System Cabling
SGI™ 3000 Series Systems

Preliminary Version for Classroom Use

SGI Proprietary

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SGI
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Chapter 1

Overview

SGI™ 3000 series system cabling includes cable connections for NUMAlink3 channels, Xtown2 channels, system controllers (L1, L2, and L3), Ethernet hub, and the Cisco router. This section provides an overview of the cables, brick and peripheral connectors to which these cables connect, and guidelines for handling and routing cables. This section also provides an explanation of the rack and brick numbering nomenclature used for the SGI 3000 series systems.

1.1 Cable Types and Part Numbers

Table 1-1lists the cables used in an SGI 3000 series system.

Table 1-1 SGI 3000 Series Systems Cables

Cable Type	Part Number	Description	Where Used
DNET	018-0846-001	DNET 1 Meter Cable Assembly (Red)	NUMAlink3 and Xtown2 connections.
	018-0847-001	DNET 2 Meter Cable Assembly (Green)	NUMAlink3 and Xtown2 connections.
	018-0848-001	DNET 3 Meter Cable Assembly (Yellow)	NUMAlink3 and Xtown2 connections.
	018-0849-001	DNET4 Meter Cable Assembly (Blue)	Xtown2 connections.
Power	018-0843-001	1.5 M Power Entry Cable Assembly	Connects from 48 Vdc output connector to individual bricks. 1.5 meter cable connects from power bay in U1 to a brick in U27 or from power bay in U4 to a brick in U30. Connections beyond this location require the 3.0 meter cable.
	018-0844-001	3.0 M Power Entry Cable Assembly	
System Control	018-0857-001	L2 Display Cable Assembly	Connects from the back of the L2 display to the L2 LCD Display connector.
	018-0858-001	48V Power to L2 Cable Assembly	Connects from the 48V connector in the power bay to L2 power input.

Table 1-1 SGI 3000 Series Systems Cables

Cable Type	Part Number	Description	Where Used
Ethernet Hub	????		
Brick Subassemblies	015-0323-001	L1 Inlet to power board Harness Assembly.	R, I, P, and X bricks. Connects the L1 to the power board.
	015-0325-001	External to Fans / SC	P, X, and I bricks.
	015-0326-001	R external L1 to Fans / SC Harness Assembly	R brick.
	015-0330-001	PIXR P1 Inlet L1 to Fans Harness Assembly	R, P, X, and I bricks.
	015-0342-001	Power Inlet to Power Board Harness Assembly	P, X, and I bricks.
	015-0345-001	Internal Power Router Harness Assembly	R brick.
	015-0346-001	On / Off C brick with switch Harness Assembly.	C brick.
	015-0349-001	Disk power IO generator harness assembly	I brick.
	018-0840-001	Rem Med Jumper Harness assembly	I brick.
	018--0841-001	IEEE 1394 6-6 .7M Harness assembly	I brick.
	108-0851-001	RND HSSDC / 9 pin DSUB500mm harness assembly	I brick.
	108-0852-001	SVGA Cable assembly.	I brick.
	108-0853-001	Serial / ST cable assembly.	I brick.
	108-0856-001	C TREX INT MB to bulkhead harness assembly.	C brick.
Remote Support		Ethernet cable assembly (straight-thru???)	Connects between an Ethernet 10 Base T port on the Cisco router to _____ on the Ethernet hub to enable multiple systems to use remote support.

1.2 Cable Handling Guidelines

1.2.1 Routing Data and Power Cables

The following rules apply to routing data (DNET, Ethernet, Controller, cables) and power cables:

- Keep data cables a minimum distance of _____ from power lines (*minimum distance?*)
- Do not run data and power cables parallel with each other.
- Ensure that power and data cables cross at a 90 degree angle.

1.2.2 Handling DNET Cables

Four lengths of DNET cables are used for network and IO connections in an SGI 3000 series system. Use the following guidelines when handling DNET cables:

- Avoid bending DNET cables beyond the recommended bend radius as illustrated in Figure 1-1.
- Do not step on the cables or apply a constant force greater than 25 lbs.
- Do not twist the cable ends.
- Inspect the connectors prior to plugging into a brick to ensure there are no bent pins.

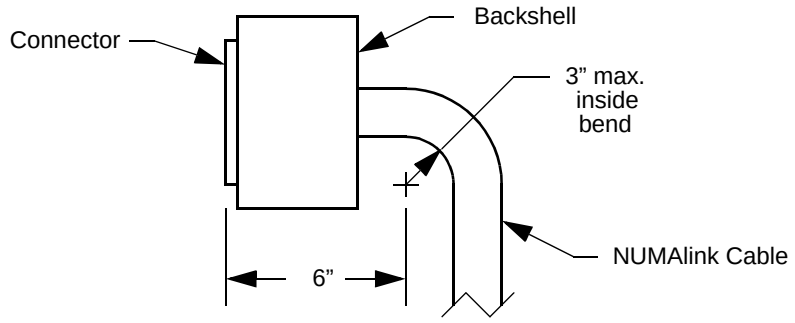


Figure 1-1 NUMAlink Cable Bend Radius

1.3 Rack Numbering and Brick Locations

Figure 1-3 shows how racks and bricks are numbered within a system. In a single rack system (either 17U or 39U) the rack is always numbered Rack 001. In multi-rack configurations, compute rack numbers begin with 0 (001, 002, 003, and so on) and IO racks begin with 1 (101, 101, 111, 112, and so on); the 100's digit determines if the rack is a compute rack or an IO rack. In a compute rack, the 10's and 1's digits represent the rack number (001 through 018). In an IO rack the 10's digit represents the quadrant in which the IO rack resides and the 1's digit represents the IO rack number (for example, 131 is IO rack 1 in quadrant three). In large configurations (beyond 128 processors) two rows of racks exist. For explanation purposes, this document refers to these rows as row 1 and row 2 and refers to racks within the same row as adjacent racks. For example, Rack 002 is the first adjacent rack to Rack 001; Rack 003 is the second adjacent rack to Rack 001and so on.

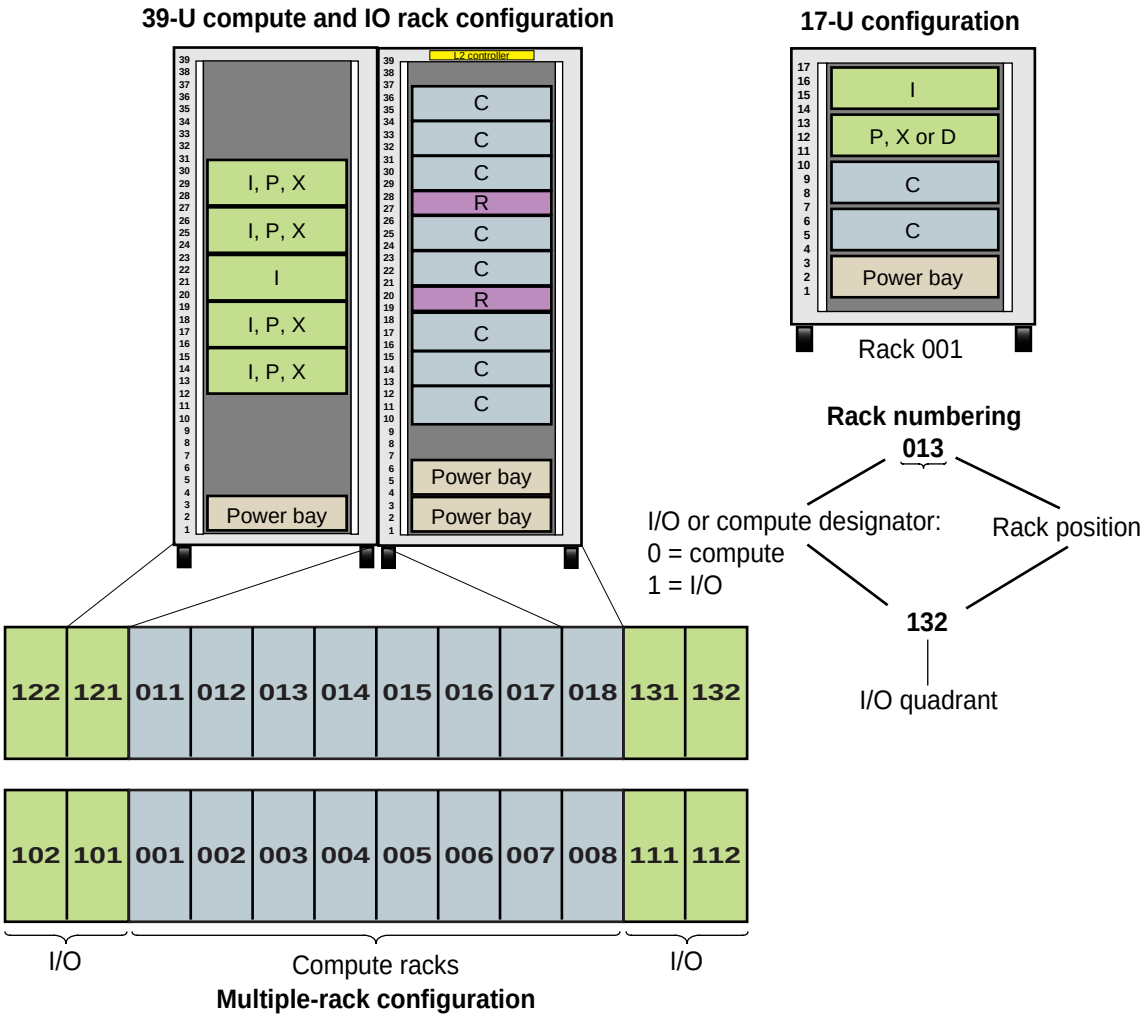


Figure 1-2 Rack Numbering

Note: Brick positions for an SGI 3400 system are not represented in Figure 1-2; bricks in a SGI 3400 series system begin at U7.

Bricks are numbered by the bottom U in which the brick resides. For example in a 16 processor 4200 system (17 U rack) as shown in Figure 1-3, C bricks reside in U 4 and U 8. Sometimes this U location is also referred to as the slot or bay. The location of bricks within a rack varies depending on the system and its power requirements as well as the customer's configuration with IO bricks.

This rack and brick numbering scheme is used throughout this document to define the source and destination locations for connecting NUMAlink3 cables. You will also see this numbering reflected in IRIX messages, controller prompts, and the hardware graph as illustrated in Figure 1-3.

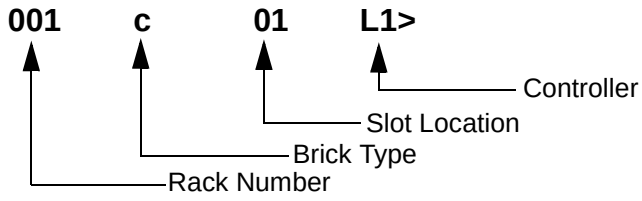


Figure 1-3 Brick and Rack Software Nomenclature

1.4 Brick and Hardware Connectors

This subsection describes the connectors on each brick, controller, and Ethernet hub. The connector names on the bricks identify the function of the connector, not the type of protocol or channel. Table 1-2 provides a general description of the LEDs on the back of each brick as they pertain to cable connections.

Table 1-2 LED Descriptions *(needs verification???)*

LED Color	Description	On	Off
Red	Failed condition	Failure	
Green	Hardware Connection	Good connection.	No cable attached; port continuity
Amber	Software activity / traffic	Activity on the channel	No traffic or connection.

1.4.1 C Brick Connectors

Figure 1-4 shows the C brick connectors; Table 1-3 describes these connectors and provides their internal and external source or destination.

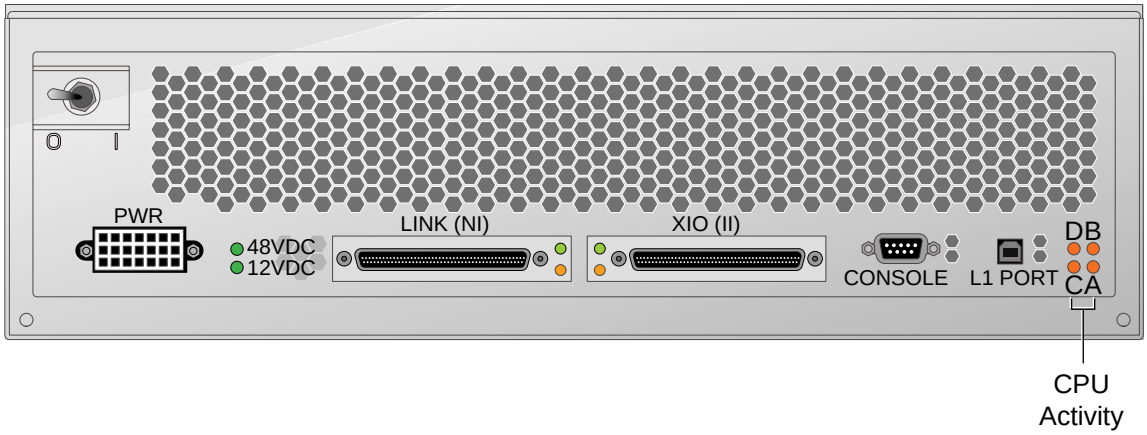


Figure 1-4 C Brick Connectors

Table 1-3 C Brick Connectors

		Destination		
Connector	**Connector Type**	**Internal Connection**	**External Connection(s)**	**Notes**
Link (NI)	100-pin DNET	Bedrock ASIC NI port	C brick: Link (NI) R brick: Links 1 through 8	C brick to C brick connections use 4 RS-422 wires (two wire pairs where pins 5/6 connect to pins 96/95). C brick to R brick connections use 2 wires for USB signals (R brick pins 5/6 connect to C brick pins 96/95). Two wires are not used (pins 95/6 and 96/5).
XIO (II)	100-pin DNET	Bedrock ASIC II port	XIO port 10 or 11 on an I, P, or X bricks.	
Console	DB9		Dumb terminal or L3	
L1 Port	Series A USB	L1 Controller	L3	This port is used only when there is no R brick in the system.

1.4.1.1 CPU Activity LEDs

Four red LEDs on the C brick indicate CPU activity or a “heartbeat” when IRIX is running. Each LED represents one of the four PIMMs. If the C brick is a two processor C brick, then only two LEDs illuminate.

Note: Only the bottom two LEDs function. The left LED represents CPUs A and B (or 1 and 2) and the right LED represents CPUs C and D (3 and 4).

1.4.2 R brick

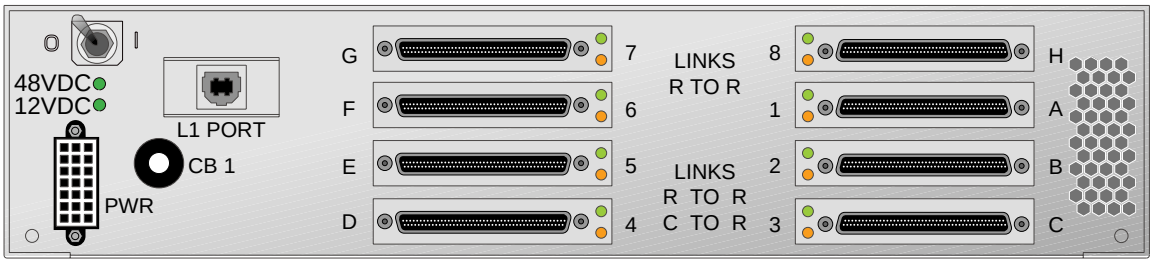


Figure 1-5 R Brick Connectors.

Table 1-4 R Brick Connectors

		Destination		
Connector	**Connector Type**	**Internal Connection**	**External Connection(s)**	**Notes**
L1 Port	Series A USB	L1 USB hub	L2 controller ports 1, 2, 3, or 4.	
8	100-pin DNET	Router ASIC Port H	R brick	
1	100-pin DNET	Router ASIC Port A	R brick	
6	100-pin DNET	Router ASIC Port F	C or R brick	
7	100-pin DNET	Router ASIC Port G	C or R brick	
2	100-pin DNET	Router ASIC Port B	R brick	These ports (C brick to R brick connections) use 2 wires for USB signals (R brick pins 5/6 connect to C brick pins 96/95). Two wires are not used (pins 95/6 and 96/5).
3	100-pin DNET	Router ASIC Port C	R brick	
4	100-pin DNET	Router ASIC Port D	C or R brick	
5	100-pin DNET	Router ASIC Port E	C or R brick	

1.4.3 I Brick

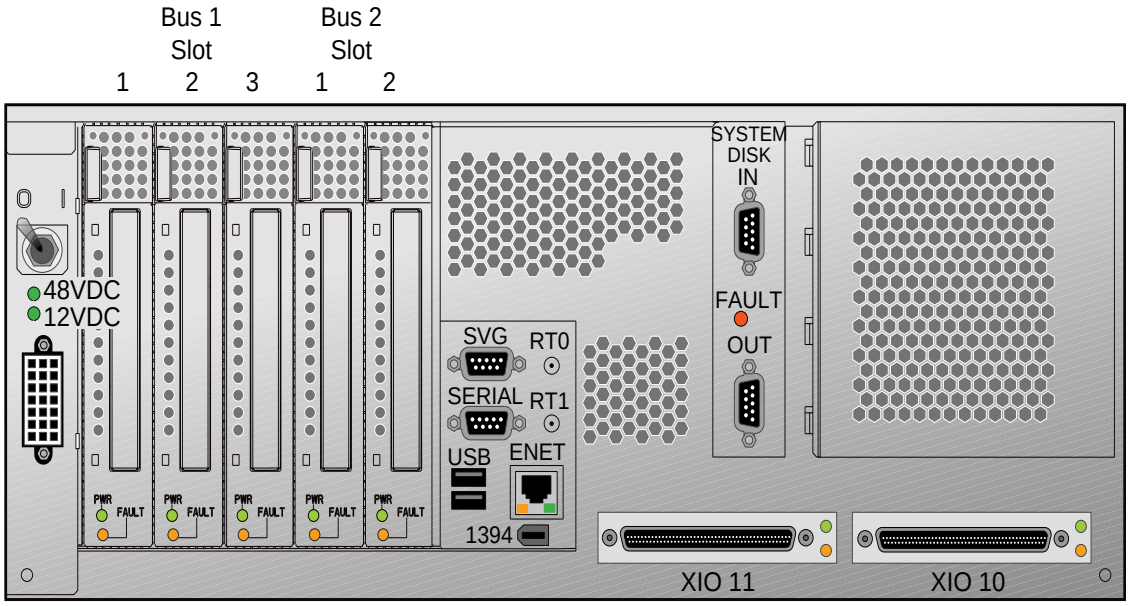


Figure 1-6 I Brick Connectors

Table 1-5 I Brick Connectors

Connector	Connector Type	Destination: Internal Connection	Destination: External Connection(s)	Notes
Bus 1; Slots 1, 2, and 3	184 pin PC connector	XBridge Port F	Dependent on PCI cards and customer peripherals	PCI connector on the 12 slot IO printed circuit assembly.
Bus 2; Slots 1 and 2	184 pin PC connector	XBridge Port E	Dependent on PCI cards and customer peripherals	PCI connector on the 12 slot IO printed circuit assembly.
SVGA	RS-232 (DB9)	U709-->XBridge Port F	Not Used.	Used with future products.
Serial	RS-232 (DB9)	U715-->U714-->U701--> XBridge Port F	Console or dumb terminal	
USB 1	USB	U702 Port 1-->XBridge Port F	Peripheral (i.e. mouse, printer, etc.)	
USB 2	USB	U702 Port 2-->XBridge Port F	Peripheral (i.e. mouse, printer, etc.)	
1394		U707-->U706-->XBridge Port F		Firewire
RTO	Stereo Jack	U701-->XBridge Port F	???	Real-time interrupt In. Used primarily with Graphics.
RTI	Stereo Jack	U701-->XBridge Port F	???	Real-time interrupt Out. Used primarily with Graphics.

Table 1-5 I Brick Connectors

ENET		U708-->U701->XBridge Port F	Network	
XIO 11	100 Pin DNET	XBridge ASIC Port B	C brick XIO port.	
XIO 10	100 Pin DNET	XBridge ASIC Port A	C brick XIO port.	
System Disk In	DB9		Fibre Channel PCI card	
System Disk Out	DB9		Connects to another drive	Can daisy chain to I or D bricks, or external drives.

1.4.4 P Brick

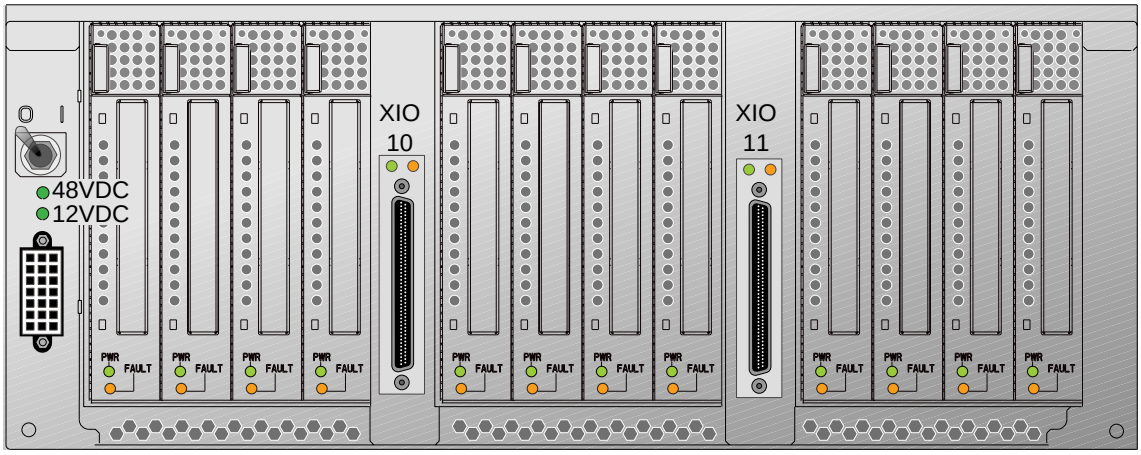


Figure 1-7 P Brick Connectors

Table 1-6 P Brick Connectors

		Destination		
Connector	**Connector Type**	**Internal Connection**	**External Connection(s)**	**Notes**
Bus 1 Slots 1 and 2	184 pin PC connector	XBridge Port F (U1)-->out Port 8 (U1)-->XBridge Port 9(U0)	Dependent on PCI cards and customer's peripherals	PCI connector on the motherboard.
Bus 2 Slots 1 and 2	184 pin PC connector	XBridge Port E (U1)-->out Port 8--> (U1)--> XBridge Port 9	Dependent on PCI cards and customer's peripherals	PCI connector on the motherboard.
Bus 3 Slots 1 and 2	184 pin PC connector	XBridge Port F (U0)	Dependent on PCI cards and customer's peripherals	PCI connector on the motherboard.
Bus 4 Slot 1 and 2	184 pin PC connector	XBridge Port E (U0)	Dependent on PCI cards and customer's peripherals	PCI connector on the motherboard.
Bus 5 Slot 1 and 2	184 pin PC connector	XBridge Port F (U2)-->out Port 8 (U2)-->Port C XBridge (U0)	Dependent on PCI cards and customer's peripherals	PCI connector on the motherboard.
Bus6 Slot 1 and 2	184 pin PC connector	XBridge Port E (U2) out Port D (U2)-->XBridge Port D (U0)	Dependent on PCI cards and customer's peripherals	PCI connector on the motherboard.
XIO 10	NUMAlink	Xbridge ASIC Port A	C brick XIO port.	
XIO 11	NUMAlink	XBridge ASIC Port B (U0)	C brick XIO port.	

1.4.5 X Brick

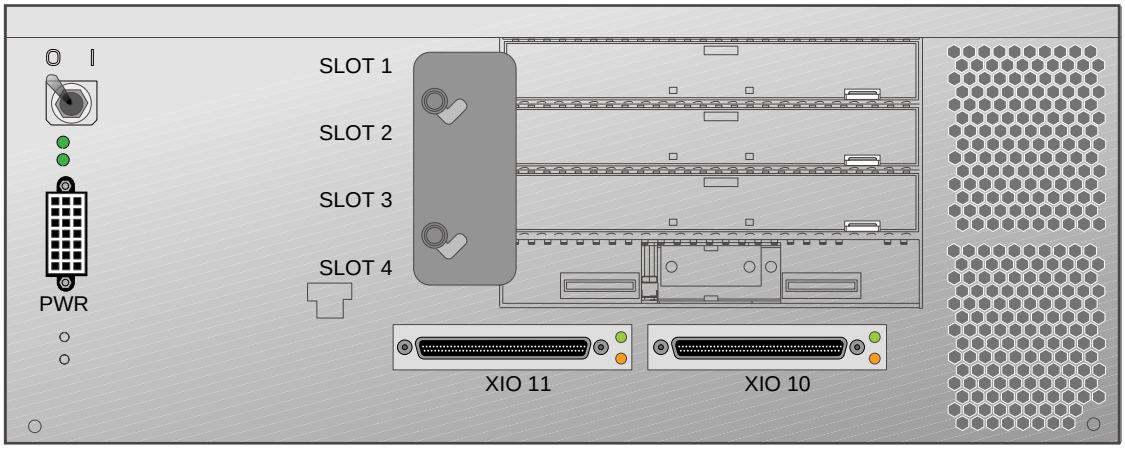


Figure 1-8 X Brick Connectors

Table 1-7 X Brick Connectors

			Destination	
Connector	**Connector Type**	**Internal Connection**	**External Connection(s)**	**Notes**
Slot 1	100 pin (4x25) PC connector	XBridge Port 8	Dependent on XIO cards and Customer's peripherals.	Crosstown interface XIO PCA connector.
Slot 2	100 pin (4x25) PC connector	XBridge Port 9	Dependent on XIO cards and Customer's peripherals.	Crosstown interface XIO PCA connector.
Slot 3	100 pin (4x25) PC connector	XBridge Port C	Dependent on XIO cards and Customer's peripherals.	Crosstown interface XIO PCA connector.
Slot 4	100 pin (4x25) PC connector	XBridge Port D	Dependent on XIO cards and Customer's peripherals.	Crosstown interface XIO PCA connector.
XIO 11	100 Pin DNET	XBridge Port A	C Brick XIO port.	
XIO10	100 Pin DNET	XBridge Port B	C Brick XIO port.	

1.4.6 Power Bay

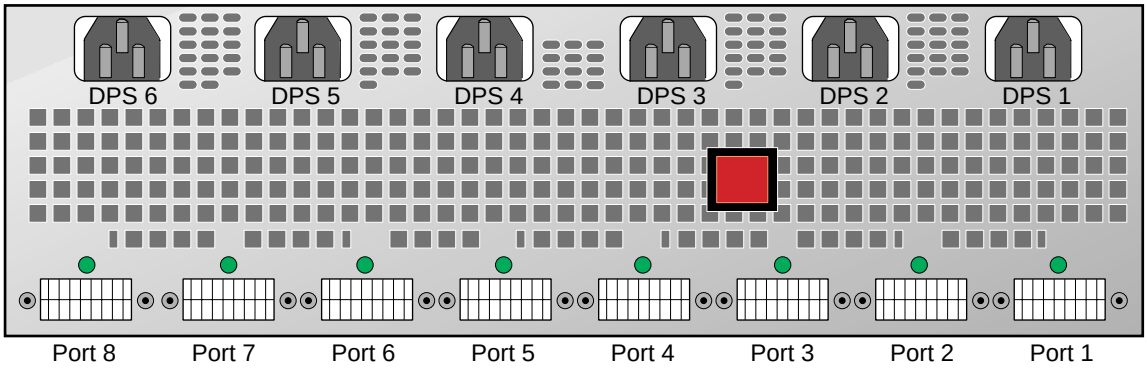


Figure 1-9 Power Bay Connectors

Table 1-8 Power Bay Connectors

		Destination		
Connector	**Connector Type**	**Internal Connection**	**External Connection(s)**	**Notes**
AC Input	???	???	PDU	
48Vdc Output	???	???	Power connector on the bricks and the L2 controller.	L2 controller connection requires a 3 meter power cable and the L2 PCA power adapter.

1.4.7 D Brick

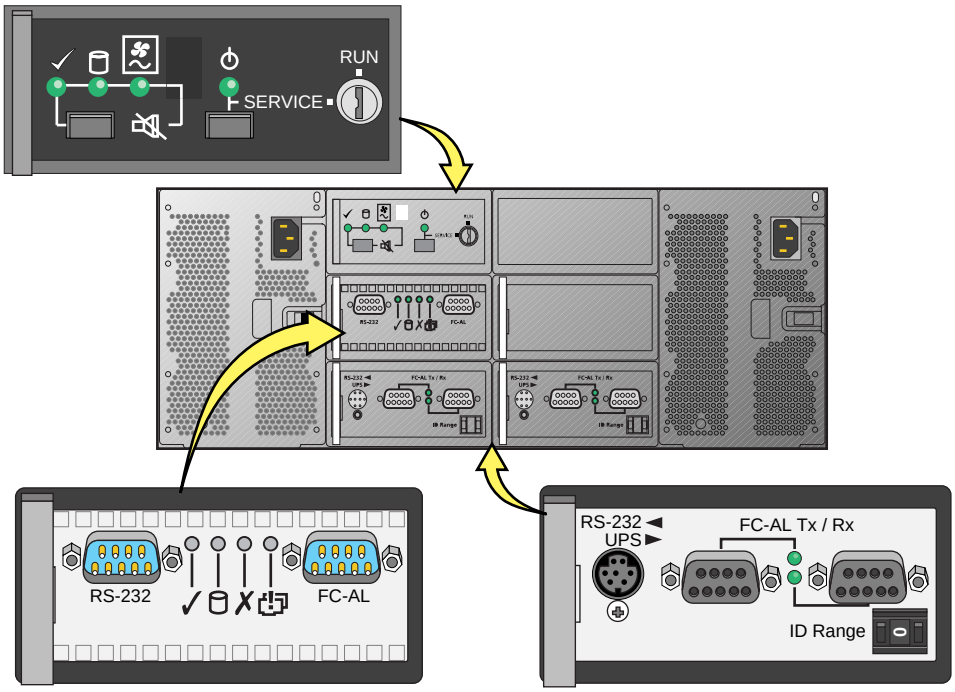


Figure 1-10 D Brick Connectors

Table 1-9 D Brick Connectors *(Information to be provided)*

		Destination		
Connector	**Connector Type**	**Internal Connection**	**External Connection(s)**	**Notes**
RS-232				
FC-AL				
RS-232 / UPS				
FC-AL Tx / Rx				

1.4.8 L2 Controller

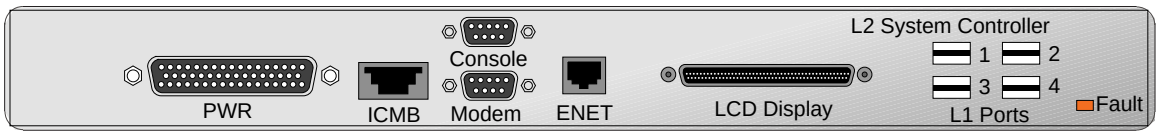


Figure 1-11 L2 Controller Connectors

Connector	Connector Type	Destination: Internal Connection	Destination: External Connection(s)	Notes
PWR			Power bay	Requires a 3 meter and adapter???
ICMB	Molex	RS-485 controller --> processor	D brick	Can link to many D bricks (32 devices)
Console	DB9	RS-232 controller-->processor	Dumb terminal	
Modem	DB9	RS-232	External modem	Only used when a Cisco router (ISDN) not used.???
Ethernet	RJ45	100BT controller	L3, Ethernet hub, or Cisco Router	
LCD Display		RS-422 controller --> processor and LCD controller	L2 display	
L1 Ports	USB	USB controller -->PCI Bridge	C or R brick	

1.4.9 Ethernet Hub

Information to be provided.

1.4.10 Cisco Router

Figure 1-12 Cisco Router Cable Connections

Table 1-10 Cisco Router Cable Connections

Cable	Connector (Source)	Destination
Yellow	Ethernet Port	Ethernet Hub Port 3X
Blue	Console Port	Console or dumb terminal.
Red	ISDN Port	ISDN lin (wall jack)
Black	Power Connector	Power strip
	Telephone Ports	Phone line (modem ???)

Chapter 2

NUMALink3 and Xtown2 Cabling

DNET cables function as a network interface and an IO interface channels. When these cables connect nodes (sometimes through routers) between the network interface (NI) port on C bricks, they function and are referred to as NUMAlink3 cables. When these cables function as an IO interface and connect nodes from the II port on a C brick to the XTown (XIO) port on an IO brick (I, P, or X) they are referred to as Xtown2 cables. The DNET cables come in four lengths: 1 meter, 2 meters, 3 meters, and 4 meters. Table 2-1 lists the four cables and identifies the function for which the different lengths are used.

Table 2-1 DNET Cable Descriptions *(invalid information--needs updating and will change with configuration changes)*

Cable		Cable Function/Connection	
Length	Label Color	Network Interface (Link)	IO Interface (XTown2)
1 meter	Red	**Same rack**: C to C (Link NI to Link NI); C to R (Link NI to Links 2, 3, 4, or 5) Router to Router (Link 1, 6, 7, 8)	Not used.
2 meter	Green	**Adjacent Rack:** Router to Router MetaRouter to MetaRouter MetaRouter to Repeater Router	**Same rack:** C to I, P, or X brick (XIO (II) port to XIO 10/XIO 11 port) except SGI 4200 systems. **Adjacent Rack 1**: C to I, P, or X brick within 24 U of C brick (XIO (II) port to XIO 10/XIO 11 port)
3 meter	Yellow	**Adjacent Racks**: Router to MetaRouter	**Adjacent Rack**:
4 meter	Blue		

2.1 Cable Labels

Figure 2-1 shows the different labels for DNET cables. Each cable has a cable collar that an ID label adheres to. The collar rotates so the label is easily visible. Four colors of labels identify the cable lengths (red, green, yellow, blue) and includes a place to adhere a source/destination label. The source/destination label includes the rack number (001), the brick type and slot location (r17), and the port in which it connects (04). The

source-destination label is applied at the factory; however, spare labels can be ordered and ship with product upgrades so rack, brick, and port locations can be updated as a customer's configuration changes. Table 2-1 lists all the labels adhered to DNET cables and describes the function of these labels.

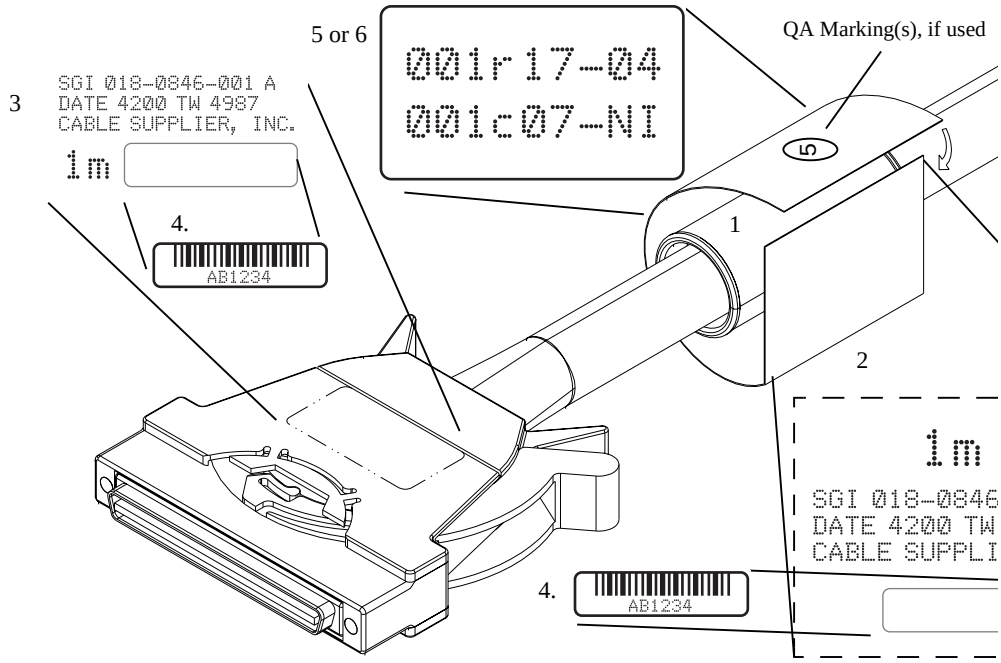


Figure 2-1 Cable Label Locations and Content *(Label drawing needs updating)*

Table 2-2 Cable Label Descriptions

Number	Item	Description
1	Cable Label Collar	The collar (a two-piece assembly) provides a location for the wrap-around labels to adhere to and can be rotated to ensure easy viewing of the information.
2	ID Label	A color-coded wrap around label that provides the cable part number and the serial number. This label includes location for the source / destination label to adhere.
3	Backshell Label	Backshell labels contain the cable length (in meters), the cable assembly part number, and cable supplier information along with a barcode label.
4	Serial Number Barcode Label	Barcode labels contain the serial number for quality tracking, inventory, configuration, and service purposes.
5	Factory Source / Destination Label	Adhered to the collar and provides the source and destination specific to a configuration. The information on this label includes the rack number, brick type and brick unit, and the port in which the cable connects.

Table 2-2 Cable Label Descriptions

Number	Item	Description
6	Field Source / Destination Label	Adhered to the collar by field personnel during an upgrade process. This label replaces a factory label for a change in system configuration and provides the source and destination specific to the changed configuration. The information on this label includes the rack number, brick type and brick unit, and the port in which the cable connects.

2.2 DNET Connector Pinouts

Figure 2-2 shows the DNET connector pinouts for an R bricks connector receptacles. One group of receptacles on the R brick is inverted. The DNET connector receptacle pinouts are the same for the network interface (NI) or Link port, the IO interface (II) port, and the XIO ports of each brick type. Table 2-3 lists the pin number and signal associated with each pin.

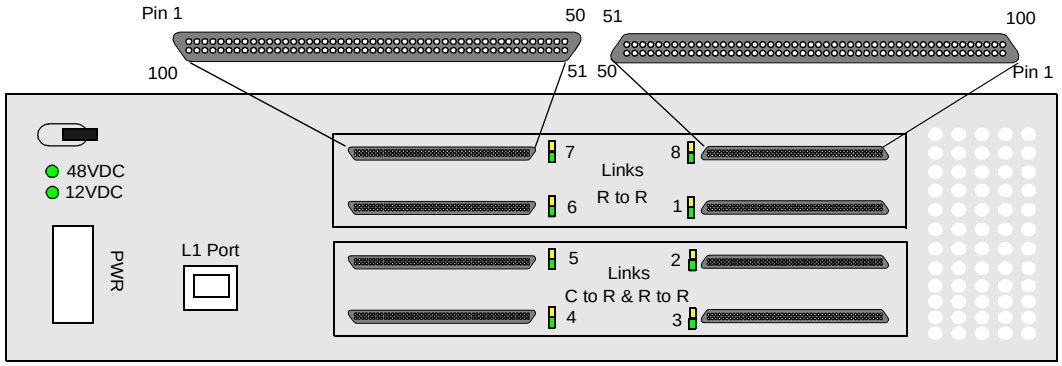


Figure 2-2 R Brick DNET Connector Receptacle Pinouts

Table 2-3 DNET Brick Receptacle Pin Assignments (Pin 1 Upward)

Pin	Signal	Pin	Signal	Pin Numbers
1	RTCLOCKOUT_L	51	REMOTE_POK_H	
2	RTCLOCKOUT_H	52	REMOTE_POK_L	
3	CLKOUT_L	53	DATAIN_H0	
4	CLKOUT_H	54	DATAIN_L0	
5	RS422 / USB_UP_L	55	DATAIN_H1	
6	RS422 / USB_UP_H	56	DATAIN_L1	
7	DROUT_L	57	DATAIN_H2	
8	DROUT_H	58	DATAIN_L2	
9	DATAOUT_L19	59	DATAIN_H3	
10	DATAOUT_H19	60	DATAIN_L3	
11	DATAOUT_L18	61	DATAIN_H4	
12	DATAOUT_H18	62	DATAIN_L4	
13	DATAOUT_L17	63	DATAIN_H5	
14	DATAOUT_H17	64	DATAIN_L5	
15	DATAOUT_L16	65	DATAIN_H6	
16	DATAOUT_H16	66	DATAIN_L6	
17	DATAOUT_L15	67	DATAIN_H7	
18	DATAOUT_H15	68	DATAIN_L7	
19	DATAOUT_L14	69	DATAIN_H8	

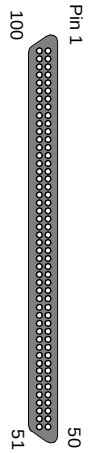


Table 2-3 DNET Brick Receptacle Pin Assignments (Pin 1 Upward)

Pin	Signal	Pin	Signal	Pin Numbers
20	DATAOUT_H14	70	DATAIN_L8	
21	DATAOUT_L13	71	DATAIN_H9	
22	DATAOUT_H13	72	DATAIN_L9	
23	DATAOUT_L12	73	DATAIN_H10	
24	DATAOUT_H12	74	DATAIN_L10	
25	DATAOUT_L11	75	DATAIN_H11	
26	DATAOUT_H11	76	DATAIN_L11	
27	DATAOUT_L10	77	DATAIN_H12	
28	DATAOUT_H10	78	DATAIN_L12	
29	DATAOUT_L9	79	DATAIN_H13	
30	DATAOUT_H9	80	DATAIN_L13	
31	DATAOUT_L8	81	DATAIN_H14	
32	DATAOUT_H8	82	DATAIN_L14	
33	DATAOUT_L7	83	DATAIN_H15	
34	DATAOUT_H7	84	DATAIN_L15	
35	DATAOUT_L6	85	DATAIN_H16	
36	DATAOUT_H6	86	DATAIN_L16	
37	DATAOUT_L5	87	DATAIN_H17	
38	DATAOUT_H5	88	DATAIN_L17	
39	DATAOUT_L4	89	DATAIN_H18	
40	DATAOUT_H4	90	DATAIN_L18	
41	DATAOUT_L3	91	DATAIN_H19	
42	DATAOUT_H3	92	DATAIN_L19	
43	DATAOUT_L2	93	DRIN_H	
44	DATAOUT_H2	94	DRIN_L	
45	DATAOUT_L1	95	RS422 / USB_DOWN_H	
46	DATAOUT_H1	96	RS422 / USB_DOWN_L	
47	DATAOUT_L0	97	CLKIN_H	
48	DATAOUT_H0	98	CLKIN_L	
49	LOCAL_POK_L	99	RTCLOCKIN_H	
50	LOCAL_POK_H	100	RTCLOCKIN_L	

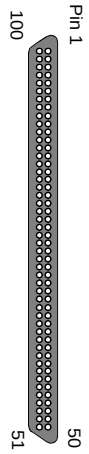


Figure 2-3 shows a DNET cable, wiring, and the pin numbering for each of the connector ends. Table 2-4 shows the electrical pinout of connector ends A and B. Note that pin 1 on connector side A connects to pin 100 on connector side B. On the physical connector Pin 1 is located below pin 51.

There are no ground pins on the connector ends. The logic ground connection is the connector dock.

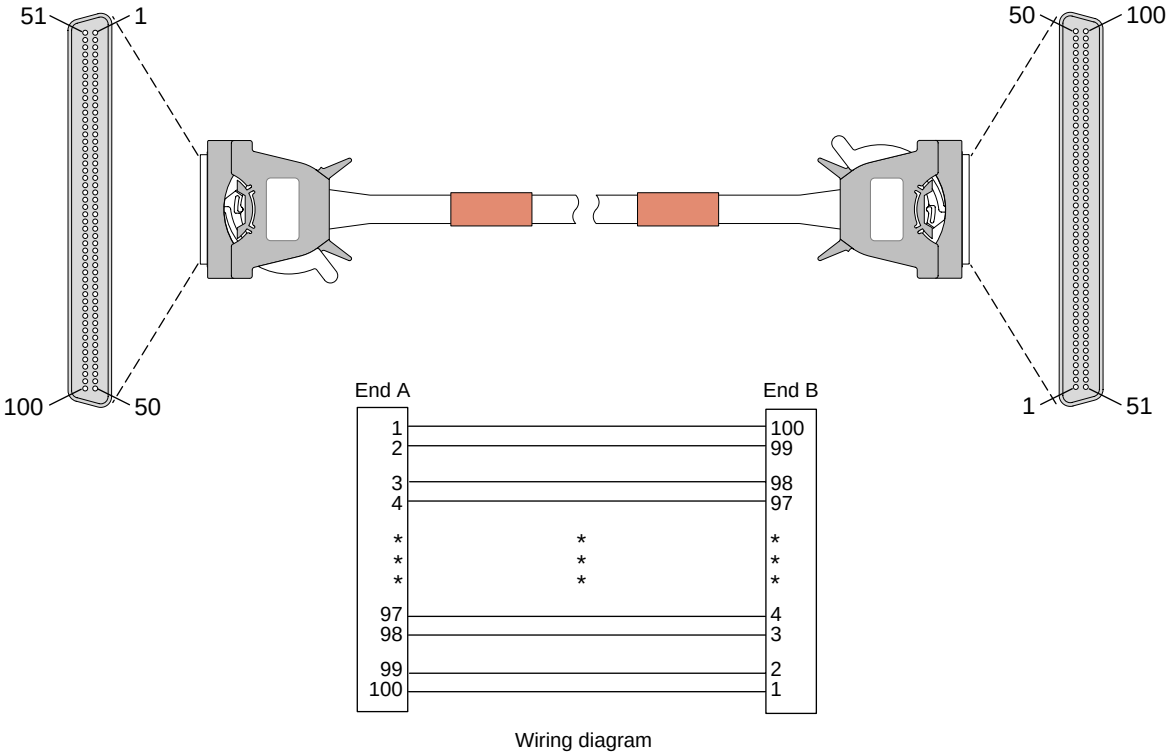


Figure 2-3 DNET Cable Assembly Pinouts and Wiring

Table 2-4 DNET Cable Connector Pinouts

System Signal End A	Pin	Pair	Pin	System Signal, End B
Real-time Clock out -	1	1a	100	Real-time Clock In -
Real-time Clock out +	2		99	Real-time Clock In +
Data Clock Out -	3	2a	98	Data Clock In -
Data Clock Out +	4		97	Data Clock I +
Not Used	5	3a	96	Not Used
Not Used	6		95	Not Used
Data Ready Out -	7	4a	94	Data Ready In -
Data Ready Out +	8		93	Data Ready In +
Data 19 Out -	9	5a	92	Data 19 In -
Data 19 Out +	10		91	Data 19 In +
Data 18 Out -	11	6a	90	Data 18 In -
Data 18 Out +	12		89	Data 18 In +
Data 17 Out -	13	7a	88	Data 17 In -
Data 17 Out +	14		87	Data 17 In +
Data 16 Out -	15	8a	86	Data 16 In -
Data 16 Out +	16		85	Data 16 In +
Data 15 Out -	17	9a	84	Data 15 In -
Data 15 Out +	18		83	Data 15 In +
Data 14 Out -	19	10a	82	Data 14 In -
Data 14 Out +	20		81	Data 14 In +
Data 13 Out -	21	11a	80	Data 13 In -
Data 13 Out +	22		79	Data 13 In +
Data 12 Out -	23	12a	78	Data 12 In -
Data 12 Out +	24		77	Data 12 In +
Data 11 Out -	25	13a	76	Data 11 In -
Data 11 Out +	26		75	Data 11 In +
Data 10 Out -	27	14a	74	Data 10 In -
Data 10 Out +	28		73	Data 10 In +
Data 9 Out -	29	15a	72	Data 9 In -
Data 9 Out +	30		71	Data 9 In +
Data 8 Out -	31	16a	70	Data 8 In -
Data 8 Out +	32		69	Data 8 In +
Data 7 Out -	33	17a	68	Data 7 In -
Data 7 Out +	34		67	Data 7 In +

Table 2-4 DNET Cable Connector Pinouts **(continued)**

System Signal End A	Pin	Pair	Pin	System Signal, End B
Data 6 Out -	35	18a	66	Data 6 In -
Data 6 Out +	36		65	Data 6 In +
Data 5 Out -	37	19a	64	Data 5 In -
Data 5 Out +	38		63	Data 5 In +
Data 4 Out -	39	20a	62	Data 4 In -
Data 4 Out +	40		61	Data 4 In +
Data 3 Out -	41	21a	60	Data 3 In -
Data 3 Out +	42		59	Data 3 In +
Data 2 Out -	43	22a	58	Data 2 In -
Data 2 Out +	44		57	Data 2 In +
Data 1 Out -	45	23a	56	Data 1 In -
Data 1 Out +	46		55	Data 1 In +
Data 0 Out -	47	24a	54	Data 0 In -
Data 0 Out +	48		53	Data 0 In +
Local Power OK -	48	25a	52	Remote Power OK -
Local Power OK +	50		51	Remote Power OK +
Remote Power OK +	51	25b	50	Local Power OK +
Remote Power OK -	52		49	Local Power OK -
Data 0 In +-	53	24b	48	Data 0 Out +
Data 0 In -	54		47	Data 0 Out -
Data 1 In +	55	23a	46	Data 1 In -
Data 1 In -	56		45	Data 1 In +
Data 2 In +	57	22b	44	Data 2 Out +
Data 2 In -	58		43	Data 2 Out -
Data 3 In +	59	21b	42	Data 3 Out +
Data 3 In -	60		41	Data 3 Out -
Data 4 In +	61	20b	40	Data 4 Out +
Data 4 In -	62		39	Data 4 Out -
Data 5 In +	63	19b	38	Data 5 Out +
Data 5 In -	64		37	Data 5 Out -
Data 6 In +	65	18b	36	Data 6 Out +
Data 6 In -	66		35	Data 6 Out -
Data 7 In +	67	17b	34	Data 7 Out +
Data 7 In -	68		33	Data 7 Out -
Data 8 In +	69	16b	32	Data 8 Out +

Table 2-4 DNET Cable Connector Pinouts **(continued)**

System Signal End A	Pin	Pair	Pin	System Signal, End B
Data 8 In -	70		31	Data 8 Out -
Data 9 In +	71	15b	30	Data 9 Out +
Data 9 In -	72		29	Data 9 Out -
Data 10 In +	73	14b	28	Data 10 Out +
Data 10 In -	74		27	Data 10 Out -
Data 11 In +	75	13b	26	Data 11 Out +
Data 11 In -	76		25	Data 11 Out -
Data 12 In +	77	12b	24	Data 12 Out +
Data 12 In -	78		23	Data 12 Out -
Data 13 In +	79	11b	22	Data 13 Out +
Data 13 In -	80		21	Data 13 Out -
Data 14 In +	81	10b	20	Data 14 Out +
Data 14 In -	82		19	Data 14 Out -
Data 15 In +	83	9b	18	Data 15 Out +
Data 15 In -	84		17	Data 15 Out -
Data 16 In +	85	8b	16	Data 16 Out +
Data 16 In -	86		15	Data 16 Out -
Data 17 In +	87	7b	14	Data 17 Out +
Data 17 In -	88		13	Data 17 Out -
Data 18 In +	89	6b	12	Data 18 Out +
Data 18 In -	90		11	Data 18 Out -
Data 19 In +	91	5b	10	Data 19 Out +
Data 19 In -	92		9	Data 19 Out -
Data Ready In +	93	4b	8	Data Ready Out +
Data Ready In +	94		7	Data Ready Out -
Not Used	95	3b	6	Not Used.
Not Used	96		5	Not Used
Data Clock In +	97	2b	4	Data Clock Out +
Data Clock In -	98		3	Data Clock Out -
Real-time Clock In +	99	1b	2	Real-time Clock Out +
Real-time Clock In -	100		1	Real-time Clock Out -

2.3 Network Interface (NI) Cable Connections (NUMAlink3)

R bricks function as routers, metarouters, and repeat routers. Their function depends on the configuration and location in which the brick resides. In 128-processor configurations or less, R bricks function as routers only, sometimes referred to as rack routers. Rack routers reside in slots U19 and U27. Metarouters and repeat routers reside in slot U38. Metarouters connect two 128 processor systems together; therefore, R bricks function as metarouters in systems greater than 128 processors but equal to or less than 256 processors. Repeat routers connect two 256 processor systems together. R bricks functioning as repeat routers are in configurations with more than 256 processors.

Use the following general rules to connect NUMAlink3 connections between R bricks. Exceptions to these rules exist for 32-, 48-, 64-, 80-, and 112-processor configurations. Refer to the subsections for complete NUMALink3 cable connections for the specific configurations in the different product classes.

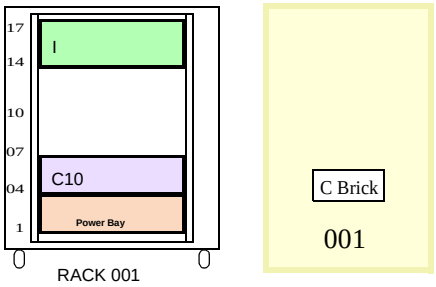
1. Cable from the same port to the same port between R bricks. Note the exceptions in 32-, 48-, 64-, 80-, 112-, and 160-processor configurations.
2. Connect Port 1 to Port 1and Port 6 to Port 6 of an R-brick in the same rack.
3. Connect Port 7 to Port 7 of the R brick at the same unit/bay position in the adjacent rack next to the source rack.
4. Connect Port 8 to Port 8 in R bricks at the same unit/bay position in the adjacent rack 2 racks away from the source rack, or to an R brick that functions as a metarouter.

In addition to the rules above, follow these rules for SGI 3800 Series systems when R bricks function as metarouters and repeat routers.

1. Connect the following ports when connecting two R-bricks that function as metarouters:
   - Connect Port 1 to Port 1
   - Connect Port 2 to Port 2
   - Connect Port 5 to Port 5
   - Connect Port 6 to Port 6
2. Connect the following R brick ports when connecting a metarouter to a repeat router:
   - Connect metarouters Port 1 to repeat router Ports 4 and 8.
   - Connect metarouters Port 2 to repeat routers Ports 1 and 5.
   - Connect metarouters Port 5 to repeat router Ports 6 and 2.
   - Connect metarouters Port 6 to repeat router Ports 7 and 3.

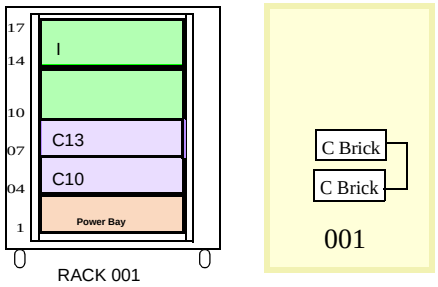
2.3.1 SGI 3200 NUMAlink3 Cabling

Figure 2-4 shows the NUMAlink3 connections for SGI 3000 Series systems.



Configured as:
One 2-processor C brick or
One 4-processor C brick

Note: The link port is not used in a single C brick system.



Configured as:
Two 2-processor C bricks or
Two 4-processor C brick or
One 2-processor C brick and
One 4-processor C brick

Figure 2-4 SGI 3200 Series NUMAlink3 Cabling

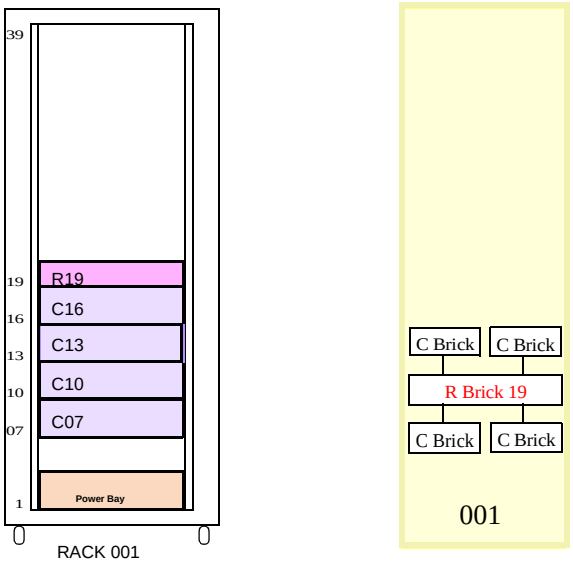
Table 2-5 4-, 6-, or 8-processor System NUMAlink3 Cable Connections (3200 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	04	Link	~1 M	001	C	07	Link

2.3.2 SGI 3400 NUMAlink3 Cabling

Always cable router-to-router connections from the same port to the same port in SGI 3400 series systems. Note that router ports 7 and 8 are disabled in the R bricks and therefore are not used. If SGI 3400 systems upgrade to more than 32 processors or to an SGI 3600 or SGI 3800 system, you need to enable these router ports. *How do you enable router ports (???).*

2.3.2.1 8-, 12-, and 16-processor System Cabling



Configured as:
Two 4-processor C bricks (8 processors) or
Three 4-processor C bricks (12 processors) or
Four 4-processor C bricks (16 processors)

Figure 2-5 16 Processor System Configuration (3400 Series)

Figure 2-6 8-processor NUMAlink3 Cable Connections (3400 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	07	Link	~1 M	001	R	19	2
001	C	10	Link	~1 M	001	R	19	3

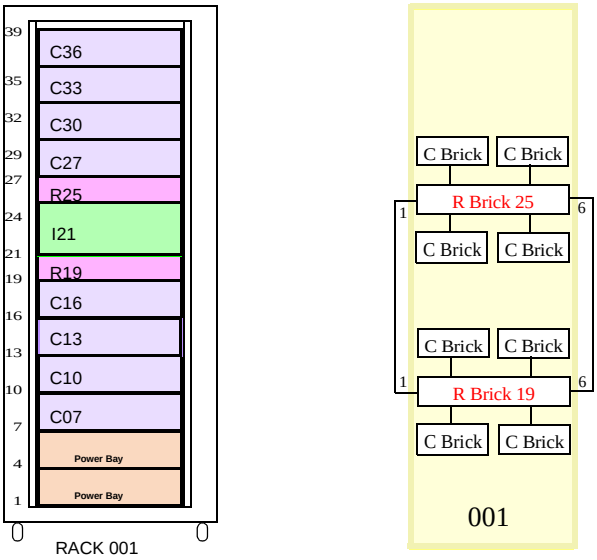
Table 2-6 12-processor System NUMAlink3 Cable Connections (SGI 3400 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	07	Link	~1 M	001	R	19	2
001	C	10	Link	~1 M	001	R	19	3
001	C	13	Link	~1 M	001	R	19	4

Table 2-7 16-processor System NUMAlink3 Cable Connections (SGI 3400 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	07	Link	~1 M	001	R	19	2
001	C	10	Link	~1 M	001	R	19	3
001	C	13	Link	~1 M	001	R	19	4
001	C	16	Link	~1 M	001	R	19	5

2.3.2.2 32-Processor Single Rack System (24- and 32-Processors)



Configured as:
Six 4-processor C bricks (24 processors) or
Eight 4-processor C bricks (32 processors)

Figure 2-7 32-processor Single Rack System (SGI 3400 Series)

Table 2-8 24-processor (Single Rack) System NUMAlink3 Cable Connections (3400 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	07	Link	~1 M	001	R	19	2
001	C	10	Link	~1 M	001	R	19	3
001	C	13	Link	~1 M	001	R	19	4
001	C	16	Link	~1 M	001	R	19	5
001	C	27	Link	~1 M	001	R	25	2
001	C	30	Link	~1 M	001	R	25	3
001	R	19	1	~1 M	001	R	25	1
001	R	19	6	~1 M	001	R	25	6

Table 2-9 32-processor (Single Rack) NUMAlink3 Cable Connections (3400 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	07	Link	~1 M	001	R	19	2
001	C	10	Link	~1 M	001	R	19	3
001	C	13	Link	~1 M	001	R	19	4
001	C	16	Link	~1 M	001	R	19	5
001	C	27	Link	~1 M	001	R	25	2
001	C	30	Link	~1 M	001	R	25	3
001	C	33	Link	~1 M	001	R	25	4
001	C	36	Link	~1 M	001	R	25	5
001	R	19	1	~1 M	001	R	25	1
001	R	19	6	~1 M	001	R	25	6

2.3.2.3 32-Processor Multirack System (SGI 3400 Series)

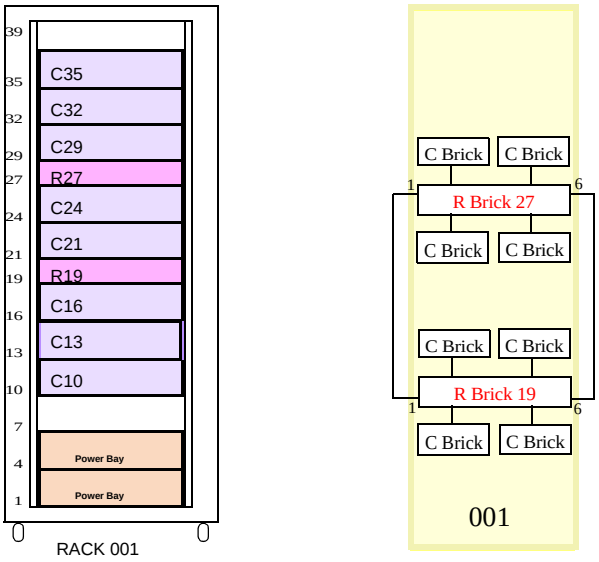


Figure 2-8 32-processor Multirack System Configuration (3400 Series)

Table 2-10 32-processor (Multi Rack) System NUMAlink3 Cable Connections (3400 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6

2.3.3 SGI 3600 NUMAlink3 Cabling (32- to 128-Processors)

The following subsections provide the cable connections for NUMAlink3 cabling for 16- to 128-processor configurations in the SGI 3600 series system.

2.3.3.1 Cabling Guidelines and Exceptions

1. Cable from the same port to the same port between R bricks. Note the exceptions for 32-, 48-, 64-, 80-, 112-, and 160-processor configurations below.
2. Connect Port 1 to Port 1 and Port 6 to Port 6 of R bricks within the same rack.
3. Connect Port 7 to Port 7 of an R brick at the same U location in the adjacent rack when racks are grouped into pairs.
4. Connect Port 8 to Port 8 in R bricks at the same U/bay position in adjacent rack 2 racks away from the source rack, or to an R brick that functions as a metarouter.

The following list the exceptions for the specific 3400 Series system configurations:

32-processor Configuration:

- Connect Ports 7 and 8 to Ports 7 and 8 between 001R19 and 001R27.

48-Processor Configuration:

- Connect Ports 7 and 8 to Ports 7 and 8 between 001R19 and 002R19.
- Connect 001R27 Port 7 to 002R19 Port 1.
- Connect 001R27 Port 8 to 002R19 Port 6.
- Connect 001R27 Port 8 to 002R19 Port 6.

64-Processor Configuration:

- Connect 001R27 Port 8 to 002R19 Port 8.
- Connect 001R19 Port 8 to 002R27 Port 8.

80-Processor Configuration:

- Connect 003R19 Port 1 to 002R27 Port 8.
- Connect 003R19 Port 6 to 001R27 Port 8.
- Connect 003R19 Port 7 to 002R19 Port 8.

112-Processor Configuration:

- Connect 004R19 Port 1 to 003R27 Port 7.
- Connect 004R19 Port 6 to 002R27 Port 8.

2.3.3.2 16 Processor System NUMALink3 Cable Connections

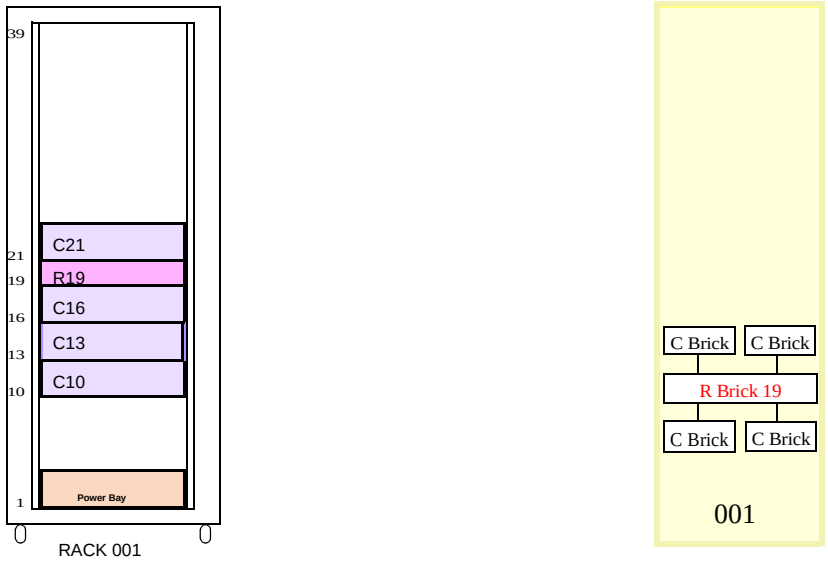


Figure 2-9 16 Processor System NUMAlink3 Cabling

Table 2-11 16 Process System NUMALink3 Cabling (SGI 3400)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5

2.3.3.3 32 Processor System

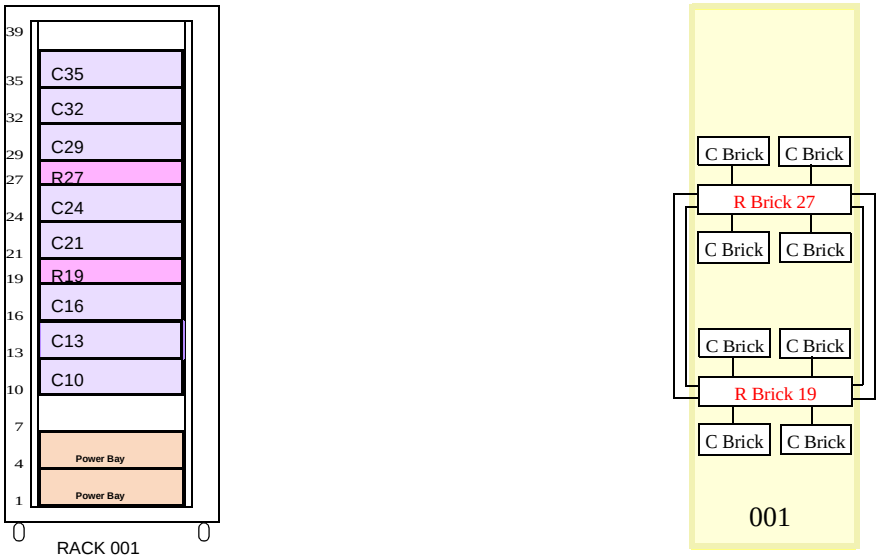


Figure 2-10 32 Processor NUMAlink3 Configuration (3600 Series System)

Table 2-12 32 Processor NUMALink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~1 M	001	R	27	7
001	R	19	8	~1 M	001	R	27	8

2.3.3.4 48 Processor System

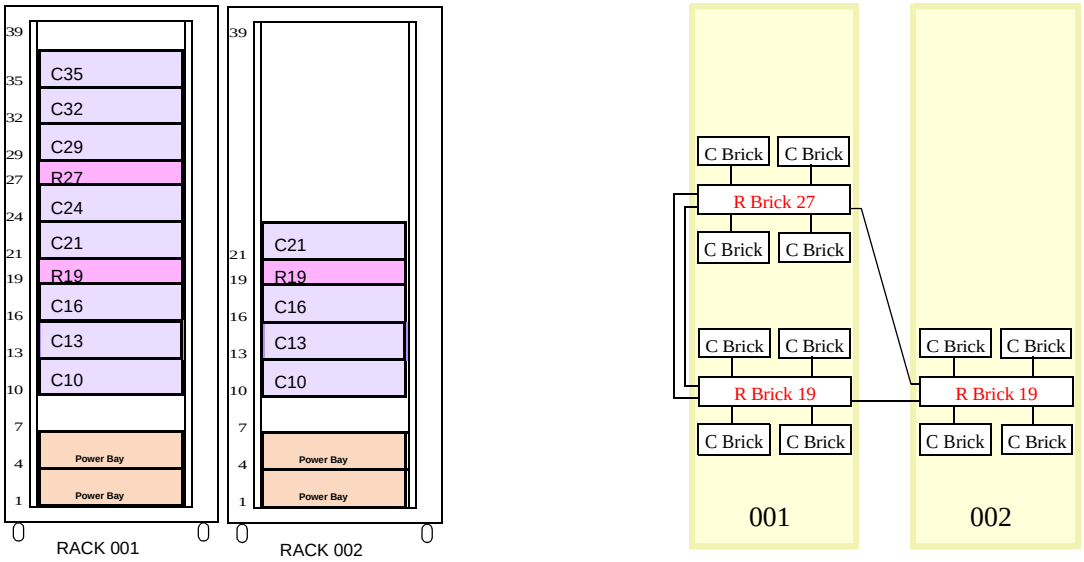


Figure 2-11 48 Processor System NUMAlink3 Configuration

Table 2-13 48 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5

Table 2-13 48 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	19	8	~2 M	002	R	19	8
001	R	27	7	~2 M	002	R	19	1
001	R	27	8	~2 M	002	R	19	6

2.3.3.5 64 Processor System

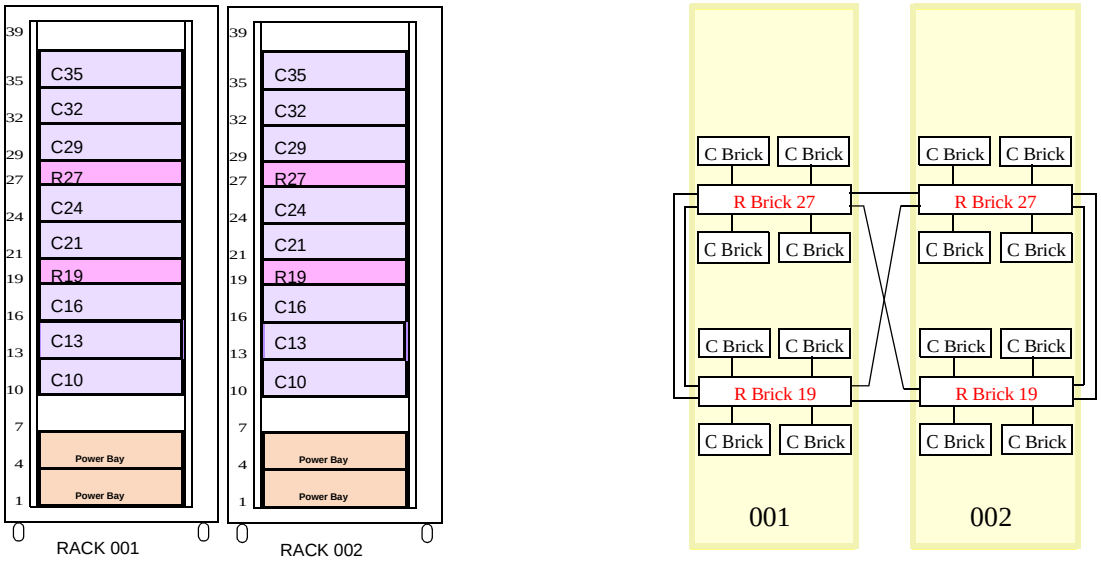


Figure 2-12 64 Processor System NUMAlink3 Configuration (3600 Series System)

Table 2-14 64 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5

Table 2-14 64 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	19	8	~2 M	002	R	27	8
001	R	27	7	~2 M	002	R	27	7
001	R	27	8	~2 M	002	R	19	8
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6

2.3.3.6 80 Processor System

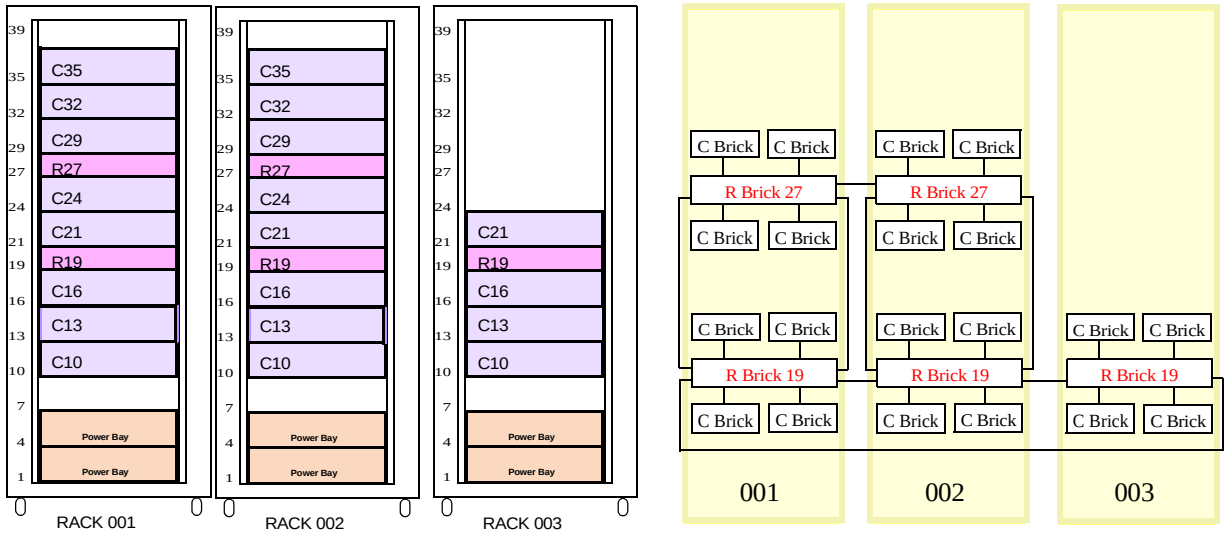


Figure 2-13 80 Processor NUMAlin3 Configuration

Table 2-15 80 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5

Table 2-15 80 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	19	8	~3 M	003	R	19	8
001	R	27	7	~2 M	002	R	27	7
001	R	27	8	~3 M	003	R	19	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
002	R	19	8	~2 M	003	R	19	7
002	R	27	8	~2 M	003	R	19	1

2.3.3.7 96 Processor System

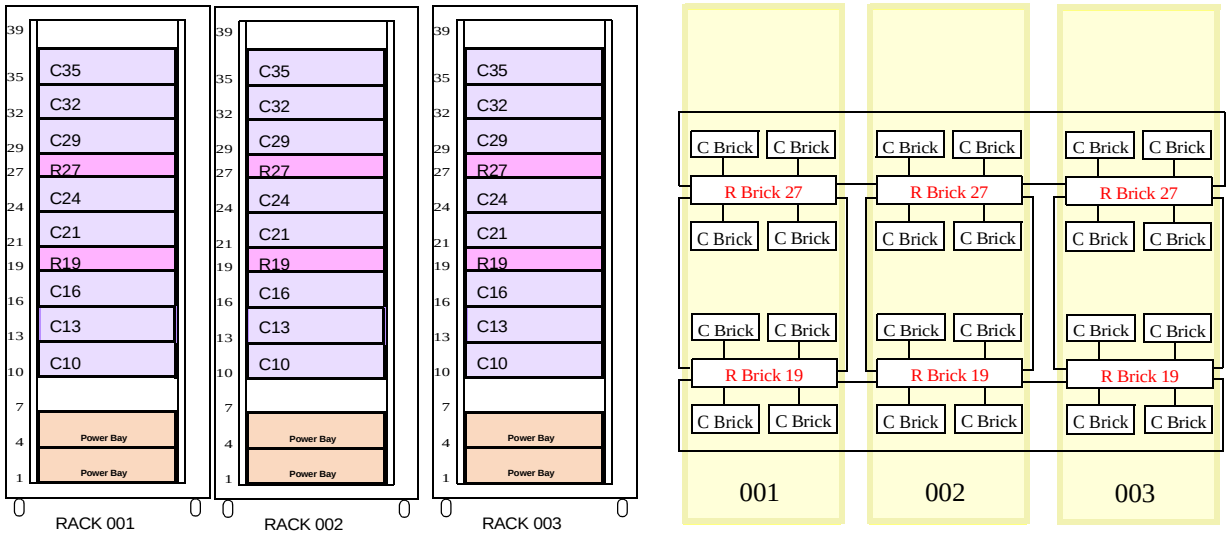


Figure 2-14 96 Processor System NUMAlink3 Configuration (3600 Series System)

Figure 2-15 96 Processor System NUMAlink3 Cable Connections (3600 Series Systems)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5

Figure 2-15 96 Processor System NUMAlink3 Cable Connections (3600 Series Systems)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4
003	C	35	Link	~1 M	003	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
002	R	19	8	~2 M	003	R	19	7
002	R	27	8	~2 M	003	R	27	7
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
003	R	19	8	~3 M	001	R	19	8
003	R	27	8	~3 M	001	R	27	8

2.3.3.8 112 Processor System Standard Configuration

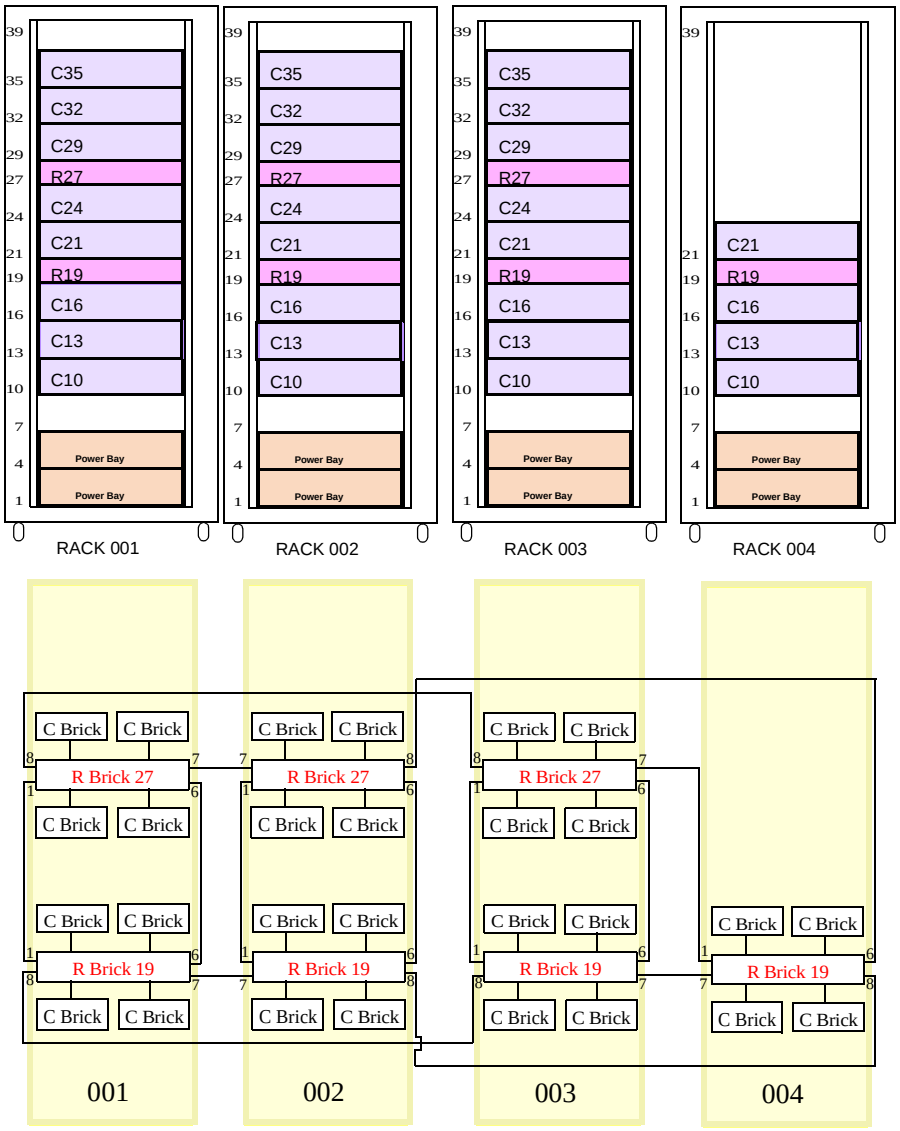


Figure 2-16 112 Processor Standard NUMALink3 Configuration

Table 2-16 112 Processor System NUMAlink3 Cable Connections (3600 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-16 112 Processor System NUMAlink3 Cable Connections (3600 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	19	8	~3 M	003	R	19	8
001	R	27	7	~2 M	002	R	27	7
001	R	27	8	~3 M	003	R	27	8
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
002	R	19	8	~3 M	004	R	19	8
002	R	27	8	~3 M	004	R	19	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	19	1

2.3.3.9 112 Processor System Alternate Configuration

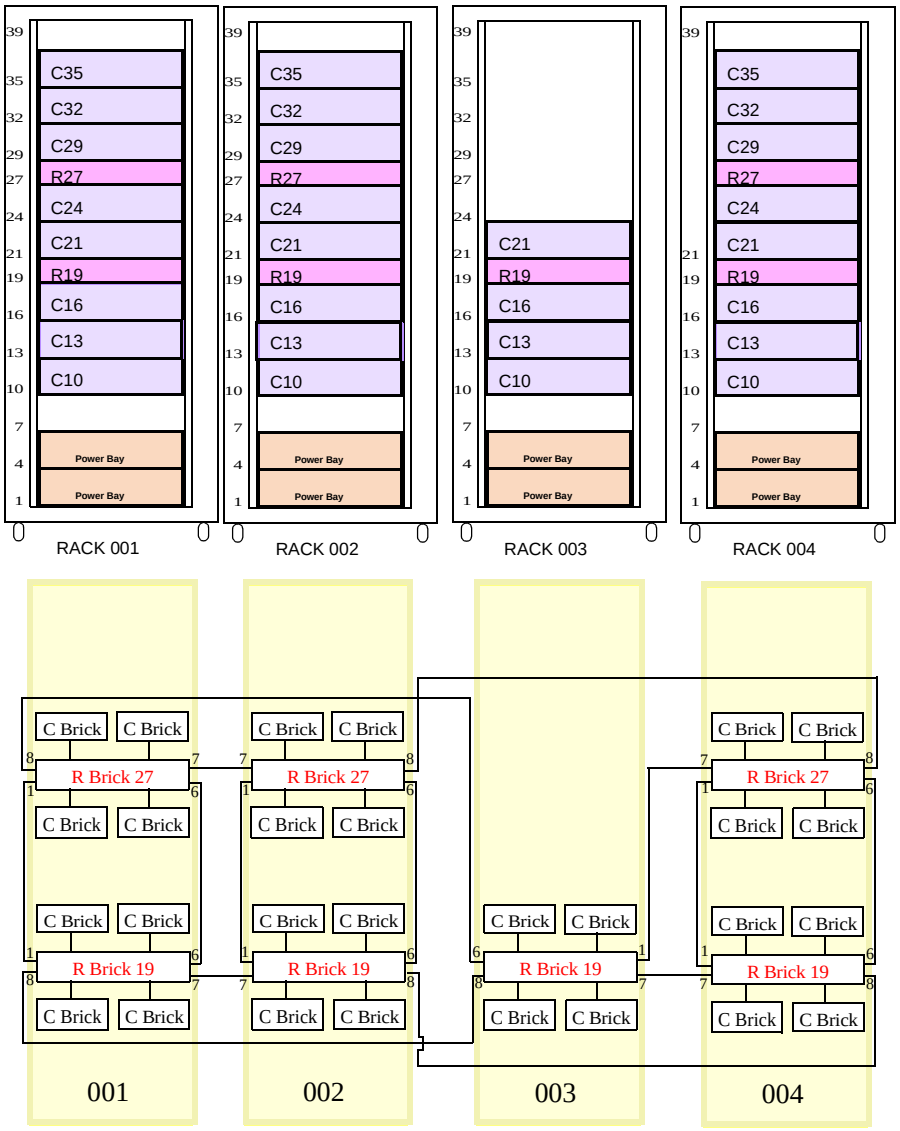


Figure 2-17 112 Processor Alternate Configuration (3600 Series)

Table 2-17 (Alternate) 112 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4

Table 2-17 (Alternate) 112 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	19	8	~3 M	003	R	19	8
001	R	27	7	~2 M	002	R	27	7
001	R	27	8	~3 M	003	R	19	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
002	R	19	8	~3 M	004	R	19	8
002	R	27	8	~3 M	004	R	27	8
003	R	19	1	~2 M	004	R	27	7
003	R	19	7	~2 M	004	R	19	7
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1M	004	R	27	6

2.3.3.10 128 Processor System

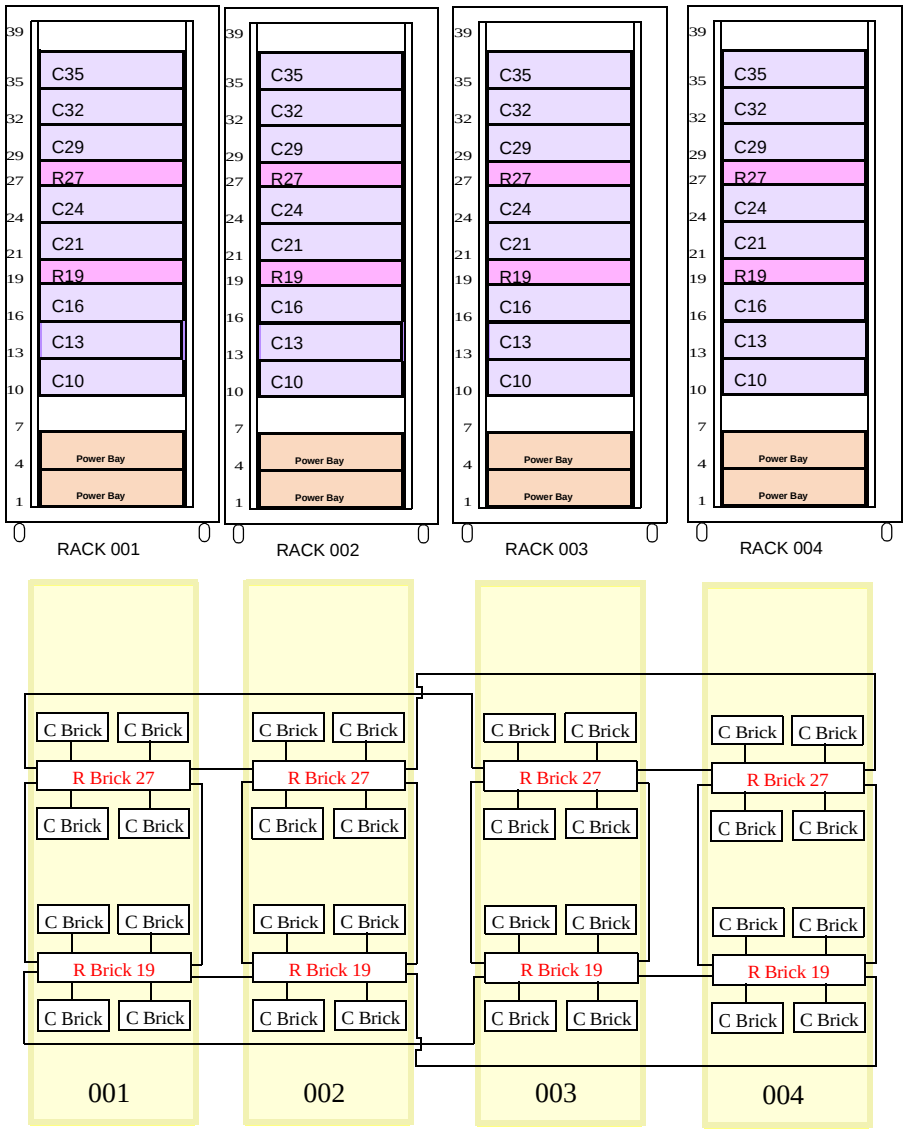


Figure 2-18 128 Processor System Configuration (3600 Series System)

Table 2-18 128 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-18 128 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	19	8	~3 M	003	R	19	8
001	R	27	7	~2 M	002	R	27	7
001	R	27	8	~3 M	003	R	27	8
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
002	R	19	8	~3 M	004	R	19	8
002	R	27	8	~3 M	004	R	27	8
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
004	R	19	1	~1 M	004	R	27	1

Table 2-18 128 Processor System NUMAlink3 Cable Connections (3600 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
004	R	19	6	~1 M	004	R	27	6

2.3.4 SGI 3800 Series System Cabling

2.3.4.1 Link Cabling Guidelines

1. Cable from the same port to the same port between R bricks. Note the exceptions in 32-, 48-, 64-, 80-, 112-, and 160-processor configurations.
2. Connect Port 1 to Port 1and Port 6 to Port 6 of an R-brick in the same rack.
3. Connect Port 7 to Port 7 of the R brick at the same unit/bay position in the adjacent rack next to the source rack.
4. Connect Port 8 to Port 8 in R bricks at the same unit/bay position in the adjacent rack 2 racks away from the source rack, or to an R brick that functions as a metarouter.
5. Connect the following ports when connecting two R-bricks that function as metarouters:
   - Connect Port 1 to Port 1
   - Connect Port 2 to Port 2
   - Connect Port 5 to Port 5
   - Connect Port 6 to Port 6
6. Connect the following R brick ports when connecting a metarouter to a repeat router:
   - Connect metarouters Port 1 to repeat router Ports 4 and 8.
   - Connect metarouters Port 2 to repeat routers Ports 1 and 5.
   - Connect metarouters Port 5 to repeat router Ports 6 and 2.
   - Connect metarouters Port 6 to repeat router Ports 7 and 3.

2.3.4.2 128-Processor System

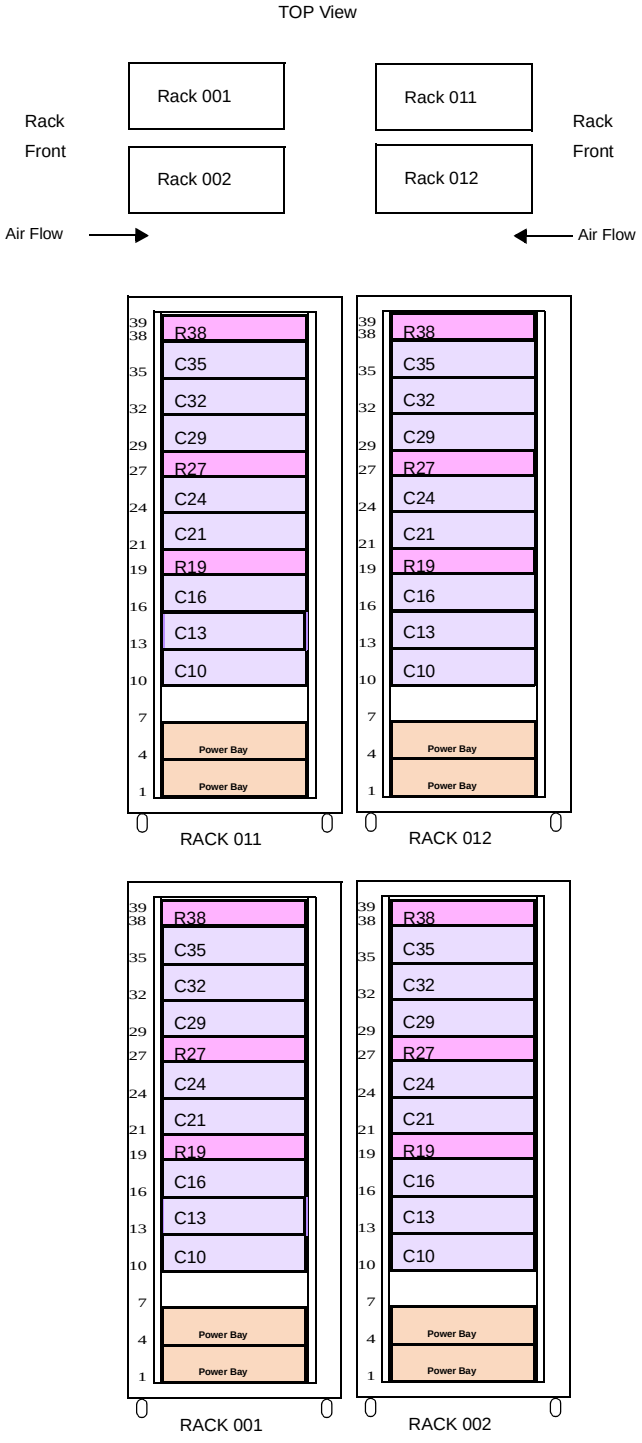


Figure 2-19 128-Processor System Configuration (3800 Series system)

Table 2-19 128-processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4
003	C	35	Link	~1 M	003	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-19 128-processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
002	R	19	7	~2 M	003	R	19	7
002	R	19	8	~3 M	002	R	38	3
002	R	27	7	~2 M	003	R	27	7
002	R	27	8	~3 M	013	R	38	7
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
012	R	19	7	~2 M	013	R	19	7
012	R	27	7	~2 M	013	R	27	7
013	R	19	1	~1 M	013	R	27	1

Table 2-19 128-processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
013	R	19	6	~1 M	013	R	27	6
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	3 M	003	R	38	8
013	R	19	8	3 M	012	R	38	4
013	R	27	8	3 M	002	R	38	8

2.3.4.3 160-Processor System

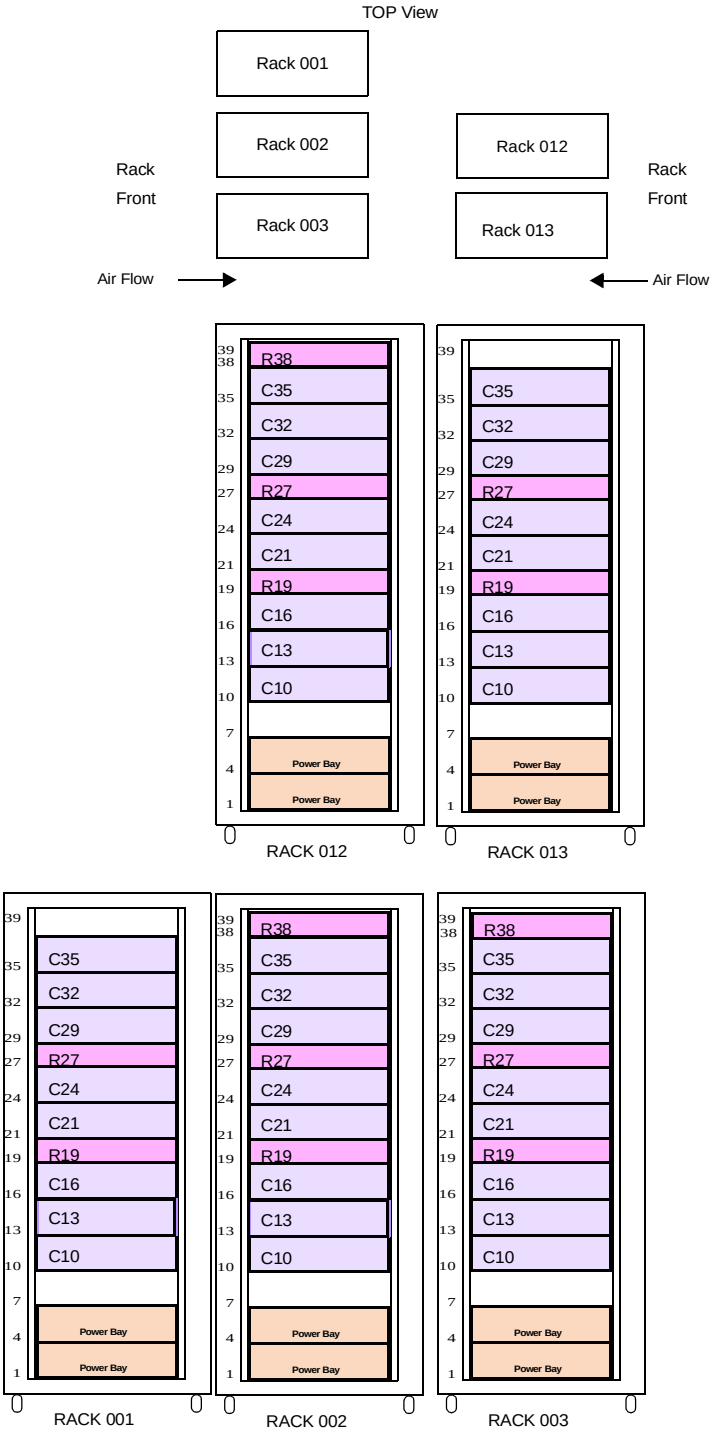


Figure 2-20 160-processor System Configuration (3800 Series)

Table 2-20 160-processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-20 160-processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
012	R	19	1	~1 M	012	R	27	1

Table 2-20 160-processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
012	R	19	7	~2 M	013	R	19	7
012	R	27	7	~2 M	013	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
012	R	19	8	~3 M	013	R	38	4
013	R	19	8	~3 M	012	R	38	4
013	R	27	8	~3 M	002	R	38	8

2.3.4.4 192 Processor System

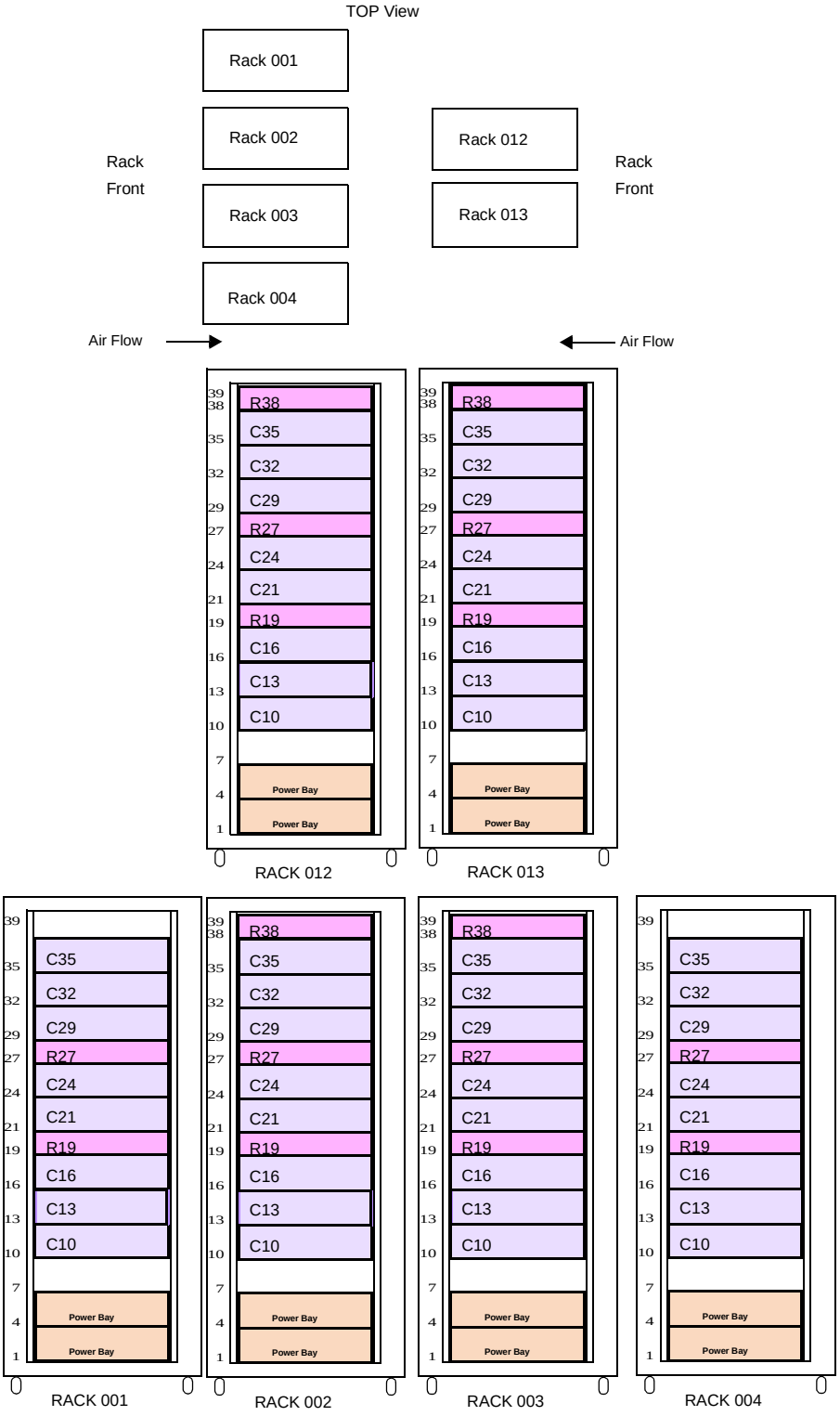


Figure 2-21 190 Processor System Configuration (3800 Series)

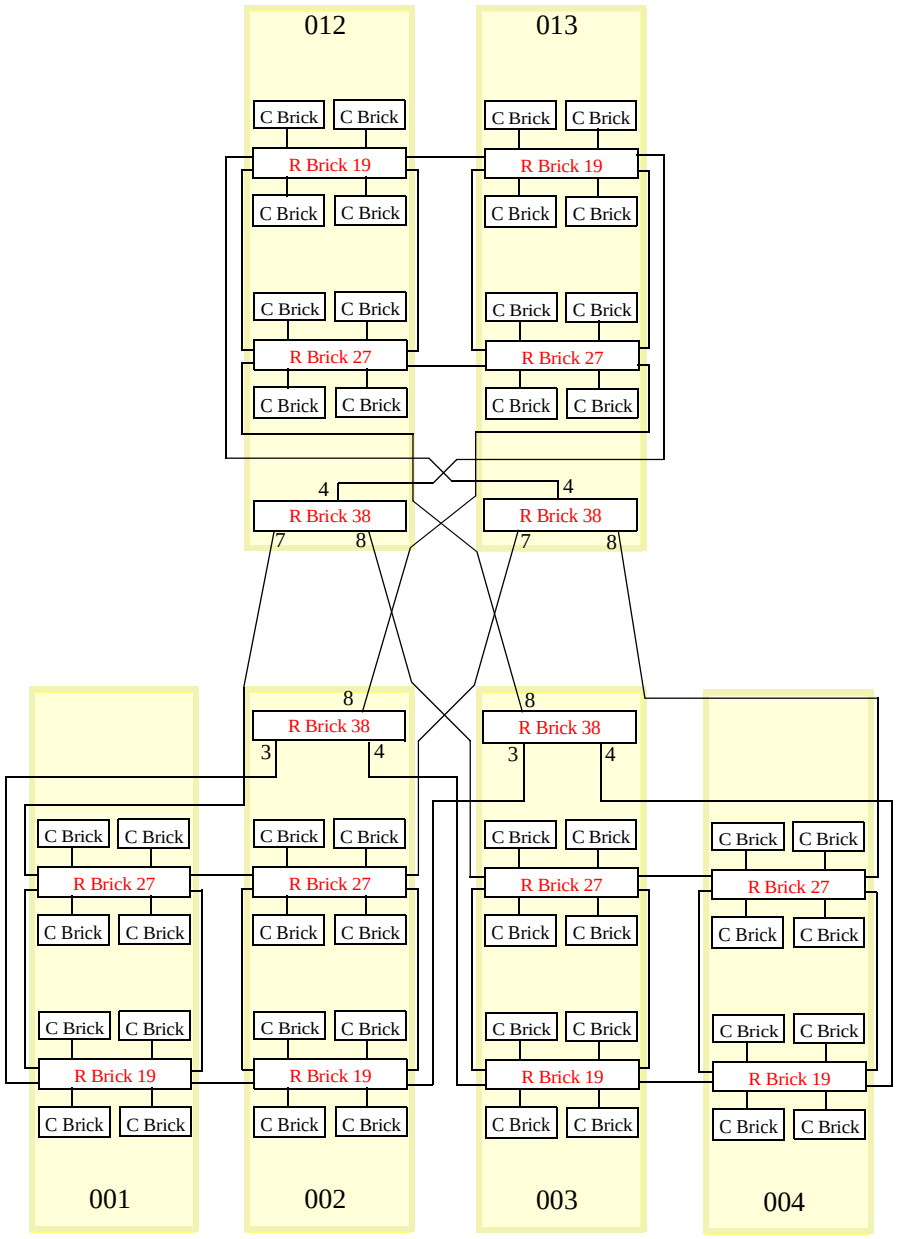


Figure 2-22 190 Processor System NUMAlink3 Configurations (3800 Series)

Table 2-21 192 Processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-21 192 Processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4

Table 2-21 192 Processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
013	C	35	Link	~1 M	013	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
012	R	19	7	~2 M	013	R	27	7
012	R	27	7	~2 M	013	R	19	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4

Table 2-21 192 Processor System NUMAlink3 Cable Connections (3800 Series System)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	4
013	R	27	8	~3M	002	R	38	8

2.3.4.5 224 Processor System

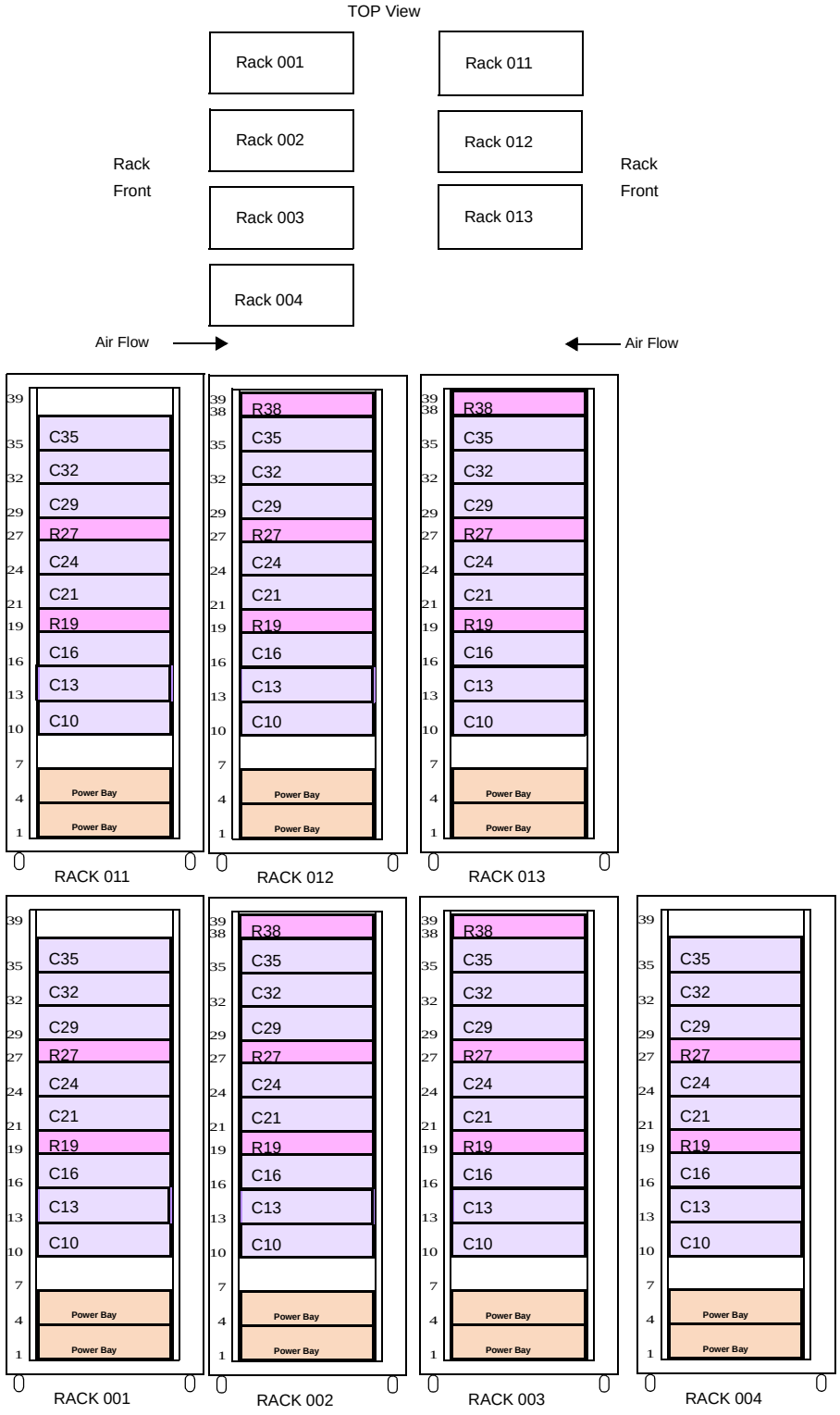


Figure 2-23 224 Processor System Configuration (3800 Series)

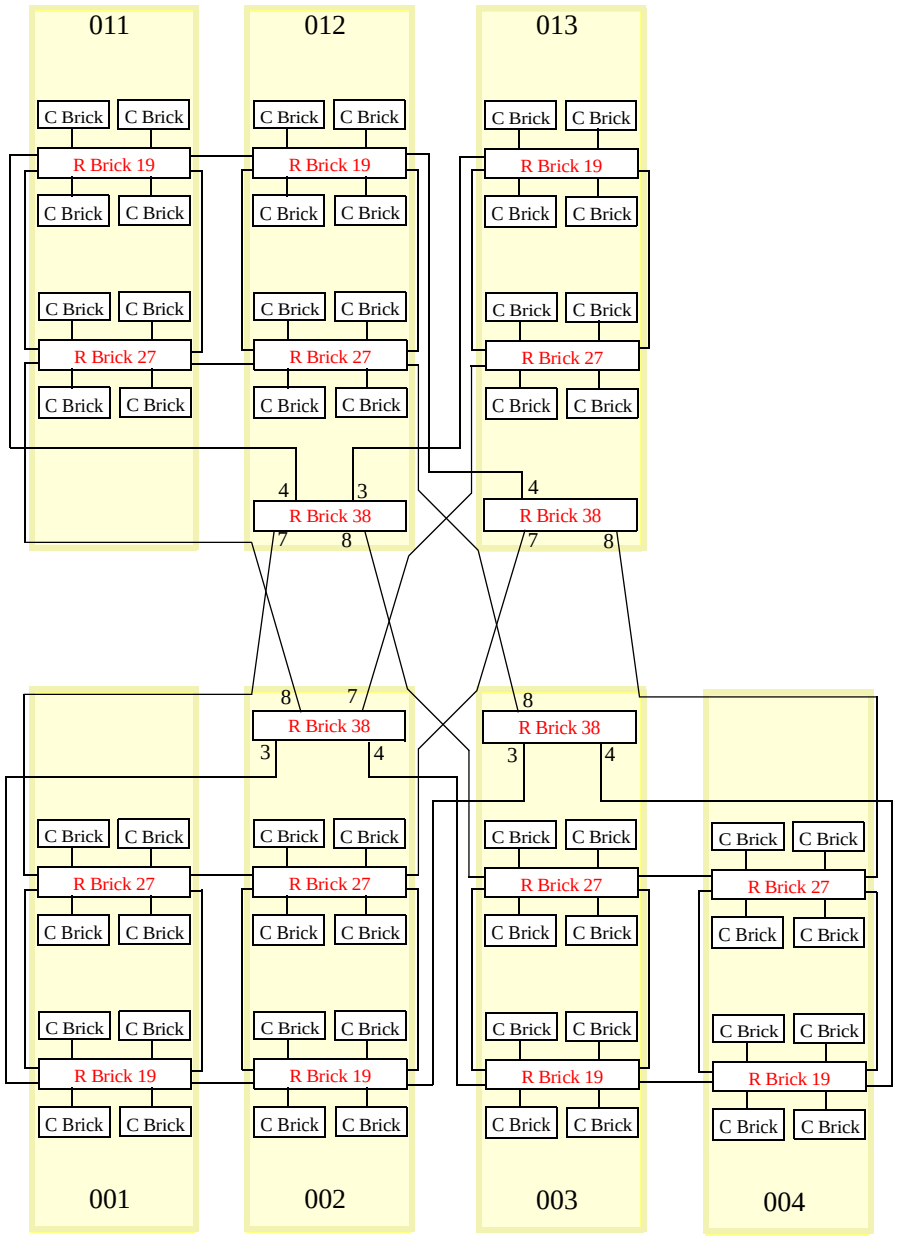


Figure 2-24 224 Processor System NUMAlink3 Cabling

Table 2-22 224 Processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-22 224 Processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-22 224 Processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
001	R	19	7	~2 M	002	R	19	7

Table 2-22 224 Processor System NUMAlink3 Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7

2.3.4.6 256 Processor System

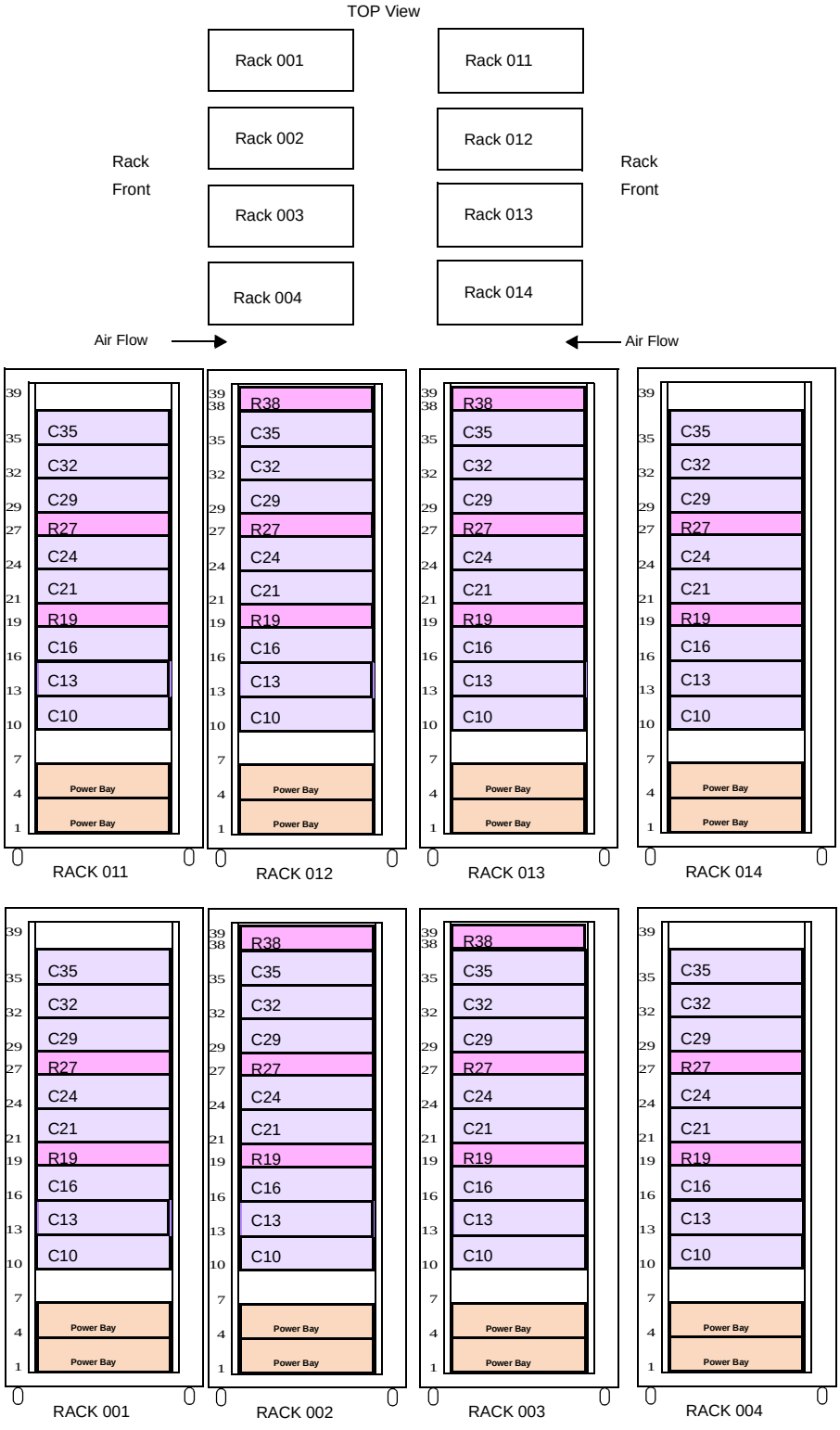


Figure 2-25 256 Processor System Configuration

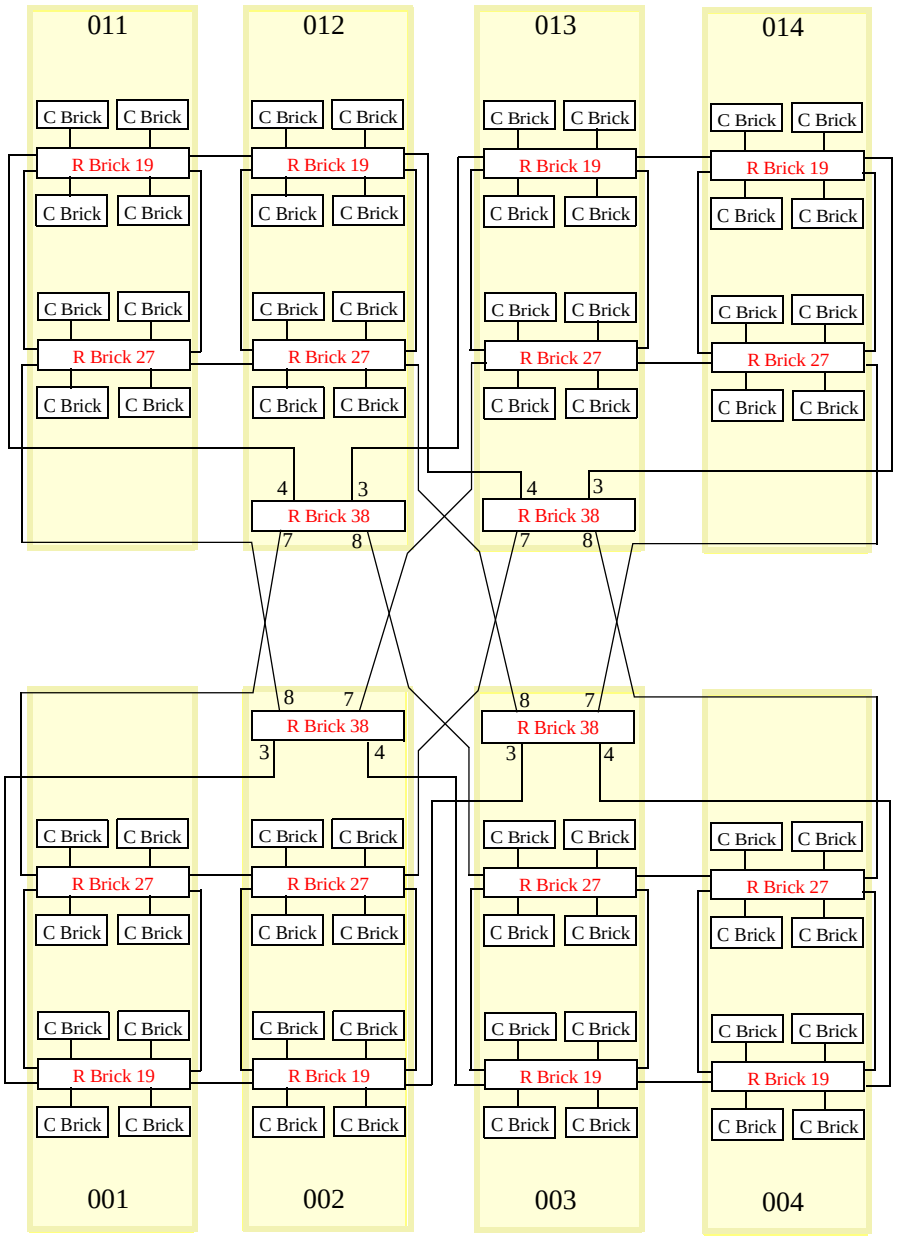


Figure 2-26 256 Processor System NUMAlink3 Cabling

Table 2-23 256 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-23 256 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-23 256 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1

Table 2-23 256 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1
014	R	19	6	~1 M	014	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4

Table 2-23 256 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
004	R	27	8	~3 M	013	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7

2.3.4.7 288 Processor System

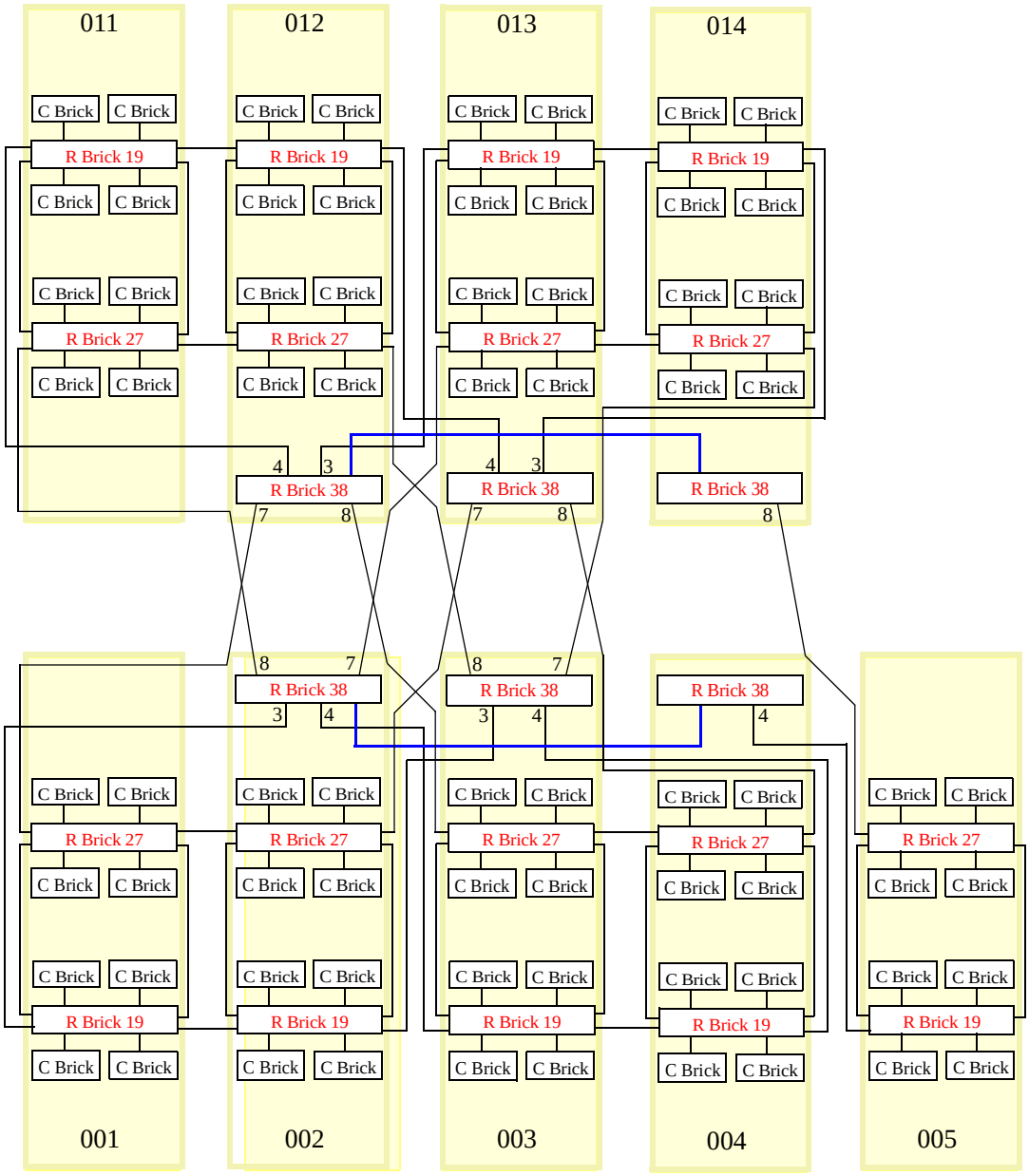


Figure 2-27 288 Processor System Cabling (3800 Series)

Table 2-24 288 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-24 288 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-24 288 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-24 288 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7

Table 2-24 288 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	004	R	38	4
005	R	27	8	~3 M	014	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
002	R	38	1	~2 M	004	R	38	1
012	R	38	1	~2 M	014	R	38	1

2.3.4.8 320 Processor System

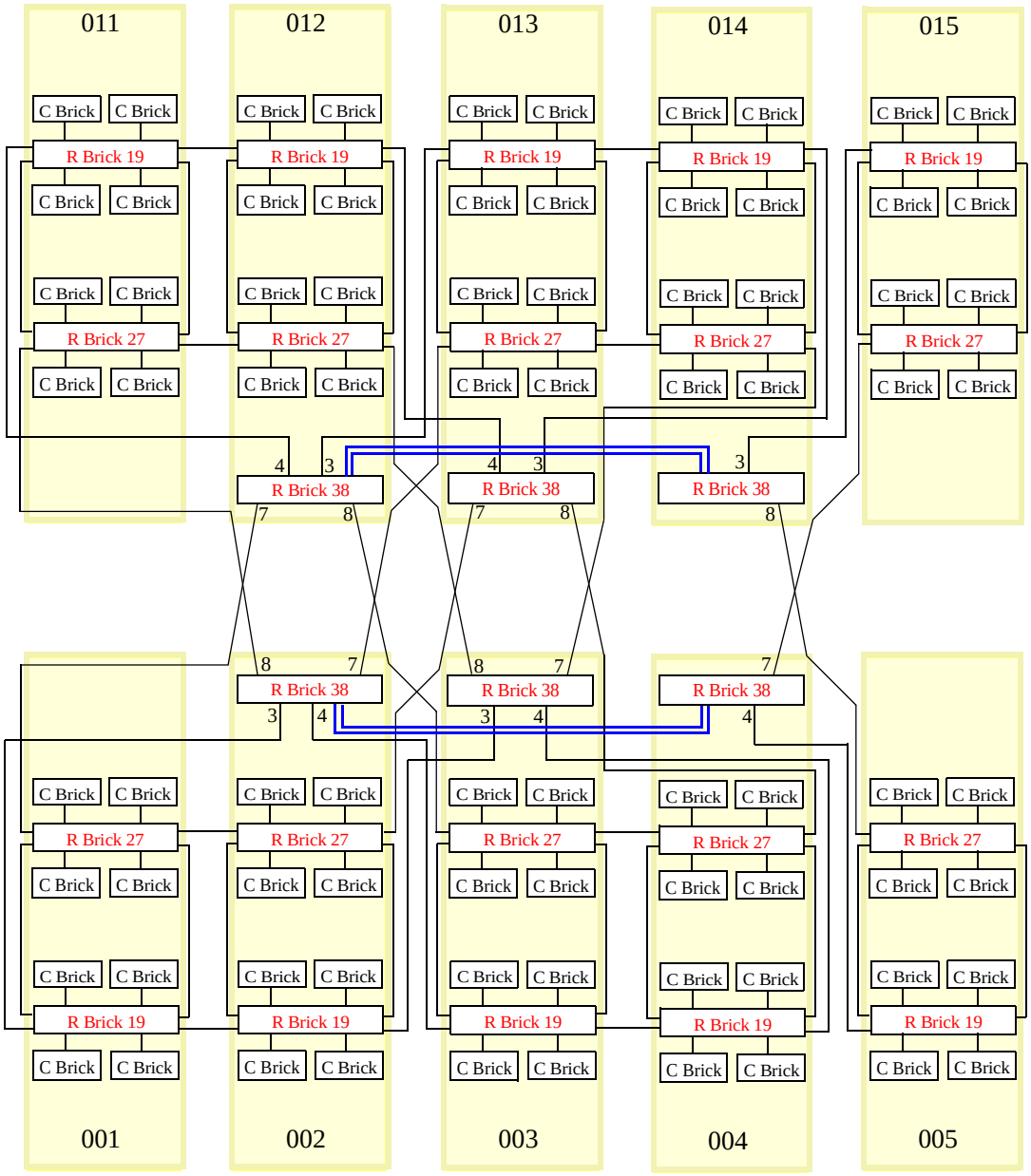


Figure 2-28 320 Processor System Cabling

Table 2-25 320 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-25 320 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-25 320 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-25 320 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4
015	C	35	Link	~1 M	015	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1

Table 2-25 320 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	004	R	38	4
005	R	27	8	~3 M	014	R	38	8
011	R	19	8	~3 M	012	R	38	4

Table 2-25 320 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	014	R	38	3
015	R	27	8	~3 M	004	R	38	7
002	R	38	1	~2 M	004	R	38	1
002	R	38	2	~2M	004	R	38	2
012	R	38	1	~2 M	014	R	38	1
012	R	38	2	~2M	014	R	38	2

2.3.4.9 352 Processor System

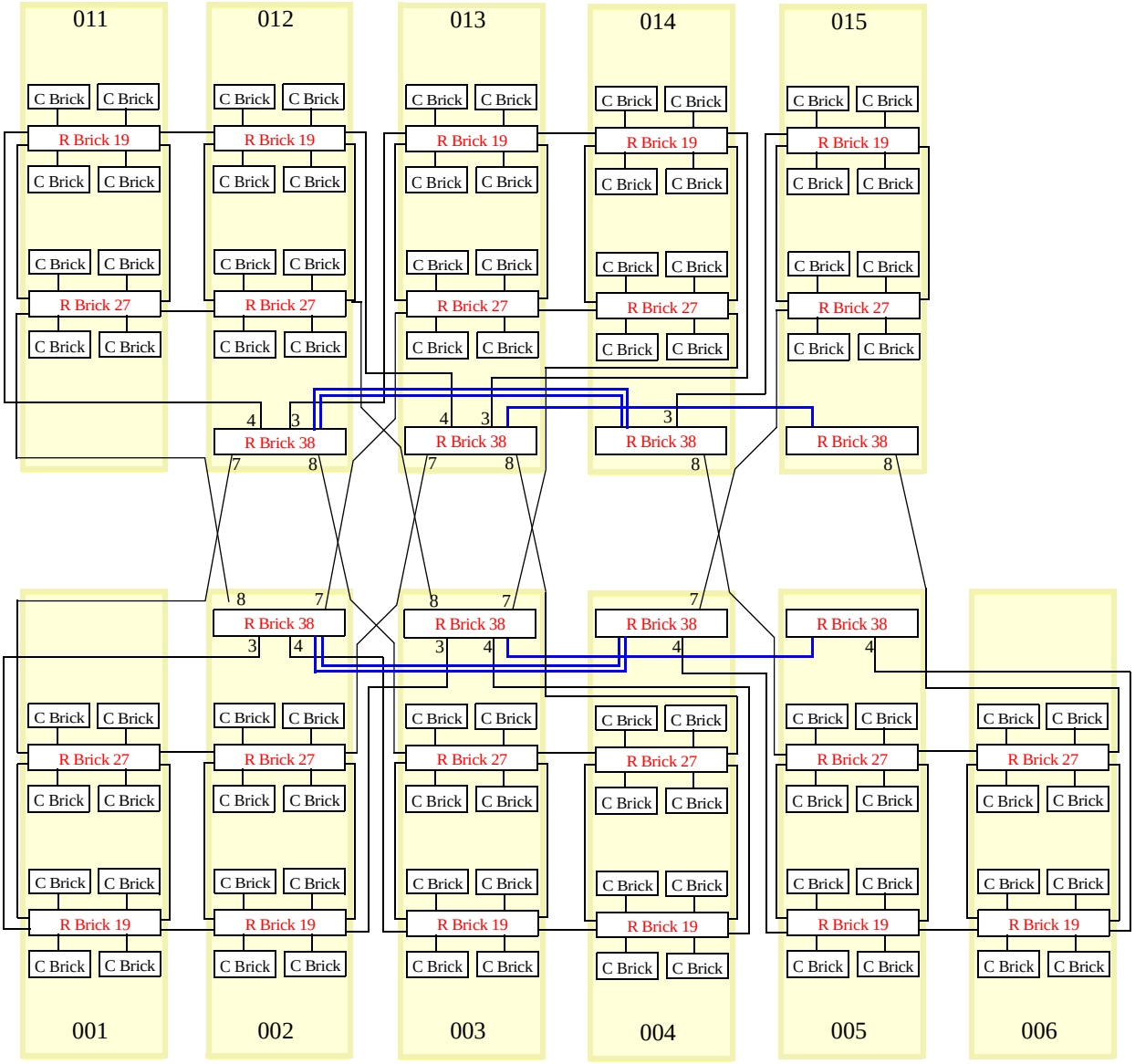


Figure 2-29 352 Processor System Cabling (3800 Series)

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
006	C	10	Link	~1 M	006	R	19	2
006	C	13	Link	~1 M	006	R	19	3
006	C	16	Link	~1 M	006	R	19	4
006	C	21	Link	~1 M	006	R	19	5
006	C	24	Link	~1 M	006	R	27	2
006	C	29	Link	~1 M	006	R	27	3
006	C	32	Link	~1 M	006	R	27	4
006	C	35	Link	~1 M	006	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4
015	C	35	Link	~1 M	015	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
006	R	19	1	~1 M	006	R	27	1
006	R	19	6	~1 M	006	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
005	R	19	7	~2 M	006	R	19	7

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	R	27	7	~2 M	006	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	004	R	38	4
005	R	27	8	~3 M	014	R	38	8
006	R	19	8	~3 M	005	R	38	4
006	R	27	8	~3 M	015	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	014	R	38	3
015	R	27	8	~3 M	004	R	38	7
002	R	38	1	~2 M	004	R	38	1

Table 2-26 352 Processor System Cable Connections (3800 Series)

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
002	R	38	2	~2M	004	R	38	2
003	R	38	1	~2 M	005	R	38	1
012	R	38	1	~2 M	014	R	38	1
012	R	38	2	~2M	014	R	38	2
013	R	38	1	~2 M	015	R	38	1

2.3.4.10 384 Processor System

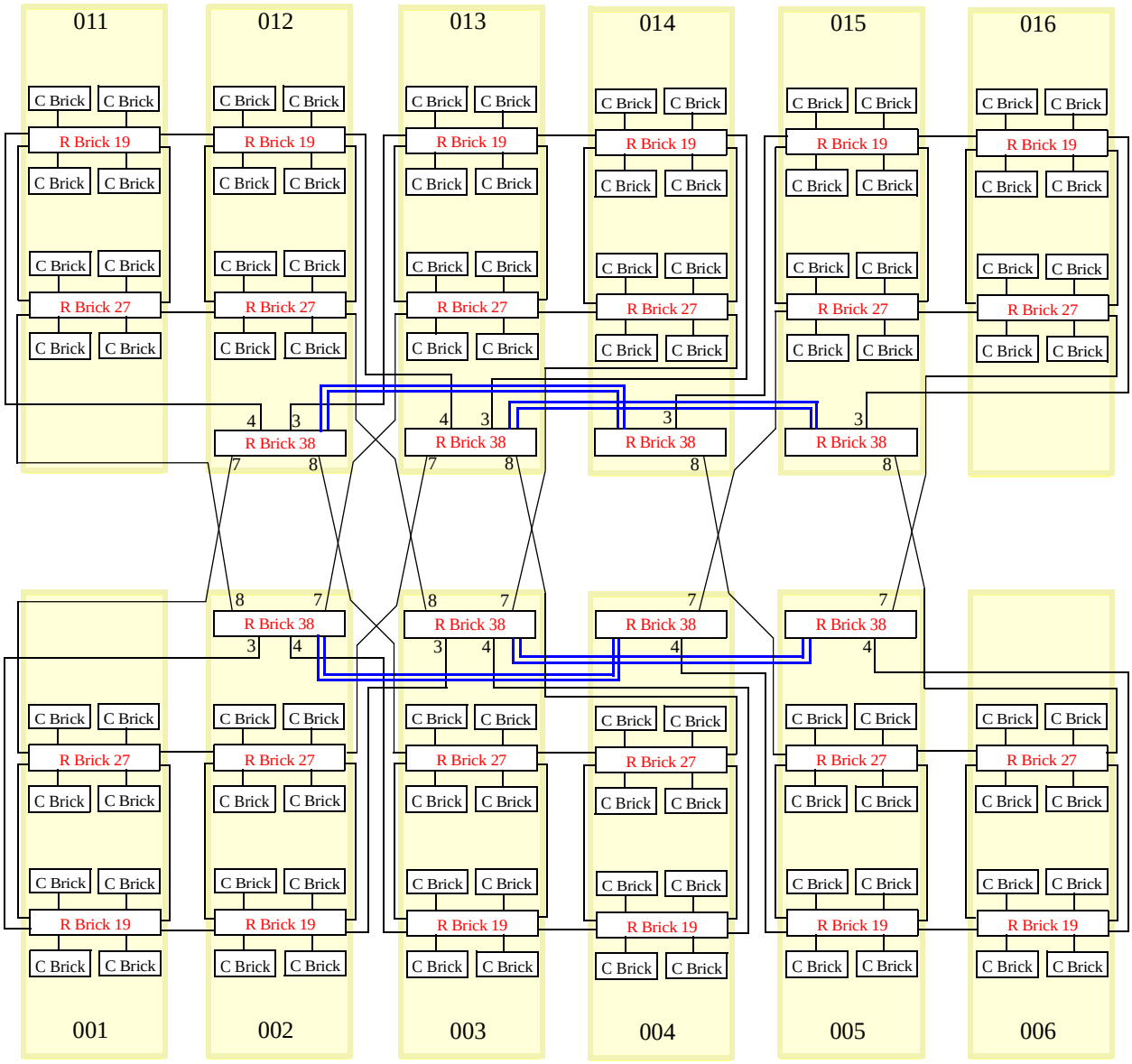


Figure 2-30 384 Processor System NUMAlink3 Cabling

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
006	C	10	Link	~1 M	006	R	19	2
006	C	13	Link	~1 M	006	R	19	3
006	C	16	Link	~1 M	006	R	19	4
006	C	21	Link	~1 M	006	R	19	5
006	C	24	Link	~1 M	006	R	27	2
006	C	29	Link	~1 M	006	R	27	3
006	C	32	Link	~1 M	006	R	27	4
006	C	35	Link	~1 M	006	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4
015	C	35	Link	~1 M	015	R	27	5
016	C	10	Link	~1 M	016	R	19	2
016	C	13	Link	~1 M	016	R	19	3
016	C	16	Link	~1 M	016	R	19	4
016	C	21	Link	~1 M	016	R	19	5
016	C	24	Link	~1 M	016	R	27	2
016	C	29	Link	~1 M	016	R	27	3
016	C	32	Link	~1 M	016	R	27	4

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
016	C	35	Link	~1 M	016	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
006	R	19	1	~1 M	006	R	27	1
006	R	19	6	~1 M	006	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
016	R	19	1	~1 M	016	R	27	1

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
016	R	19	6	~1 M	016	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
005	R	19	7	~2 M	006	R	19	7
005	R	27	7	~2 M	006	R	27	7
015	R	19	7	~2 M	016	R	19	7
015	R	27	7	~2 M	016	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	004	R	38	4
005	R	27	8	~3 M	014	R	38	8
006	R	19	8	~3 M	005	R	38	4

Table 2-27 384 Processor System

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
006	R	27	8	~3 M	015	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	014	R	38	3
015	R	27	8	~3 M	004	R	38	7
016	R	19	8	~3 M	015	R	38	3
016	R	27	8	~3 M	005	R	38	7
002	R	38	1	~2 M	004	R	38	1
002	R	38	2	~2M	004	R	38	2
003	R	38	1	~2 M	005	R	38	1
003	R	38	2	~2M	005	R	38	2
012	R	38	1	~2 M	014	R	38	1
012	R	38	2	~2M	014	R	38	2
013	R	38	1	~2 M	015	R	38	1
013	R	38	2	~2M	015	R	38	2

2.3.4.11 416 Processor System

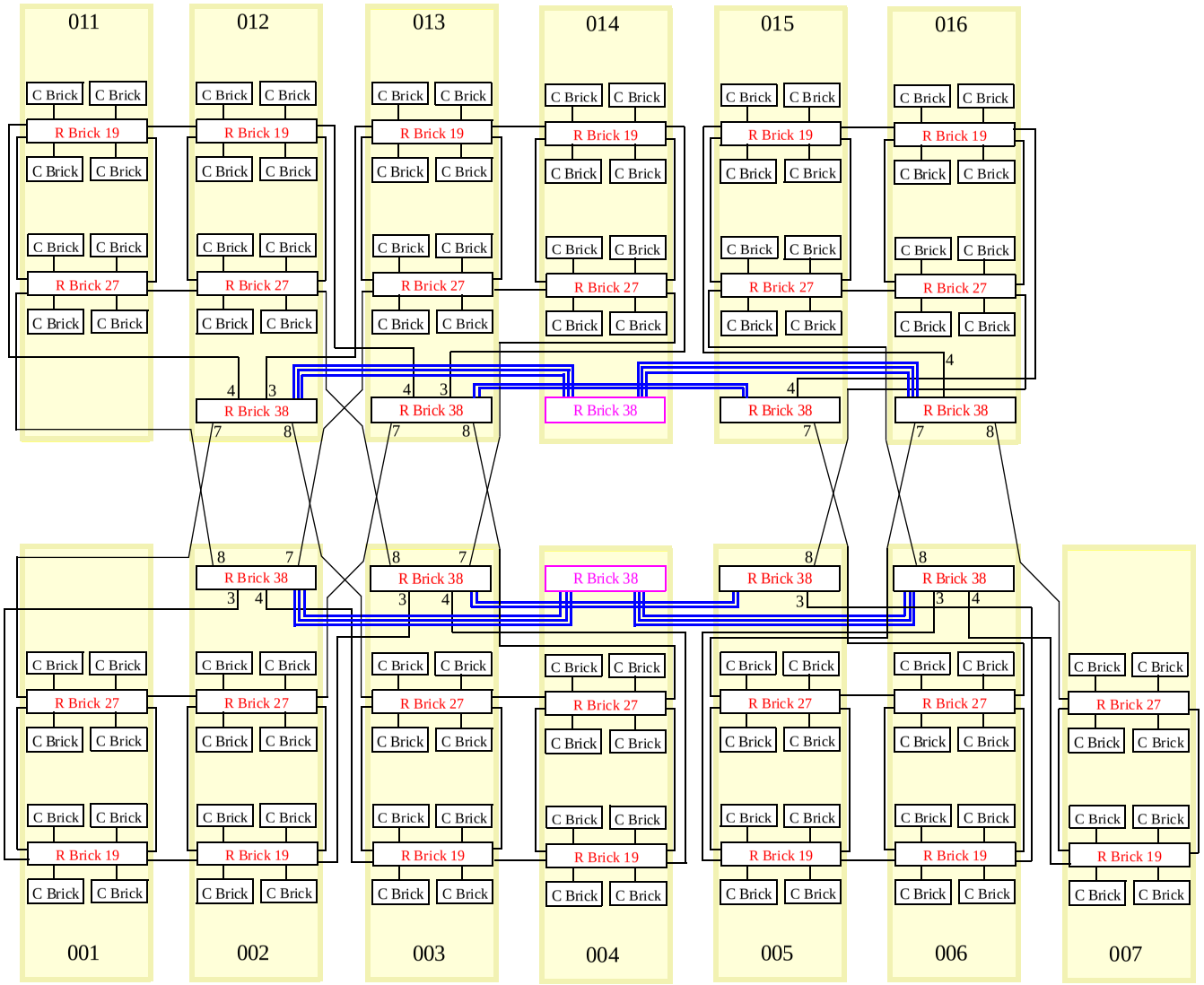


Figure 2-31 416 Processor System NUMAlink3 Cabling

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
006	C	10	Link	~1 M	006	R	19	2
006	C	13	Link	~1 M	006	R	19	3
006	C	16	Link	~1 M	006	R	19	4
006	C	21	Link	~1 M	006	R	19	5
006	C	24	Link	~1 M	006	R	27	2
006	C	29	Link	~1 M	006	R	27	3
006	C	32	Link	~1 M	006	R	27	4
006	C	35	Link	~1 M	006	R	27	5
007	C	10	Link	~1 M	007	R	19	2
007	C	13	Link	~1 M	007	R	19	3
007	C	16	Link	~1 M	007	R	19	4
007	C	21	Link	~1 M	007	R	19	5
007	C	24	Link	~1 M	007	R	27	2
007	C	29	Link	~1 M	007	R	27	3
007	C	32	Link	~1 M	007	R	27	4
007	C	35	Link	~1 M	007	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
015	C	35	Link	~1 M	015	R	27	5
016	C	10	Link	~1 M	016	R	19	2
016	C	13	Link	~1 M	016	R	19	3
016	C	16	Link	~1 M	016	R	19	4
016	C	21	Link	~1 M	016	R	19	5
016	C	24	Link	~1 M	016	R	27	2
016	C	29	Link	~1 M	016	R	27	3
016	C	32	Link	~1 M	016	R	27	4
016	C	35	Link	~1 M	016	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
006	R	19	1	~1 M	006	R	27	1
006	R	19	6	~1 M	006	R	27	6
007	R	19	1	~1 M	007	R	27	1
007	R	19	6	~1 M	007	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
016	R	19	1	~1 M	016	R	27	1
016	R	19	6	~1 M	016	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
005	R	19	7	~2 M	006	R	19	7
005	R	27	7	~2 M	006	R	27	7
015	R	19	7	~2 M	016	R	19	7
015	R	27	7	~2 M	016	R	27	7
001	R	19	8	~3 M	002	R	38	3

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	006	R	38	3
005	R	27	8	~3 M	016	R	38	7
006	R	19	8	~3 M	005	R	38	3
006	R	27	8	~3 M	015	R	38	7
007	R	19	8	~3 M	006	R	38	4
007	R	27	8	~3 M	016	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	016	R	38	4
015	R	27	8	~3 M	006	R	38	8
016	R	19	8	~3 M	015	R	38	4

Table 2-28 416 Processor System Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
016	R	27	8	~3 M	005	R	38	8
002	R	38	1	~2 M	004	R	38	8
002	R	38	2	~2M	004	R	38	1
002	R	38	5	~2M	004	R	38	2
006	R	38	1	~2 M	004	R	38	4
006	R	38	2	~2M	004	R	38	5
006	R	38	5	~2M	004	R	38	6
003	R	38	1	~2 M	005	R	38	1
003	R	38	2	~2M	005	R	38	2
012	R	38	1	~2 M	014	R	38	4
012	R	38	2	~2M	014	R	38	5
012	R	38	5	~2M	014	R	38	6
016	R	38	1	~2 M	014	R	38	8
016	R	38	2	~2M	014	R	38	1
016	R	38	5	~2M	014	R	38	2
013	R	38	1	~2 M	015	R	38	1
013	R	38	2	~2M	015	R	38	2

2.3.4.12 448 Processor System

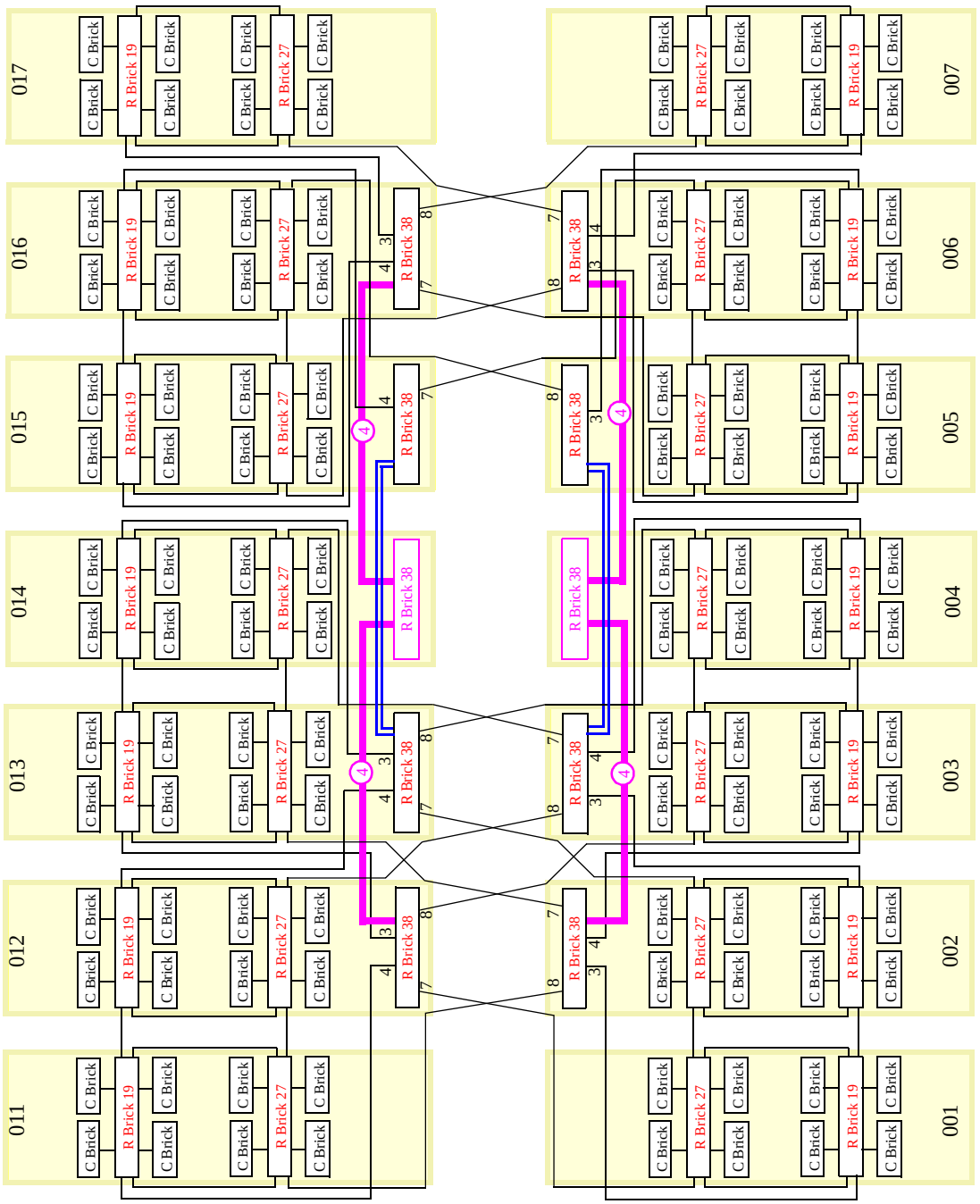


Figure 2-32 448 Processor System NUMAlink3 Cabling

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
006	C	10	Link	~1 M	006	R	19	2
006	C	13	Link	~1 M	006	R	19	3
006	C	16	Link	~1 M	006	R	19	4
006	C	21	Link	~1 M	006	R	19	5
006	C	24	Link	~1 M	006	R	27	2
006	C	29	Link	~1 M	006	R	27	3
006	C	32	Link	~1 M	006	R	27	4
006	C	35	Link	~1 M	006	R	27	5
007	C	10	Link	~1 M	007	R	19	2
007	C	13	Link	~1 M	007	R	19	3
007	C	16	Link	~1 M	007	R	19	4
007	C	21	Link	~1 M	007	R	19	5
007	C	24	Link	~1 M	007	R	27	2
007	C	29	Link	~1 M	007	R	27	3
007	C	32	Link	~1 M	007	R	27	4
007	C	35	Link	~1 M	007	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
015	C	35	Link	~1 M	015	R	27	5
016	C	10	Link	~1 M	016	R	19	2
016	C	13	Link	~1 M	016	R	19	3
016	C	16	Link	~1 M	016	R	19	4
016	C	21	Link	~1 M	016	R	19	5
016	C	24	Link	~1 M	016	R	27	2
016	C	29	Link	~1 M	016	R	27	3
016	C	32	Link	~1 M	016	R	27	4
016	C	35	Link	~1 M	016	R	27	5
017	C	10	Link	~1 M	017	R	19	2
017	C	13	Link	~1 M	017	R	19	3
017	C	16	Link	~1 M	017	R	19	4
017	C	21	Link	~1 M	017	R	19	5
017	C	24	Link	~1 M	017	R	27	2
017	C	29	Link	~1 M	017	R	27	3
017	C	32	Link	~1 M	017	R	27	4
017	C	35	Link	~1 M	017	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
006	R	19	1	~1 M	006	R	27	1
006	R	19	6	~1 M	006	R	27	6
007	R	19	1	~1 M	007	R	27	1
007	R	19	6	~1 M	007	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
016	R	19	1	~1 M	016	R	27	1
016	R	19	6	~1 M	016	R	27	6
017	R	19	1	~1 M	017	R	27	1
017	R	19	6	~1 M	017	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
005	R	19	7	~2 M	006	R	19	7
005	R	27	7	~2 M	006	R	27	7
015	R	19	7	~2 M	016	R	19	7
015	R	27	7	~2 M	016	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	006	R	38	3
005	R	27	8	~3 M	016	R	38	7
006	R	19	8	~3 M	005	R	38	3
006	R	27	8	~3 M	015	R	38	7
007	R	19	8	~3 M	006	R	38	4
007	R	27	8	~3 M	016	R	38	8
011	R	19	8	~3 M	012	R	38	4

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	016	R	38	4
015	R	27	8	~3 M	006	R	38	8
016	R	19	8	~3 M	015	R	38	4
016	R	27	8	~3 M	005	R	38	8
017	R	19	8	~3M	016	R	38	3
017	R	27	8	~3M	006	R	38	7
002	R	38	1	~2 M	004	R	38	8
002	R	38	2	~2M	004	R	38	1
002	R	38	5	~2M	004	R	38	2
002	R	38	6	~2M	004	R	38	3
006	R	38	1	~2 M	004	R	38	4
006	R	38	2	~2M	004	R	38	5
006	R	38	5	~2M	004	R	38	6
006	R	38	6	~2M	004	R	38	7
003	R	38	1	~2 M	005	R	38	1
003	R	38	2	~2M	005	R	38	2
012	R	38	1	~2 M	014	R	38	4

Table 2-29 448 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	R	38	2	~2M	014	R	38	5
012	R	38	5	~2M	014	R	38	6
012	R	38	6	~2M	014	R	38	7
016	R	38	1	~2 M	014	R	38	8
016	R	38	2	~2M	014	R	38	1
016	R	38	5	~2M	014	R	38	2
016	R	38	6	~2M	014	R	38	3
013	R	38	1	~2 M	015	R	38	1
013	R	38	2	~2M	015	R	38	2

2.3.4.13 480 Processor System

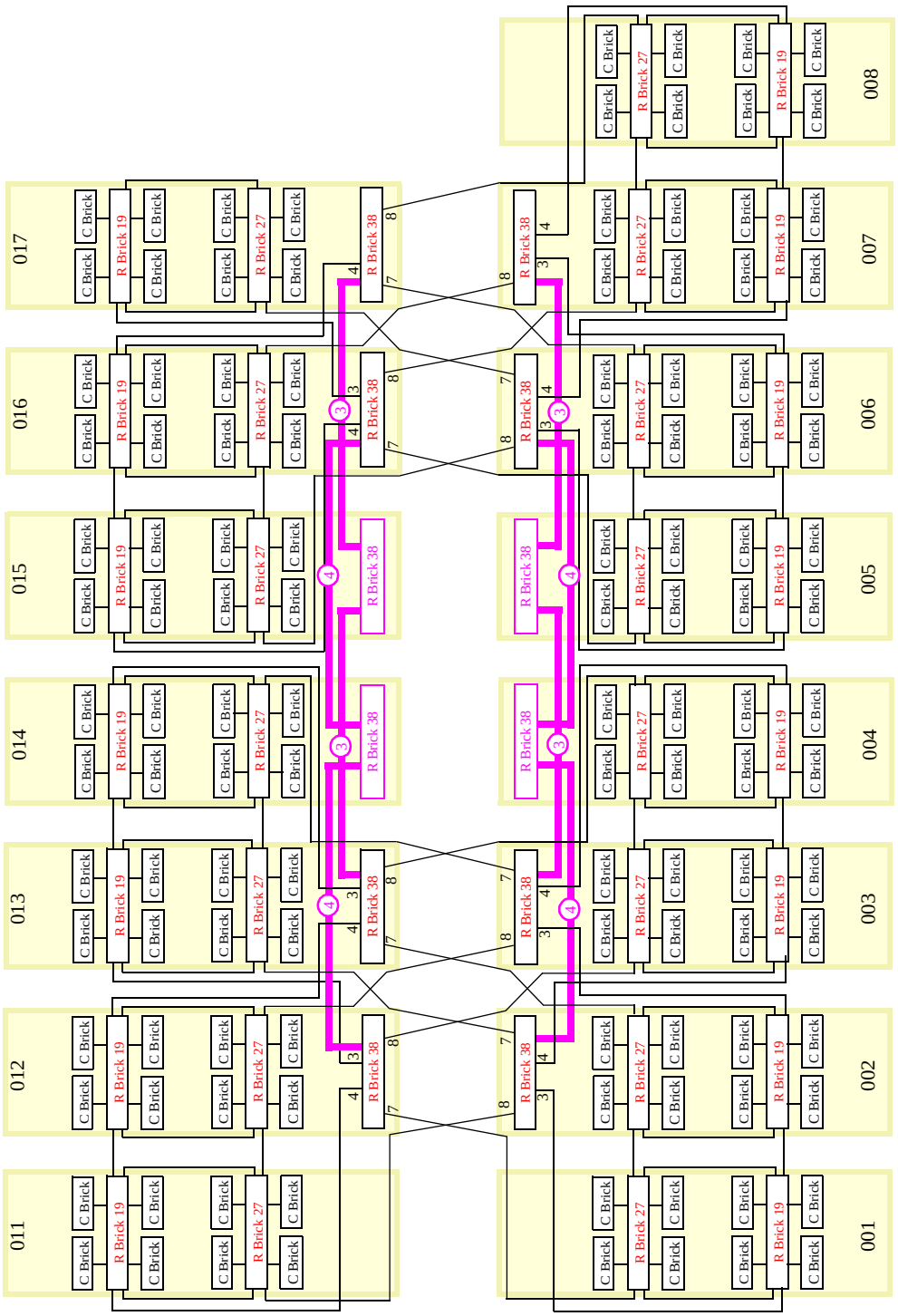


Figure 2-33 480 Processor System NUMAlink3 Cabling

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
006	C	10	Link	~1 M	006	R	19	2
006	C	13	Link	~1 M	006	R	19	3
006	C	16	Link	~1 M	006	R	19	4
006	C	21	Link	~1 M	006	R	19	5
006	C	24	Link	~1 M	006	R	27	2
006	C	29	Link	~1 M	006	R	27	3
006	C	32	Link	~1 M	006	R	27	4
006	C	35	Link	~1 M	006	R	27	5
007	C	10	Link	~1 M	007	R	19	2
007	C	13	Link	~1 M	007	R	19	3
007	C	16	Link	~1 M	007	R	19	4
007	C	21	Link	~1 M	007	R	19	5
007	C	24	Link	~1 M	007	R	27	2
007	C	29	Link	~1 M	007	R	27	3
007	C	32	Link	~1 M	007	R	27	4
007	C	35	Link	~1 M	007	R	27	5
008	C	10	Link	~1 M	008	R	19	2
008	C	13	Link	~1 M	008	R	19	3
008	C	16	Link	~1 M	008	R	19	4
008	C	21	Link	~1 M	008	R	19	5
008	C	24	Link	~1 M	008	R	27	2
008	C	29	Link	~1 M	008	R	27	3
008	C	32	Link	~1 M	008	R	27	4

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
008	C	35	Link	~1 M	008	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4
015	C	35	Link	~1 M	015	R	27	5
016	C	10	Link	~1 M	016	R	19	2
016	C	13	Link	~1 M	016	R	19	3
016	C	16	Link	~1 M	016	R	19	4
016	C	21	Link	~1 M	016	R	19	5
016	C	24	Link	~1 M	016	R	27	2
016	C	29	Link	~1 M	016	R	27	3
016	C	32	Link	~1 M	016	R	27	4
016	C	35	Link	~1 M	016	R	27	5
017	C	10	Link	~1 M	017	R	19	2
017	C	13	Link	~1 M	017	R	19	3
017	C	16	Link	~1 M	017	R	19	4
017	C	21	Link	~1 M	017	R	19	5
017	C	24	Link	~1 M	017	R	27	2
017	C	29	Link	~1 M	017	R	27	3
017	C	32	Link	~1 M	017	R	27	4

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
017	C	35	Link	~1 M	017	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
006	R	19	1	~1 M	006	R	27	1
006	R	19	6	~1 M	006	R	27	6
007	R	19	1	~1 M	007	R	27	1
007	R	19	6	~1 M	007	R	27	6
008	R	19	1	~1 M	008	R	27	1

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
008	R	19	6	~1 M	008	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
016	R	19	1	~1 M	016	R	27	1
016	R	19	6	~1 M	016	R	27	6
017	R	19	1	~1 M	017	R	27	1
017	R	19	6	~1 M	017	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7
013	R	27	7	~2 M	014	R	27	7
005	R	19	7	~2 M	006	R	19	7
005	R	27	7	~2 M	006	R	27	7
007	R	19	7	~2 M	008	R	19	7
007	R	27	7	~2 M	008	R	27	7
015	R	19	7	~2 M	016	R	19	7
015	R	27	7	~2 M	016	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	006	R	38	3
005	R	27	8	~3 M	016	R	38	7
006	R	19	8	~3 M	007	R	38	3
006	R	27	8	~3 M	017	R	38	7
007	R	19	8	~3 M	006	R	38	4
007	R	27	8	~3 M	016	R	38	8
008	R	19	8	~3 M	007	R	38	4
008	R	27	8	~3 M	017	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	016	R	38	4
015	R	27	8	~3 M	006	R	38	8
016	R	19	8	~3 M	017	R	38	4

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
016	R	27	8	~3 M	007	R	38	8
017	R	19	8	~3M	016	R	38	3
017	R	27	8	~3M	006	R	38	7
002	R	38	1	~2 M	004	R	38	8
002	R	38	2	~2M	004	R	38	1
002	R	38	5	~2M	004	R	38	2
002	R	38	6	~2M	004	R	38	3
006	R	38	1	~2 M	004	R	38	4
006	R	38	2	~2M	004	R	38	5
006	R	38	5	~2M	004	R	38	6
006	R	38	6	~2M	004	R	38	7
003	R	38	1	~2 M	005	R	38	8
003	R	38	2	~2M	005	R	38	1
003	R	38	5	~2M	005	R	38	2
007	R	38	1	~2 M	005	R	38	4
007	R	38	2	~2M	005	R	38	5
007	R	38	5	~2M	005	R	38	6
012	R	38	1	~2 M	014	R	38	4
012	R	38	2	~2M	014	R	38	5
012	R	38	5	~2M	014	R	38	6
012	R	38	6	~2M	014	R	38	7
016	R	38	1	~2 M	014	R	38	8
016	R	38	2	~2M	014	R	38	1
016	R	38	5	~2M	014	R	38	2

Table 2-30 480 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
016	R	38	6	~2M	014	R	38	3
013	R	38	1	~2 M	015	R	38	4
013	R	38	2	~2M	015	R	38	5
013	R	38	5	~2M	015	R	38	6
017	R	38	1	~2 M	015	R	38	8
017	R	38	2	~2M	015	R	38	1
017	R	38	5	~2M	015	R	38	2

2.3.4.14 512 Processor

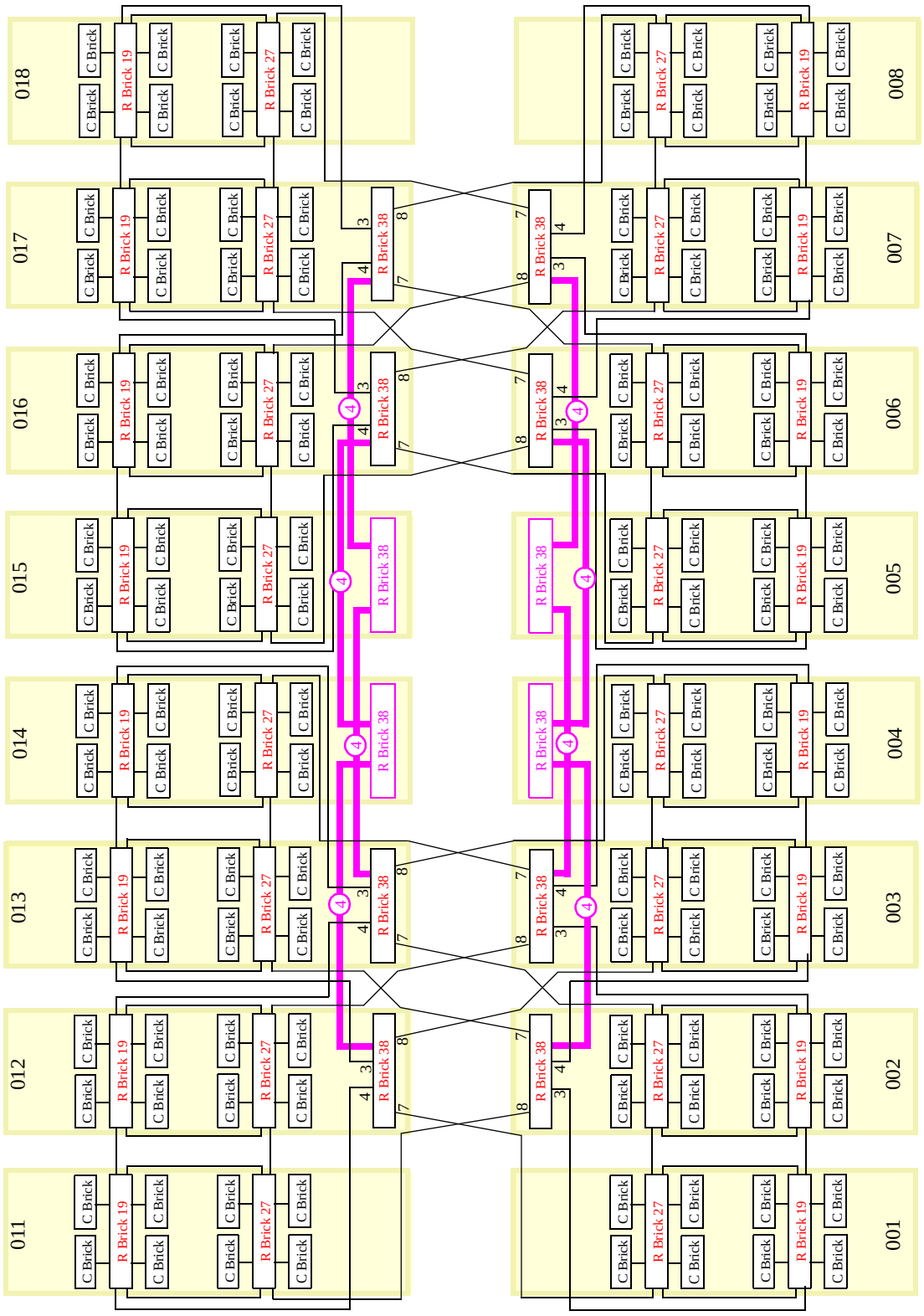


Figure 2-34 512 System NUMAlink3 Cabling

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
001	C	10	Link	~1 M	001	R	19	2
001	C	13	Link	~1 M	001	R	19	3
001	C	16	Link	~1 M	001	R	19	4
001	C	21	Link	~1 M	001	R	19	5
001	C	24	Link	~1 M	001	R	27	2
001	C	29	Link	~1 M	001	R	27	3
001	C	32	Link	~1 M	001	R	27	4
001	C	35	Link	~1 M	001	R	27	5
002	C	10	Link	~1 M	002	R	19	2
002	C	13	Link	~1 M	002	R	19	3
002	C	16	Link	~1 M	002	R	19	4
002	C	21	Link	~1 M	002	R	19	5
002	C	24	Link	~1 M	002	R	27	2
002	C	29	Link	~1 M	002	R	27	3
002	C	32	Link	~1 M	002	R	27	4
002	C	35	Link	~1 M	002	R	27	5
003	C	10	Link	~1 M	003	R	19	2
003	C	13	Link	~1 M	003	R	19	3
003	C	16	Link	~1 M	003	R	19	4
003	C	21	Link	~1 M	003	R	19	5
003	C	24	Link	~1 M	003	R	27	2
003	C	29	Link	~1 M	003	R	27	3
003	C	32	Link	~1 M	003	R	27	4

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
003	C	35	Link	~1 M	003	R	27	5
004	C	10	Link	~1 M	004	R	19	2
004	C	13	Link	~1 M	004	R	19	3
004	C	16	Link	~1 M	004	R	19	4
004	C	21	Link	~1 M	004	R	19	5
004	C	24	Link	~1 M	004	R	27	2
004	C	29	Link	~1 M	004	R	27	3
004	C	32	Link	~1 M	004	R	27	4
004	C	35	Link	~1 M	004	R	27	5
011	C	10	Link	~1 M	011	R	19	2
011	C	13	Link	~1 M	011	R	19	3
011	C	16	Link	~1 M	011	R	19	4
011	C	21	Link	~1 M	011	R	19	5
011	C	24	Link	~1 M	011	R	27	2
011	C	29	Link	~1 M	011	R	27	3
011	C	32	Link	~1 M	011	R	27	4
011	C	35	Link	~1 M	011	R	27	5
012	C	10	Link	~1 M	012	R	19	2
012	C	13	Link	~1 M	012	R	19	3
012	C	16	Link	~1 M	012	R	19	4
012	C	21	Link	~1 M	012	R	19	5
012	C	24	Link	~1 M	012	R	27	2
012	C	29	Link	~1 M	012	R	27	3
012	C	32	Link	~1 M	012	R	27	4

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
012	C	35	Link	~1 M	012	R	27	5
013	C	10	Link	~1 M	013	R	19	2
013	C	13	Link	~1 M	013	R	19	3
013	C	16	Link	~1 M	013	R	19	4
013	C	21	Link	~1 M	013	R	19	5
013	C	24	Link	~1 M	013	R	27	2
013	C	29	Link	~1 M	013	R	27	3
013	C	32	Link	~1 M	013	R	27	4
013	C	35	Link	~1 M	013	R	27	5
014	C	10	Link	~1 M	014	R	19	2
014	C	13	Link	~1 M	014	R	19	3
014	C	16	Link	~1 M	014	R	19	4
014	C	21	Link	~1 M	014	R	19	5
014	C	24	Link	~1 M	014	R	27	2
014	C	29	Link	~1 M	014	R	27	3
014	C	32	Link	~1 M	014	R	27	4
014	C	35	Link	~1 M	014	R	27	5
005	C	10	Link	~1 M	005	R	19	2
005	C	13	Link	~1 M	005	R	19	3
005	C	16	Link	~1 M	005	R	19	4
005	C	21	Link	~1 M	005	R	19	5
005	C	24	Link	~1 M	005	R	27	2
005	C	29	Link	~1 M	005	R	27	3
005	C	32	Link	~1 M	005	R	27	4

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
005	C	35	Link	~1 M	005	R	27	5
006	C	10	Link	~1 M	006	R	19	2
006	C	13	Link	~1 M	006	R	19	3
006	C	16	Link	~1 M	006	R	19	4
006	C	21	Link	~1 M	006	R	19	5
006	C	24	Link	~1 M	006	R	27	2
006	C	29	Link	~1 M	006	R	27	3
006	C	32	Link	~1 M	006	R	27	4
006	C	35	Link	~1 M	006	R	27	5
007	C	10	Link	~1 M	007	R	19	2
007	C	13	Link	~1 M	007	R	19	3
007	C	16	Link	~1 M	007	R	19	4
007	C	21	Link	~1 M	007	R	19	5
007	C	24	Link	~1 M	007	R	27	2
007	C	29	Link	~1 M	007	R	27	3
007	C	32	Link	~1 M	007	R	27	4
007	C	35	Link	~1 M	007	R	27	5
008	C	10	Link	~1 M	008	R	19	2
008	C	13	Link	~1 M	008	R	19	3
008	C	16	Link	~1 M	008	R	19	4
008	C	21	Link	~1 M	008	R	19	5
008	C	24	Link	~1 M	008	R	27	2
008	C	29	Link	~1 M	008	R	27	3
008	C	32	Link	~1 M	008	R	27	4

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
008	C	35	Link	~1 M	008	R	27	5
015	C	10	Link	~1 M	015	R	19	2
015	C	13	Link	~1 M	015	R	19	3
015	C	16	Link	~1 M	015	R	19	4
015	C	21	Link	~1 M	015	R	19	5
015	C	24	Link	~1 M	015	R	27	2
015	C	29	Link	~1 M	015	R	27	3
015	C	32	Link	~1 M	015	R	27	4
015	C	35	Link	~1 M	015	R	27	5
016	C	10	Link	~1 M	016	R	19	2
016	C	13	Link	~1 M	016	R	19	3
016	C	16	Link	~1 M	016	R	19	4
016	C	21	Link	~1 M	016	R	19	5
016	C	24	Link	~1 M	016	R	27	2
016	C	29	Link	~1 M	016	R	27	3
016	C	32	Link	~1 M	016	R	27	4
016	C	35	Link	~1 M	016	R	27	5
017	C	10	Link	~1 M	017	R	19	2
017	C	13	Link	~1 M	017	R	19	3
017	C	16	Link	~1 M	017	R	19	4
017	C	21	Link	~1 M	017	R	19	5
017	C	24	Link	~1 M	017	R	27	2
017	C	29	Link	~1 M	017	R	27	3
017	C	32	Link	~1 M	017	R	27	4

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
017	C	35	Link	~1 M	017	R	27	5
018	C	10	Link	~1 M	018	R	19	2
018	C	13	Link	~1 M	018	R	19	3
018	C	16	Link	~1 M	018	R	19	4
018	C	21	Link	~1 M	018	R	19	5
018	C	24	Link	~1 M	018	R	27	2
018	C	29	Link	~1 M	018	R	27	3
018	C	32	Link	~1 M	018	R	27	4
018	C	35	Link	~1 M	018	R	27	5
001	R	19	1	~1 M	001	R	27	1
001	R	19	6	~1 M	001	R	27	6
002	R	19	1	~1 M	002	R	27	1
002	R	19	6	~1 M	002	R	27	6
003	R	19	1	~1 M	003	R	27	1
003	R	19	6	~1 M	003	R	27	6
004	R	19	1	~1 M	004	R	27	1
004	R	19	6	~1 M	004	R	27	6
011	R	19	1	~1 M	011	R	27	1
011	R	19	6	~1 M	011	R	27	6
012	R	19	1	~1 M	012	R	27	1
012	R	19	6	~1 M	012	R	27	6
013	R	19	1	~1 M	013	R	27	1
013	R	19	6	~1 M	013	R	27	6
014	R	19	1	~1 M	014	R	27	1

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
014	R	19	6	~1 M	014	R	27	6
005	R	19	1	~1 M	005	R	27	1
005	R	19	6	~1 M	005	R	27	6
006	R	19	1	~1 M	006	R	27	1
006	R	19	6	~1 M	006	R	27	6
007	R	19	1	~1 M	007	R	27	1
007	R	19	6	~1 M	007	R	27	6
008	R	19	1	~1 M	008	R	27	1
008	R	19	6	~1 M	008	R	27	6
015	R	19	1	~1 M	015	R	27	1
015	R	19	6	~1 M	015	R	27	6
016	R	19	1	~1 M	016	R	27	1
016	R	19	6	~1 M	016	R	27	6
017	R	19	1	~1 M	017	R	27	1
017	R	19	6	~1 M	017	R	27	6
018	R	19	1	~1 M	018	R	27	1
018	R	19	6	~1 M	018	R	27	6
001	R	19	7	~2 M	002	R	19	7
001	R	27	7	~2 M	002	R	27	7
003	R	19	7	~2 M	004	R	19	7
003	R	27	7	~2 M	004	R	27	7
011	R	19	7	~2 M	012	R	19	7
011	R	27	7	~2 M	012	R	27	7
013	R	19	7	~2 M	014	R	19	7

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
013	R	27	7	~2 M	014	R	27	7
005	R	19	7	~2 M	006	R	19	7
005	R	27	7	~2 M	006	R	27	7
007	R	19	7	~2 M	008	R	19	7
007	R	27	7	~2 M	008	R	27	7
015	R	19	7	~2 M	016	R	19	7
015	R	27	7	~2 M	016	R	27	7
017	R	19	7	~2 M	018	R	19	7
017	R	27	7	~2 M	018	R	27	7
001	R	19	8	~3 M	002	R	38	3
001	R	27	8	~3 M	012	R	38	7
002	R	19	8	~3 M	003	R	38	3
002	R	27	8	~3 M	013	R	38	7
003	R	19	8	~3 M	002	R	38	4
003	R	27	8	~3 M	012	R	38	8
004	R	19	8	~3 M	003	R	38	4
004	R	27	8	~3 M	013	R	38	8
005	R	19	8	~3 M	006	R	38	3
005	R	27	8	~3 M	016	R	38	7
006	R	19	8	~3 M	007	R	38	3
006	R	27	8	~3 M	017	R	38	7
007	R	19	8	~3 M	006	R	38	4
007	R	27	8	~3 M	016	R	38	8
008	R	19	8	~3 M	007	R	38	4

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
008	R	27	8	~3 M	017	R	38	8
011	R	19	8	~3 M	012	R	38	4
011	R	27	8	~3 M	002	R	38	8
012	R	19	8	~3 M	013	R	38	4
012	R	27	8	~3 M	003	R	38	8
013	R	19	8	~3M	012	R	38	3
013	R	27	8	~3M	002	R	38	7
014	R	19	8	~3 M	013	R	38	3
014	R	27	8	~3 M	003	R	38	7
015	R	19	8	~3 M	016	R	38	4
015	R	27	8	~3 M	006	R	38	8
016	R	19	8	~3 M	017	R	38	4
016	R	27	8	~3 M	007	R	38	8
017	R	19	8	~3M	016	R	38	3
017	R	27	8	~3M	006	R	38	7
018	R	19	8	~3 M	017	R	38	3
018	R	27	8	~3 M	007	R	38	7
002	R	38	1	~2 M	004	R	38	8
002	R	38	2	~2M	004	R	38	1
002	R	38	5	~2M	004	R	38	2
002	R	38	6	~2M	004	R	38	3
006	R	38	1	~2 M	004	R	38	4
006	R	38	2	~2M	004	R	38	5
006	R	38	5	~2M	004	R	38	6

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
006	R	38	6	~2M	004	R	38	7
003	R	38	1	~2 M	005	R	38	8
003	R	38	2	~2M	005	R	38	1
003	R	38	5	~2M	005	R	38	2
003	R	38	6	~2M	005	R	38	3
007	R	38	1	~2 M	005	R	38	4
007	R	38	2	~2M	005	R	38	5
007	R	38	5	~2M	005	R	38	6
007	R	38	6	~2M	005	R	38	7
012	R	38	1	~2 M	014	R	38	4
012	R	38	2	~2M	014	R	38	5
012	R	38	5	~2M	014	R	38	6
012	R	38	6	~2M	014	R	38	7
016	R	38	1	~2 M	014	R	38	8
016	R	38	2	~2M	014	R	38	1
016	R	38	5	~2M	014	R	38	2
016	R	38	6	~2M	014	R	38	3
013	R	38	1	~2 M	015	R	38	4
013	R	38	2	~2M	015	R	38	5
013	R	38	5	~2M	015	R	38	6
013	R	38	6	~2M	015	R	38	7
017	R	38	1	~2 M	015	R	38	8
017	R	38	2	~2M	015	R	38	1
017	R	38	5	~2M	015	R	38	2

Table 2-31 512 Processor System NUMAlink3 Cabling

SOURCE				Cable Length in Meters	DESTINATION			
Rack	Brick Type	U	Port		Rack	Brick Type	U	Port
017	R	38	6	~2M	015	R	38	3

2.3.5 IO Interface Connections (Xtown2)

Information to be provided.

2.3.6 IR3 Cabling

Information to be provided.

Chapter 3

System Controller Cabling

3.1 L1 Cable Connections

Information to be provided.

3.2 L2 Cable Connections

Information to be provided.

3.3 L3 Cable Connections

Information to be provided.

Chapter 4

Ethernet Hub Cabling

Information to be provided.

Remote Support Cabling

The 800 series Cisco Router resides on the utility shelf in rack 001. Router ports and the cables that ship with the Cisco router are color coded to ensure proper connection. Order additional Ethernet cables from SGI to connect more than one system to the Cisco router for remote support capabilities.

Note: Do not route data cables in parallel with any power cables in the system and be sure that data and power cables cross at a 90 degree angle. ???

Cable connection and routing information to be provided.

Chapter 6

C, I, X, P, and R Brick Internal Harness Assemblies

Information to be provided.

Glossary

GlossaryEntry
GlossaryDef

GlossaryEntry
GlossaryDef

- Bulleted lists can be used here.
- Bulleted lists can be used here.