

UK GTEM User Group

Minutes of the meeting held at Measurement Technology Ltd on 25th May 2004

1. Present

Roger Dixon (RD)	IFR Ltd [Chairman]
Ian Alderman (IA)	Consultant [Secretary]
Andy Perkins	Schaffner
Farquhar Galbraith (FG)	University of Paisley
Joe Wilkinson (JG)	University of Paisley
Richard Neyton	Apollo
Howard Chetwin	MTL
Michael Davies	MTL
Angela Nothofer (AN)	NPL
Stuart Bright	Ampy Automation
Mike Kersey (MK)	Nokia

2. Apologies received

Neil Coote
Eddie Veater
Harbinder Bharj
Martin Alexander
Dennis Burns
Alan Hutley
John Wombwell
John Birkett
Colin Howes
Stephen Lee
Tim Harrington (TH)
Martin Wiles

3. Chairman opens meeting

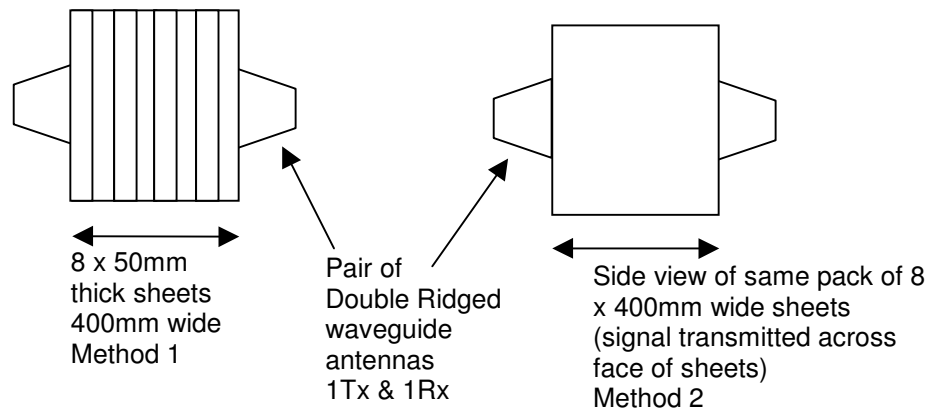
The Chairman (RD) opened the meeting and welcomed all attending members, especially those new to the meeting and all introduced themselves giving a brief background to their careers and current associations with GTEM's

4. Minutes Of The Last Meeting

The February meeting had been cancelled and therefore the last meeting was on 23rd Oct 2003, these minutes were accepted.

5. Exchange of news and update on previous meeting topics

- New EMC Directive to be published late June
Cables section has been removed
Copies available from Consilium website, mentioned in EMC Compliance Journal
- IEC61000-4-3, and –4-6 : New uncertainties document announced by CISPR. 'UCISPR' is the committee looking after this work. A major source of errors is attributed to the field probes themselves and the IEC are investigating this.
- EN50022 is in a mess, CISPR to look at this. Trying to extend to 18GHz in 2 bands 1-6GHz and 6-18GHz. Not successful so far.
- ETS Lindgren are producing a CD on how to use the GTEM Cell – information supplied by the US GTEM UG.
- 'Floormate 500' Styrofoam material produced by DOW – RD has carried out some absorption experiments with this material from 1 to 18GHz.



For method 1, attenuation result was <0.1dB from 1 to 18GHz

For method 2, above 11GHz absorption rises to 4dB at some frequencies

Two other samples were given previously to NPL and RCA, Angela Nothofer agreed to email the NPL results.

- Good Practice Guide is now available free on the web. About six copies were purchased. Contact Sara Fletcher at NPL for a free download.
- Andy Perkins reported that Schaffner are introducing 'GTEM3' emissions software. There is a demo version available for download from their website.
- Schaffner have supplied a small GTEM 250 to a company who are testing mobile phone cameras in very high EM fields to 1kV/m.
- David Riley's SAR (Specific Absorption Rate) probe development – changes of priorities has meant that this development has been stopped for the time being.
- Power Flux Density Guide – there had been no progress with this because the NPL staff member associated with this was ill.

6. GTEM User Group Website

Discussed Alan Hutley's offer to manage our website.

Discussion of which material would be suitable to put on the website.

Eg.,

- 'calling notices for meetings'
- 'round robin results'
- 'previous minutes'
- 'new minutes', etc, etc

Richard Neyton agreed to help with this and liase with Alan Hutley.

In 3 months time JW and FG would be willing to assist with information for the website.

7. NPL New Work Program 2004 to 2007

GTEM work is included (1year) to be deferred until April 2005 because of resource reasons.

No priority issues in the department. Topics under consideration:-

- use of cables in GTEM
- measurements above 1GHz
- Assessment of uncertainties

Other news from NPL

- NPL was privatised 7 years ago and is now undergoing some changes
- Serco is still running the organisation but there has been some 'downsizing'

8. BSI committee GEL/210/12

There is a proposal to have teams coordinating the UK response on each area within the scope of GEL/210/12. In particular there are two areas of committee activity that are of direct interest to the group which have 'Champions' appointed namely ...

Category	Champion 1	Champion 2
CISPR GTEM/TEM Cells	M. Alexander(NPL)	A. Maddocks(ERA)
SC77B Alternative methods – GTEM	P. Kerry(CISPR)	D. Imeson(EMCTLA)

It is further indicated that the Champion 2's liase with the GTEM UG.

The members were appreciative of Dave Imeson (and Tony Maddocks) for taking on a responsibility to represent the GTEM UG comments to committee documents.

Questions to be raised with Dave Imeson

- what would the GTEM UG involvement be?
- what procedure should be adopted for comments?

RD + IA will write to Dave Imeson.

Angela Nothofer is now Secretary of the JTF (Joint Task Force) for 61000-4-20 and in this role she would be able to alert the group to availability of new draft documents.

9. IEC61000-4-20 – Maintenance Phase

RD congratulated Angela on becoming the secretary of the JTF committee.

AN explained that –4-20 is now in maintenance phase which will give opportunities to influence changes to the standard.

AN will provide a pdf copy of the Maintenance Cycle Report for members to see.

Work package 1

- Immunity method declared 'independent' [of 61000-4-3]
- Introduce climatic conditions
- TEM waveguide – steps to establish acceptability
- harmonise validation, verification, calibration terms
- mentions probe calibration and refers to other standards

Work package 2

- new or unclear technical matters
- measurement uncertainty and traceability
- large TEM waveguides
- this is where cables and large EUT's will be considered

Work package 1 to be completed by next meeting in Zurich (Feb 2005)

AN will email FDIS + WP + minutes for members.

10. IEEE study group

FG had some contact and AN had been connected to one of the conference calls. FG said the University of Paisley is unlikely to fund FG's continuing membership to attend any meetings. Tim Harrington has sent some notes on the teleconference. We hope to hear more in the future

11. Other papers and related issues

11.1 Email from Tim Harrington requesting information regarding a draft of minutes from 77B/WG10 Helsinki May 10-14. Which suggested that the group did not believe there was any correlation between GTEM and Anechoic Room results when carrying out radiated immunity testing. The group was anxious to know how the various uncertainties in cable measurements had been dealt with. TH requested information from the group which could be presented to counter these assertions. MK has evidence from Nokia's researches to prove that correlation exists. Also AN will look at work done at NPL on this issue.

11.2 Tim Harrington's paper TEM04-26

This paper shows an inter-laboratory comparison of GTEM's emission performance resulting from a round robin using a 250MHz comb generator giving a spectrum up to 26GHz

11.3 Tim Harrington requested input from the group with respect to cable layouts in the GTEM. This is need for IEEE/ANSI work as they are about to consider this [whereas NPL are not yet ready].

Way forward seems to be increasing the uncertainty budget for more complex EUT i.e, with cables.

12. Other activities

12.1 EMC York is on 1st & 2nd July 2004

12.2 EMC UK is on 12th & 13th October 2004 at Newbury

13. Next meeting

Please Note the next meeting is 21st September 2004 and we are meeting at the National Physical Laboratory (NPL) by courtesy of Martin Alexander and not at BRE as provisionally suggested. Usual start time of 10.30am arrive for 11.00am start.

14. Close

The Chairman on behalf of the group thanked Howard Chetwin and MTL for their kind hospitality in hosting the meeting.