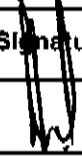

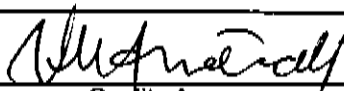


**Signal Interface Control Document**  
  
for the  
  
**16-Channel CompactPCI Serial I/O Adapter**

<b>C<sup>2</sup>I<sup>2</sup> Systems Document No.</b>	CCII/LCP/6-SICD/001
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## Signature Sheet

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## Amendment History

Issue	Description	Date	ECP No.
1.0	Initial release	2011-08-22	-
			-

## Abbreviations and Acronyms

CD	Carrier Detect
cPCI	Compact Peripheral Component Interconnect
CTS	Clear To Send
DSR	Data Set Ready
DTR	Data Terminal Ready
GND	Signal Ground
ICD	Interface Control Document
I/O	Input / Output
PCI	Peripheral Component Interconnect
PMC	PCI Mezzanine Card
RS-232	(Electronics Industries Association) Recommended Standard 232
RS-422	(Electronics Industries Association) Recommended Standard 422
RI	Ring Indicator
RTS	Request To Send
RxD	Received Data
SIO	Serial Input / Output
TxD	Transmitted Data

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1. **Scope**

1.1 Introduction

C<sup>2</sup>I<sup>2</sup> Systems manufactures and sells a family of Serial I/O Adapters in the PMC, PCI-104, PCI and cPCI formfactors. Certain versions of these adapters employ frontpanel I/O.

In such cases, a cable is required to provide physical access to the serial I/O signals available on the frontpanel connector of these serial I/O adapters and the corresponding serial data terminal equipment.

1.2 Scope

This document details the mapping of the signals required for the serial I/O cable assembly.

The I/O cable assembly consists of a 160-pin Molex connector (Part No. 71624-3000) on the adapter side which branches out into 16 cables of nominally 2,0 m in length with male DE-9 connectors on the terminal equipment side.

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Cable Number : CCII/LCP/9-CCM/002

Used with Adapter : CCII/SIO/3CPCI/16PU/FP/COM

Configuration : Channels 1 to 8 : RS-232 DE-9 Male,  
Channels 9 to 16 : RS-232 or RS-422 DE-9 Male

Pin No.	Connector J1 Signal Name Molex (71624-3000)	Pin No.	DE-9 Connector Signal Name
<b>RS-232 (Channel 1)</b>			
133	CD	1	Carrier Detect
147	RxD	2	Received Data
148	TxD	3	Transmitted Data
140	DTR	4	Data Terminal Ready
128	GND	5	Ground
139	DSR	6	Data Set Ready
146	RTS	7	Request To Send
145	CTS	8	Clear To Send
136	RI	9	Ring Indicator
<b>RS-232 (Channel 2)</b>			
130	CD	1	Carrier Detect
155	RxD	2	Received Data
156	TxD	3	Transmitted Data
138	DTR	4	Data Terminal Ready
127	GND	5	Ground
137	DSR	6	Data Set Ready
154	RTS	7	Request To Send
153	CTS	8	Clear To Send
131	RI	9	Ring Indicator
<b>RS-232 (Channel 3)</b>			
89	CD	1	Carrier Detect
118	RxD	2	Received Data
117	TxD	3	Transmitted Data
109	DTR	4	Data Terminal Ready
121	GND	5	Ground
110	DSR	6	Data Set Ready
119	RTS	7	Request To Send
120	CTS	8	Clear To Send
90	RI	9	Ring Indicator

Pin No.	Connector J1 Signal Name Molex (71624-3000)	Pin No.	DE-9 Connector Signal Name
<b>RS-232 (Channel 4)</b>			
93	CD	1	Carrier Detect
102	RxD	2	Received Data
101	TxD	3	Transmitted Data
111	DTR	4	Data Terminal Ready
122	GND	5	Ground
112	DSR	6	Data Set Ready
103	RTS	7	Request To Send
104	CTS	8	Clear To Send
94	RI	9	Ring Indicator
<b>RS-232 (Channel 5)</b>			
135	CD	1	Carrier Detect
150	RxD	2	Received Data
149	TxD	3	Transmitted Data
141	DTR	4	Data Terminal Ready
126	GND	5	Ground
142	DSR	6	Data Set Ready
151	RTS	7	Request To Send
152	CTS	8	Clear To Send
134	RI	9	Ring Indicator
<b>RS-232 (Channel 6)</b>			
132	CD	1	Carrier Detect
158	RxD	2	Received Data
157	TxD	3	Transmitted Data
143	DTR	4	Data Terminal Ready
125	GND	5	Ground
144	DSR	6	Data Set Ready
159	RTS	7	Request To Send
160	CTS	8	Clear To Send
129	RI	9	Ring Indicator
<b>RS-232 (Channel 7)</b>			
91	CD	1	Carrier Detect
115	RxD	2	Received Data
116	TxD	3	Transmitted Data
108	DTR	4	Data Terminal Ready
124	GND	5	Ground
107	DSR	6	Data Set Ready
114	RTS	7	Request To Send
113	CTS	8	Clear To Send
92	RI	9	Ring Indicator

Pin No.	Connector J1 Signal Name Molex (71624-3000)	Pin No.	DE-9 Connector Signal Name
<b>RS-232 (Channel 8)</b>			
95	CD	1	Carrier Detect
99	RxD	2	Received Data
100	TxD	3	Transmitted Data
106	DTR	4	Data Terminal Ready
123	GND	5	Ground
105	DSR	6	Data Set Ready
98	RTS	7	Request To Send
97	CTS	8	Clear To Send
96	RI	9	Ring Indicator
<b>Channel 9</b>			
<b>RS-422</b>			
17	TxD+	1	Transmitted Data +
18	TxD-	2	Transmitted Data -
20	RxD+	3	Received Data +
19	RxD-	4	Received Data -
<b>RS-232</b>			
60	GND	5	Ground
56	TxD	6	Transmitted Data
57	RxD	7	Received Data
58	RTS	8	Request To Send
59	CTS	9	Clear To Send
<b>Channel 10</b>			
<b>RS-422</b>			
12	TxD+	1	Transmitted Data +
13	TxD-	2	Transmitted Data -
15	RxD+	3	Received Data +
14	RxD-	4	Received Data -
<b>RS-232</b>			
55	GND	5	Ground
51	TxD	6	Transmitted Data
52	RxD	7	Received Data
53	RTS	8	Request To Send
54	CTS	9	Clear To Send



Pin No.	Connector J1 Signal Name Molex (71624-3000)	Pin No.	DE-9 Connector Signal Name
<b>Channel 11</b>			
<b>RS-422</b>			
7	TxD+	1	Transmitted Data +
8	TxD-	2	Transmitted Data -
10	RxD+	3	Received Data +
9	RxD-	4	Received Data -
<b>RS-232</b>			
45	GND	5	Ground
44	TxD	6	Transmitted Data
42	RxD	7	Received Data
43	RTS	8	Request To Send
41	CTS	9	Clear To Send
<b>Channel 12</b>			
<b>RS-422</b>			
5	TxD+	1	Transmitted Data +
4	TxD-	2	Transmitted Data -
2	RxD+	3	Received Data +
3	RxD-	4	Received Data -
<b>RS-232</b>			
50	GND	5	Ground
49	TxD	6	Transmitted Data
47	RxD	7	Received Data
48	RTS	8	Request To Send
46	CTS	9	Clear To Send
<b>Channel 13</b>			
<b>RS-422</b>			
25	TxD+	1	Transmitted Data +
24	TxD-	2	Transmitted Data -
22	RxD+	3	Received Data +
23	RxD-	4	Received Data -
<b>RS-232</b>			
65	GND	5	Ground
64	TxD	6	Transmitted Data
63	RxD	7	Received Data
62	RTS	8	Request To Send
61	CTS	9	Clear To Send

Pin No.	Connector J1 Signal Name Molex (71624-3000)	Pin No.	DE-9 Connector Signal Name
<b>Channel 14</b>			
<b>RS-422</b>			
30	TxD+	1	Transmitted Data +
29	TxD-	2	Transmitted Data -
27	RxD+	3	Received Data +
28	RxD-	4	Received Data -
<b>RS-232</b>			
70	GND	5	Ground
69	TxD	6	Transmitted Data
68	RxD	7	Received Data
67	RTS	8	Request To Send
66	CTS	9	Clear To Send
<b>Channel 15</b>			
<b>RS-422</b>			
37	TxD+	1	Transmitted Data +
38	TxD-	2	Transmitted Data -
40	RxD+	3	Received Data +
39	RxD-	4	Received Data -
<b>RS-232</b>			
75	GND	5	Ground
74	TxD	6	Transmitted Data
73	RxD	7	Received Data
72	RTS	8	Request To Send
71	CTS	9	Clear To Send
<b>Channel 16</b>			
<b>RS-422</b>			
32	TxD+	1	Transmitted Data +
33	TxD-	2	Transmitted Data -
35	RxD+	3	Received Data +
34	RxD-	4	Received Data -
<b>RS-232</b>			
80	GND	5	Ground
76	TxD	6	Transmitted Data
77	RxD	7	Received Data
78	RTS	8	Request To Send
79	CTS	9	Clear To Send