

FIA
The Fibreoptic Industry Association

**THE PAPERLESS
INSTALLATION**

**Browser Technology for
Installers**

17th September 2002
Botanical Gardens
Birmingham

Cabling Design Standards
Installation Standards
Testing Standards
Industry Body Recommendations
Test Results
WorkSmart
Browser Integration

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The Paperless Installation

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Cabling Design Standards - A Dead End?




To be published as EN 50173-1

EN 50173 Ed.2 (2002)

Information technology
Generic cabling systems

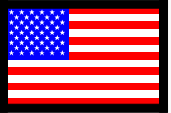
• publication Q4, 2002



ISO/IEC 11801 Ed.2 (2002)

Information technology
Generic cabling for customer premises

• publication Q4, 2002



ANSI/TIA/EIA 568 B Series

Commercial building telecommunications cabling standard

- B.1 General Requirements
 - published
- B.2 Balanced Cabling
 - published
 - Addendum 1
 - Category 6
- B.3 Optical Fibre Cabling
 - published

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Market Conditions - A Bleak Future?

Balanced		Optical Fibre	
Unscreened	Screened	MMF	SMF
Category 5 (1995)		OM1	OS1
Category 5 (2000)		OM2	
Category 5 (2002) - Category 5e		OM3	
Category 6			
Category 7			
Category 6e?	Category 8?		

Established standards

Commoditisation

No high-margin "rabbits"

Balanced		Optical Fibre	
Unscreened	Screened	MMF	SMF
Wireless			OS1
Technology Squeeze Margin Reduction			
		Category 5 (2002)	
		Category 6	
		OM3	

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Installation Standards - Increasing Regulation

 BS EN 50174-1 (2001)	Information technology - Cabling installation- Part 1: Specification and Quality Assurance
 BS EN 50174-2 (2001)	Information technology - Cabling installation- Part 2: Installation planning and practices inside buildings
 BS 6701	Code of Practice for the installation of apparatus intended for connection to certain telecommunications systems
 BS 7718	Code of Practice for the installation of fibre optic cabling
 IEC 60825-1 A.1 (2001)	Safety of Laser Products Part 1: Equipment classification, requirements and users guide
 IEC 60825-2	Safety of Laser Products Part 2: Safety of optical fibre communication systems
 BS 7671	Requirements for electrical installations: IEE Wiring Regulations: Sixteenth Edition






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Testing Standards - Spoilt for Choice?

 BS EN 61280-4-2	Fibre optic communication subsystem basic test procedures - Part 4-2: Fibre optic cable plant - Single-mode fibre optic cable plant attenuation
 BS EN 50346 (2002)	Information technology - Cabling installation- Testing of installed cabling
 IEC 61280-4-1	Fibre optic communication subsystem basic test procedures - Part 4-1: Fibre optic cable plant - Multimode fibre optic cable plant attenuation
 ANSI/TIA/EIA-526-14-A	OFSTP-14A Optical Power Loss Measurement of Installed Multimode Fiber Cable Plant (ANSI/TIA/EIA-526-14A-98)
 ANSI/TIA/EIA-526-7	OFSTP-7 Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant (ANSI/TIA/EIA-526-7-98)

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Industry Body Recommendations

The FIA Technical Support Documents

- providing interpretation
- delivering guidance
- "fast-track" standardisation

TSD	DESIGN
2000-1-1	OPTICAL FIBRE CABLING: LAN APPLICATION SUPPORT GUIDE
2000-1-3	OPTICAL FIBRE CABLING: DARK FIBRE SUPPORT GUIDE
TSD	OPERATION
2000-3-3	POLARITY MAINTENANCE
TSD	INSTALLATION
2000-4-2-1	TESTING OF INSTALLED CABLING: ATTENUATION USING LSPM EQUIPMENT
2000-4-2-2	TESTING OF INSTALLED CABLING: ATTENUATION USING OTDR EQUIPMENT
TSD	SAFETY
2000-5-1	OPTICAL POWER: SAFETY LEVELS
2000-5-2	OPTICAL FIBRE: HANDLING OF PROCESSING CHEMICALS
2000-5-3	OPTICAL FIBRE: DISPOSAL OF WASTE
MODELLING TOOLS	
CABLING STRUCTURES COST MODEL	

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Test Results - Basic

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Test Results - Advanced

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The Dreams of Installers Worldwide

Minimise re-work

Control costs

Eliminate disputes

Reduce stress

Die happy!!!!

Avoid conflict

GET BETTER BUSINESS AT BETTER MARGINS

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WorkSmart

BE PRO-ACTIVE, NOT REACTIVE

- read the standards
- obtain expert advice
- produce statements of compliance
- develop a specification checklist
- produce accurate method statements for all aspects of the installation process
 - define the in-feed requirement
 - dictate the alternative
- produce the foundations for the generic User Guide

MANAGE THE RESOURCE

- identify the true leaders
- identify an office-based project co-ordinator
- train each person appropriately in your procedures

INVEST IN SOFTWARE

- web-browser production
- pdf creation
- CD production
- test result readers

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Browser Integration

Data Cabling Anonymous
e-mail link

Installation Browser

User logo	User details	Consultant details	Main Contract Installer details
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<p>Quality Assurance</p> <ul style="list-style-type: none"> Specifications User Checklist In-house Quality Plan Method Statements Installation Documentation Test Methods Test Result Administration Component specifications 	<p>As-built Documentation</p> <ul style="list-style-type: none"> Connectivity spreadsheets Schematics User Guide Channel Manager 	<p>Test Results</p> <ul style="list-style-type: none"> Cu Field Tester Cu Test Result Reader OTDR LSPM OTDR Test Result Reader LSPM Test Result Reader
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Thank you for your time