

SLink Port Protocols

SLink is not a protocol, but an intelligent port which automatically switches mode depending on what it is connected to. It can run one of 3 different protocols at one time. It carries out Sample Rate Conversion when required to ensure the SQ **always** runs at 96kHz internally for all processing and mixing.

Protocol	Sample Rate	Total Inputs	Total Outputs
dSnake (+ME)	48kHz	40	20 (+40 ME)
DX	96kHz	32	32
gigaACE/GX	96kHz	128	128



SLink Option Card

The SLink Option card provides an additional SLink port to any SQ console. It has exactly the same functionality as the built-in port, but operates independently, allowing for two different protocols to be run on the same system. With an SLink card fitted, all possible SLink connections listed in this document can therefore be run on either port, and any combination of two can be used simultaneously with one console.

DX Hub

The DX Hub features 1x gigaACE port for connection to the mixer, along with 4x DX ports for connection to DX expanders. The mixer shows 128 inputs and 128 outputs, which are mapped as follows:

- DX Port 1 (32x32) = gigaACE/GX inputs and outputs 1-32
- DX Port 2 (32x32) = gigaACE/GX inputs and outputs 33-64
- DX Port 3 (32x32) = gigaACE/GX inputs and outputs 65-96
- DX Port 4 (32x32) = gigaACE/GX inputs and outputs 97-128



Notes:

- The SQ features 48 input processing channels. Adding connections via SLink provides access to more inputs and outputs, but does not increase the number of processing channels available.
- Multiple protocols cannot be used at the same time on a single port.
- dSnake and DX protocols support a maximum of two remote audio units per port.
 - The AR2412 and AB168 have dedicated expander ports.
 - It is not possible to connect two AR2412's to one port (as the maximum number of dSnake inputs is 40).
 - The DX168, DX164W and DX012 should be set to 'Cascade' mode with the second unit connected to port B.
 - The second DX unit in cascade mode uses inputs and outputs 17-32. For example, with two DX168s connected directly, outputs 9-16 are unavailable and the outputs for the second unit are 17-24.
- The ME personal monitoring system can either be connected directly to the SLink port, to an 'Expander' or 'Monitor' port on AR2412/AB168 or to the DX2/ME port on GX4816 (with no DX expanders connected).
- Expander firmware is automatically checked and matched to the console upon connection.
- The maximum distance between each connection is 100m. This means the distance from the SLink port to the first unit can be 100m, and the distance from that unit to a second can also be 100m.
- Cat5e (or higher) STP cable should be used throughout any system.

dSnake (+ME)

**SQ
+AR84**



SQ-5 / SQ-6 / SQ-7



— dSnake Cat5e or higher

+8
Mic/Line Inputs
+4
Line Outputs

Protocol
dSnake

Sample Rate
48kHz

**SQ
+AB168**



SQ-5 / SQ-6 / SQ-7



ME PERSONAL MIXING SYSTEM

— dSnake Cat5e or higher
- - - ME Cat5e or higher

+16
Mic/Line Inputs
+8
Line Outputs
+40 Monitor

Protocol
dSnake+ME

Sample Rate
48kHz

**SQ
+AR2412**



SQ-5 / SQ-6 / SQ-7



ME PERSONAL MIXING SYSTEM

— dSnake Cat5e or higher
- - - ME Cat5e or higher

+24
Mic/Line Inputs
+12
Line Outputs
+40 Monitor

Protocol
dSnake+ME

Sample Rate
48kHz

**SQ
+AB168
+AR84**



SQ-5 / SQ-6 / SQ-7



— dSnake Cat5e or higher

+24
Mic/Line Inputs
+12
Line Outputs

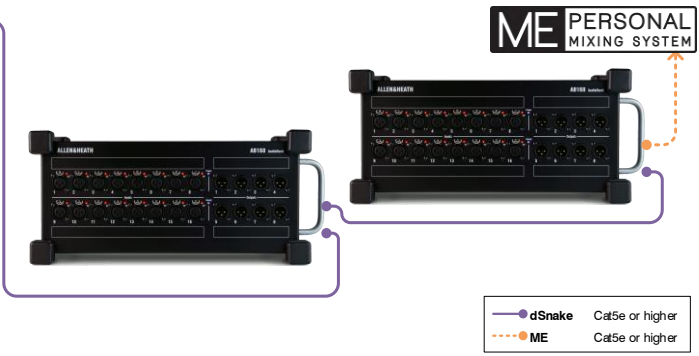
Protocol
dSnake+ME

Sample Rate
48kHz

SQ
+AB168
+AB168



SQ-5 / SQ-6 / SQ-7



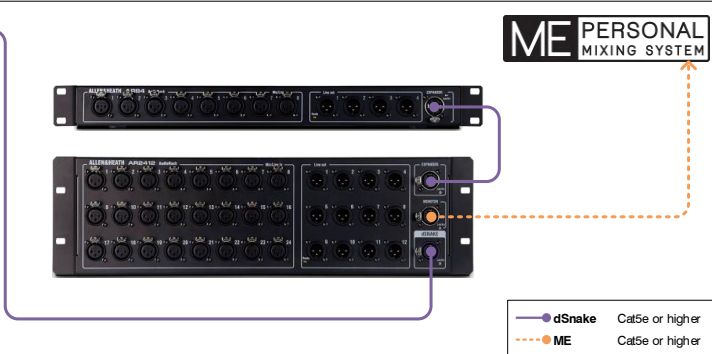
—●— dSnake Cat5e or higher
 - - - ● - - - ME Cat5e or higher

+32
 Mic/Line Inputs
+16
 Line Outputs
 +40 Monitor
Protocol
 dSnake+ME
Sample Rate
 48kHz

SQ
+AR2412
+AR84



SQ-5 / SQ-6 / SQ-7



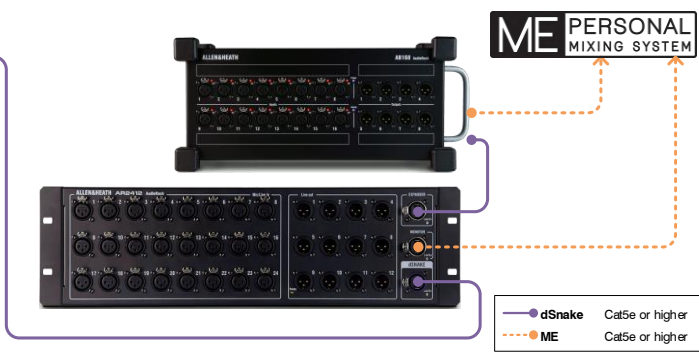
—●— dSnake Cat5e or higher
 - - - ● - - - ME Cat5e or higher

+32
 Mic/Line Inputs
+16
 Line Outputs
 +40 Monitor
Protocol
 dSnake+ME
Sample Rate
 48kHz

SQ
+AR2412
+AB168



SQ-5 / SQ-6 / SQ-7

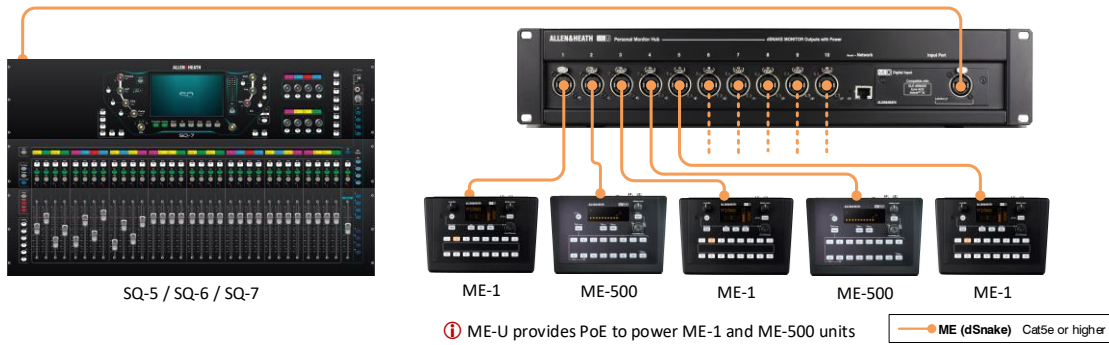


—●— dSnake Cat5e or higher
 - - - ● - - - ME Cat5e or higher

+40
 Mic/Line Inputs
+20
 Line Outputs
 +40 Monitor
Protocol
 dSnake+ME
Sample Rate
 48kHz

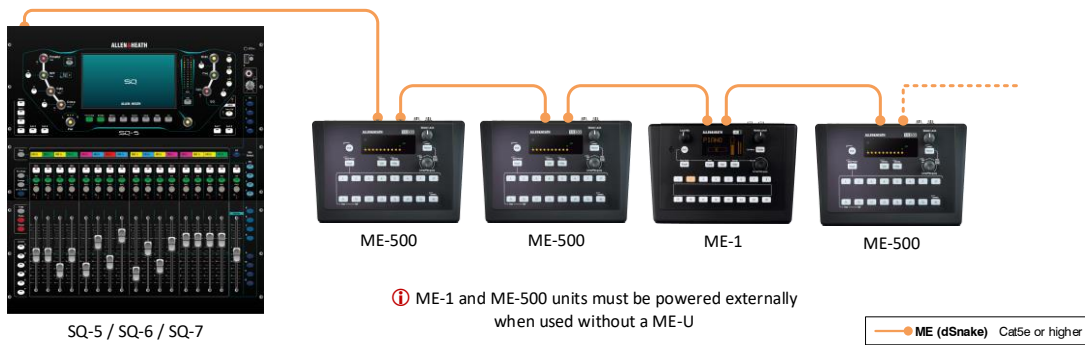
dSnake (ME only)

**SQ
+ME**



+ 40
Monitor
Protocol
ME (dSnake)
Sample Rate
48kHz

**SQ
+ME**

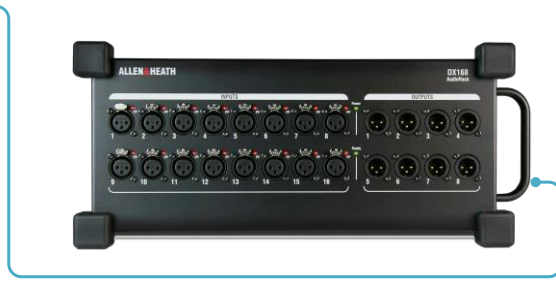


+ 40
Monitor
Protocol
ME (dSnake)
Sample Rate
48kHz

**SQ
+DX168**



SQ-5 / SQ-6 / SQ-7



— DX Cat5e or higher

+16
Mic/Line Inputs
+8
Line Outputs

Protocol
DX

Sample Rate
96kHz

**SQ
+DX164W**



SQ-5 / SQ-6 / SQ-7



— DX Cat5e or higher

+16
Mic/Line Inputs
+4
Line Outputs

Protocol
DX

Sample Rate
96kHz

**SQ
+DX168
+DX168**



SQ-5 / SQ-6 / SQ-7



— DX Cat5e or higher

ⓘ Use cascade mode for the first DX168 in the chain

+32
Mic/Line Inputs
+16
Line Outputs

Protocol
DX

Sample Rate
96kHz

**SQ
+DX168
+DX164W**



SQ-5 / SQ-6 / SQ-7



— DX Cat5e or higher

ⓘ The DX168 and DX164W can be connected in any order
ⓘ Use cascade mode for the first unit in the chain

+32
Mic/Line Inputs
+12
Line Outputs

Protocol
DX

Sample Rate
96kHz

**SQ
+ DX32**



SQ-5 / SQ-6 / SQ-7



- ⓘ The number of inputs/outputs depends on the 4 modules installed
- ⓘ Each slot uses 8 input or 8 output channels

— DX Cat5e or higher

+ ≤32
Mic/Line/AES Inputs

+ ≤32
Line/AES Outputs

Protocol
DX

Sample Rate
96kHz

**SQ
+ DX012**



SQ-5 / SQ-6 / SQ-7



- ⓘ Sockets 4-8 are either line (4-8) or stereo AES (1-8) outputs.
- ⓘ Sockets 9-12 are either line (9-12) or stereo AES (9-16) outputs.

— DX Cat5e or higher

+ ≤12
Line Outputs

+ ≤8
AES St Outputs

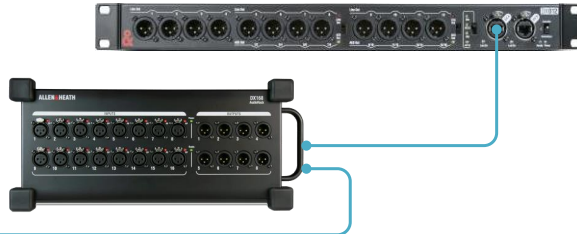
Protocol
DX

Sample Rate
96kHz

**SQ
+ DX168
+ DX012**



SQ-5 / SQ-6 / SQ-7



- ⓘ The DX168 and DX012 can be connected in any order
- ⓘ Use cascade mode for the first unit in the chain

— DX Cat5e or higher

+ 16
Mic/Line Inputs

+ ≤20
Line Outputs

+ ≤8
AES St Outputs

Protocol
DX

Sample Rate
96kHz

SQ
+ DX Hub
+ 3 x DX168



SQ-5 / SQ-6 / SQ-7



ⓘ Up to 2 DX168s or DX164Ws can be connected in any order to each DX port using cascade mode

● gigaACE/GX Cat5e or higher
● DX Cat5e or higher

+48
Mic/Line Inputs
+24
Line Outputs

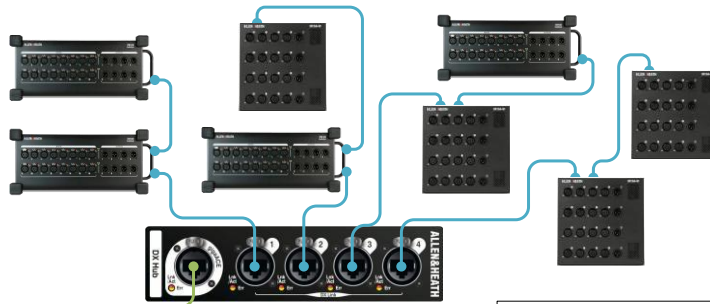
Protocol
gigaACE/GX + DX

Sample Rate
96kHz

SQ
+ DX Hub
+ 4 x DX168
+ 4 x DX164W



SQ-5 / SQ-6 / SQ-7



ⓘ Up to 2 DX168s or DX164Ws can be connected in any order to each DX port using cascade mode

● gigaACE/GX Cat5e or higher
● DX Cat5e or higher

+128
Mic/Line Inputs
+48
Line Outputs

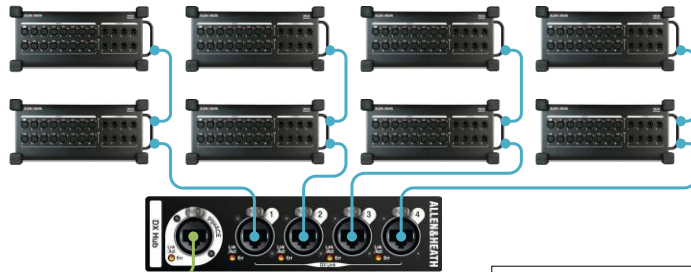
Protocol
gigaACE/GX + DX

Sample Rate
96kHz

SQ
+ DX Hub
+ 8 x DX168



SQ-5 / SQ-6 / SQ-7



ⓘ Up to 2 DX168s or DX164Ws can be connected in any order to each DX port using cascade mode

● gigaACE/GX Cat5e or higher
● DX Cat5e or higher

+128
Mic/Line Inputs
+64
Line Outputs

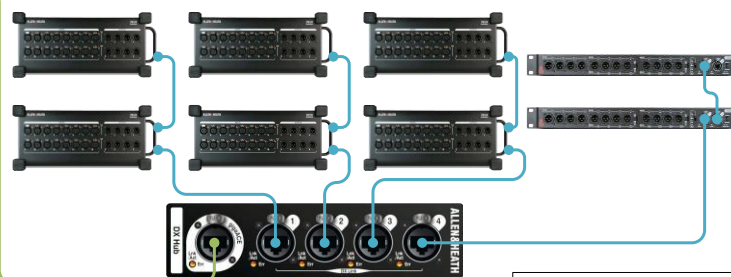
Protocol
gigaACE/GX + DX

Sample Rate
96kHz

SQ
+ DX Hub
+ 6 x DX168
+ 2 x DX012



SQ-5 / SQ-6 / SQ-7



ⓘ Up to 2 DX168s or DX012s can be connected in any order to each DX port using cascade mode

● gigaACE/GX Cat5e or higher
● DX Cat5e or higher

+96
Mic/Line Inputs
+ ≤72
Line Outputs
+ ≤16
AES St Outputs

Protocol
gigaACE/GX + DX

Sample Rate
96kHz

**SQ
+GX4816**



SQ-5 / SQ-6 / SQ-7



i The DX2 port can be connected to either DX expanders or a ME system, but not both

— gigaACE/GX Cat5e or higher
- - - ME Cat5e or higher

+48
Mic/Line Inputs
+24
Line Outputs
+40 for ME

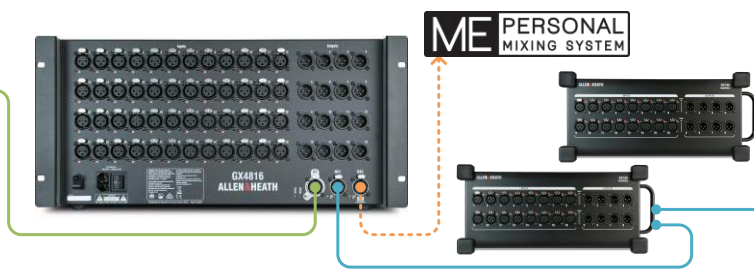
Protocol
gigaACE/
GX+DX+ME

Sample Rate
96kHz

**SQ
+GX4816
+2 x DX168**



SQ-5 / SQ-6 / SQ-7



i The DX2 port can be connected to either DX expanders or a ME system, but not both

— gigaACE/GX Cat5e or higher
— DX Cat5e or higher
- - - ME Cat5e or higher

+80
Mic/Line Inputs
+32
Line Outputs
+40 for ME

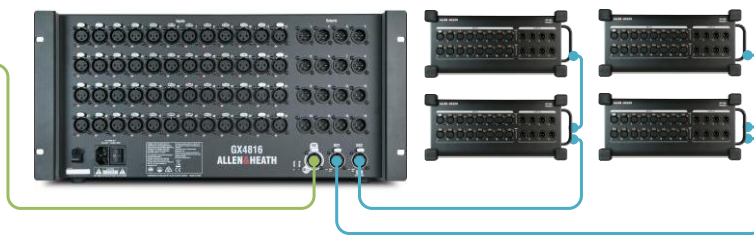
Protocol
gigaACE/
GX+DX+ME

Sample Rate
96kHz

**SQ
+GX4816
+4 x DX168**



SQ-5 / SQ-6 / SQ-7



i Up to 2 DX units can be connected in any order to each DX port using cascade mode

— gigaACE/GX Cat5e or higher
— DX Cat5e or higher

+112
Mic/Line Inputs
+48
Line Outputs

Protocol
gigaACE/GX+DX

Sample Rate
96kHz

**SQ
+GX4816
+2 x DX168
+2 x DX012**



SQ-5 / SQ-6 / SQ-7



i Up to 2 DX units can be connected in any order to each DX port using cascade mode

— gigaACE/GX Cat5e or higher
— DX Cat5e or higher

+80
Mic/Line Inputs
+ ≤56
Line Outputs
+ ≤16
AES St Outputs

Protocol
gigaACE/GX+DX

Sample Rate
96kHz

System to System

SQ
+ Qu



SQ-5 / SQ-6 / SQ-7



Qu-16 / Qu-24 / Qu-32 / Qu-Pac / Qu-5B

dSnake Cat5e or higher

+60
Input Sources
+40
Output Destinations

Protocol
dSnake

Sample Rate
48kHz

SQ
+ SQ



SQ-5 / SQ-6 / SQ-7



SQ-5 / SQ-6 / SQ-7

gigaACE/GX Cat5e or higher

+128
Input Sources
+128
Output Destinations

Protocol
gigaACE/GX

Sample Rate
96kHz

SQ
+ Avantis



SQ-5 / SQ-6 / SQ-7



Avantis

ⓘ Connection also possible using GigaACE Option Card

gigaACE/GX Cat5e or higher

+128
Input Sources
+128
Output Destinations

Protocol
gigaACE/GX

Sample Rate
96kHz

SQ
+ dLive



SQ-5 / SQ-6 / SQ-7



dLive System (Any)

gigaACE/GX Cat5e or higher

+128
Input Sources
+128
Output Destinations

Protocol
gigaACE/GX

Sample Rate
96kHz

Total Assignable Inputs and Outputs per console (excluding USB and I/O Port)

Remote Unit/s	SLink mode	SLink Inputs	SLink Outputs	SQ-5		SQ-6		SQ-7	
				16 Mic/Line In + Talkback + 6 Line In		24 Mic/Line In + Talkback + 6 Line In		32 Mic/Line In + Talkback + 6 Line In	
				12 XLR + 2 TRS Line Out + AES		14 XLR + 2 TRS Line Out + AES		16 XLR + 2 TRS Line Out + AES	
				Total Inputs	Total Outputs	Total Inputs	Total Outputs	Total Inputs	Total Outputs
AR84	dSnake	8	4	31	20	39	22	47	24
AB168		16	8	39	24	47	26	55	28
AR2412		24	12	47	28	55	30	63	32
AB168 + AR84		24	12	47	28	55	30	63	32
AB168 + AB168		32	16	55	32	63	34	71	36
AR2412 + AR84		32	16	55	32	63	34	71	36
AR2412 + AB168		40	20	63	36	71	38	79	40
DX164W	DX	16	4	39	20	47	22	55	24
DX164W + DX164W		32	8	55	24	63	26	71	28
DX168		16	8	39	24	47	26	55	28
DX168 + DX168		32	16	55	32	63	34	71	36
DX32 (I/O module dependant)		≤32	≤32	≤55	≤48	≤63	≤50	≤71	≤52
DX012 (analogue/digital dependant)		0	≤16	23	≤32	31	≤34	39	≤36
DX Hub + 3 DX168	gigaACE/GX	48	24	71	40	79	42	87	44
DX Hub + 8 DX168		128	64	151	80	159	82	167	84
DX Hub + 4 DX168 + 4 DX164		128	48	151	64	159	66	167	68
DX Hub + 6 DX168 + 2 DX012		≤96	≤80	≤119	≤96	≤127	≤98	≤135	≤100
GX4816		48	16	71	32	79	34	87	36
GX4816 + 1 DX168		64	24	87	40	95	42	103	44
GX4816 + 2 DX168 + 2 DX168		112	48	135	64	143	66	151	68
GX4816 + 2 DX168 + 2 DX012		≤80	≤64	≤103	≤80	≤111	≤82	≤119	≤84
ME system (any)	dSnake	0	40	23	56	31	58	39	60
Qu mixer (any)	dSnake	60	40	83	56	91	58	99	60
SQ mixer (any)	gigaACE/GX	128	128	151	144	159	146	167	148
Avantis (SLink or gigaACE option card)	gigaACE/GX	128	128	151	144	159	146	167	148
dLive (any, via gigaACE option card)	gigaACE/GX	128	128	151	144	159	146	167	148