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INCITS 450-2009

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INCITS 450-2009 (S2019)

American National Standard

for Information Technology –
Fibre Channel –
Physical Interface-4
(FC-PI-4)

INCITS 450-2009

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INCITS 450-2009

American National Standard
for Information Technology –

Fibre Channel –
Physical Interface-4
(FC-PI-4)

Secretariat

Information Technology Industry Council

Approved April 24, 2009

American National Standards Institute, Inc.

Abstract

This standard describes the point-to-point physical interface portions of Fibre Channel serial electrical and optical link variants that support the higher level Fibre Channel protocols including FC-FS, HIPPI, IPI, SCSI and others. This standard is recommended for new implementations but does not obsolete existing Fibre Channel standards.

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Contents

Page

Foreword xv

1 Scope 1

2 Normative references 1

2.1 General 1

2.2 Approved references 1

2.3 References under development 3

2.4 Informative references 3

3 Definitions and conventions 4

3.1 Definitions 4

3.2 Editorial conventions 12
3.2.1 Conventions 12
3.2.2 Keywords 12
3.2.3 Abbreviations, acronyms, and symbols 13
3.2.3.1 Signaling rate abbreviations 13
3.2.3.2 Acronyms and other abbreviations 14
3.2.3.3 Symbols 15

4 FC-PI-4 structure and concepts (informative) 16

4.1 Fibre Channel structure 16

4.2 FC-0 general description 17

4.3 FC-0 interface overview 19

5 FC-PI-4 functional characteristics 20

5.1 General characteristics 20

5.2 FC-0 states 21
5.2.1 Transmitter FC-0 states 21
5.2.2 Receiver states 22

5.3 Response to input data phase jumps 22

5.4 Limitations on invalid code 22

5.5 Receiver initialization time 22

5.6 Loss of signal (Rx_LOS) function 22

5.7 Speed agile ports that support speed negotiation 23

5.8 Frame scrambling and emission lowering protocol 23

5.9 Test patterns 23

5.10 FC-PI-4 nomenclature 23

5.11 Interoperability points (informative) 24

5.12 Electrical TxRx connections 31
5.12.1 TxRx general overview 31
5.12.2 Partially separable links 31

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

5.13 FC-PI-4 variants 33

6 Optical interface specification 35

6.1 TxRx connections 35

6.2 Laser safety issues 35

6.3 SM data links 35
6.3.1 SM general information 35
6.3.2 SM optical output interface 37
6.3.3 SM optical input interface 39
6.3.4 SM jitter budget 39
6.3.5 SM trade-offs 42

6.4 MM data links 45
6.4.1 MM general information 45
6.4.2 MM optical output interface 47
6.4.3 MM optical input interface 49
6.4.4 MM jitter budget 49

7 Optical interfaces 52

7.1 Optical interface general information 52

7.2 SC optical interface 52
7.2.1 SC performance information 52
7.2.2 SC optical plug 52
7.2.3 SC duplex optical receptacle 53

7.3 LC optical interface 53

7.4 MT-RJ optical interface 53
7.4.1 MT-RJ performance information 53

7.5 MU Connector 54

8 Optical fiber cable plant specification 55

8.1 SM cable plant specification 55
8.1.1 SM cable plant overview 55
8.1.2 SM optical fiber type 55
8.1.3 SM cable plant loss budget 55
8.1.4 SM optical return loss 55

8.2 MM cable plant specification 56
8.2.1 MM cable plant overview 56
8.2.2 MM optical fiber types 56
8.2.3 MM modal bandwidth 57
8.2.4 MM cable plant loss budget 57
8.2.5 MM optical return loss 57

8.3 Connectors and splices 58

9 Electrical interface specification - Single lane variants 59

9.1 General electrical characteristics 59

9.2 Transmitted signal characteristics 60
9.2.1 General 60
9.2.2 400-DF-EL-S transmitted signal requirements 62

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

9.2.3 400-DF-EL-S amplitude and jitter requirements at transmit interoperability points 63
9.2.4 Return loss at the transmitter compliance points 64

9.3 Receive device signal characteristics 66
9.3.1 General 66
9.3.2 400-DF-EL-S and 800-DF-EL-S receiver device tolerance signal tolerance 67
9.3.3 Return loss at the receive device compliance points 69

9.4 Jitter characteristics 71

9.5 Signal characteristics for 800-DF-EA-S variants 75
9.5.1 800-DF-EA-S at delta R compliance point 75
9.5.2 800-DF-EA-S at beta and epsilon compliance points 76

9.6 Eye masks 78
9.6.1 Overview 78
9.6.2 Transmitter device eye mask at b_T, d_T and g_T. 79
9.6.3 Receiver device eye mask at b_R, d_R and g_R for EL variants 79
9.6.4 Jitter tolerance masks 80

9.7 Grounding and shielding requirements at interoperability points 81

9.8 Transmitter device characteristics 82

9.9 Return loss and impedance requirements 83

9.10 Receiver characteristics 85

9.11 Transmitter Compliance Transfer Function 86
9.11.1 TCTF overview 86
9.11.2 400-DF-EL-S intra-enclosure Transmitter Compliance Transfer Function 86
9.11.3 400-DF-EL-S inter-enclosure Transmitter Compliance Transfer Function 87

9.12 Test loads 88

9.13 Example TxRx connections 89

10 Electrical cable plant and connector specifications for single lane variants 90

10.1 Overview 90

10.2 Shielding 90

10.3 Cable interoperability 90

10.4 Unbalanced cable connectors 90

10.5 Balanced cable connectors 91
10.5.1 Balanced cable wiring 91
10.5.2 Inter-enclosure connectors for balanced cable 91
10.5.2.1 Overview of balanced cable inter-enclosure connectors 91
10.5.2.2 Style-1 balanced cable connector 92
10.5.2.3 Style-2 balanced cable connector 92
10.5.2.4 Style-3 balanced cable connector 93
10.5.3 Intra-enclosure connectors for balanced cable 94

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

10.5.4 Integral FC device balanced connector 94
10.5.5 Non-device inter-enclosure connectors 95

11 Very long length optical interface (SM-LL-V) 96

11.1 Introduction 96

11.2 SM cable plant specification 96

11.3 Optical fiber interface specification 96
11.3.1 SM-LL-V data links 96
11.3.2 SM optical response specifications.. 97
11.3.3 SM-LL-V jitter output specifications 97

11.4 Optical fiber cable plant specification 98

11.5 Cable plant loss budget 98

Tables

1 ISO convention 12

2 Signaling rate abbreviations 13

3 Acronyms and other abbreviations 14

4 Symbols 15

5 FC-PI-4 variants 34

6 Single-mode link classes1 (OS1, OS2) 36

7 SM transmitter eye mask parameters for 8GFC variants 39

8 SM jitter output, pk-pk, max 40

9 SM jitter tolerance, pk-pk, min. 41

10 Multimode link classes 45

11 MM transmitter eye mask values for 8GFC 49

12 MM jitter output, max 50

13 MM jitter tolerance, pk-pk, min. 51

14 Single-mode cable plant 55

15 Multimode cable plant for OM1 limiting variants 56

16 Multimode cable plant for OM2 limiting variants 56

17 Multimode cable plant for OM3 limiting variants 56

18 Multimode cable plant for linear variants 56

19 Multimode fiber types 57

20 Multimode fiber 57

21 General electrical characteristic 59

22 Signal output and return loss requirements at b_T, eT, d_T and g_T 60

23 Transmitted signal mask requirements for 400-DF variant 63

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

24 400-DF-EL-S amplitude and jitter requirements at transmit interoperability points 63

25 S parameter at the Transmit Compliance Points 64

26 Signal output and return loss requirements at b_R, eR, dR and gR 66

27 400-DF-EL-S and 800-DF-EL-S signal tolerance amplitude and jitter requirements at receive interoperability points 68

28 S parameter at the receive device compliance points 69

29 Max jitter output 71

30 Min Jitter tolerance 72

31 Signal output requirements for 800-DF-EA-S delta R 75

32 Signal tolerance requirements for 800-DF-EA-S delta R 76

33 Signal requirements for 800-DF-EA-S at beta T and epsilon T 76

34 Signal requirements for 800-DF-EA-S epsilon R and beta R 77

35 Return loss and impedance requirements 84

36 Optional inter-enclosure contact uses 91

37 Additional options to table 14 96

38 Additional physical links for single-mode classes (OS1 & OS2)9 96

40 Single-mode cable plant 98

39 SM-LL-V jitter budget 98

A.1 Bessel-Thomson frequency response 103

A.2 800-DF-EA-S beta T and epsilon T TCTF(1) impulse response (low loss) 109

A.3 800-DF-EA-S beta T and epsilon T TCTF(2) impulse response (medium loss) 110

A.4 800-DF-EA-S beta T and epsilon T TCTF(3) impulse response (high loss) 111

A.5 Filter 3 dB point 115

C.1 Worst case (nominal bandwidth) multimode cable link power budget 140

C.2 Alternate (lower bandwidth) multimode cable link power budget 141

C.3 Alternate (lower bandwidth) multimode cable link power budget 142

D.1 M6 higher connection loss operating distances 143

D.2 M5 higher connection loss operating distances 144

D.3 M5E higher connection loss operating distances 144

D.4 Equation parameters for adding M5E fiber 148

D.5 Equation parameters for adding M5 fiber 149

E.1 Tx_Off timing 151

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page
E.2 Rx_LOS timing 151
E.3 Optical Rx_LOS detection thresholds 152
E.4 Electrical Rx_LOS detection thresholds 152
F.1 Scrambled jitter pattern (JSPAT) 154
F.2 Jitter tolerance scrambled pattern (JTSPAT) 155
F.3 Good frame with correct running disparity 156
F.4 Bad frame with wrong running disparity 157
F.5 Neutral disparity bytes (8b hex) 158
F.6 Good frame with corrected running disparity 159
G.1 Host Compliance Board part list 166
G.2 SFP+ Module Compliance Board part list 170
G.3 S parameter requirements of beta & epsilon 176
H.2 SFP+ copper TWDP stressor impulse response 178
H.1 SFP+ host transmitter output specifications at B for Cu 178
H.3 Delta R input compliance test at C" to support copper cables 179
H.4 Delta R stressed input pulse shape supporting copper cables 180
H.5 SFP+ direct attach cable assembly specifications at B’ and C’ 180
I.1 Variants that require xWDPJ algorithm 184

Figures

1 Fibre channel structure 16
2 Node functional configuration 17
3 FC-0 Link 18
4 Fabric 18
5 FC-0 Path 18
6 Fibre channel building wiring 19
7 Fibre Channel variant nomenclature 24
8 Example of physical location of reference and interoperability points 25
9 Interoperability points examples at connectors 26
10 Tx interoperability points (examples) 27
11 Rx interoperability points (examples) 28
12 Hub interoperability points (example) 29
13 Examples of interoperability points 30
14 Overview of the signal specification architecture 30
15 Duplex beta TxRx connections example 31

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

16 Epsilon TxRx connection examples 32

17 Partially Separable links examples 32

18 SM transmitter eye diagram mask for 1GFC, 2GFC, and 4GFC variants 38

19 SM transmitter eye mask for 8GFC variants 38

20 Sinusoidal jitter mask 42

21 1GFC SM 10 km link 42

22 2GFC SM 10 km link 43

23 4GFC SM 10 km link 43

24 4GFC SM 4 km link 44

25 8GFC SM 1.4 km link 44

26 RMS spectral width and OMA trade offs 48

27 MM transmitter eye diagram mask (except 8GFC) 48

28 MM transmitter eye diagram mask for 8GFC 49

29 Duplex SC optical interface 52

30 Duplex LC interface 53

31 MT connector interface 54

32 MU connector interface 54

33 Transmit device output, Zero length and through TCTF 62

34 Transmit, system (interconnect + receiver device) input tolerance test 63

35 Sxxnn graphical representation 65

36 Sxx at beta T, epsilon T, and gamma T 65

37 Sxx at delta T 66

38 Signal tolerance test set up for Rx device at beta R and gamma R... 68

39 Signal tolerance test set up for Rx device at delta R 68

40 Sxxnn graphical representation 70

41 Sxx at the beta R, epsilon R, and gamma R 70

42 Sxx at delta R 71

43 Trade-off between RN and WDP for 800-DF-EA-S delta R 75

44 dTWDP for epsilon and beta compliance points 78

45 Normalized (left) and absolute (right) eye diagram masks at $b_{\mathbf{T}}$, $d_{\mathbf{T}}$ and $g_{\mathbf{T}}$. 79

46 Eye diagram mask at b_R, d_R, and $g_{R \text{ for EL variants}}$ 79

47 Deriving the tolerance mask at the interoperability T points 80

48 Deriving the tolerance mask at the interoperability R points 81

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

49 Sinusoidal jitter mask ... 81
50 Inter-enclosure receiver compliance point g_R ... 82
51 Intra-enclosure transmitter compliance point b_T ... 82
52 Intra-enclosure receiver compliance point b_R ... 82
53 400-DF-EL-S Intra-enclosure Transmitter Compliance Transfer Function ... 87
54 400-DF-EL-S Inter-enclosure transmitter compliance transfer function ... 88
55 100, 200, and 400-DF-EL-S 150 Ohm test load ... 88
56 200, 400 and 800-DF-EL-S 100 Ohm test load ... 89
57 Example of inter-enclosure TxRx with 150W balanced cable ... 89
58 Balanced cable wiring ... 91
59 Style-1 balanced connector plug contact locations ... 92
60 Style-2 plug and receptacle ... 92
61 Style-2 balanced connector receptacle contact locations ... 93
62 Style-3 Plug and Receptacle ... 93
63 Style-3 balanced connector receptacle contact locations ... 94
64 Intra-enclosure integral FC device connector ... 95
65 Contact numbering for integral FC device connector ... 95
A.1 Optical modulation amplitude test equipment configuration ... 100
A.2 Alternate OMA measurement ... 100
A.3 Voltage modulation amplitude test equipment configuration ... 101
A.4 Alternate VMA measurement ... 101
A.5 DDJ Test Method ... 106
A.6 Pulse width and data dependent pulse width shrinkage ... 106
A.7 800-DF-EA-S beta T and epsilon T TCTF impulse response models ... 108
A.8 RIN12OMA test setup ... 114
A.9 Required characteristics of the conformance test signal at gR ... 117
A.10 VECP for multimode cable ... 118
A.11 Apparatus for generating stressed receive conformance test signal at gR ... 118
A.12 Gamma R to electrical adaptor for SA variants ... 119
A.13 Sample jitter tolerance test configuration ... 121
A.14 Measurement configuration for receiver jitter tracking test ... 122
A.15 Example of epsilon R signal tolerance method ... 123

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

A.16 Test setup for receiver bandwidth measurement 124

B.1 A simple duplex link physical connection 125

B.2 Transmitter device details for an HDD type interoperability point 126

B.3 Receiver device details for an HDD type interoperability point 127

B.4 De-embedding of connectors in test fixtures 129

B.5 Measurement conditions for transmitter device signal output specifications 130

B.6 Transmitter device output signal measurement test fixture details .. 131

B.7 Measurement conditions for system signal tolerance 131

B.8 Calibration of test fixture for transmitter device signal tolerance...... 132

B.9 Measurement conditions for signal output at the receiver device 132

B.10 Measurement conditions for receiver device signal tolerance 133

B.11 Calibration of interconnect test fixture for receiver device signal tolerance 133

B.12 Sij nomenclature conventions 134

B.13 Four single-ended port or two differential port element.................... 135

B.14 Conditions for upstream return loss at the transmitter device connector 136

B.15 Conditions for downstream return loss at the receiver device connector 137

B.16 Conditions for downstream return loss at the transmitter device connector 138

B.17 Conditions for upstream return loss at the receiver device connector 139

D.1 Supported distances on mixed 100 MB/s links 145

D.2 Supported distances on mixed 200 MB/s links 145

D.3 Supported distances on mixed 400 MB/s links 146

D.4 Supported distances on mixed limiting 8GFC links.......................... 146

D.5 Supported distances on mixed linear 8GFC links 147

D.6 Example on mixed 400 MB/s link 148

G.1 Host Compliance Board 162

G.2 Module Compliance Board... 162

G.3 Module input calibration point B” 163

G.4 Host input calibration point C” 163

G.5 Loss of Host Compliance Board... 164

G.6 Loss of Module Compliance Board 165

G.7 Example of Host Compliance Board stack-up................................. 166

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page
G.8 Example of Host Compliance Board Schematic 167
G.9 Example of Module Compliance Board stack up 168
G.10 Example of Module Compliance Board schematics 169
G.11 MCB and HCB Mated Differential Response 171
G.12 Mated MCB-HCB Differential Through Response 172
G.13 Mated MCB-HCB Common Mode Response 173
G.14 Mated MCB-HCB Differential to Common Mode Response 174
G.15 Mated MCB-HCB Differential NEXT Response 175
H.1 SFP+ direct attach block diagram 177
H.2 Delta R stressor supporting copper cables 179
H.3 SFP+ direct attach cable measurement.. 181
H.4 SFP+ direct attach cable NEXT dWDP test setup 182

Annexes

A Test methods

A.1 Transmit or receive interface 99

A.1.1 Signal amplitude metrics.. 99
A.1.1.1 Optical modulation amplitude (OMA) test procedure 99
A.1.1.1.1 Recommended method 99
A.1.1.1.2 Method 2 99
A.1.1.1.3 Method 3 99
A.1.1.1.4 Method 4 100
A.1.1.2 Voltage modulation amplitude (VMA) test procedure 100

A.1.2 Metrics derived from an eye diagram 102
A.1.2.1 Mask of the eye diagram 102
A.1.2.1.1 Bessel-Thomson filter 102
A.1.2.1.2 8GFC transmitter eye mask probability level (hit ratio).................... 103
A.1.2.2 Rise/fall times 104
A.1.2.3 Extinction ratio 105

A.1.3 Metrics derived from an averaged waveform.................................. 105
A.1.3.1 Data Dependent Jitter (DDJ) 105
A.1.3.2 Data dependent pulse width shrinkage (DDPWS).......................... 106
A.1.3.3 Skew measurement 106
A.1.3.4 Waveform distortion penalty (WDP) 107
A.1.3.5 Transmitter waveform and distortion penalty (TWDP) 107
A.1.3.5.1 Beta and epsilon point transmitter compliance transfer function definition 108

A.1.4 Other measurements 112
A.1.4.1 Relative noise (RN) and Qsq 112
A.1.4.2 Uncorrelated jitter (UJ).. 112
A.1.4.3 Deterministic and total jitter measurements................................... 113
A.1.4.4 Common mode voltage measurement... 113
A.1.4.5 Relative intensity noise (RIN12OMA) measuring procedure 113
A.1.4.5.1 Test objective.. 113

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

A.1.4.5.2 General test description 114
A.1.4.5.3 Component descriptions 114
A.1.4.5.4 Test Procedure 115
A.1.4.6 Optical spectrum measurement 116

A.2 Receive interface 116

A.2.1 Optical receiver sensitivity for SN variants 116
A.2.1.1 Stressed receiver sensitivity test 116
A.2.1.2 Unstressed receiver sensitivity test 118

A.2.2 Test method for delta R for SA variants 119
A.2.2.1 Test description and procedure for SA variants 119
A.2.2.2 Delta R tester calibration 120

A.2.3 Receiver jitter tolerance test for 8GFC delta R point for SN variants 121
A.2.3.1 Overview 121
A.2.3.2 Calibration 121
A.2.3.3 Test procedure 122

A.2.4 Receiver jitter tracking 122

A.2.5 Beta and epsilon point signal tolerance test procedure for 8GFC.... 123

A.2.6 Measurement of the optical receiver upper cutoff frequency 123

B Signal performance measurements for 400-DF-EL-S and 800-DF-Ex-S electrical variants ....

B.1 Introduction 125

B.1.1 A simple connection 125
B.1.1.1 Overview 125

B.1.2 Assumptions for the structure of the transmitter device and the receiver device 126

B.1.3 Definition of receiver sensitivity and receiver device sensitivity 127

B.2 Measurement architecture requirements 128

B.2.1 General 128

B.2.2 Relationship between signal compliance measurements at interoperability points and operation in systems 129

B.3 De-embedding connectors in test fixtures 129

B.4 Measurement conditions for signal output (DSO) at the transmitter device 130

B.5 Measurement conditions for signal tolerance (DST) at the transmitter device 131

B.6 Measurement conditions for signal output (DSO) at the receiver device 132

B.7 Measurement conditions for signal tolerance (DST) at the receiver device 132

B.8 S-parameter measurements 133

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page

B.8.1 Introduction 133
B.8.2 Naming conventions in high speed serial links 134
B.8.3 Use of single-ended instrumentation in differential applications 135
B.9 Measurement configurations for link elements 135
B.9.1 Overview 135
B.9.2 Transmitter device return loss 136
B.9.3 Receiver device return loss 136
B.9.4 Return loss at the transmitter device connector (interconnect input) 137
B.9.5 S22 at the receiver device connector (interconnect output) 138
B.10 Summary for S-parameter measurements 139
C Optical cable plant usage 140

D Structured cabling environment

D.1 Specification of operating distances 143
D.2 Higher connection loss operating distances 143
D.3 Operating distance estimator using connection loss lines 144
D.3.1 Extending an existing link with M5E fiber 148
D.3.2 Extending an existing link with M5 fiber 149
D.4 Notes on operating distances 149

E Tx_Off and Rx_Loss of signal detection

E.1 Background 150
E.2 Scope 150
E.3 Functional and timing specifications 151
E.3.1 Component specifications 151
E.3.2 Tx_Off 151
E.3.3 Rx_LOS 151
E.4 Optical Tx_Off and Rx_LOS signal levels 152
E.5 Electrical Tx_Off signal levels 152
E.6 Electrical Rx_LOS signal levels 152
E.7 Methods of measurement for electrical Rx_LOS thresholds (informative) 153

F Scrambled test patterns

F.1 General overview 154
F.2 Scrambled jitter pattern (JSPAT) 154
F.3 Jitter tolerance scrambled pattern (JTSPAT) 154

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page
F.4 Encapsulated JSPAT and JTSPAT 156
F.4.1 Example 156
F.4.2 A method to correct the pattern starting disparity 157

G Test methodology for 8GFC systems

G.1 General overview 161
G.2 Test point definitions 161
G.2.1 Host test points 161
G.2.2 Module test points 162
G.2.3 Module input calibration points 163
G.2.4 Host input calibration point 163
G.3 Compliance boards 164
G.3.1 Host Compliance Board loss 164
G.3.2 Module Compliance Board loss 164
G.4 Host Compliance Board 165
G.4.1 Host Compliance Board material and layer stack-up 165
G.4.2 Host Compliance Board part list 166
G.4.3 Schematic of Host Compliance Board 167
G.5 Module compliance board 168
G.5.1 Module Compliance Board Material and Layer Stack-up 168
G.5.2 Schematic of Module Compliance Board 168
G.5.3 Module Compliance Board part list 170
G.6 Specification of mated host and Module Compliance Boards 170
G.7 Beta and epsilon compliance test board definition 175

H Passive direct attach SFP+ cable specifications for 8GFC

H.1 General overview 177
H.2 SFP+ direct attach construction 177
H.3 SFP+ host output specifications for passive direct attach cables 177
H.3.1 Passive copper TWDP Stressor 178
H.4 Delta R input compliance test signal specifications calibrated at C” 178
H.4.1 Delta R stressed input pulse shape 179
H.5 SFP+ passive direct attach cable assembly specifications 180
H.5.1 SFP+ direct attach cable test setup 181
H.5.2 Cable dWDP test procedure 182

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

Page
H.5.3 Cable NEXT measurement procedure 182
H.5.4 VMA to crosstalk ratio (VCR) 183

I Enhanced WDP and TWDP signal processing

I.1 General overview 184
I.2 MATLAB code used for the signal processing algorithm 184

This is a preview of "INCITS 450-2009 (S20...". Click here to purchase the full version from the ANSI store.

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Technical Committee T11 on Lower Level Interfaces, which reviewed this standard, had the following members:

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Task Group T11.2 on Fibre Channel Protocols, which developed and reviewed this standard, had the following members:

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Mark Marlett, Secretary

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American National Standard
for Information Technology–

Fibre Channel –
Physical Interface-4 (FC-PI-4

1 Scope

This international standard describes the physical interface portions of high performance electrical and optical link variants that support the higher level Fibre Channel protocols including FC-FS-2 and the higher Upper Level Protocols (ULPs) associated with HIPPI, SCSI, IP and others.

This document contains all the requirements specified in FC-PI, FC-PI-2 and SM-LL-V that are recommended for new designs, plus requirements for 800 MB/s.

FC-PI-4 does not replace FC-PI-2 but is intended to carry forward the technical requirements specified in FC-PI-2 for the variants addressed in FC-PI-4.

2 Normative references

2.1 General

The following standards contain provisions that, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. Standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the following list of standards. Members of IEC and ISO maintain registers of currently valid International Standards.

Copies of the following documents can be obtained from ANSI: Approved ANSI standards, approved and draft international and regional standards (ISO, IEC), and other approved standards (including JIS and DIN).

2.2 Normative references

2.2.1 Approved references

[1] **ANSI INCITS 326-1999,** Fibre Channel - Low-Cost 10-km Optical 1063-MBaud Interface (100-SM-LC-L)

[2] **ANSI INCITS 364-2003, FC-10GFC,** Fibre Channel 10 Gigabit

[3] **ANSI INCITS 364-2003 AM-1, FC-10GFC Amendment 1,** Fibre Channel 10 Gigabit Amendment 1

[4] **ANSI INCITS 1619D, FC-FS-2,** Fibre Channel Framing and Signaling 2

[5] **ANSI INCITS 1619D, FC-FS-2 AM-1**, Fibre Channel Framing and Signaling 2, Amendment 1