STUDER

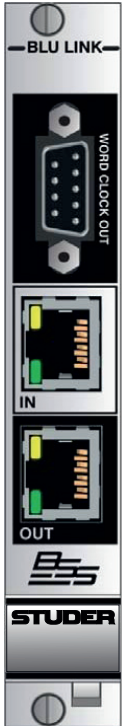## 6.3.15 D21m BLU Link™ Card (VISTΛ, OnAir, ROUTE 6000*)   5033340

The D21m BLU Link card is a 32 x 32 interface between a Studer console or router and the Soundweb London digital audio bus, informally known as BLU Link. The card allows connection to a wide variety of Harman products equipped with a BLU Link interface, such as BSS London BLU 800, dbx® PMC or Crown® PIP-BLU interfaces amongst others.

BLU Link is a low latency, fault tolerant digital audio bus of 256 channels which gives a distance of 100m between compatible BLU Link enabled devices using standard CAT5e cabling. To increase the distance between devices the BSS Audio MC-1 fibre optic media converter can be used to span over 10km using single mode fibre.

Additional information about the Soundweb London BLU Link digital audio bus may be found on the BSS web site www.bssaudio.com

* Supported Product family	from SW Version
Vista	V 5.1
OnAir	V 6.1
Route 6000	V2.2.14 Patch 02

Max. Cat5e cable length	100 m
Sample Rate	only 48 kHz supported
Power consumption	approx. 5 W
Operating temperature	0-40 °C
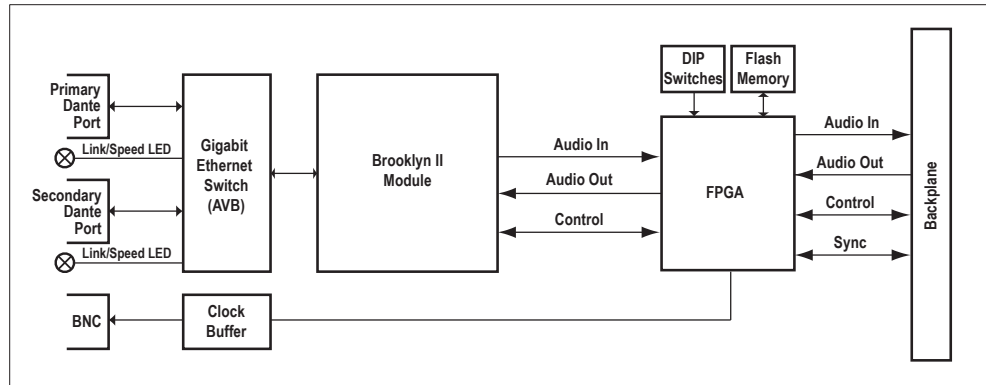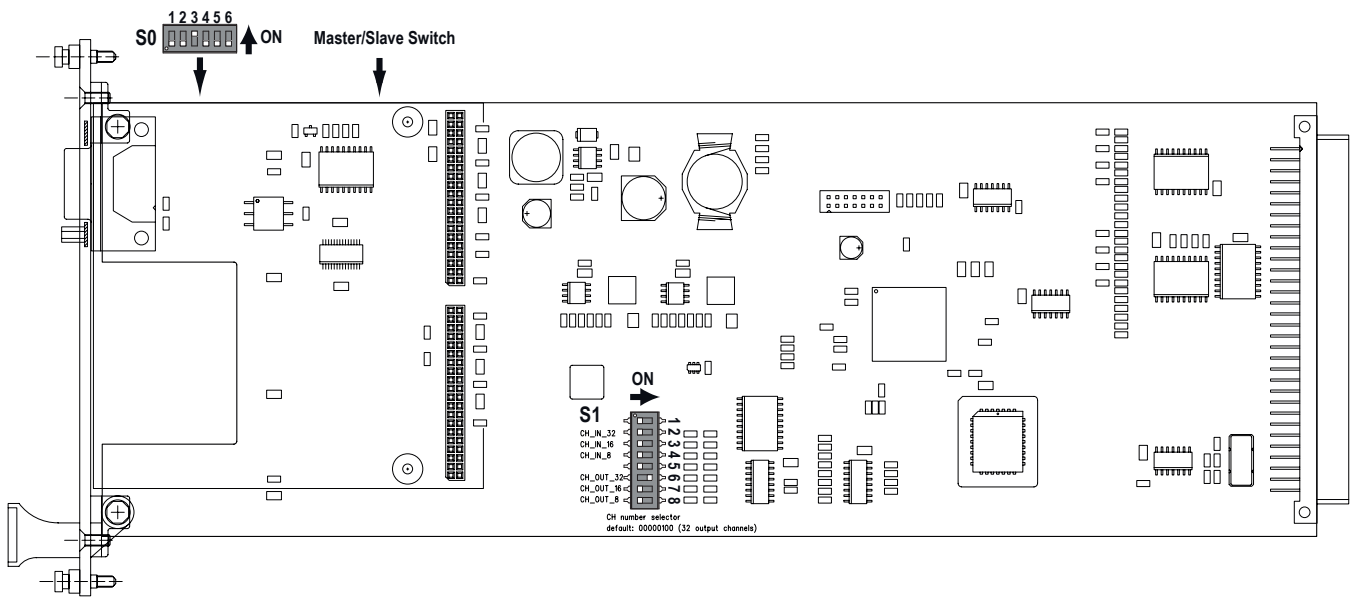
6.3.15.1 Configuring the BLU Link Card

Before the BLU Link card .may be used, the switches that define master / slave status and channel assignment must be configured. These switches are accessed by removing the card from its slot and looking at the top side of the 'dual-pcb' section.
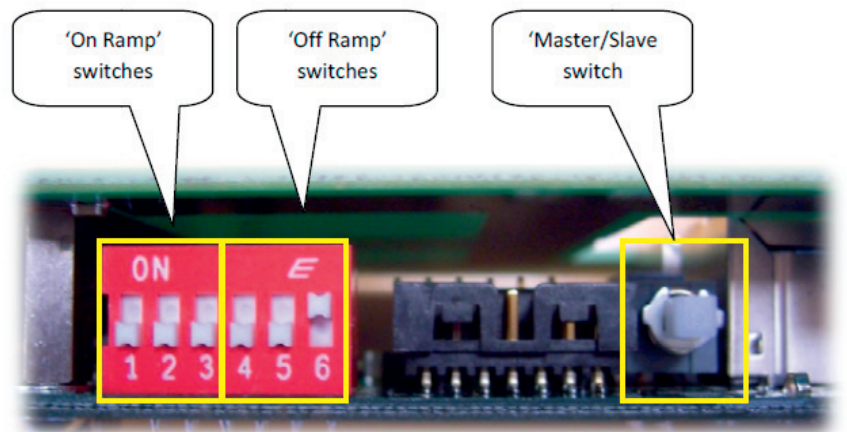
Master / Slave switch The master / slave switch determines the clock source for the BLU Link network.

• When set as master (switch set IN) the BLU Link card clocks the network from the consoles clock. There can only be one master BLU Link card in the system.
• When any other device is set as the master, the BLU Link card needs to be configured as slave (switch set OUT).

When operating in slave mode, provision must be made to clock the console or router from the BLU Link network by connecting an external cable (supplied with the card), from the 9-pin DSub connector Wordclock out socket on the BLU Link card, to the BNC Wordclock IN socket of the SCoreLive or Compact SCore. When this cable is connected, the green LOCK LED will

illuminate next to the Cores Wordclock in BNC socket. Failure to connect the sync cable in slave mode will result in occasional audio clicks.

Channel assign DIP switch S0   The channel assign switches dictate which group of channels on the BLU Link network the card "listens" and "speaks" to.

DIP switch S0 has six switches. The leftmost three switches (1-3) are used to select the on-ramp bank (card speaks to BLU Link). The rightmost three switches (4-6) are used to select the off-ramp bank (card listens to BLU Link). Channels not used by the BLU Link card are simply passed "through".

DIP Switches   **S0**   BLU Link network channel assign setting:

BLU Link On-Ramp (Outputs from console)			
1	2	3	Selected Channels
OFF	OFF	OFF	1-32
OFF	OFF	ON	33-64
OFF	ON	OFF	65-96
OFF	ON	ON	97-128
ON	OFF	OFF	129-160
ON	OFF	ON	161-192
ON	ON	OFF	193-224
ON	ON	ON	225-256

BLU Link Off-Ramp (Inputs to console)			
4	5	6	Selected Channels
OFF	OFF	OFF	1-32
OFF	OFF	ON	33-64
OFF	ON	OFF	65-96
OFF	ON	ON	97-128
ON	OFF	OFF	129-160
ON	OFF	ON	161-192
ON	ON	OFF	193-224
ON	ON	ON	225-256

Note   Whenever the On Ramp and Off Ramp selections match, no audio is extracted from BLU Link, but instead the audio being sent out of the card will be looped back and will appear on the BLU Link input channels.

6.3.15.2   Channel count setup

The BLU Link card uses 32 in and 32 out channels by default, but can be restricted to use less input or output channels if required. For example, if only output channels are required on the BLU Link card, the input channels can be set to 0, to maximise the number of input channels available for other cards.

DIP Switch   **S1**   DIP switch for D21m channel count setting:

1	2	3	4	5	6	7	8	Number of Channels

	OFF	OFF	OFF	-	-	-	0 inputs
	OFF	OFF	ON	-	-	-	8 inputs
	OFF	ON	OFF	-	-	-	16 inputs
not used	ON	OFF	OFF	not used			32 inputs
	-	-	-	OFF	OFF	OFF	0 outputs
	-	-	-	OFF	OFF	ON	8 outputs
	-	-	-	OFF	ON	OFF	16 outputs
	-	-	-	ON	OFF	OFF	32 outputs (factory default)

6.3.15.3   Sync Setup

The card is shipped with a short Wordclock sync cable (9-pin D to BNC) for connection to the console's Wordclock input when the console has to slave to the BLU link network (In the case of a card installed in a stagebox, an extension BNC cable may be required, depending on relative location of local rack and stagebox).
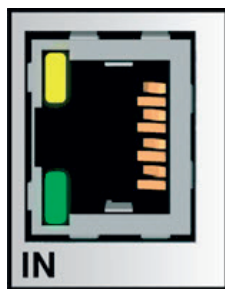
Please also verify that the cards master / slave switch is in the correct position (described on previous page).

Connector Pin Assignment   P1   Wordclock Out (9-pin D-type, female)

**Solder/Crimp View
(or Socket View)**

9   5
6   1
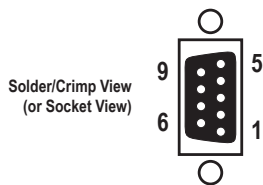
Pin	Signal
4	Wordclock Out (TTL)
9	Signal GND
5	Chassis GND
8	Chassis GND

6.3.15.4   BLU Link LED indicators

Each BLU Link port features two LED's which are indicating the status:

• Yellow LED : lights when the port is 'alive' indicating the card has booted and ready for use.

• Green LED : lights when it is connected correctly to another BLU Link device.

6.3.15.5   Connecting BLU Link devices

BLU Link devices interconnect using standard Cat5e UTP Ethernet cable. Connections must be made from the OUT of one device to the IN of the next device.

Redundancy is achieved by linking the OUT of the last device into the IN of the first device.