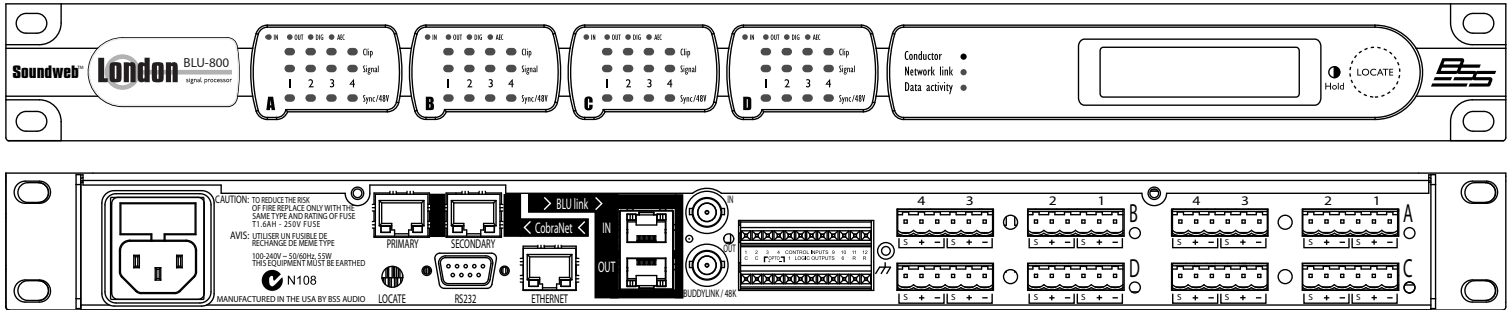# Soundweb™ London
BLU-800

OVERVIEW:

The Soundweb London BLU-800 offers configurable I/O, configurable signal processing, CobraNet audio and a high bandwidth, fault tolerant digital audio bus.

The BLU-800 has open architecture which is fully configurable through HiQnet™ London Architect. A rich palette of processing and logic objects and a "drag and drop" method of configuration provide a simple and familiar design environment.

This processor features CobraNet audio with primary and secondary ports for fault tolerance. Control is through a separate Ethernet port which allows CobraNet and control networks to be easily separated or mixed depending upon requirements.

The BLU-800 also features a low latency, fault tolerant digital audio bus of 256 channels which uses standard Category 5e cabling giving a distance of 100m between compatible devices. Fiber media converters can be used to increase the distance between devices to over 40km.

Four card slots which accommodate analog inputs, analog outputs, digital inputs and digital outputs in banks of four facilitate many different device I/O configurations.

Analog Input Cards provide software configurable gain in 6dB steps up to +48dB per channel and software selectable Phantom Power per channel. Digital Input Cards and Digital Output Cards process AES/EBU and/or S/PDIF audio and offer a variety of clocking and syncing options. (Further information about the I/O cards can be found on dedicated datasheets)

Phantom Power, Sync, Signal Present and Clip information per channel is easily accessible, without the requirement for a PC, from clear front panel LED indication. Device-specific information such as Device Name, Device Type, Firmware Version Number, Time, IP Address and Subnet Mask is available from the front panel display. A bi-directional locate function allows devices to be identified both from and within HiQnet London Architect.

12 Control Inputs and 6 Logic Outputs allow the BLU-800 to be integrated with GPIO compatible devices. The Soundweb London Interface Kit, comprehensive documentation which details how Soundweb London systems can be integrated with third party control systems, is included within the installation of HiQnet London Architect.

The BLU-800 and the other members of the Soundweb London family provide the building blocks of the perfectly tailored system solution.

KEY FEATURES:

- Four Input / Output Card Slots
- Configurable Inputs / Outputs
  - Analog Inputs (with Phantom Power per Channel)
  - Analog Outputs
  - Digital Inputs (AES/EBU and S/PDIF)
  - Digital Outputs (AES/EBU and S/PDIF)
- Configurable Signal Processing
- Rich Palette of Processing and Logic Objects
- CobraNet Audio
- 256 Channel, Low Latency, Fault Tolerant Digital Audio Bus

- Clear Front Panel LED Indication
- Informative Front Panel Display
- Bi-Directional Locate Functionality
- 12 Control Inputs and 6 Logic Outputs for GPIO Integration
- Soundweb London Interface Kit for Third Party Control System Integration (Documentation)
- HiQnet Device
- Configuration, Control and Monitoring from HiQnet London Architect

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Soundweb™ London BLU-800

TECHNICAL SPECIFICATIONS:

Front Panel Led Indicators:

Per Input:	Signal Present, CLIP, SYNC/48V, I/O card type (IN, OUT, DIG, AEC)
Other:	LCD Display, Conductor active, Network Link active, Data Activity
Analog Inputs:	Up to 16 electronically balanced on Phoenix Combicon removable screw connectors
Mic/Line Inputs:	Nominal gain 0dB, electronically switchable up to +48dB, in +6dB steps
Input Impedance:	3.5kΩ
Maximum Input Level:	+20dBu with 0dB input gain, +8dBu with 12dB gain
CMRR:	>75dB at 1KHz
Input Noise (E.I.N.):	<-128dBu typical with 150Ω source
Phantom Power:	48V nominal, selectable per input
A/D Latency:	$38.7/F_s$
Digital Inputs:	Up to 16 AES/EBU or S/PDIF on Phoenix/Combicon removable screw connectors
Input Impedance:	110 ohm (AES/EBU), 75 ohm (S/PDIF)
Sample Rate:	48kHz or 96kHz
Sample Rate Conversion:	8kHz-96kHz
THD+N:	<-140dB
Latency:	$3/F_{so} + (56.581/F_{si}) + (55.658/F_{so})$
Analog Outputs:	Up to 16 electronically balanced on Phoenix/Combicon removable screw connectors
Maximum Output Level:	+19dBu
Frequency Response:	20Hz-20KHz (+0.5dB/-1dB)
THD:	<0.01% 20Hz to 20KHz, +10dBu output
Dynamic Range:	108dB typical, 22Hz-22KHz unweighted
Crosstalk:	<-75dB
D/A Latency:	$28/F_s$
Digital Outputs:	Up to 16 AES/EBU or S/PDIF on Phoenix/Combicon removable screw connectors
Output Impedance:	110 ohm (AES/EBU), 75 ohm (S/PDIF)
Sample Rate:	48kHz or 96kHz
Sample Rate Conversion:	8kHz-96kHz
THD+N:	<-140dB
Latency:	$3/F_{so} + (56.581/F_{si}) + (55.658/F_{so})$
Control Ports:	12 inputs and 6 outputs
Control Input Voltage:	0 to 4.5v
Control Input Impedance:	4.7kΩ to +5V (2-wire mode), >1MΩ (3-wire mode)
Logic Output Voltage:	0 or +5V unloaded
Logic Output Impedance:	440Ωs
Logic Output Current:	10mA source, 60mA sink
Watchdog Output:	Phoenix/Combicon connector for failsafe control
Opto Output Current:	14mA maximum
Withstanding Voltage:	80V maximum (Off)
Series Impedance:	220Ω (isolated)
Control Network:	
Connectors:	RJ45 Ethernet connector
Maximum Cable Length:	100m/300ft on Category 5 cable between device and Ethernet switch
Digital Audio Bus:	
Connectors:	2 x RJ45 Ethernet connectors
Maximum Cable Length:	100m/300ft on Category 5e cable between devices
Maximum Number of Nodes:	60
Latency Per Node:	$4(+/-1)F_s$
CobraNet™ Audio Network:	
Connectors:	2 x RJ45 connectors
Maximum Cable Length:	100m/300ft on Category 5 cable between device and Ethernet switch
Power and Dimensions:	
Mains Voltage:	100-240V AC, 50/60Hz
Power Consumption:	<35VA
BTU Rating:	<188 BTU/hr
Operating Temperature Range:	0º to 45º C (32º to 113º F)
Dimensions (H(U) x W x D):	1.75" (1U) x 19" x 12.5" (45mm x 483mm x 318mm)
Weight:	9 lbs / 4.1 kgs (estimated)