

# IEEE P1394b SCAT (Sorted by Number)

SCATNo	Title	Owner	DateEntered	StatusDate
1	1394a start-up Alignment	Upstarts	12/10/98	4/8/99
<b>Description</b>				
Fix start-up to align with P1394a when it has been completed				
<b>Status</b>				
WIP				
<b>NextActions</b>				
4/8/99: Deferred until Colin is able to report. 3/24/99: Waiting for 1394a port state machine to stabilize; 2 ) what to do on disable; 3) Is toning operational during disable or is INT_ENABLE used to control toning during disable 4) better distinction between port state machine and arbitration state machine				

SCATNo	Title	Owner	DateEntered	StatusDate
2	Root Contention Time	Eric Hannah	12/10/98	4/8/99
<b>Description</b>				
Verify that root contention time values will work with long haul. The time constants chosen were selected for 50 meters. Beyond 50 meters, new constants will need to be determined.				
<b>Status</b>				
Open				
<b>NextActions</b>				
4/8/99: Eric will change next draft. ROOT_CONTEND_SLOW will be 3.2 us Min and 3.22 us max.; 3/24/99: Subject to Upstart support, the method suggested in Alistair's e-mail of March 15, 1999 (Subject: Re: Continue of Loop Breaking in 1394b) could be used to resolve root contention. Tentatively, increase the time until a better solution comes later.				

SCATNo	Title	Owner	DateEntered	StatusDate
3	PHY Register Map	PHY-Link	12/10/98	2/10/99
<b>Description</b>				
Complete design of register map (to include speed limit bits in port registers - settable by firmware, as well as other required bits)				
<b>Status</b>				
DONE				
<b>NextActions</b>				
None				

SCATNo	Title	Owner	DateEntered	StatusDate
4	Standby Proxy Self-ID	B-Low Power	12/10/98	4/8/99
<b>Description</b>				
Proxy self-ID packets for "leaf" nodes in standby				
<b>Status</b>				
AIP				
<b>NextActions</b>				
4/8/99: Awaiting approval of proposal at April meeting. 3/24/99: Write-up complete - Presentation given at 3/23 plenary. Next draft to include Standby				

SCATNo	Title	Owner	DateEntered	StatusDate
5	Port Interface	B-Port	12/10/98	4/8/99
<b>Description</b>				
Fix & Document Port interfaces (and filtered input from Simulations); Control Codes delivered to Mike and Steve.				
<b>Status</b>				
WIP				
<b>NextActions</b>				
4/8/99: Alistair has 'living' document. Chapter has been extensively revised. Awaiting review by Jerry. Will put something in the next rev. of the spec. 3/24/99: Update as appropriate as information comes forth from simulations				

SCATNo	Title	Owner	DateEntered	StatusDate
6	Signal Detect Plus	UTP	12/10/98	4/8/99
<b>Description</b>				
Resolve signal detect and related issues for UTP-5				
<b>Status</b>				
AIP				
<b>NextActions</b>				
4/8/99: Noy yet done. May get done before the next draft of the spec. 3/24/99: No change - Alistair to update contents of next draft				

SCATNo	Title	Owner	DateEntered	StatusDate
7	High Speed Copper Cables	Max Bassler	12/10/98	4/8/99
<b>Description</b>				
Copperheads have verified that an "Enhanced Plug/Socket" 1995 cable functions at S800 for both Data Strobe & Beta Mode. A question exists as to whether a standard plug/cable will function with an enhanced socket at S800 for Beta mode.				
<b>Status</b>				
CLOSED				
<b>NextActions</b>				
4/8/99: Mike make this irrelevant if we approve new connector scheme with Beta-only and Bi-lingual plug. 3/24/99: No longer a need based upon events occurring in the 3/23/99 Plenary				

SCATNo	Title	Owner	DateEntered	StatusDate
8	UTP Electrical	UTP	12/10/98	4/8/99
<b>Description</b>				
Complete UTP electrical Specs				
<b>Status</b>				
WIP				
<b>NextActions</b>				
04/08/99: When provided by Alistair, Eric will update spec and mask. 3/24/99 No Change - 2/10/99: Alistair to get numbers, Eric to simulate/validate them				

SCATNo	Title	Owner	DateEntered	StatusDate
9	Jitter Budgets	Colin Whitby-Strevens	12/10/98	4/8/99
<b>Description</b>				
Finalize jitter budgest and specifications for all speeds and media (except UTP5).				
<b>Status</b>				
WIP				
<b>NextActions</b>				
4/8/99 - On Agenda for 4/22/99; 3/24/99 - Colin has posted jitter tables to web site. Folks to validate that numbers are correct. Colin needs to verify test patterns. Will plagarize from fibre channel test patterns.				

SCATNo	Title	Owner	DateEntered	StatusDate
10	Standby Start-up	Upstarts	12/10/98	4/8/99
<b>Description</b>				
Upstarts complete standby interaction				
<b>Status</b>				
WIP				
<b>NextActions</b>				
4/8/99 - Colin Colin to do implementation proposal upon completion upon completion of SCAT #1				

SCATNo	Title	Owner	DateEntered	StatusDate
11	Standby Codes	B-Port	12/10/98	2/10/99
<b>Description</b>				
Standby encoding signaling				
<b>Status</b>				
Done				
<b>NextActions</b>				
Codes have been distributed				

SCATNo	Title	Owner	DateEntered	StatusDate
12	Arbitration Tokens	B-Port	12/10/98	3/24/99
<b>Description</b>				
Arbitration Token Completion				
<b>Status</b>				
Done				
<b>NextActions</b>				
If new codes are needed they will be given or their need will be negotiated				

SCATNo	Title	Owner	DateEntered	StatusDate
13	PHY-Link electrical specs.	Tony Foster	12/10/98	4/8/99
<b>Description</b>				
Include 802.3 spec information for S800 and below; Document integrated link/Beta-PHY; The strategy is:a) reuse the 1394a link-phy electrical if possible, including isolation, up to speed s800 (100Mhz); b) leverage the 802.3Z GMII spec and change signal names to cover un-isolated to S800; c) initial assumption is that speeds above S800 will use integrated link and Phy and the protocol is sufficient.				
<b>Status</b>				
WIP				
<b>NextActions</b>				
4/8/99: We may recommend adoption of "A" electricals for S800 PHY/Link interface (this may mean giving up on isolation); Tony will have this complete by next Thursday (4/15); 3/24/99: Three Actions to be taken: 1) Evaluate the current 1394a link-phy electrical spec and determine if it will suffice or can be edited for use up to S800. If so move copy to 1394B draft; 2)If the 1394a spec will not work continue efforts to get editable version of the 802.3Z GMII spec				

SCATNo	Title	Owner	DateEntered	StatusDate
14	A/B PHY-Link Interoperability	PHY-Link	12/10/98	4/8/99
<b>Description</b>				
A-Link to B-PHY operating model				
<b>Status</b>				
Closed				
<b>NextActions</b>				
4/8/99 - If B-PHYs work with A-Links, they must be able to step down to 50 MHz. B-PHY & A-Link is an OPTIONAL implementation. If such an implementation is to be done, then it will be requisite on the implementor to use the A Spec to insure a successful implementation. The B-PHY would then be limited to S400 maximum communication to the link. The PHY can only process legacy formatted packets when running in the "A" compatible mode.				

SCATNo	Title	Owner	DateEntered	StatusDate
15	B.O.S.S. Port & PHY-Link	Accelerations	12/10/98	3/24/99
<b>Description</b>				
Interface with B-Port connections & PHY-Link sub-layer				
<b>Status</b>				
WIP				
<b>NextActions</b>				
Write it up and send it to Sean - to be completed 4/7/99				

SCATNo	Title	Owner	DateEntered	StatusDate
16	Beta mode media dependent speed	Colin Whitby-Strevens	12/10/98	3/24/99
<b>Description</b>				
Shall Beta mode support S100 through S400 on all media types? S100 & S200 not wanted on GOF. The issue is regarding a Bi-lingual PHY capable of only S400, or, perhaps S200, it would be nice if it were able to operate in Beta mode when able.				
<b>Status</b>				
WIP				
<b>NextActions</b>				
Max Bassler is to discover what is the lowest-speed the Consumer Electronic folks would like to see on Beta mode only?				

SCATNo	Title	Owner	DateEntered	StatusDate
17	Beta PHY ID	Jerry Hauck	12/10/98	3/24/99
<b>Description</b>				
Need a mechanism to identify Maximum Legacy Path Speed to be used at self ID time				
<b>Status</b>				
WIP				
<b>NextActions</b>				
Colin: add a bit identifying connection to a "B" PHY. Alistair: S100 legacy packet format, beta originators will include a speed code, A B PHY generating an S100 packet when connected to a A link will not generate a speed code.				

SCATNo	Title	Owner	DateEntered	StatusDate
18	Beta Copper Connector	Max Bassler	12/10/98	3/24/99
<b>Description</b>				
Two connectors: 1) Lower Cost than existing 4-pin 2) No power; 3) With power. 4) Neither no larger than existing 4-pin 5) More robust than existing 4-pin 6) better EMI/RFI characteristics than current 4-pin 7) S800 and higher 8) LOW COST				
<b>Status</b>				
WIP				
<b>NextActions</b>				
Max's AR is to write down Copperhead guidance questions for SCAT group to respond to. Copperheads to respond to constraints listed in this SCAT description.				

SCATNo	Title	Owner	DateEntered	StatusDate
19	Loop Healing	Jerry Hauch/Colin Whitby-Strevens	12/10/98	3/24/99
<b>Description</b>				
Changes are needed in Tree-ID such as to support loop healing				
<b>Status</b>				
WIP				
<b>NextActions</b>				
Ed McDonnell will document "loop healing party" notes and socialize them on the SCAT e-mail distribution list. Jerry & Colin will cacaus and document the loop healing mechanism and write pages for inclusion in the draft spec.				

SCATNo	Title	Owner	DateEntered	StatusDate
20	Cycle Start Tokens	Michael D. Johas Teener	12/10/98	3/24/99
<b>Description</b>				
Send out a conventional Cycle Start packet appended onto it is a cycle start token. The token is there to help the PHYs keep their phase straight (and if helps on border node) - need two tokens from Alistair (or a better way to do this).				
<b>Status</b>				
Done				
<b>NextActions</b>				
Mike will get tokens from Alistair. This is expected to be documented by [standard answer: soon] end of next week (2/26). March 1st will be the date when ALL tokens have been requested of Alistair.				

SCATNo	Title	Owner	DateEntered	StatusDate
21	Bridge Liaison	David Wooten	12/10/98	3/24/99
<b>Description</b>				
1394.1 liaison as required				
<b>Status</b>				
OPEN				
<b>NextActions</b>				
Keep on keeping on - this is going to be open until the lights go out on IEEE P1394b or until it is "too damn late" to keep working with 1394.1 because they are taking too long and 1394b needs to close.				

SCATNo	Title	Owner	DateEntered	StatusDate
22	Speed Map	David Wooten	12/10/98	3/24/99
<b>Description</b>				
Resolve speed map issues				
<b>Status</b>				
AIP				
<b>NextActions</b>				
1) Plenary Announcement: 1394b will not support a speed map. 2) Seek volunteer to write a white paper (informative annex) on speed discovery which does use a speed map. Not required for draft closure.				

SCATNo	Title	Owner	DateEntered	StatusDate
23	DC BIAS	Steve Bard	12/10/98	3/24/99
<b>Description</b>				
Complete DC BIAS Specification				
<b>Status</b>				
CLOSED				
<b>NextActions</b>				
4/8/99: No Action Taken; 3/24/99: Steve Bard has requested the contributor of this SCAT item to identify the issue. If no one speaks up, this item will be CLOSED.				

SCATNo	Title	Owner	DateEntered	StatusDate
24	IRM	David Wooten	12/10/98	3/24/99
<b>Description</b>				
Changes to IRM (band-width & channels allocation)				
<b>Status</b>				
OPEN				
<b>NextActions</b>				
3/24/99 Same 2/18/99 -It is possible that this has been obsoleted. Peter J. is to write up the proposal from Unibrain. Action on this SCAT to be delayed until Peter's informative write-up can be reviewed. This shall be taken back to the plenary for review and decision.				

SCATNo	Title	Owner	DateEntered	StatusDate
25	PHY Test modes	Lou Fasano	12/10/98	4/8/99
<b>Description</b>				
Develop and document PHY Test Modes				
<b>Status</b>				
WIP				
<b>NextActions</b>				
4/8/99: A proposal from Eric Hannah: a) Two PHYs share a common connection; b) One PHY is loaded with a set of register values determined to create a worst case scenario (created via some internal generation mechanism); c) the other PHY is programmed with a respondent set of register values designed to test for receipt of a "stress transaction" (also created via some internal generation mechanism); d) the stress transaction is passed between each PHY; e) each PHY				

SCATNo	Title	Owner	DateEntered	StatusDate
26	Error handling	PHY-Link	12/10/98	3/24/99
<b>Description</b>				
Delayed error detection & reporting (receiving a packet, data looks correct (good CRC), but the data end reveals that it is, in fact, incorrect - a method is needed to report the event across the PHY-Link interface).				
<b>Status</b>				
Open				
<b>NextActions</b>				
This will be resolved upon completion of SCAT #37				

SCATNo	Title	Owner	DateEntered	StatusDate
27	Summary Clause	David Wooten	12/10/98	3/24/99
<b>Description</b>				
Write clause three (Summary)				
<b>Status</b>				
Open				
<b>NextActions</b>				
3/24/99 - No Change. 2/28/99: David will find an owner before the spec closes.				

SCATNo	Title	Owner	DateEntered	StatusDate
28	Beta Speeds Less than S800 on Copper	Copperheads	12/10/98	3/24/99
<b>Description</b>				
When connecting a Bi-Lingual socket (new?) to a Beta only socket via a "special" cable, it may be a good thing to support Beta communication at speeds less than S800				
<b>Status</b>				
Done				
<b>NextActions</b>				
03/24/99: Yes - a bilingual plug/socket is goodness. It may or may not be good to do beta less than S800. Jerry provided his interconnectivity write-up. David presented at the Plenary at work is under way to ratify bilingual speed limits. If the model understood on 2/18/99 is to be followed, Beta only must start at S400 and go upwards. Discussions at the 3/23/99 plenary may leave the 2/18/99 model no longer valid. There will lbe, however, a lowest common				

SCATNo	Title	Owner	DateEntered	StatusDate
29	"B" Root	David Wooten	2/10/99	3/24/99
<b>Description</b>				
How does one go about making certain a "B" node is ROOT (if a "B" node exists on the bus). Does it make sense to have a "B" root if there is no "B" link?				
<b>Status</b>				
Closed				
<b>NextActions</b>				
The root hold-off bit works fine in a managed bus environment. It is not expected that performance optimizations are needed in an unmanaged bus. The only concern is root hold-off bit "wars." Deferring further action to "Peter Johansson type activity" for any further resolution. 2/10/99: David will return with a proposal at the next meeting				

SCATNo	Title	Owner	DateEntered	StatusDate
30	B.O.S.S. State machine & Code	Accelerations	2/10/99	3/24/99
<b>Description</b>				
The state machine for B.O.S.S. and the 'C-Code" for B.O.S.S. needs to be completed				
<b>Status</b>				
WIP				
<b>NextActions</b>				
C'-code yet to be done prior to the June plenary meeting. Presentation given at 3/23/99 plenary. Group to review description.				

SCATNo	Title	Owner	DateEntered	StatusDate
31	B.O.S.S. Border Node	Accelerations	2/10/99	3/24/99
<b>Description</b>				
The behavior and operation of a border node needs to be determined				
<b>Status</b>				
WIP				
<b>NextActions</b>				
See next actions in #30.				

SCATNo	Title	Owner	DateEntered	StatusDate
32	B.O.S.S. Validation	Accelerations	2/10/99	3/24/99
<b>Description</b>				
Validate that B.O.S.S. will support border node functionality				
<b>Status</b>				
WIP				
<b>NextActions</b>				
See Next Actions in SCAT #30				

SCATNo	Title	Owner	DateEntered	StatusDate
33	Beta Only Copper Speed	Colin Whitby-Strevens	2/10/99	3/24/99
<b>Description</b>				
Speed ranges for new Beta copper connector				
<b>Status</b>				
Closed				
<b>NextActions</b>				
Because this subject has been covered rather adequately in other SCAT entries. 2/10/99; Colin will socialize this topic on the reflector - with influence toward "faster is better"				

SCATNo	Title	Owner	DateEntered	StatusDate
34	Max Packet Size - Async	Eric Hannah	3/12/99	3/24/99
<b>Description</b>				
Place into the draft specification the decision to limit asynchronous maximum packet size to 4K bytes				
<b>Status</b>				
OPEN				
<b>NextActions</b>				
Eric to include this information in draft 0.18				

SCATNo	Title	Owner	DateEntered	StatusDate
35	Crossover	Upstarts/UTP	3/23/99	3/24/99
<b>Description</b>				
Upstart algorithm to include crossover resolution				
<b>Status</b>				
OPEN				
<b>NextActions</b>				
Colin to prepare an implementation for Upstarts and put it into the spec. draft 0.18				

SCATNo	Title	Owner	DateEntered	StatusDate
36	Fan-out PHY Protocols	PHY-Link	3/24/99	4/8/99
<b>Description</b>				
A PHY may serve as a "port fan-out" device which interconencts with an integrated beta-only PHY & link to in such a fashion to consume a single node ID. Resolve for LinkOn, etc.				
<b>Status</b>				
Open				
<b>NextActions</b>				
4/8/99: LinknOn will be sent to the Fan-Out PHY; Proposals: a) Fan-Out PHY includes an optional LinkOn signal pin; b) Node ID's will not be shared (one for each PHY); c) When FOP receives anything that would cause its LinkOn to assert it will assert the LinkOn signal; FOP will deassert LinkOn upon establishing communication over a vendor defined FOP Port (where communication could be as early as the first tone received from that port); 3/24/99:				

SCATNo	Title	Owner	DateEntered	StatusDate
37	Packet truncation	B-Port (Alistair)	3/24/99	3/24/99
<b>Description</b>				
How do we truncate a packet and when?				
<b>Status</b>				
Open				
<b>NextActions</b>				
Continue discussion off line.				