## **Chris Harvey**

From: Downs, John [John.Downs@genericsgroup.com]

Sent: Monday, September 29, 2003 12:21 PM

To: Chris Harvey (E-mail)

Subject: FW: Request Technical Information for St. Jude House Call Plus ap plication MT#14435



This e-mail is subject to the disclaimer set out below.

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## Chris,

see below.

(Graham is part of my company in the UK and is the designer of the board.) I have attached the report he referenced. When he asked for "exact test method", I think he is asking about device and wand orientation.

thanks for your patience,

John

-----Original Message-----From: Lodge, Graham

Sent: Monday, September 29, 2003 12:11 PM

To: Downs, John

Subject: RE: Request Technical Information for St. Jude House Call Plus application MT#14435

Just to confirm:

KTL made measurements using a loop antenna which are detailed in 2G6141GEU1.pdf. But note:

- Results are presented as magnetic field, rather than electrical field units
- Measurements were made with the Transmitter on the ground, and the wand raised in the air. KTL believe this is the appropriate EUT setup for intentional transmitters. The FCC requirements below 30MHz apply only to intentional transmitters.

Can you get Chris Harvey to take a look at the report, and say whether he will accept the test method, with the results converted from magnetic field units to electrical field units.

If not, can Chris specify an exact test method? Then we will have to get lab time at KTL to make a measurement. This will most likely be Friday Oct 3rd.

Graham

----Original Message----

From: Downs, John Sent: 29 September 2003 15:08 To: 'kanderson@ktl.com' Cc: Lodge, Graham Subject: FW: Request Technical Information for St. Jude House Call Plus applic ation MT#14435 Importance: High Ken, see response below. Looks like it will have to be loop. I suppose a report addendum wouldn't save much time. thanks, John Downs Genesis Medical Technology, Inc. 11403 Cronhill Drive, Suite B Owings Mills, MD 21117 **USA** Tel: 410 654 0090 Fax: 410 654 0138 www.genesismedical.com part of The Generics Group ----Original Message----From: CHarvey@metlabs.com [mailto:CHarvey@metlabs.com] Sent: Monday, September 29, 2003 9:55 AM To: John.Downs@genericsgroup.com Cc: CHarvey@metlabs.com Subject: RE: Request Technical Information for St. Jude House Call Plus applic ation MT#14435

John, I know not of the August 26th, 2003 information referenced below (which may only be a confirmation of the long standing FCC policy). Please be aware that the FCC has required Loop Antenna measurements for many years. I have copied 2 rule interpretations from the FCC web site

http://hraunfoss.fcc.gov/eas\_public/SilverStream/Pages/pg\_fts\_frameset2i\_sea

rch fcc gov2.html below which confirm the need for loop antenna measurements. Please submit the loop antenna measurements with description of the procedure and list of equipment used (even as an amendment to the test report so that the test report does not need to be rewritten) showing compliance with the FCC limits to complete this application.

Best regards,	
Chris Harvey	
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20000315-008 (from 2000) INQUIRY: I have a question regarding a transmitter that we will be testing in the near

future. It is designed to operate in the 13.356 MHz band under Section 15.225. My question is for the fundamental and harmonics emissions below 30 MHz, which antenna should we use for the measurements, an Active rod Antenna to measure the E field or an Active Loop Antenna to measure the H field and convert it to E field/RESPONSE: The commission does not accept data taken with a rod antenna. You must use a loop antenna for measurements below 30 MHz, converting the H-field readings to E-field readings

19981102A (from 1998) Mr. Hada, The following is in response to your e-mail dated May 13, 1998. In the referenced communication, you ask if there is any specific document or regulation that announces that the Commission does not accept radiated emission measurements below 30 MHz that are made with a monopole (rod) antenna. This issue was addressed in the Notice of Proposed Rule Making (NPRM) and the Report & Order (R&O) in General Docket Numbers 89-116, 89-117 and 89-118. Specifically in paragraph 11 of the R&O, the Commission makes note of the fact that ANSI C63.4-1992 (C63.4) does not include procedures for measurements of radiated emissions below 30 MHz or for measurements on spread spectrum transmitters. We also make mention of the fact that our original proposals in General Dockets 89-116, 89-117 and 89-118 (the NPRMs) did not address radiated emission measurements below 30 MHz. Unfortunately, Section 15.31(a)(6) of the FCC Rules was not amended to exclude section 8.2.2 of ANSI C63.4-1992, thereby calling to your attention to the fact that rod antennas are not acceptable by the Commission for these measurements. Since C63.4 measurement procedures do not cover radiated measurements below 30 MHz, the Commission would also have had to exclude section 8.2.1 of C63.4 which prescribes a loop antenna for radiated emission measurements below 30 MHz (which we accept). A decision was made that this would cause more industry confusion than ignoring clause 8.2.2 which prescribes the use of a rod antenna. Since that decision was made, we have had to deal with this issue on a case-by-case basis approximately once every 18 months. I trust that this has answered your questions. However, if you have any additional questions regarding this matter, please contact me by telephone at 301-725-1585, extension 220, fax at 301-344-2050 or on the internet at rfabina@fcc.gov.

----Original Message----

From: Downs, John [mailto:John.Downs@genericsgroup.com]

Sent: Monday, September 29, 2003 9:39 AM

To: Chris Harvey (E-mail)

Subject: Request Technical Information for St. Jude House Call Plus applic ation MT#14435

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## Chris,

see the response below.

I think they are hoping that the testing is ok as is since it was done before the changeover date. If not acceptable, they they will have to recalculate.

regards, John

John Downs Genesis Medical Technology, Inc. 11403 Cronhill Drive, Suite B Owings Mills, MD 21117 **USA** 

Tel: 410 654 0090 Fax: 410 654 0138 www.genesismedical.com part of The Generics Group

-----Original Message-----From: Lodge, Graham

Sent: Monday, September 29, 2003 9:27 AM

To: Downs, John

Subject: FW: Housecall + FCC Testing

----Original Message----

From: kanderson@ktl.com [mailto:kanderson@ktl.com]

Sent: 29 September 2003 14:06 To: john.downes@genericsgroup.com Cc: graham.lodge@genericsgroup.com Subject: Housecall + FCC Testing

## John.

with regard to the low frequency emissions (<30 MHz) results contained in the FCC test report 2G6141GUS1, I can confirm that the test results were obtained using an electric field rod antenna. At the time of the test (Between 9th July and 5th August 2003) this method of testing was valid under FCC rules. The rule change which prevents the use of low frequency electric field antennas was issued on the 26th of August 2003. Testing was however additionally performed using a magnetic loop antenna, that the present rules require, but the results were not contained in the test report. We can re-issue the test report with these test results if this will help you. I look forward to your reply.

Regards

Ken Anderson

K J Anderson Senior EMC Engineer

E-mail: kanderson@ktl.com

KTL Saxon Way Priory Park West Hull HU13 9PB

Tel: +44 (0) 1482 801801

Fax: +44 (0) 1482 801806

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Laboratory Accreditation Services Ltd t/a KTL.

Registered No. 4407692.

Registered Office: KTL, Saxon Way, Priory Park West, Hull, HU13 9PB, UK.

Tel (01482) 801801 Fax (01482) 801806 Email: info@ktl.com Website Address www.ktl.com

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