



The Fibreoptic Industry Association

www.fia-online.co.uk

NEWSLETTER

Issue 83

February 2007

THE FIBREOPTIC INDUSTRY ASSOCIATION

Tel: +44 (0)1763 273039

Fax: +44 (0)1763 273255

Email: fia@fiasec.demon.co.uk

Head Office: The Manor House,
BUNTINGFORD, Hertfordshire SG9 9AB
United Kingdom

Index

FIA AGM 2006 welcomes a new Council	1
FIA Approved Installers Scheme	1
Why not sponsor the FIA Commercial Awareness Seminars	2
A big "thankyou" to our first sponsor	2
E-mails set to grow and web-sites to change	4
FIA Web-Site Advertising	4
Standards Update	5
FIA Standards Forum	6
FIA Members e-Guide	6

A warm welcome to the following NEW MEMBER

Corporate

604

INTELLIGENT BUILDING SOLUTIONS LIMITED

FIA AGM 2006 welcomes a new Council

The 2006 AGM of the FIA was held on 8th December in Towcester. It welcomed a new member of the FIA Council. Dave Madsen, Managing Director of DMOptics of East Brent, Somerset has joined the Council. Specifically interested in test equipment, Dave hopes to assist Paul Bateson in the Test and Measurement area now that Paul has become more involved in the day-to-day management of the FIA in his role as Chairman.



Dave Madsen
DMOptics

FIA Approved Installers Scheme

The Mk II Approved Installers Scheme (**FIA AIS**) has got off to a flying start following its launch at the FIA seminars on September 13th/15th. A number of major suppliers have subsequently received private and detailed presentations. Some of the major consulting houses have already expressed interest. This is hardly surprising since the new scheme is specifically targeted at the reduction of risk in installation contracts - both for the installer and their clients.

The FIA has published a special Newsletter covering the changes to the AIS. To download it go to www.fia-online.co.uk/pdf/NL/AISNewsletter-L4883b.pdf. Full details are to be found on www.fia-online.co.uk/eais01.htm

FIA-online.co.uk

Visit the site and familiarise yourselves with its content - to access member-only pages you will need your **NEW** membership password issued in January 2007. If you do not know what it is contact your FIA principal contact - failing that contact the FIA Secretariat

BSI and FIA
BIP 0007:2004

Telecommunication cabling and equipment installations: A guide to requirements and responsibilities

Don't forget – the FIA sponsored the BIP in support of BS 6701:2004 - it's a free download to members.

FIBREOPTIC INDUSTRY ASSOCIATION

The FIA is a Company Limited by Guarantee

Management Council

- Paul Bateson - Chairman
(Optical Test and Calibration)
- Peter Lythgoe - Vice Chairman
(Lythgoes)
- John Marson - Commercial Director
(Twistnet Communications)
- Mike Gilmore - Technical Director and Treasurer
(The Cabling Partnership e-Ready Building Limited)

Industry Sector Directors

- Dave Madsen - Test & Measurement
(Optical Test and Calibration)
- John Colton - Training
(Lucid Optical Services Ltd.)
- Lee Funnell - Qualifications
(Astro Communications Limited)
- Sydney Hogg - Passive Components
(Schneider Electric UK Limited)
- Peter Lythgoe - Installation
(Lythgoes)
- Phil Whitehead - Certification Schemes
(Ortronics)

FIA Seminars - Q1 2007

February 20th 2007 (London) and March 14th (Manchester) are the dates for your diaries.

The topics under discussion are the **fire performance** project detailed on the next page of this Newsletter, the issue of **marginal test results** and an early review of **100 Gigabit Ethernet** over fibre (and somewhat surprisingly, copper).

Marginal results in testing are a big problem for copper installers and have to the potential to be so for optical fibre too. A number of large consulting companies are specifying cabling installation that not only meet a given Category of Class but that also have no marginal test results. This is in effect adding an undefined performance overhead to their base specification. This creates problems for suppliers (who do not know how much overhead to consider unless the test equipment is specified), installers who are subject to potential unrecoverable costs and even the test equipment providers. So why do consultants do this and is anyone trying to address this. Find out at the FIA Seminar.

The marketing hype about 100 Gigabit Ethernet has already started. It may already be time to debunk the myths.

These above three presentations are to be delivered by Mike Gilmore, Technical Director of the FIA. In addition, we are pleased to welcome a speaker from outside the FIA. Two years ago we were fortunate to receive a presentation from two professors (Alwyn Seeds of UCL and Richard Plenty of Cambridge) on the topic of ultra-wide bandwidth from multimode optical fibre. Almost three years on these concepts have become a reality. **Martin Cassidy and Paul Bennett of Zinwave** will present the evolution of the concept as a product - delivering 3G and WLAN services over hundreds of metres of legacy multimode optical fibre as part of conventional structured cabling.

This year we are using new venues:

- the IET, Savoy Place, London is perfectly placed for those wishing to commute into the city - just off the Strand and over the bridge from Waterloo Station;
- Holiday Inn Express, Salford Quays, Manchester - close to the end of the M602, the Manchester Metro and also with plenty of free car-parking.

All of the above is yours for only £79 + VAT.

This is unparalleled value for money and the FIA Council urge members to take advantage of these opportunities to meet each other and obtain leading-edge knowledge.

We look forward to seeing you in London or Manchester. A copy of the mailer is attached - to book your space fax the booking form to the FIA Secretariat or contact Jane Morrison on 01763 273039

Why not sponsor the FIA Commercial Awareness Seminars

For the first time, the FIA have offered members the opportunity to sponsor the Commercial Awareness Seminars.

Our first seminar of 2007 (20th February 2007) is being sponsored by Tratos Limited on Chesterfield (see below).

The sponsorship deal provides your company with two free delegate spaces on the seminars, ensures that your company name/logo appears on all web advertising and paperwork for the event and on the downloadable presentation files made available after the event.

Needless to say, you are entitled to distribute out company literature to the delegates during the lunch break.

To get more details of this opportunity contact either the FIA Secretariat (jane@fiasec.demon.co.uk) or John Marson, our Commercial Director (jmarson@twistnetcomms.com)

A big "thankyou" to our first sponsor



Sponsors of FIA Commercial Awareness Seminars

LONDON, 20th February 2007

**Are you an FIA member?
Have you got any NEWS?**

This Newsletter is provided as a means of maintaining communication between and with our Members.
It can, therefore, promote the activities of Members to other Members.
Articles, product information, news items etc. are always welcome.
Please send the information via email (jpg illustrations) to Jane Morrison via jane@fiasec.demon.co.uk

Fire performance – A Burning Issue

By Mike Gilmore, FIA Technical Director

The fire performance of telecommunications cabling within buildings seems to have come to the fore again in recent months. So much so in fact that a new British Standards activity has been initiated to clearly set down the applicable recommendations. The FIA is strongly represented on the BSI experts panel TCT/7/-/3 that is undertaking this work, as are other trade bodies including the Electrical Contractors Association and CITA (the new name for the UK TIA).

The current standards for the installation of telecommunications cabling do contain requirements for the handling of flammable cables and cable containing flammable materials. For example, BS 6701:2004 states that telecommunications cables intended for use external to buildings and which contain flammable material (e.g. polyethylene sheaths, petroleum gel) shall be either terminated, inside the building, within 2 metres of the point of internal penetration of the building or installed in trunking or conduit that has a fire resistance agreed with local fire authorities. Furthermore, it applies a specific demand that measures shall be taken to prevent any flammable materials that are present within telecommunications cables (e.g. petroleum gel) leaking out. This requirement will also be reflected in the revision of EN 50174-2 later this year.

But while these requirements cover flammable materials, they do not provide requirements or recommendations for the general fire performance of cables in premises. For this we have had no regulations or guidance although a number of players such as the now defunct Loss Prevention Council and the Association of British Insurers have produced documents in the past. Experts in these areas have also joined the new BSI activity.

The main concerns are flame spread, toxicity of burning products and smoke generation. Fire-fighters are naturally concerned about all three. A seat of fire that is easily found (low smoke) and well contained (low spread) is easier to deal with and released gases that are less toxic allow more people to escape. One might be tempted to think that everyone would want the same thing - but insurers might be more interested in reduction of damage and subsequent replacement costs. For them, low levels of flame spread are specifically important together with the absence of any released chemicals that might damage otherwise untouched assets with the premises. Premises owners may have a slightly different view of the matter so one can imagine that, to some extent, competing demands exist in this area.

There have been some new developments on the horizon, or rather just over the horizon, for some considerable time. The EU Construction Products Directive has finally been extended to cover power and telecommunications cables and this has forced the definition of EuroClasses for cables ranging from A to F. Test methods have been developed to ascertain the relevant EuroClass of a given cable. However, it now appears that in the United Kingdom it is unlikely that there will be any associated legislation and regulation i.e. no one will define which cables to put where. This confusion, added to the multiplicity of cable burning tests and associated pass/fail criteria, make the whole issue a difficult topic through which to steer a course - but at least we will have a series of clearly defined cable performance options.

That is where the BSI TCT/7/-/3 work will be of use. It will firstly explain the different parameters that relate to fire performance and will describe the benefits accruing from the careful specification of each one. It will then look at premises and the risk of fire within them in a holistic manner, not only considering the cables but the other related fixture and fittings - also looking at fire protection systems typically applied in premises including fire barriers, fire detection and extinguishing systems.

This work is just starting but it is hoped that a BS document will be forthcoming within 2007. The FIA will play its part within the group. For further information in this area please contact the Technical Director of the FIA at FIATD@btinternet.com.

This article was published in Networking+ in January 2007



How about sponsoring a Newsletter?

The FIA Newsletter continues to develop and we are now offering the opportunity to sponsor each of our bi-monthly Newsletters. The sponsors details will appear on each page and be hyperlinked to their web-site and e-mails as appropriate. For more details contact Jane Morrison via jane@fiasec.demon.co.uk

E-mails set to grow and web-sites to change

By the FIA Secretariat

Under new regulations that came into force on 1 January 2007, the longstanding statutory requirement for companies to state certain particulars on their stationery and other hardcopy documents has been extended to websites and various electronic communications.

The regulations amend the relevant provisions of the Companies Act 1985 (and corresponding Northern Ireland legislation). It is now an offence, among other things, for a company incorporated under the Companies Acts (or the Northern Ireland legislation) not to state **on all the company's websites and all its business letters and order forms that are in electronic form:**

- the company's name
- its place of registration and the number with which it is registered, and
- the address of its registered office.

If the company is an investment company within the meaning of section 266 of the 1985 Act, that must be stated, too. If the amount of the company's share capital is stated, the amount must be its paid-up share capital.

Most companies' correspondence is now conducted primarily by email. Email messages are therefore potentially business letters in electronic form for these purposes, and companies should consider adding the required information to the boilerplate language that typically appears automatically at the end of all their emails. In the case of groups of companies, where staff may send emails on behalf of different group companies from time to time, it may be advisable to include the relevant information for all those companies (provided that the signatory always makes clear the identity of the particular company on whose behalf the email is being sent).

Similarly, websites may in practice feature numerous group companies. It is advisable to include the required details of all the companies and not just those of the parent company.

The requirement to state the company's name (but not the other particulars) also applies to a range of other documents in electronic form, including, for example, notices and other official publications, bills of exchange, promissory notes, orders for money or goods purporting to be signed by or on behalf of the company, invoices, receipts and letters of credit. In many cases, companies will already be doing this as a matter of course.

Limited liability partnerships must also comply in relation to their websites and electronic documents, since the LLP legislation co-opts (with minor amendments) the Companies Act provisions by reference and, on normal principles, is automatically extended on the amendment of the Companies Act provisions.

The regulations also amend the Insolvency Act 1986 (and corresponding Northern Ireland legislation) so as to require companies that are being wound up to state this on their websites and in various electronic documents.

FIA Web-Site Advertising

The annual contracts covering the sponsorship of the **FIA** web-site ends on 28th February 2007. This year Cablelines (Cablenet Trackmaster Ltd) continued its sponsorship of the site and both CTTS and DMOptics took the opportunity to sponsor individual pages. But there are plenty more opportunities for FIA members to "get their name in lights".

To sponsor a page from 1st March 2007 with a logo of up to 150(H) x 100 (V) pixels costs only £175 + VAT. Full details are shown at <http://www.fia-online.co.uk/esponsor.htm> but to summarise there are just two basic designs of web-page on the **FIA** site - which we call Template and List. The way in which your sponsorship logo is positioned on the page depends upon the page design. The list of available pages is shown on the right. If you want to advertise in this way please contact Jane Morrison at the FIA Secretariat on 01763 273039 or by e-mail at jane@fiasec.demon.co.uk.

Template Pages

Open Pages

About the FIA
Approved Installer Scheme
Audit Scheme
Arbitration Scheme
e-solutions
Insurance Scheme
Jobs in our Industry
Links
Qualification Scheme
Skillsmatch
Standards Forum

List Pages

Open Pages

Articles
Events
FAQs
Newsletters
Presentations of past events
Press Releases
Stolen Equipment Register
Technical Support Documents
White Papers
Members Only Pages
Cost Modelling
Skillsmatch
Standards Forum
Technical Support Documents

Standards Update

- REPRINTED DUE TO ITS IMPORTANCE

Mike Gilmore, FIA Technical Director

I think we all know the saying which is applied to many situations"They're like buses, you wait for hours and then three come all at once". It appears to be like that with standards for the design of structured telecommunications cabling. The last major publications in the USA, Europe and internationally were released in 2002. EN 50173-1:2002, published in the UK as BS EN 50173-1, covered the general requirements for structured telecommunications cabling along with the specific requirements for office type premises. This scope hid, to some extent, the developments of design standards for other types of premises that were being considered as part of a complete series of standards.

From January 2007 (although it might be dated 2006 if it squeaks in to this year), we will have four standards in the EN 50173-X series. The current EN 50173-1 will be divided in two: EN 50173-1:2007 will contain general requirements and EN 50173-2 will cover the "office premises-specific" elements. These two documents will contain no specific technical changes as compared to the existing EN 50173-1 - so one might ask why make the split at all - is it simply to make sure that interested parties have to buy two standards rather than one? The short answer is NO - but more of this later.

At the same time two other standards will be published: EN 50173-4 (structured cabling within homes) and EN 50173-5 (structured cabling within data centres). A little later in 2007 we will also see EN 50173-3 for industrial premises. As a result there will be a total of five standards in the EN 50173-X series.

One of the questions that is often asked, even by the standards-writers themselves, is "which standard will I reference". The answer is simple. If you wish to define the design for structured cabling in offices then you simply refer to EN 50173-2: for data centres you refer to EN 50173-5. So what is EN 50173-1 for then? Put simply, it is an underpinning document that contains a lot of the detailed technical stuff that applies to all premises and which most people do not want to read. For example, the requirement that balanced cabling permanent links shall meet "Class D" performance levels is often quoted in tender documents but few, if any, consultants or their clients actually know (or care about) all the requirements of a Class D link. Installers don't either - they plug a piece of test equipment into the cabling and run a test. The test equipment has the limits inside and the limits will come from - yes, you guessed it EN 50173-1. Alternatively, someone may ask for a Category 6 cable - that is enough, most people do not want or need to know about the attenuation, NEXT, PSNEXT etc. etc., specifications of such a cable - but if they do they can find it referenced from the new EN 50173-1.

However, EN 50173-1:2007 will contain a great deal of new information relevant to the other premises in the series. For example we will have a new grade of singlemode optical fibre cable (OS2) specified to carry 1 and 10 Gigabit Ethernet over the distances seen in industrial premises - up to 10000 metres compared to those of office sites (2000 metres). Industrial premises have also demanded the inclusion of plastic and plastic clad silica optical fibres within EN 50173-1:2007 - although they are not required for other premises. Homes also have thrown up their own requirements for coaxial cable, connectors and cords which are included in the new EN 50173-1.

So EN 50173-1:2007 should be seen as a cookbook from which the other standards in the series select cabling and component performance levels. This means that EN 50173-1 gets to be a thick tome whereas the premises-specific documents remain tightly focussed. This is certainly good from the readers and specifiers perspective. However, EN 50173-1 has one more trick up its sleeve. It will enable the installation and operational environment of the premises (or cable routes within the premises) to be specified in a way that will allow components to be purchased that are known to operate in that environment. The MICE system (standing for **M**echanical, **I**ngress protection, **C**hemical/**C**limatic and **E**lectromagnetic) defines the local environment of such areas. This system is applied to all type of premises.

This short article is inadequate to do more than scratch the surface of, and cannot hope to detail any of the features of, the new standards - in fact the only real way to understand what is really going on is to obtain the final draft standards and read them. FIA members are fortunate in that, as FIA members, they are able to view (free of charge) and comment on these, and other, standards and submit their comments to their national body (BSI) via the FIA Technical and Standards Directorate. In this way the FIA membership is able to influence standards in development in a way that few other trade associations can claim to do. As non-FIA members, customers and their consultants are recommended to contact BSI for their copies of the final drafts of EN 50173-1, -2, -4 and -5.

Don't wait for the bus – get ahead of the game.

This article was published in Networking+ in September 2006



STOP PRESS

EN 50173-1, EN 50173-2, EN 50173-4 and EN 50173-5 have all been approved for publication – without significant change from the 3MV documents listed on the FIA web-site.

They will become British Standards in the next two months.

FIA Standards Forum

- documents available for download and comment NOW

The Standards Forum now offers **FIA** Members the opportunity to comment on the standards in development by the fibre optics and cabling committees in ISO/IEC, IEC, CENELEC and BSI. These cover a range of optical fibre products such as optical fibres, cables and system components together with the design, installation and commissioning standards for cabling.

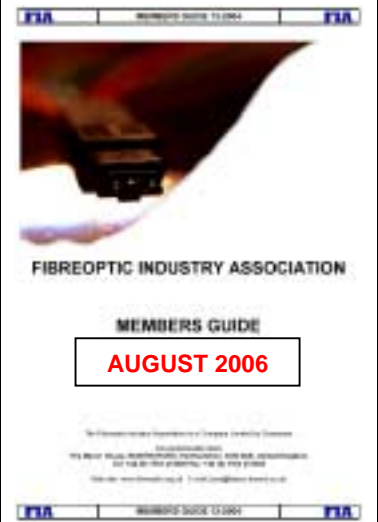
To get involved - go to the members-only area of the **FIA** site area, type in your password, go to Standards Forum and follow the instructions.

FIA Members e-Guide

The fourth electronic version of the **FIA** Members Guide has been available for download via the hyperlink on the home page at www.fia-online.co.uk since August 2006. The e-Guide contains a listing of our member's products and services together with separate sections for FIA Approved Installers and Training Providers. The document is updated on a regular basis, to keep pace with changes in membership and member's details. Please make sure you update your information by advising the FIA Secretariat.

The FIA Secretariat takes this opportunity to thank all those advertisers who have taken space in the e-Guide. These include GCL Ltd., Lythgoes Ltd., Lynx Networks plc, Molex Premise Networks, Optical Test and Calibration Ltd., QA Developments Ltd. and The Cabling Partnership. Advertising space in the e-Guide is available at any time. The advertising contract lasts for twelve months, independent of how many revisions are published during that time. If you want to advertise in this way please contact Jane Morrison at the FIA Secretariat on 01763 273039 or by e-mail at jane@fiasec.demon.co.uk.

The pdf download from the FIA web-site is a print-quality file and contains hyperlinks to all companies that have advertised. It is proposed that electronic copies of the e-Guide will be made available at exhibitions and upon request from the Secretariat.



If you already receive **networking+** magazine you will have seen that the FIA produces a half-page editorial in each issue. In order to save space in this Newsletter we have arranged for all recipients of this e-mail to also receive a free-copy of **networking+**. So - you can keep in touch with the FIA and the other contributors to this broad-based, well balanced networking magazine. If you want to download the text of earlier **FIA** articles go to <http://www.fia-online.co.uk/earticles.htm>.

FIA**“COMMERCIAL AWARENESS”****SEMINAR****LONDON**
20th February 2007**MANCHESTER**
14th March 2007**INTRODUCING THE FIA “COMMERCIAL AWARENESS” SEMINARS 2007**

As part of the Commercial Awareness Seminar series for 2007, the FIA has organised two full-day seminars covering techno/commercial topics that are known to be of interest to our members.

We have four main presentations covering a variety of topics including radical new work on fire performance of cabling within premises, the specification and treatment of marginal test results, new methods of transmission of wideband services over legacy cabling and the birth of 100Gb Ethernet.

Fire Performance - A Burning Issue

Telecommunications cables are now coming within the remit of Construction Products Directive. This means that cables will, in future, be specified in terms of a fire performance Euroclass. Unfortunately, in the UK, there will be no regulations that will define where each Euroclass may be used. This obviously has the potential to create confusion into which specific interest groups may herald competing views. To fill this void, BSI is working on a Code of Practice which looks at telecommunications cabling and premises as a whole and provides guidance on fire performance, prevention and protection. This seminar introduces and explains the role of the FIA in this work.

Wireless Over Fibre - A Reprise

Some of the regular attendees of FIA Commercial Awareness Seminars in 2004 will remember a presentation by two professors, one from UCL the other from Cambridge, covering a possible wideband transport system delivering 3G and WLAN over 550+ metres of legacy MMF. Three years later it is a reality - find out more.

Learning to Accept Marginal Test Results

Although focusing on balanced cabling at present, growing numbers of consultants are not accepting marginal (star) test results for installed cabling. This is a wholly arbitrary position, not based on any technical logic. If applied to optical fibre testing it would render virtually every installation non-conformant. This paper explains the background to such requests, reviews their validity and looks forward to times when they will be a thing of the past.

100GBASE-F and 100GBASE-T - Fact or Fiction?

100 Gigabit Ethernet is on the cards. By 2009 we expect to have an IEEE 802.3 standard for the application over optical fibre. However, its delivery over balanced cabling is already being heralded by some in the industry. We try to separate fact from fiction.

**To learn by experience may cost considerably more than the seminar fee
(£79 for members and their guests or £130 for non-members)**

LOCATION

20th February 2007

The IET
2 Savoy Place
LONDON
WC2R 0BL
ENGLAND
Tel: +44 (0) 207 344 5479
www.theiet.org

14th March 2007

Holiday Inn Express
Waterfront Quay
Salford Quays
MANCHESTER
M5 2XW
ENGLAND
Tel: +44 (0)161 868 1000
www.ichotelsgroup.com

SCHEDULE

Time	Item
0910 hrs	Registration
0925 hrs	FIA Introductions
0930 hrs	An FIA Overview 2007 - New Products and Services
1000 hrs	Fire Performance - A Burning Issue
1100 hrs	Break
1120 hrs	Wireless Over Fibre - A Reprise
1220 hrs	Questions
1230 hrs	Lunch
1330 hrs	Learning to Accept Marginal Test Results
1430 hrs	Break
1445 hrs	100GBASE-F and 100GBASE-T - Fact or Fiction?
1520 hrs	Questions
1530 hrs	Conclusions
1545 hrs	Close

BOOKING FORM

Please complete the details below and fax/post back to the FIA Secretariat
(Telephone bookings can be accepted when paying via credit card)

Seminar Fees

£79+VAT (**£92.83**) each for members and their guests or £130 (**£152.75**) each for non-members

I wish to reserve place(s) @ £..... = TOTAL £.....

@ London (20th February) @ Leeds (14th March)

Name:	
Company:	
Address:	
Tel:	
Email:	

Signature	Date
------------------	-------------

Method of payment – (full payment should accompany this booking form)

If paying by credit card, state: VISA Mastercard JCB Delta Solo Switch

Please tick appropriate boxes

Cardholder Name

Card Number: _____ Expiry Date/.....

Security code (the last three numbers on the rear of the card) ____

Card issue No. (Solo/Switch) Amount of transaction £

Alternatively,
I/We enclose a cheque for £..... (payable to FIA Ltd.) / Company Purchase Order No:

All bookings will be acknowledged and VAT invoices sent.

FIA Secretariat, The Manor House, BUNTINGFORD, Hertfordshire. SG9 9AB. United Kingdom
Tel: 01763 273039 Fax: 01763 273255 e-mail: jane@fiasec.demon.co.uk