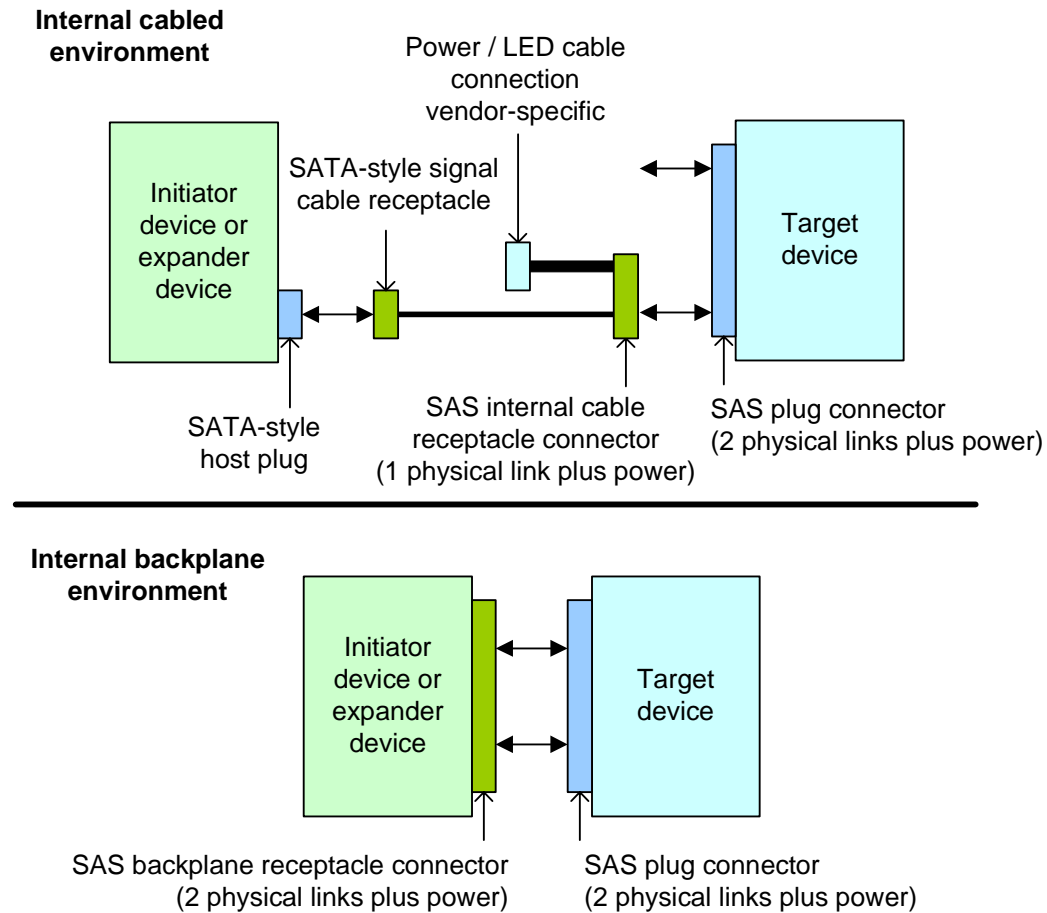Date: November 13, 2002
To: T10 Technical Committee
From: Alvin Cox (alvin.cox@seagate.com)
Subject: SAS internal cable configuration

The following revisions are made to define the SAS internal cable.

Replace figure 33 with the following figure:

5.3.2.1 SAS plug connector overview

(Editor's note: Replace existing text beneath table 21 with the text below.)

SAS target device signal assignments, except for the addition of the secondary physical link when present, are in the same locations as they are in a SATA target device. On cable assemblies, backplanes, or any other connection media, the Tx signal from one internal connector pair shall be connected to the corresponding Rx signal of the other internal connector pair (i.e., AT+ of connector 1 shall connect to AR+ of connector 2) if there is an internal connector at both ends of the transmission media.

The AT+, AT-, AR+, and AR- signals are used by the primary physical link. The BT+, BT-, BR+, and BR- signals are used by the secondary physical link.

(Editor's note: Number of insertions is intentionally deleted since it is specified in SFF-8482 for SAS internal connectors.)

5.3.3 SAS internal cable receptacle connector

(Editor's note: Replace existing text with the text below.)

SAS internal cables shall use the SAS internal cable receptacle connector on the target device end. The SAS internal cable receptacle connector is defined in SFF-8482. It attaches to either:

    a) a SAS plug connector, providing contact only for the power pins and the primary physical link; or

    b) a SATA device plug connector, providing contact for the power pins and the physical link.

Figure xx defines the signal assignments. The secondary physical link, SAS plug connector pins S8 through S14, is not supported by the internal cable receptacle.

5.4.1 SAS internal cables

(Editor's note: Replace existing text with the text and figure below.)

SAS internal cables shall use the SAS internal cable receptacle connector on the target device end. A SATA-style cable receptacle shall be used for the physical link connection on the initiator device or expander device end. The power and READY LED signal connection is vendor-specific.

The SAS initiator device shall use a SATA-style host plug connector for connection to the SAS internal cable. The SATA host plug connector is defined in the SATA 1.0 specification. The signal assignment for the SAS initiator device or expander device with this connector shall be the same as defined for a SATA host in the SATA 1.0 specification.

Destination signal assignments and a connection diagram for the SAS internal cable are shown in figure xx.
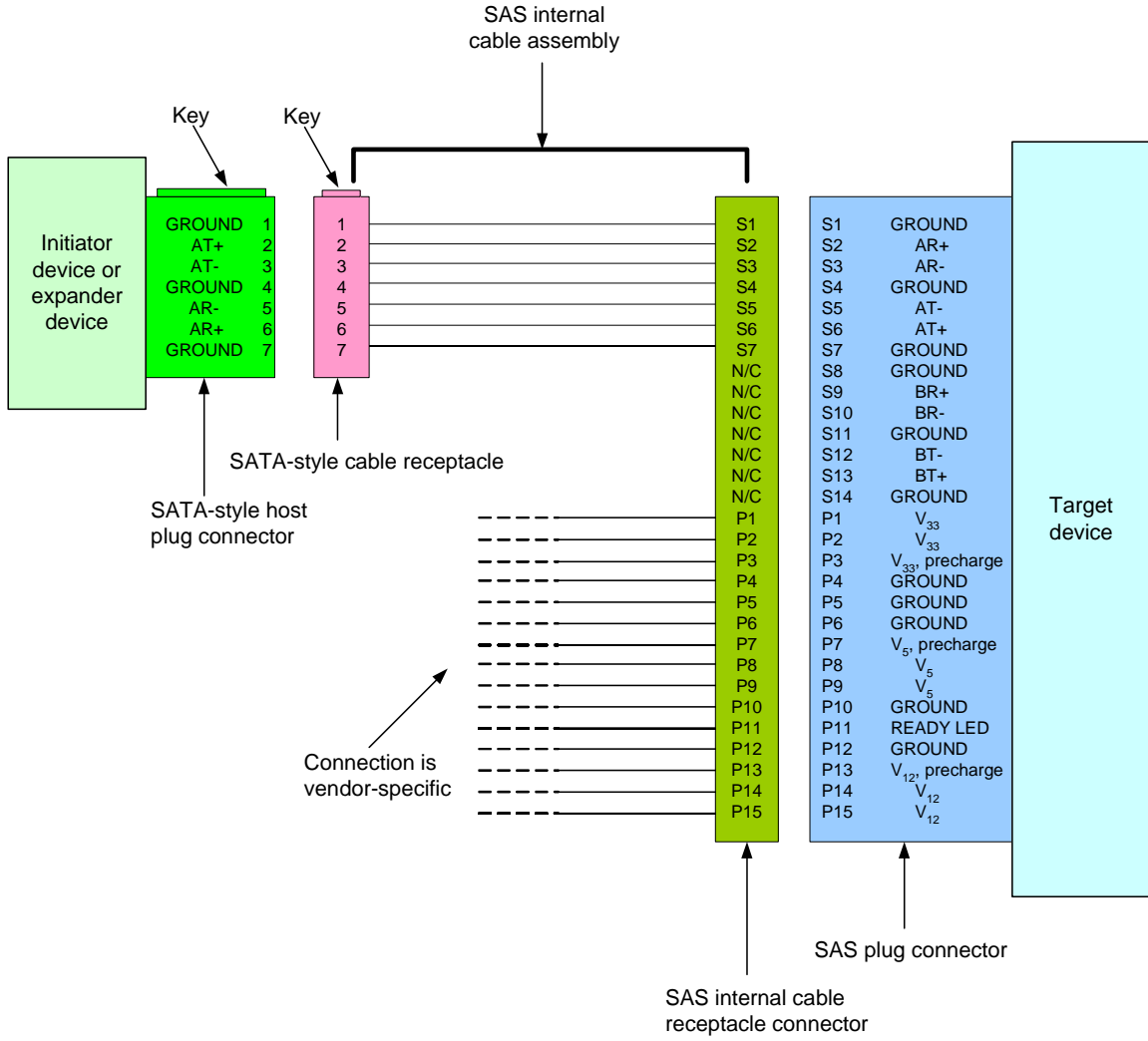
Figure xx SAS internal cable assembly and destination signal assignments