

# Checklist of CEM L1102\_BAT LIVE

Test report for CEM L110-2 FM07

QDTF/TR/543/2023

## 8 Annexure-1 (Passive tests)

### 8.1 Continuity and Isolation Tests with DMM

#### 8.1.1 BAT LIVE Module

Sl no.	Test Points	Description	Expected	Observed	
				ISRC	FSRC
1	PB_L-A wrt PB_L-B	SqB-Bat i/ps-P	<100mΩ	8mΩ	8mΩ
2	PB_L-A wrt PB_L-C		<100mΩ	8mΩ	8mΩ
3	PB_L-A wrt PB_L-D		<100mΩ	8mΩ	9mΩ
4	PB_L-A wrt PB_L-E		<100mΩ	9mΩ	9mΩ
5	PB_L-A wrt PB_L-F		<100mΩ	8mΩ	8mΩ
6	PB_L-A wrt PB_L-G		<100mΩ	8mΩ	8mΩ
7	PB_L-A wrt PB_L-H		<100mΩ	7mΩ	7mΩ
8	PB_L-A wrt PB_L-J		<100mΩ	8mΩ	8mΩ
9	RB_L-A wrt RB_L-B	SqB-Bat i/ps-R	<100mΩ	9mΩ	9mΩ
10	RB_L-A wrt RB_L-C		<100mΩ	9mΩ	9mΩ
11	RB_L-A wrt RB_L-D		<100mΩ	10mΩ	11mΩ
12	RB_L-A wrt RB_L-E		<100mΩ	9mΩ	9mΩ
13	RB_L-A wrt RB_L-F		<100mΩ	9mΩ	9mΩ
14	RB_L-A wrt RB_L-G		<100mΩ	9mΩ	9mΩ
15	RB_L-A wrt RB_L-H		<100mΩ	10mΩ	10mΩ
16	RB_L-A wrt RB_L-J		<100mΩ	10mΩ	10mΩ
17	PB_L-K wrt RB_L-K	Connector Mating Status P wrt R	<100mΩ	16mΩ	16mΩ
18	PO-77 wrt MON-OP-41	Inst wrt SqB Bat sts	1.47kΩ ± 2%	1.475kΩ	1.475kΩ
19	PO-77 wrt MON-OP- 42		1.47kΩ ± 2%	1.476kΩ	1.476kΩ
20	PO-77 wrt MON-OP-43		1.47kΩ ± 2%	1.475kΩ	1.475kΩ
21	MON-OP-41 wrt MON-OP-42	SqB Bat sts	2kΩ ± 2%	2.000kΩ	2.000kΩ
22	MON-OP-41 wrt MON-OP-43		2kΩ ± 2%	2.000kΩ	2.000kΩ
23	MON-OP-42 wrt MON-OP-43		2kΩ ± 2%	2.000kΩ	2.000kΩ
24	PO-40 wrt PO-41	SqB Bat o/ps-P	<100mΩ	53mΩ	54mΩ
25	PO-40 wrt PO-42		<100mΩ	54mΩ	55mΩ
26	PO-40 wrt PO-43		<100mΩ	55mΩ	56mΩ
27	PO-40 wrt PO-44		<100mΩ	56mΩ	58mΩ
28	RO-40 wrt RO-41	SqB Bat o/ps-R	<100mΩ	66mΩ	67mΩ
29	RO-40 wrt RO-42		<100mΩ	68mΩ	70mΩ
30	RO-40 wrt RO-43		<100mΩ	68mΩ	69mΩ
31	RO-40 wrt RO-44		<150mΩ	72mΩ	73mΩ
32	PO-33 wrt PO-40	SqB Bat o/ps- P mon	15 kΩ ± 2%	15.005kΩ	15.006kΩ
33	RO-33 wrt RO-40	SqB Bat o/ps- R mon	15 kΩ ± 2%	15.002kΩ	15.002kΩ
34	PO-40 wrt RO-40	SqB Bat o/ps- P wrt R	>5MΩ	78.032MΩ	84.244MΩ
35	PO-78 wrt RO-78	INSTRTN	0.8 - 1.2Ω	908mΩ	906mΩ
36	PO-77 wrt RO-77	INSTLIVE	0.7 - 1.2Ω	845mΩ	843mΩ
37	MON-OP-15 wrt MON-OP-7	BAT ALL OFF	<200mΩ	98mΩ	99mΩ

Sl no.	Test Points	Description	Expected	Observed	
				ISRC	FSRC
38	MON-OP-11 wrt MON-OP-19	All SAFE	<200mΩ	97mΩ	96mΩ
39	PO-77 wrt MON-OP-53	Inst wrt Sqb S/A sts	1.47kΩ ± 2%	1.475kΩ	1.476kΩ
40	PO-77 wrt MON-OP-54		1.47kΩ ± 2%	1.475kΩ	1.475kΩ
41	PO-77 wrt MON-OP-55		1.47kΩ ± 2%	1.475kΩ	1.475kΩ
42	MON-OP-53 wrt MON-OP-54	Sqb S/A sts	2kΩ ± 2%	2.000kΩ	2.000kΩ
43	MON-OP-53 wrt MON-OP-55		2kΩ ± 2%	2.000kΩ	2.000kΩ
44	MON-OP-54 wrt MON-OP-55		2kΩ ± 2%	2.000kΩ	2.000kΩ
45	PO-3 wrt RO-3	Sqb S/A i/p-1	0.8Ω - 1.3Ω	1.026Ω	1.023Ω
46	PO-4 wrt RO-4	Sqb S/A i/p-2	0.7Ω - 1.2Ω	865mΩ	862mΩ
47	PO-5 wrt RO-5	Sqb S/A i/p-3	0.7Ω - 1.2Ω	868mΩ	865mΩ
48	PO-45 wrt PO-46	Sqb S/A o/p-3	<100mΩ	52mΩ	53mΩ
49	RO-45 wrt RO-46		<150mΩ	67mΩ	67mΩ
50	PO-45 wrt RO-45		0.8Ω - 1.3Ω	1.063Ω	1.061Ω
51	PO-27 wrt PO-28	Sqb S/A o/p-1	<100mΩ	54mΩ	54mΩ
52	PO-27 wrt PO-29		<100mΩ	56mΩ	56mΩ
53	PO-27 wrt PO-30		<100mΩ	58mΩ	59mΩ
54	PO-27 wrt PO-69		<150mΩ	63mΩ	63mΩ
55	PO-27 wrt PO-70		<150mΩ	69mΩ	69mΩ
56	PO-27 wrt PO-71		<150mΩ	74mΩ	74mΩ
57	PO-27 wrt PO-72		<150mΩ	77mΩ	77mΩ
58	PO-27 wrt PO-73		<200mΩ	81mΩ	81mΩ
59	PO-27 wrt PO-74		<200mΩ	85mΩ	85mΩ
60	RO-27 wrt RO-28		Sqb S/A o/p-2	<150mΩ	71mΩ
61	RO-27 wrt RO-29	<150mΩ		72mΩ	72mΩ
62	RO-27 wrt RO-30	<150mΩ		73mΩ	74mΩ
63	RO-27 wrt RO-69	<150mΩ		78mΩ	79mΩ
64	RO-27 wrt RO-70	<200mΩ		85mΩ	85mΩ
65	RO-27 wrt RO-71	<200mΩ		88mΩ	89mΩ
66	RO-27 wrt RO-72	<200mΩ		92mΩ	92mΩ
67	RO-27 wrt RO-73	<200mΩ		96mΩ	96mΩ
68	RO-27 wrt RO-74	<200mΩ		100mΩ	101mΩ
69	MON-OP-5 wrt MON-OP-8	Bat ON CMD SQB	#90 ± 9Ω	91.820Ω	91.505Ω
70	MON-OP-6 wrt MON-OP-8	Bat OFF CMD SQB	#90 ± 9Ω	91.013Ω	90.700Ω
71	MON-OP-9 wrt MON-OP-12	Seq Arm Cmd (SQB)	310 ± 31Ω	304.931Ω	303.944Ω
72	MON-OP-10 wrt MON-OP-12	Seq Safe cmd (SQB)	310 ± 31Ω	302.634Ω	301.658Ω
73	PB_L-A wrt RB_L-A	Sqb Bat i/p -P wrt R	>100MΩ	>100MΩ	>100MΩ
74	PB_L-A wrt PO-40	Sqb Bat i/p -P wrt o/p-P	>100MΩ	>100MΩ	>100MΩ
75	PB_L-A wrt RO-40	Sqb Bat i/p -P wrt o/p-R	>100MΩ	>100MΩ	>100MΩ
76	PB_L-A wrt MON-OP-8	Sqb Bat i/p -P wrt Bat coil rtn	>100MΩ	>100MΩ	>100MΩ
77	PB_L-A wrt MON-OP-7	Sqb Bat i/p -P wrt All OFF (+)	>100MΩ	>100MΩ	>100MΩ
78	PB_L-A wrt MON-OP-11	Sqb Bat i/p -P wrt All SAFE (+)	>100MΩ	>100MΩ	>100MΩ
79	PB_L-A wrt PO-3	Sqb Bat i/p -P wrt Sqb S/A i/p-1 (P)	>100MΩ	>100MΩ	>100MΩ

Sl no.	Test Points	Description	Expected	Observed	
				ISRC	FSRC
80	PB_L-A wrt PO-4	Sqb Bat i/p -P wrt Sqb S/A i/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
81	PB_L-A wrt PO-5	Sqb Bat i/p -P wrt Sqb S/A i/p-3	>100MΩ	>100MΩ	>100MΩ
82	PB_L-A wrt PO-27	Sqb Bat i/p -P wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
83	PB_L-A wrt RO-27	Sqb Bat i/p -P wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
84	PB_L-A wrt PO-45	Sqb Bat i/p -P wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
85	PB_L-A wrt PO-77	Sqb Bat i/p-P wrt Inst Live	>100MΩ	>100MΩ	>100MΩ
86	PB_L-A wrt PO-78	Sqb Bat i/p-P wrt Inst Rtn	>100MΩ	>100MΩ	>100MΩ
87	RB_L-A wrt PB_L-A	Sqb Bat i/p -R wrt P	>100MΩ	>100MΩ	>100MΩ
88	RB_L-A wrt PO-40	Sqb Bat i/p -R wrt o/p-P	>100MΩ	>100MΩ	>100MΩ
89	RB_L-A wrt RO-40	Sqb Bat i/p -R wrt o/p-R	>100MΩ	>100MΩ	>100MΩ
90	RB_L-A wrt MON-OP-8	Sqb Bat i/p -R wrt Bat coil rtn	>100MΩ	>100MΩ	>100MΩ
91	RB_L-A wrt MON-OP-7	Sqb Bat i/p -R wrt All OFF (+)	>100MΩ	>100MΩ	>100MΩ
92	RB_L-A wrt MON-OP-11	Sqb Bat i/p -R wrt All SAFE (+)	>100MΩ	>100MΩ	>100MΩ
93	RB_L-A wrt PO-3	Sqb Bat i/p -R wrt Sqb S/A i/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
94	RB_L-A wrt PO-4	Sqb Bat i/p -R wrt Sqb S/A i/p-2	>100MΩ	>100MΩ	>100MΩ
95	RB_L-A wrt PO-5	Sqb Bat i/p -R wrt Sqb S/A i/p-3	>100MΩ	>100MΩ	>100MΩ
96	RB_L-A wrt PO-27	Sqb Bat i/p -R wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
97	RB_L-A wrt RO-27	Sqb Bat i/p -R wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
98	RB_L-A wrt PO-45	Sqb Bat i/p -R wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
99	RB_L-A wrt PO-77	Sqb Bat i/p-R wrt Inst Live	>100MΩ	>100MΩ	>100MΩ
100	RB_L-A wrt PO-78	Sqb Bat i/p-R wrt Inst Rtn	>100MΩ	>100MΩ	>100MΩ
101	PO-40 wrt PB_L-A	Sqb BAT-P o/p-P wrt Sqb BAT -P i/p	>100MΩ	>100MΩ	>100MΩ
102	PO-40 wrt RB_L-A	SQB BAT-P o/p-P wrt Sqb BAT -R i/p	>100MΩ	>100MΩ	>100MΩ
103	PO-40 wrt MON-OP-8	Sqb Bat o/p -P wrt Bat coil rtn	>100MΩ	>100MΩ	>100MΩ
104	PO-40 wrt MON-OP-7	Sqb Bat o/p -P wrt All OFF (+)	>100MΩ	>100MΩ	83.545MΩ
105	PO-40 wrt MON-OP-11	Sqb Bat o/p -P wrt All SAFE (+)	>100MΩ	>100MΩ	>100MΩ
106	PO-40 wrt RO-40	Sqb Bat o/p -P wrt o/p-R	>5MΩ	>100MΩ	>100MΩ
107	PO-40 wrt PO-77	SQB BAT-P o/p wrt Inst Live	>100MΩ	>100MΩ	>100MΩ
108	PO-40 wrt PO-78	SQB BAT-P o/p wrt Inst Rtn	>100MΩ	>100MΩ	>100MΩ
109	PO-40 wrt PO-3	SQB BAT-P o/p wrt Sqb S/A_1 (P) i/p	>100MΩ	>100MΩ	>100MΩ
110	PO-40 wrt PO-4	SQB BAT-P o/p wrt Sqb S/A_2 (R) i/p	>100MΩ	>100MΩ	>100MΩ
111	PO-40 wrt PO-5	SQB BAT-P o/p wrt Sqb S/A_3 i/p	>100MΩ	>100MΩ	>100MΩ
112	PO-40 wrt PO-27	SQB BAT-P o/p wrt Sqb S/A_1 (P) o/p	>100MΩ	>100MΩ	>100MΩ
113	PO-40 wrt RO-27	SQB BAT-P o/p wrt Sqb S/A_2 (R) o/p	>100MΩ	>100MΩ	>100MΩ
114	PO-40 wrt PO-45	SQB BAT-P o/p wrt Sqb S/A_3 o/p	>100MΩ	>100MΩ	>100MΩ

Sl no.	Test Points	Description	Expected	Observed	
				ISRC	FSRC
115	RO-40 wrt PB_L-A	Sqb BAT-R o/p wrt Sqb BAT -P i/p	>100MΩ	>100MΩ	>100MΩ
116	RO-40 wrt RB_L-A	SQB BAT-R o/p wrt Sqb BAT -R i/p	>100MΩ	>100MΩ	>100MΩ
117	RO-40 wrt MON-OP-8	Sqb Bat o/p -R wrt Bat coil rtn	>100MΩ	>100MΩ	>100MΩ
118	RO-40 wrt MON-OP-7	Sqb Bat o/p -R wrt All OFF (+)	>100MΩ	>100MΩ	93.233MΩ
119	RO-40 wrt MON-OP-11	Sqb Bat o/p -R wrt All SAFE (+)	>100MΩ	>100MΩ	>100MΩ
120	RO-40 wrt PO-40	Sqb Bat o/p -R wrt o/p-P	>5MΩ	>100MΩ	>100MΩ
121	RO-40 wrt PO-77	SQB BAT-R o/p wrt Inst Live	>100MΩ	>100MΩ	>100MΩ
122	RO-40 wrt PO-78	SQB BAT-R o/p wrt Inst Rtn	>100MΩ	>100MΩ	>100MΩ
123	RO-40 wrt PO-3	SQB BAT-R o/p wrt Sqb S/A_1 (P) i/p	>100MΩ	>100MΩ	>100MΩ
124	RO-40 wrt PO-4	SQB BAT-R o/p wrt Sqb S/A_2 (R) i/p	>100MΩ	>100MΩ	>100MΩ
125	RO-40 wrt PO-5	SQB BAT-R o/p wrt Sqb S/A_3 i/p	>100MΩ	>100MΩ	>100MΩ
126	RO-40 wrt PO-27	SQB BAT-R o/p wrt Sqb S/A_1 (P) o/p	>100MΩ	>100MΩ	>100MΩ
127	RO-40 wrt RO-27	SQB BAT-R o/p wrt Sqb S/A_2 (R) o/p	>100MΩ	>100MΩ	>100MΩ
128	RO-40 wrt PO-45	SQB BAT-R o/p wrt Sqb S/A_3 o/p	>100MΩ	>100MΩ	>100MΩ
129	MON-OP-7 wrt MON-OP-11	Bat ALL OFF (+) wrt All SAFE (+)	>100MΩ	>100MΩ	>100MΩ
130	MON-OP-7 wrt MON-OP-12	Bat ALL OFF (+) wrt Sqb S/A coil rtn	>100MΩ	>100MΩ	>100MΩ
131	MON-OP-7 wrt PB_L-A	Bat ALL OFF (+) wrt Bat i/p-P	>100MΩ	>100MΩ	>100MΩ
132	MON-OP-7 wrt RB_L-A	Bat ALL OFF (+) wrt Bat i/p -R	>100MΩ	>100MΩ	>100MΩ
133	MON-OP-7 wrt PO-40	Bat ALL OFF (+) wrt Bat o/p-P	>100MΩ	>100MΩ	>100MΩ
134	MON-OP-7 wrt RO-40	Bat ALL OFF (+) wrt Bat o/p-R	>100MΩ	>100MΩ	>100MΩ
135	MON-OP-7 wrt PO-77	Bat ALL OFF (+) wrt Inst live	>100MΩ	>100MΩ	>100MΩ
136	MON-OP-7 wrt PO-78	Bat ALL OFF (+) wrt Inst rtn	>100MΩ	>100MΩ	>100MΩ
137	MON-OP-7 wrt MON-OP-1	Bat ALL OFF (+) wrt Bat-P charging	>100MΩ	>100MΩ	>100MΩ
138	MON-OP-7 wrt MON-OP-2	Bat ALL OFF (+) wrt Bat-R charging	>100MΩ	>100MΩ	>100MΩ
139	MON-OP-7 wrt PO-3	Bat ALL OFF (+) wrt Sqb S/A i/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
140	MON-OP-7 wrt PO-4	Bat ALL OFF (+) wrt Sqb S/A i/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
141	MON-OP-7 wrt PO-5	Bat ALL OFF (+) wrt Sqb S/A i/p-3	>100MΩ	>100MΩ	>100MΩ
142	MON-OP-7 wrt PO-27	Bat ALL OFF (+) wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
143	MON-OP-7 wrt RO-27	Bat ALL OFF (+) wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
144	MON-OP-7 wrt PO-45	Bat ALL OFF (+) wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
145	MON-OP-11 wrt MON-OP-7	All SAFE (+) wrt Bat ALL OFF (+)	>100MΩ	>100MΩ	>100MΩ
146	MON-OP-11 wrt MON-OP-8	All SAFE (+) wrt Sqb Bat coil rtn	>100MΩ	>100MΩ	>100MΩ
147	MON-OP-11 wrt PB_L-A	ALL SAFE (+) wrt Bat i/p-P	>100MΩ	>100MΩ	>100MΩ
148	MON-OP-11 wrt RB_L-A	ALL SAFE (+) wrt Bat i/p -R	>100MΩ	>100MΩ	>100MΩ
149	MON-OP-11 wrt PO-40	ALL SAFE (+) wrt Bat o/p-P	>100MΩ	>100MΩ	>100MΩ
150	MON-OP-11 wrt RO-40	ALL SAFE (+) wrt Bat o/p-R	>100MΩ	>100MΩ	>100MΩ

Sl no.	Test Points	Description	Expected	Observed	
				ISRC	FSRC
151	MON-OP-11 wrt PO-77	ALL SAFE (+) wrt Inst live	>100MΩ	>100MΩ	>100MΩ
152	MON-OP-11 wrt PO-78	ALL SAFE (+) wrt Inst rtn	>100MΩ	>100MΩ	>100MΩ
153	MON-OP-11 wrt MON-OP-1	ALL SAFE (+) wrt Bat-P charging	>100MΩ	>100MΩ	>100MΩ
154	MON-OP-11 wrt MON-OP-2	ALL SAFE (+) wrt Bat-R charging	>100MΩ	>100MΩ	>100MΩ
155	MON-OP-11 wrt PO-3	ALL SAFE (+) wrt Sqb S/A i/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
156	MON-OP-11 wrt PO-4	ALL SAFE (+) wrt Sqb S/A i/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
157	MON-OP-11 wrt PO-5	ALL SAFE (+) wrt Sqb S/A i/p-3	>100MΩ	>100MΩ	>100MΩ
158	MON-OP-11 wrt PO-27	ALL SAFE (+) wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
159	MON-OP-11 wrt RO-27	ALL SAFE (+) wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
160	MON-OP-11 wrt PO-45	ALL SAFE (+) wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
161	MON-OP-8 wrt MON-OP-12	Sqb Bat Coil wrt Sqb S/A Coil	>100MΩ	>100MΩ	>100MΩ
162	MON-OP-8 wrt PB_L-A	Sqb Bat Coil rtn wrt Bat i/p-P	>100MΩ	>100MΩ	>100MΩ
163	MON-OP-8 wrt RB_L-A	Sqb Bat Coil rtn wrt Bat i/p -R	>100MΩ	>100MΩ	>100MΩ
164	MON-OP-8 wrt PO-40	Sqb Bat Coil rtn wrt Bat o/p-P	>100MΩ	>100MΩ	>100MΩ
165	MON-OP-8 wrt RO-40	Sqb Bat Coil rtn wrt Bat o/p-R	>100MΩ	>100MΩ	>100MΩ
166	MON-OP-8 wrt PO-77	Sqb Bat Coil rtn wrt Inst live	>100MΩ	>100MΩ	>100MΩ
167	MON-OP-8 wrt PO-78	Sqb Bat Coil rtn wrt Inst rtn	>100MΩ	>100MΩ	>100MΩ
168	MON-OP-8 wrt MON-OP-1	Sqb Bat Coil rtn wrt Bat-P charging	>100MΩ	>100MΩ	>100MΩ
169	MON-OP-8 wrt MON-OP-2	Sqb Bat Coil rtn wrt Bat-R charging	>100MΩ	>100MΩ	>100MΩ
170	MON-OP-8 wrt PO-3	Sqb Bat Coil rtn wrt Sqb S/A i/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
171	MON-OP-8 wrt PO-4	Sqb Bat Coil rtn wrt Sqb S/A i/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
172	MON-OP-8 wrt PO-5	Sqb Bat Coil rtn wrt Sqb S/A i/p-3	>100MΩ	>100MΩ	>100MΩ
173	MON-OP-8 wrt PO-27	Sqb Bat Coil rtn wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
174	MON-OP-8 wrt RO-27	Sqb Bat Coil rtn wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
175	MON-OP-8 wrt PO-45	Sqb Bat Coil rtn wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
176	PO-3 wrt PO-4	Sqb S/A i/p1 (P) wrt i/p 2 (R)	>100MΩ	>100MΩ	>100MΩ
177	PO-3 wrt PO-5	Sqb S/A i/p1 (P) wrt i/p 3	>100MΩ	>100MΩ	>100MΩ
178	PO-3 wrt PO-27	Sqb S/A i/p1 (P) wrt o/p 1 (P)	>100MΩ	>100MΩ	>100MΩ
179	PO-3 wrt RO-27	Sqb S/A i/p1 (P) wrt o/p 2 (R)	>100MΩ	>100MΩ	>100MΩ
180	PO-3 wrt PO-45	Sqb S/A i/p1 (P) wrt o/p 3	>100MΩ	>100MΩ	>100MΩ
181	PO-4 wrt PO-5	Sqb S/A i/p2 (R) wrt 3	>100MΩ	>100MΩ	>100MΩ
182	PO-4 wrt PO-27	Sqb S/A i/p2 (R) wrt o/p 1 (P)	>100MΩ	>100MΩ	>100MΩ
183	PO-4 wrt RO-27	Sqb S/A i/p2 (R) wrt o/p 2 (R)	>100MΩ	>100MΩ	>100MΩ
184	PO-4 wrt PO-45	Sqb S/A i/p2 (R) wrt o/p 3	>100MΩ	>100MΩ	>100MΩ
185	PO-5 wrt PO-27	Sqb S/A i/p3 wrt o/p 1 (P)	>100MΩ	>100MΩ	>100MΩ
186	PO-5 wrt RO-27	Sqb S/A i/p3 wrt o/p 2 (R)	>100MΩ	>100MΩ	>100MΩ
187	PO-5 wrt PO-45	Sqb S/A i/p3 wrt o/p 3	>100MΩ	>100MΩ	>100MΩ
188	MON-OP-12 wrt PB_L-A	Sqb S/A Coil rtn wrt Bat i/p-P	>100MΩ	>100MΩ	>100MΩ

Sl no.	Test Points	Description	Expected	Observed	
				ISRC	FSRC
189	MON-OP-12 wrt RB_L-A	Sqb S/A Coil rtn wrt Bat i/p -R	>100MΩ	>100MΩ	>100MΩ
190	MON-OP-12 wrt PO-40	Sqb S/A Coil rtn wrt Bat o/p-P	>100MΩ	>100MΩ	>100MΩ
191	MON-OP-12 wrt RO-40	Sqb S/A Coil rtn wrt Bat o/p-R	>100MΩ	>100MΩ	>100MΩ
192	MON-OP-12 wrt PO-77	Sqb S/A Coil rtn wrt Inst live	>100MΩ	>100MΩ	>100MΩ
193	MON-OP-12 wrt PO-78	Sqb S/A Coil rtn wrt Inst rtn	>100MΩ	>100MΩ	>100MΩ
194	MON-OP-12 wrt PO-3	Sqb S/A Coil rtn wrt Sqb S/A i/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
195	MON-OP-12 wrt PO-4	Sqb S/A Coil rtn wrt Sqb S/A i/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
196	MON-OP-12 wrt PO-5	Sqb S/A Coil rtn wrt Sqb S/A i/p-3	>100MΩ	>100MΩ	>100MΩ
197	MON-OP-12 wrt PO-27	Sqb S/A Coil rtn wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
198	MON-OP-12 wrt RO-27	Sqb S/A Coil rtn wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
199	MON-OP-12 wrt PO-45	Sqb S/A Coil rtn wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
200	PO-77 wrt PB_L-A	Inst Live wrt Sqb Bat i/p-P	>100MΩ	>100MΩ	>100MΩ
201	PO-77 wrt RB_L-A	Inst Live wrt Sqb Bat i/p-R	>100MΩ	>100MΩ	>100MΩ
202	PO-77 wrt PO-40	Inst Live wrt Sqb Bat o/p-P	>100MΩ	>100MΩ	>100MΩ
203	PO-77 wrt RO-40	Inst Live wrt Sqb Bat o/p-R	>100MΩ	>100MΩ	>100MΩ
204	PO-77 wrt PO-3	Inst Live wrt Sqb S/A i/p1 (P)	>100MΩ	>100MΩ	>100MΩ
205	PO-77 wrt PO-4	Inst Live wrt Sqb S/A i/p2 (R)	>100MΩ	>100MΩ	>100MΩ
206	PO-77 wrt PO-5	Inst Live wrt Sqb S/A i/p3	>100MΩ	>100MΩ	>100MΩ
207	PO-77 wrt PO-27	Inst Live wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
208	PO-77 wrt RO-27	Inst Live wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
209	PO-77 wrt PO-45	Inst Live wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
210	PO-78 wrt PB_L-A	Inst Rtn wrt Sqb Bat i/p-P	>100MΩ	>100MΩ	>100MΩ
211	PO-78 wrt RB_L-A	Inst Rtn wrt Sqb Bat i/p-R	>100MΩ	>100MΩ	>100MΩ
212	PO-78 wrt PO-40	Inst Rtn wrt Sqb Bat o/p-P	>100MΩ	>100MΩ	>100MΩ
213	PO-78 wrt RO-40	Inst Rtn wrt Sqb Bat o/p-R	>100MΩ	>100MΩ	>100MΩ
214	PO-78 wrt PO-3	Inst Rtn wrt Sqb S/A i/p1 (P)	>100MΩ	>100MΩ	>100MΩ
215	PO-77 wrt PO-4	Inst Rtn wrt Sqb S/A i/p2 (R)	>100MΩ	>100MΩ	>100MΩ
216	PO-78 wrt PO-5	Inst Rtn wrt Sqb S/A i/p3	>100MΩ	>100MΩ	>100MΩ
217	PO-78 wrt PO-27	Inst Rtn wrt Sqb S/A o/p-1 (P)	>100MΩ	>100MΩ	>100MΩ
218	PO-78 wrt RO-27	Inst Rtn wrt Sqb S/A o/p-2 (R)	>100MΩ	>100MΩ	>100MΩ
219	PO-78 wrt PO-45	Inst Rtn wrt Sqb S/A o/p-3	>100MΩ	>100MΩ	>100MΩ
220	All pins wrt chassis		>100MΩ	>100MΩ	>100MΩ
221	All connector mounting posts wrt chassis		<100mΩ	<100mΩ	<100mΩ

# - EL415 relays

**List of Connectors in the package****1. PB\_L and RB\_L=11 pin Male D3899****2.MON\_OPMP0 and RO=78 pin Female**