

# MAINTENANCE MANUAL

## INTEGRATED MULTISITE & CONSOLE CONTROLLER AUDIO CONCENTRATOR CARD 19D903531P1

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### DESCRIPTION

#### GENERAL

Concentrator cards simplify connections to the Integrated Multisite & Console (IMC) Controller. By installing the cards in the audio and data paths between the IMC and other pieces of equipment, interfacing between a site or console and the switch requires fewer kinds of cables. The cards, mounted on the rear of the cabinet, route many of the signals from the IMC. Most of the cards concentrate the signals from several backplane connectors into one or two large connectors that interface to the site, console, etc.

Most of the concentrator cards make it possible to make IMC connections at punch-blocks. With the exception of the card for the MOM PC, each converts the signal arrangement on the backplane connectors to the arrangement on the punch-blocks. The concentrators perform a conversion from two-row, 24-pin connectors to 50-pin Champ connectors. Cables with the same two-row, 24-pin connectors on both ends carry signals between the backplane and the concentrators. 25-pair cables carry the signals between the concentrators and punch-blocks or other signal break-out devices.

### AUDIO CONCENTRATOR CARD

#### Specifications

Height:	5 inches
Width:	4.25 inches
Thickness:	0.093 inches

#### Description

The Audio Concentrator cards route all audio to/from a site or console. Each card can carry the audio of up to 6 audio cards.

The card has six 24-pin, two-row connectors on the back for connecting up to six audio boards. By supporting six audio boards, the audio concentrator card can carry up to 24 channels of audio.

The front of the card contains four Champ connectors. The card needs only two of these connectors to carry 24 channels of audio; the other two have the same signals in a different arrangement. J7 carries all 24 channels of audio entering the switch. J8 carries all 24 channels of audio leaving the switch. J9 carries the transmit and receive audio for three audio boards (12 channels at J1-J3). J10 carries the

transmit and receive audio for the other three audio boards(J4-J6).

The following tables show the signal arrangement on the punch-blocks. Note, only two punch-blocks are required: J7 and J8 can take transmit and receive separately to punch-blocks, or J9 and J10 can each take half of the channels to a pair of punch-blocks. If using 12 or fewer channels and transmit and receive do not have to be separated, then only one punch-block, for J9, is required.

For example, if an audio concentrator is to carry the signals for a five-channel site (site 1) and a three-channel site (site 2), the audio for the five-channel site could use J1 and J2, and the audio for the three-channel site could use J3. In this case, the signal arrangement on J7 would be as shown below.

J7			
1	Site 1, ch. 1 audio in H	26	Site 1, ch. 1 audio in L
2	Site 1, ch. 2 audio in H	27	Site 1, ch. 2 audio in L
3	Site 1, ch. 3 audio in H	28	Site 1, ch. 3 audio in L
4	Site 1, ch. 4 audio in H	29	Site 1, ch. 4 audio in L
5	Site 1, ch. 5 audio in H	30	Site 1, ch. 5 audio in L
9	Site 2, ch. 1 audio in H	34	Site 2, ch. 1 audio in L
10	Site 2, ch. 2 audio in H	35	Site 2, ch. 2 audio in L
11	Site 2, ch. 3 audio in H	36	Site 2, ch. 3 audio in L

The arrangement on J8 for the audio out would be identical.

In the following tables, the channel numbers one through four refer to the four channels supported by the audio board at the given connector (J1 through J6).

J7			
1	J1-15 Ch.1, Audio in H	26	J1-13 Ch.1, Audio in L
2	J1-11 Ch.2, Audio in H	27	J1-9 Ch.2, Audio in L
3	J1-7 Ch.3, Audio in H	28	J1-5 Ch.3, Audio in L
4	J1-3 Ch.4, Audio in H	29	J1-1 Ch.4, Audio in L
5	J2-15 Ch.1, Audio in H	30	J2-13 Ch.1, Audio in L
6	J2-11 Ch.2, Audio in H	31	J2-9 Ch.2, Audio in L
7	J2-7 Ch.3, Audio in H	32	J2-5 Ch.3, Audio in L
8	J2-3 Ch.4, Audio in H	33	J2-1 Ch.4, Audio in L
9	J3-15 Ch.1, Audio in H	34	J3-13 Ch.1, Audio in L
10	J3-11 Ch.2, Audio in H	35	J3-9 Ch.2, Audio in L
11	J3-7 Ch.3, Audio in H	36	J3-5 Ch.3, Audio in L
12	J3-3 Ch.4, Audio in H	37	J3-1 Ch.4, Audio in L
13	J4-15 Ch.1, Audio in H	38	J4-13 Ch.1, Audio in L
14	J4-11 Ch.2, Audio in H	39	J4-9 Ch.2, Audio in L
15	J4-7 Ch.3, Audio in H	40	J4-5 Ch.3, Audio in L
16	J4-3 Ch.4, Audio in H	41	J4-1 Ch.4, Audio in L
17	J5-15 Ch.1, Audio in H	42	J5-13 Ch.1, Audio in L
18	J5-11 Ch.2, Audio in H	43	J5-9 Ch.2, Audio in L

J7					
19	J5-7	Ch.3, Audio in H	44	J5-5	Ch.3, Audio in L
20	J5-3	Ch.4, Audio in H	45	J5-1	Ch.4, Audio in L
21	J6-15	Ch.1, Audio in H	46	J6-13	Ch.1, Audio in L
22	J6-11	Ch.2, Audio in H	47	J6-9	Ch.2, Audio in L
23	J6-7	Ch.3, Audio in H	48	J6-5	Ch.3, Audio in L
23	J6-3	Ch.4, Audio in H	49	J6-1	Ch.4, Audio in L
25		Unused	50		Unused

J8					
1	J1-18	Ch.1, Audio out H	26	J1-19	Ch.1, Audio out L
2	J1-17	Ch.2, Audio out H	27	J1-20	Ch.2, Audio out L
3	J1-21	Ch.3, Audio out H	28	J1-22	Ch.3, Audio out L
4	J1-24	Ch.4, Audio out H	29	J1-23	Ch.4, Audio out L
5	J2-18	Ch.1, Audio out H	30	J2-19	Ch.1, Audio out L
6	J2-17	Ch.2, Audio out H	31	J2-20	Ch.2, Audio out L
7	J2-21	Ch.3, Audio out H	32	J2-22	Ch.3, Audio out L
8	J2-24	Ch.4, Audio out H	33	J2-23	Ch.4, Audio out L
9	J3-18	Ch.1, Audio out H	34	J3-19	Ch.1, Audio out L
10	J3-17	Ch.2, Audio out H	35	J3-20	Ch.2, Audio out L

J8					
11	J3-21	Ch.3, Audio out H	36	J3-22	Ch.3, Audio out L
12	J3-24	Ch.4, Audio out H	37	J3-23	Ch.4, Audio out L
13	J4-18	Ch.1, Audio out H	38	J4-19	Ch.1, Audio out L
14	J4-17	Ch.2, Audio out H	39	J4-20	Ch.2, Audio out L
15	J4-21	Ch.3, Audio out H	40	J4-22	Ch.3, Audio out L
16	J4-24	Ch.4, Audio out H	41	J4-23	Ch.4, Audio out L
17	J5-18	Ch.1, Audio out H	42	J5-19	Ch.1, Audio out L
18	J5-17	Ch.2, Audio out H	43	J5-20	Ch.2, Audio out L
19	J5-21	Ch.3, Audio out H	44	J5-22	Ch.3, Audio out L
20	J5-24	Ch.4, Audio out H	45	J5-23	Ch.4, Audio out L
21	J6-18	Ch.1, Audio out H	46	J6-19	Ch.1, Audio out L
22	J6-17	Ch.2, Audio out H	47	J6-20	Ch.2, Audio out L
23	J6-21	Ch.3, Audio out H	48	J6-22	Ch.3, Audio out L
24	J6-24	Ch.4, Audio out H	49	J6-23	Ch.4, Audio out L
25		Unused	50		Unused

<b>J9</b>					
1	J1-15	Ch.1, Audio in H	26	J1-13	Ch.1, Audio in L
2	J1-18	Ch.1, Audio out H	27	J1-19	Ch.1, Audio out L
3	J1-11	Ch.2, Audio in H	28	J1-9	Ch.2, Audio in L
4	J1-17	Ch.2, Audio out H	29	J1-20	Ch.2, Audio out L
5	J1-7	Ch.3, Audio in H	30	J1-5	Ch.3, Audio in L
6	J1-21	Ch.3, Audio out H	31	J1-22	Ch.3, Audio out L
7	J1-3	Ch.4, Audio in H	32	J1-1	Ch.4, Audio in L
8	J1-24	Ch.4, Audio out H	33	J1-23	Ch.4, Audio out L
9	J2-15	Ch.1, Audio in H	34	J2-13	Ch.1, Audio in L
10	J2-18	Ch.1, Audio out H	35	J2-19	Ch.1, Audio out L
11	J2-11	Ch.2, Audio in H	36	J2-9	Ch.2, Audio in L
12	J2-17	Ch.2, Audio out H	37	J2-20	Ch.2, Audio out L
13	J2-7	Ch.3, Audio in H	38	J2-5	Ch.3, Audio in L
14	J2-21	Ch.3, Audio out H	39	J2-22	Ch.3, Audio out L
15	J2-3	Ch.4, Audio in H	40	J2-1	Ch.4, Audio in L
16	J2-24	Ch.4, Audio out H	41	J2-23	Ch.4, Audio out L
17	J3-15	Ch.1, Audio in H	42	J3-13	Ch.1, Audio in L
18	J3-18	Ch.1, Audio out H	43	J3-19	Ch.1, Audio out L
19	J3-11	Ch.2, Audio in H	44	J3-9	Ch.2, Audio in L

<b>J9</b>					
20	J3-17	Ch.2, Audio out H	45	J3-20	Ch.2, Audio out L
21	J3-7	Ch.3, Audio in H	46	J3-5	Ch.3, Audio in L
22	J3-21	Ch.3, Audio out H	47	J3-22	Ch.3, Audio out L
23	J3-3	Ch.4, Audio in H	48	J3-1	Ch.4, Audio in L
24	J3-24	Ch.4, Audio out H	49	J3-23	Ch.4, Audio out L
25		Unused	50		Unused

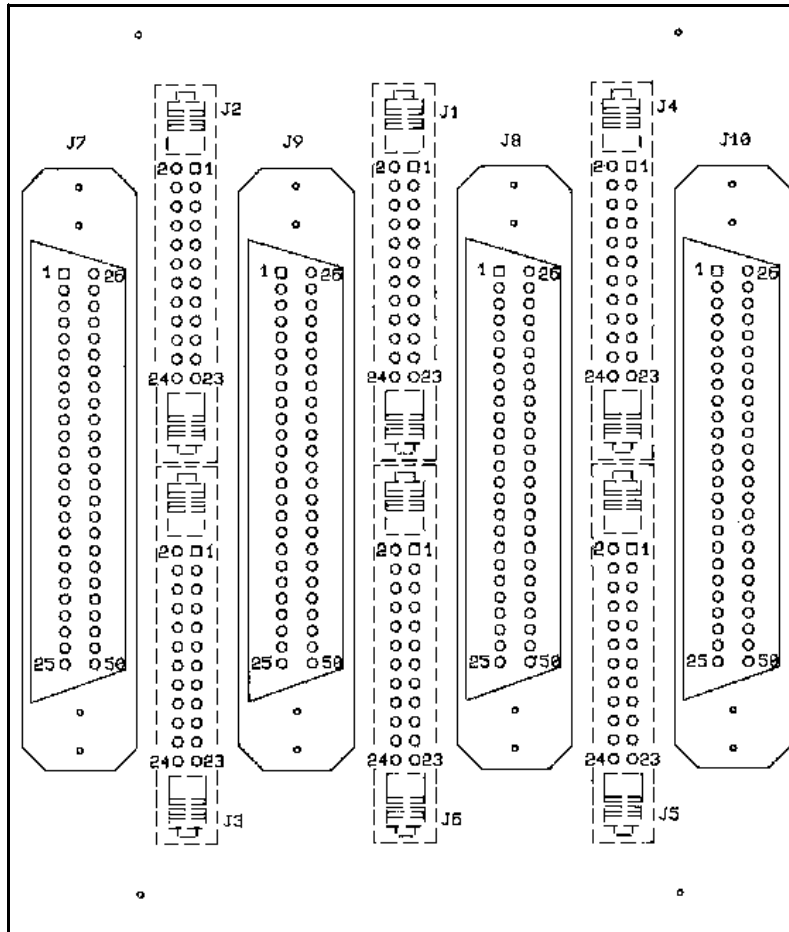
<b>J10</b>					
1	J4-15	Ch.1, Audio in H	26	J4-13	Ch.1, Audio in L
2	J4-18	Ch.1, Audio out H	27	J4-19	Ch.1, Audio out L
3	J4-11	Ch.2, Audio in H	28	J4-9	Ch.2, Audio in L
4	J4-17	Ch.2, Audio out H	29	J4-20	Ch.2, Audio out L
5	J4-7	Ch.3, Audio in H	30	J4-5	Ch.3, Audio in L
6	J4-21	Ch.3, Audio out H	31	J4-22	Ch.3, Audio out L
7	J4-3	Ch.4, Audio in H	32	J4-1	Ch.4, Audio in L
8	J4-24	Ch.4, Audio out H	33	J4-23	Ch.4, Audio out L
9	J5-15	Ch.1, Audio in H	34	J5-13	Ch.1, Audio in L
10	J5-18	Ch.1, Audio out H	35	J5-19	Ch.1, Audio out L
11	J5-11	Ch.2, Audio in H	36	J5-9	Ch.2, Audio in L

J10					
12	J5-17	Ch.2, Audio out H	37	J5-20	Ch.2, Audio out L
13	J5-7	Ch.3, Audio in H	38	J5-5	Ch.3, Audio in L
14	J5-21	Ch.3, Audio out H	39	J5-22	Ch.3, Audio out L
15	J5-3	Ch.4, Audio in H	40	J5-1	Ch.4, Audio in L
16	J5-24	Ch.4, Audio out H	41	J5-23	Ch.4, Audio out L
17	J6-15	Ch.1, Audio in H	42	J6-13	Ch.1, Audio in L
18	J6-18	Ch.1, Audio out H	43	J6-19	Ch.1, Audio out L

J10					
19	J6-11	Ch.2, Audio in H	44	J6-9	Ch.2, Audio in L
20	J6-17	Ch.2, Audio out H	45	J6-20	Ch.2, Audio out L
21	J6-7	Ch.3, Audio in H	46	J6-5	Ch.3, Audio in L
22	J6-21	Ch.3, Audio out H	47	J6-22	Ch.3, Audio out L
23	J6-3	Ch.4, Audio in H	48	J6-1	Ch.4, Audio in L
24	J6-24	Ch.4, Audio out H	49	J6-23	Ch.4, Audio out L
25		Unused	50		Unused



**Ericsson GE Mobile Communications Inc.**  
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- ① NOTES:  
 1. ASSEMBLE J7-J10 ON NEAR SIDE OF PWB  
 2. ASSEMBLE J1-J6 AND LATCH ON FAR SIDE OF PWB

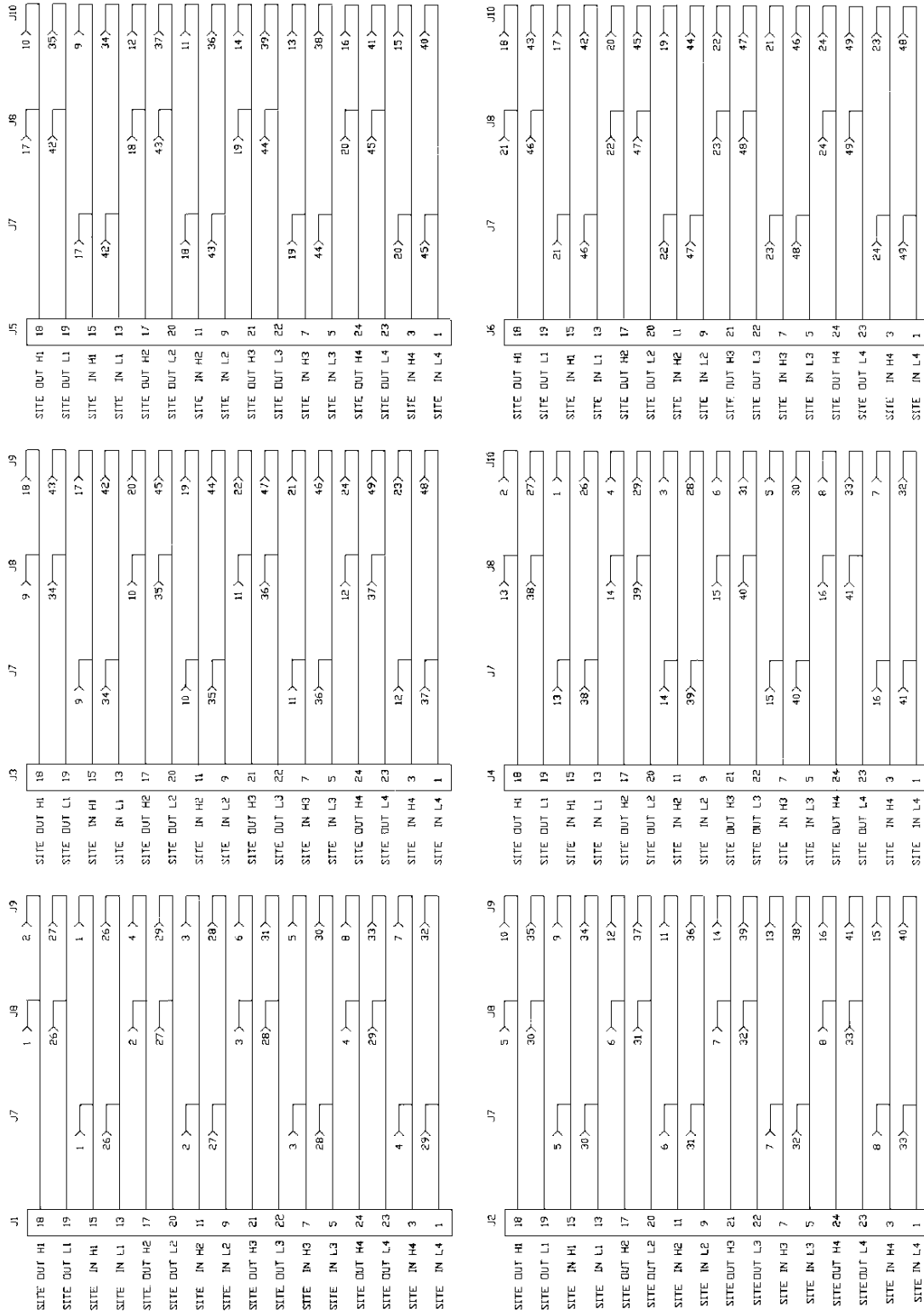
MATERIAL LIST				
ITEM	EGE PART NO.	VENDOR PART NO. (OR EQUIVALENT)	DESCRIPTION	QTY
J7-J9		AMP 554753-1	50 PIN CHAMP CONN	4
J1-J6		AMP 499582-5	24 PIN HEADER	6
LATCH		AMP 102320-1	LATCH	12
PWB	19D903530P1	- - - - -	PRINTED WIRING BOARD	1
BALLOCK		AMP 552561-3	BALLOCK KIT	4

**AUDIO CONCENTRATOR CARD  
 19D903531P1**

(19D903531, Rev. 1)

# SCHEMATIC DIAGRAM

**LBI-38869**



J7 - AUDIO IN (1-6)  
 J8 - AUDIO OUT (1-6)  
 J9 - AUDIO IN/OUT (1-3)  
 J10 - AUDIO IN/OUT (4-6)

## AUDIO CONCENTRATOR CARD 19D903531P1

(19D903595, Sh.1, Rev. 1)