user manual still need to include the 20cm separation
>distance statement?
>
>Thanks for you help on this. I look forward to hearing from you.
>
>best regards
>
>Tom Cokenias
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