भारत इलेक्ट्रॉनिक्स
BHARAT ELECTRONICS

TYPE-13 SIGNAL CONDITIONING CARD TEST REPORT

SL NO.:012

DATE:18-Jan-2022

1)	OPEN/GND:CHANNEL-1 SPARE1						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A1	P3/A1&P3/A31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A1	J2/C1 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A1	P3/A1&P3/A31	0	10	3.944916	OHMS	PASS
4	5V at J2/A1	J2/C1 & GND	HIGH	HIGH	HIGH	DI	PASS

Tested by:Shridhar Hegde

2)	OPEN/GND:CHANNEL-1 SPARE2						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A2	P3/A2&P3/A31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A2	J2/C2 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A2	P3/A2&P3/A31	0	10	3.868573	OHMS	PASS
4	5V at J2/A2	J2/C2 & GND	HIGH	HIGH	HIGH	DI	PASS

3)	OPEN/GND:CHANNEL-1 SPARE3						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A3	P3/A3&P3/A31	OPEN	OPEN	OPEN	OHMS	PASS

Tested by:Shridhar Hegde

2	0V at J2/A3	J2/C3 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A3	P3/A3&P3/A31	0	10	3.960333	OHMS	PASS
4	5V at J2/A3	J2/C3 & GND	HIGH	HIGH	HIGH	DI	PASS

4)	OPEN/GND:CHANNEL-1 SPARE4						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A4	P3/A4&P3/A31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A4	J2/C4 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A4	P3/A4&P3/A31	0	10	3.636476	OHMS	PASS
4	5V at J2/A4	J2/C4 & GND	HIGH	HIGH	HIGH	DI	PASS

5)	OPEN/GND:CHANNEL-1 SPARE5						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A5	P3/A5&P3/A31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A5	J2/C5 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A5	P3/A5&P3/A31	0	10	4.063454	OHMS	PASS
4	5V at J2/A5	J2/C5 & GND	HIGH	HIGH	HIGH	DI	PASS

6)	OPEN/GND:CHANNEL-1 SPARE6						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A6	P3/A6&P3/A31	OPEN	OPEN	OPEN	OHMS	PASS

Tested by:Shridhar Hegde

2	0V at J2/A6	J2/C6 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A6	P3/A6&P3/A31	0	10	3.909566	OHMS	PASS
4	5V at J2/A6	J2/C6 & GND	HIGH	HIGH	HIGH	DI	PASS

7)	OPEN/GND:CHANNEL-2 SPARE1						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A7	P3/A7&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A7	J2/C7 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A7	P3/A7&P3/A32	0	10	4.923645	OHMS	PASS
4	5V at J2/A7	J2/C7 & GND	HIGH	HIGH	HIGH	DI	PASS

8)	OPEN/GND:CHANNEL-2 SPARE2						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A8	P3/A8&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A8	J2/C8 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A8	P3/A8&P3/A32	0	10	7.727442	OHMS	PASS
4	5V at J2/A8	J2/C8 & GND	HIGH	HIGH	HIGH	DI	PASS

9)	OPEN/GND:CHANNEL-2 SPARE3						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A9	P3/A9&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS

Tested by:Shridhar Hegde

2	0V at J2/A9	J2/C9 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A9	P3/A9&P3/A32	0	10	5.12669	OHMS	PASS
4	5V at J2/A9	J2/C9 & GND	HIGH	HIGH	HIGH	DI	PASS

10)	**OPEN/GND:CHANNEL-2 SPARE4**						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A10	P3/A10&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A10	J2/C10 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A10	P3/A10&P3/A32	0	10	6.992634	OHMS	PASS
4	5V at J2/A10	J2/C10 & GND	HIGH	HIGH	HIGH	DI	PASS

11)	OPEN/GND:CHANNEL-2 SPARE5						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A11	P3/A11&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A11	J2/C11 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A11	P3/A11&P3/A32	0	10	7.033745	OHMS	PASS
4	5V at J2/A11	J2/C11 & GND	HIGH	HIGH	HIGH	DI	PASS

12)	OPEN/GND:CHANNEL-2 SPARE6						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A12	P3/A12&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS

Tested by:Shridhar Hegde

2	0V at J2/A12	J2/C12 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A12	P3/A12&P3/A32	0	10	6.39751	OHMS	PASS
4	5V at J2/A12	J2/C12 & GND	HIGH	HIGH	HIGH	DI	PASS

13)	OPEN/GND:CHANNEL-3 SPARE1						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A13	P3/A13&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A13	J2/C13 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A13	P3/A13&P3/C31	0	10	5.005363	OHMS	PASS
4	5V at J2/A13	J2/C13 & GND	HIGH	HIGH	HIGH	DI	PASS

14)	OPEN/GND:CHANNEL-3 SPARE2						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A14	P3/A14&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A14	J2/C14 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A14	P3/A14&P3/C31	0	10	6.169691	OHMS	PASS
4	5V at J2/A14	J2/C14 & GND	HIGH	HIGH	HIGH	DI	PASS

15)	OPEN/GND:CHANNEL-3 SPARE3						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A15	P3/A15&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS

Tested by:Shridhar Hegde

2	0V at J2/A15	J2/C15 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A15	P3/A15&P3/C31	0	10	4.839502	OHMS	PASS
4	5V at J2/A15	J2/C15 & GND	HIGH	HIGH	HIGH	DI	PASS

16)	**OPEN/GND:CHANNEL-3 SPARE4**						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A16	P3/A16&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A16	J2/C16 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A16	P3/A16&P3/C31	0	10	5.675178	OHMS	PASS
4	5V at J2/A16	J2/C16 & GND	HIGH	HIGH	HIGH	DI	PASS

17)	OPEN/GND:CHANNEL-3 SPARE5						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A17	P3/A17&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A17	J2/C17 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A17	P3/A17&P3/C31	0	10	5.037269	OHMS	PASS
4	5V at J2/A17	J2/C17 & GND	HIGH	HIGH	HIGH	DI	PASS

18)	OPEN/GND:CHANNEL-3 SPARE6						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A18	P3/A18&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS

Tested by:Shridhar Hegde

2	0V at J2/A18	J2/C18 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A18	P3/A18&P3/C31	0	10	5.169067	OHMS	PASS
4	5V at J2/A18	J2/C18 & GND	HIGH	HIGH	HIGH	DI	PASS

19)	**OPEN/GND:CHANNEL-4 SPARE1**						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A19	P3/A19&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A19	J2/C19 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A19	P3/A19&P3/C32	0	10	4.241643	OHMS	PASS
4	5V at J2/A19	J2/C19 & GND	HIGH	HIGH	HIGH	DI	PASS

Tested by:Shridhar Hegde

20)	OPEN/GND:CHANNEL-4 SPARE2						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A20	P3/A20&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A20	J2/C20 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A20	P3/A20&P3/C32	0	10	5.464033	OHMS	PASS
4	5V at J2/A20	J2/C20 & GND	HIGH	HIGH	HIGH	DI	PASS

21)	OPEN/GND:CHANNEL-4 SPARE3						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A21	P3/A21&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS

2	0V at J2/A21	J2/C21 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A21	P3/A21&P3/C32	0	10	5.18724	OHMS	PASS
4	5V at J2/A21	J2/C21 & GND	HIGH	HIGH	HIGH	DI	PASS

22)	**OPEN/GND:CHANNEL-4 SPARE4**						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A22	P3/A22&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A22	J2/C22 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A22	P3/A22&P3/C32	0	10	4.411527	OHMS	PASS
4	5V at J2/A22	J2/C22 & GND	HIGH	HIGH	HIGH	DI	PASS

23)	OPEN/GND:CHANNEL-4 SPARE5						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A23	P3/A23&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A23	J2/C23 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A23	P3/A23&P3/C32	0	10	4.319778	OHMS	PASS
4	5V at J2/A23	J2/C23 & GND	HIGH	HIGH	HIGH	DI	PASS

24)	OPEN/GND:CHANNEL-4 SPARE6						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A24	P3/A24&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS

2	0V at J2/A24	J2/C24 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A24	P3/A24&P3/C32	0	10	5.524144	OHMS	PASS
4	5V at J2/A24	J2/C24 & GND	HIGH	HIGH	HIGH	DI	PASS

25)	**OPEN/GND:CHANNEL-2 SPARE7**						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A25	P3/A25&P3/A32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A25	J2/C25 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A25	P3/A25&P3/A32	0	10	8.023309	OHMS	PASS
4	5V at J2/A25	J2/C25 & GND	HIGH	HIGH	HIGH	DI	PASS

26)	OPEN/GND:CHANNEL-3 SPARE7						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A26	P3/A26&P3/C31	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A26	J2/C26 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A26	P3/A26&P3/C31	0	10	7.859959	OHMS	PASS
4	5V at J2/A26	J2/C26 & GND	HIGH	HIGH	HIGH	DI	PASS

27)	OPEN/GND:CHANNEL-4 SPARE7						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A27	P3/A27&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS

2	0V at J2/A27	J2/C27 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A27	P3/A27&P3/C32	0	10	5.973136	OHMS	PASS
4	5V at J2/A27	J2/C27 & GND	HIGH	HIGH	HIGH	DI	PASS

28)	**OPEN/GND:CHANNEL-4 SPARE8**						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J2/A28	P3/A28&P3/C32	OPEN	OPEN	OPEN	OHMS	PASS
2	0V at J2/A28	J2/C28 & GND	LOW	LOW	LOW	DI	PASS
3	5V at J2/A28	P3/A28&P3/C32	0	10	7.350877	OHMS	PASS
4	5V at J2/A28	J2/C28 & GND	HIGH	HIGH	HIGH	DI	PASS

29)	FTI SPARE MON:CHANNEL-2 FTI SPARE1						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B1 and P3/B31	J3/A1&GND	8.82	9.18	8.991542	Volts DC	PASS

30)	FTI SPARE MON:CHANNEL-2 FTI SPARE2						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B2 and P3/B31	J3/A2&GND	8.82	9.18	8.995766	Volts DC	PASS

Tested by:Shridhar Hegde

31)	FTI SPARE MON:CHANNEL-2 FTI SPARE3						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B3 and P3/B31	J3/A3&GND	8.82	9.18	8.99421	Volts DC	PASS

32)	FTI SPARE MON:CHANNEL-2 FTI SPARE4						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B4 and P3/B31	J3/A4&GND	8.82	9.18	8.992296	Volts DC	PASS

Tested by:Shridhar Hegde

33)	FTI SPARE MON:CHANNEL-2 FTI SPARE5						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B6 and P3/B32	J3/A5&GND	8.82	9.18	8.993788	Volts DC	PASS

34)	FTI SPARE MON:CHANNEL-1 FTI SPARE1						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B7 and P3/B32	J3/A6&GND	8.82	9.18	8.99357	Volts DC	PASS

Tested by:Shridhar Hegde

35)	FTI SPARE MON:CHANNEL-1 FTI SPARE2						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B8 and P3/B32	J3/A7&GND	8.82	9.18	8.991459	Volts DC	PASS

36)	ANALOG OUTPUT:SPARE AI_08						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B9 and P3/B31	J3/A8&GND	8.82	9.18	8.993866	Volts DC	PASS

Tested by:Shridhar Hegde

37)	ANALOG OUTPUT:SPARE AI_09						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B10 and P3/B31	J3/A9&GND	8.82	9.18	8.9904	Volts DC	PASS

38)	ANALOG OUTPUT:SPARE AI_10						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B11 and P3/B31	J3/A10&GND	8.82	9.18	8.988718	Volts DC	PASS

39)	ANALOG OUTPUT:SPARE AI_11						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B12 and P3/B31	J3/A11&GND	8.82	9.18	8.975989	Volts DC	PASS

40)	ANALOG OUTPUT:SPARE AI_12						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B13 and P3/B31	J3/A12&GND	8.82	9.18	8.978447	Volts DC	PASS

41)	ANALOG OUTPUT:SPARE AI_13						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B14 and P3/B31	J3/A13&GND	8.82	9.18	8.988006	Volts DC	PASS

42)	ANALOG OUTPUT:SPARE AI_14						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B15 and P3/B31	J3/A14&GND	8.82	9.18	8.986259	Volts DC	PASS

Tested by:Shridhar Hegde

43)	ANALOG OUTPUT:SPARE AI_17						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	5V at P3/B16 and P3/B31	J3/A17&GND	8.82	9.18	8.986285	Volts DC	PASS

44)	DIFF ANALOG INPUT:SPARE MON AI_18						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A9 and P2/C9	J3/A18&GND	0.882	0.918	0.897145	Volts DC	PASS
2	9V at P2/A9 and P2/C9	J3/A18&GND	-0.918	-0.882	-0.899693	Volts DC	PASS

45)	DIFF ANALOG INPUT:SPARE MON AI_19						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A10 and P2/C10	J3/A19&GND	0.882	0.918	0.897087	Volts DC	PASS
2	9V at P2/A10 and P2/C10	J3/A19&GND	-0.918	-0.882	-0.899545	Volts DC	PASS

46)	DIFF ANALOG INPUT:SPARE MON AI_20						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A11 and P2/C11	J3/A20&GND	0.882	0.918	0.897256	Volts DC	PASS
2	9V at P2/A11 and P2/C11	J3/A20&GND	-0.918	-0.882	-0.899778	Volts DC	PASS

47)	DIFF ANALOG INPUT:SPARE MON AI_21						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A12 and P2/C12	J3/A21&GND	0.882	0.918	0.897308	Volts DC	PASS
2	9V at P2/A12 and P2/C12	J3/A21&GND	-0.918	-0.882	-0.899796	Volts DC	PASS

48)	DIFF ANALOG INPUT:SPARE MON AI_22						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A13 and P2/C13	J3/A22&GND	8.82	9.18	8.997022	Volts DC	PASS
2	9V at P2/A13 and P2/C13	J3/A22&GND	-9.18	-8.82	-8.999305	Volts DC	PASS

49)	DIFF ANALOG INPUT:SPARE MON AI_23						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A14 and P2/C14	J3/A23&GND	8.82	9.18	8.995945	Volts DC	PASS
2	9V at P2/A14 and P2/C14	J3/A23&GND	-9.18	-8.82	-8.998966	Volts DC	PASS

50)	DIFF ANALOG INPUT:SPARE MON AI_24						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A15 and P2/C15	J3/A24&GND	8.82	9.18	8.996384	Volts DC	PASS
2	9V at P2/A15 and P2/C15	J3/A24&GND	-9.18	-8.82	-8.999454	Volts DC	PASS

51)	DIFF ANALOG INPUT:SPARE MON AI_25						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	-9V at P2/A16 and P2/C16	J3/A25&GND	8.82	9.18	8.996776	Volts DC	PASS
2	9V at P2/A16 and P2/C16	J3/A25&GND	-9.18	-8.82	-8.999749	Volts DC	PASS

52)	DIFF ANALOG OUTPUT:SPARE AO_01						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B11 and GND	P2/A1&GND	-0.05	0.05	-0.006191	Volts DC	PASS
2	9V at J3/B11 and GND	P2/A1&GND	4.9	5.1	4.977403	Volts DC	PASS
3	-9V at J3/B11 and GND	P2/A1&GND	-5.1	-4.9	-4.973963	Volts DC	PASS

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4	0V at J3/B11 and GND	P2/C1&GND	-0.05	0.05	0.00722	Volts DC	PASS
5	9V at J3/B11 and GND	P2/C1&GND	-5.1	-4.9	-4.980142	Volts DC	PASS
6	-9V at J3/B11 and GND	P2/C1&GND	4.9	5.1	4.980265	Volts DC	PASS

53)	DIFF ANALOG OUTPUT:SPARE AO_02						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B12 and GND	P2/A2&GND	-0.05	0.05	0.002647	Volts DC	PASS
2	9V at J3/B12 and GND	P2/A2&GND	4.9	5.1	4.991922	Volts DC	PASS
3	-9V at J3/B12 and GND	P2/A2&GND	-5.1	-4.9	-4.956302	Volts DC	PASS
4	0V at J3/B12 and GND	P2/C2&GND	-0.05	0.05	0.012068	Volts DC	PASS

5	9V at J3/B12 and GND	P2/C2&GND	-5.1	-4.9	-4.980564	Volts DC	PASS
6	-9V at J3/B12 and GND	P2/C2&GND	4.9	5.1	4.964178	Volts DC	PASS

54)	DIFF ANALOG OUTPUT:SPARE AO_03						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B13 and GND	P2/A3&GND	-0.05	0.05	-0.011646	Volts DC	PASS
2	9V at J3/B13 and GND	P2/A3&GND	4.9	5.1	4.96613	Volts DC	PASS
3	-9V at J3/B13 and GND	P2/A3&GND	-5.1	-4.9	-4.983635	Volts DC	PASS
4	0V at J3/B13 and GND	P2/C3&GND	-0.05	0.05	0.012539	Volts DC	PASS
5	9V at J3/B13 and GND	P2/C3&GND	-5.1	-4.9	-4.97307	Volts DC	PASS

6	-9V at J3/B13 and GND	P2/C3&GND	4.9	5.1	4.987019	Volts DC	PASS

55)	DIFF ANALOG OUTPUT:SPARE AO_04						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B14 and GND	P2/A4&GND	-0.05	0.05	0.00137	Volts DC	PASS
2	9V at J3/B14 and GND	P2/A4&GND	4.9	5.1	4.984501	Volts DC	PASS
3	-9V at J3/B14 and GND	P2/A4&GND	-5.1	-4.9	-4.946725	Volts DC	PASS
4	0V at J3/B14 and GND	P2/C4&GND	-0.05	0.05	0.013942	Volts DC	PASS
5	9V at J3/B14 and GND	P2/C4&GND	-5.1	-4.9	-4.97738	Volts DC	PASS
6	-9V at J3/B14 and GND	P2/C4&GND	4.9	5.1	4.956552	Volts DC	PASS

56)	DIFF ANALOG OUTPUT:SPARE AO_05						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B15 and GND	P2/A5&GND	-0.05	0.05	-0.011684	Volts DC	PASS
2	9V at J3/B15 and GND	P2/A5&GND	4.9	5.1	4.963946	Volts DC	PASS
3	-9V at J3/B15 and GND	P2/A5&GND	-5.1	-4.9	-4.980939	Volts DC	PASS
4	0V at J3/B15 and GND	P2/C5&GND	-0.05	0.05	0.012722	Volts DC	PASS
5	9V at J3/B15 and GND	P2/C5&GND	-5.1	-4.9	-4.972884	Volts DC	PASS
6	-9V at J3/B15 and GND	P2/C5&GND	4.9	5.1	4.986246	Volts DC	PASS

57)	DIFF ANALOG OUTPUT:SPARE AO_06						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B16 and GND	P2/A6&GND	-0.05	0.05	0.001991	Volts DC	PASS
2	9V at J3/B16 and GND	P2/A6&GND	4.9	5.1	5.000014	Volts DC	PASS
3	-9V at J3/B16 and GND	P2/A6&GND	-5.1	-4.9	-4.995708	Volts DC	PASS
4	0V at J3/B16 and GND	P2/C6&GND	-0.05	0.05	0.00247	Volts DC	PASS
5	9V at J3/B16 and GND	P2/C6&GND	-5.1	-4.9	-4.994294	Volts DC	PASS
6	-9V at J3/B16 and GND	P2/C6&GND	4.9	5.1	4.998921	Volts DC	PASS

58)	DIFF ANALOG OUTPUT:SPARE AO_07						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0V at J3/B17 and GND	P2/A7&GND	-0.05	0.05	-0.011844	Volts DC	PASS
2	9V at J3/B17 and GND	P2/A7&GND	4.9	5.1	4.963472	Volts DC	PASS
3	-9V at J3/B17 and GND	P2/A7&GND	-5.1	-4.9	-4.974684	Volts DC	PASS
4	0V at J3/B17 and GND	P2/C7&GND	-0.05	0.05	0.012774	Volts DC	PASS
5	9V at J3/B17 and GND	P2/C7&GND	-5.1	-4.9	-4.980103	Volts DC	PASS
6	-9V at J3/B17 and GND	P2/C7&GND	4.9	5.1	4.978567	Volts DC	PASS

59)	DIFF ANALOG OUTPUT:SPARE AO_08						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
43	0V at J3/B18 and GND	P2/A8&GND	-0.05	0.05	-0.000204	Volts DC	PASS
44	9V at J3/B18 and GND	P2/A8&GND	4.9	5.1	4.97808	Volts DC	PASS
45	-9V at J3/B18 and GND	P2/A8&GND	-5.1	-4.9	-4.979984	Volts DC	PASS
46	0V at J3/B18 and GND	P2/C8&GND	-0.05	0.05	0.01436	Volts DC	PASS
47	9V at J3/B18 and GND	P2/C8&GND	-5.1	-4.9	-4.972611	Volts DC	PASS
48	-9V at J3/B18 and GND	P2/C8&GND	4.9	5.1	4.982545	Volts DC	PASS

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60)	EXC MON:CHANNEL1-LAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B1 and P2/B2(J2/A29=0V,J2/A30=0V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B1 and P2/B2(J2/A29=0V,J2/A30=0V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.492351	Volts DC	PASS
3	7.07Vrms at P2/B1 and P2/B2(J2/A29=0V,J2/A30=0V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	4.999011	Volts DC	PASS

61)	EXC MON:CHANNEL2-LAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B3 and P2/B4(J2/A29=5V,J2/A30=0V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B3 and P2/B4(J2/A29=5V,J2/A30=0V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.495044	Volts DC	PASS

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3	7.07Vrms at P2/B3 and P2/B4(J2/A29=5V,J2/A30=0V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	5.002411	Volts DC	PASS

62)	EXC MON:CHANNEL3-LAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B5 and P2/B6(J2/A29=0V,J2/A30=5V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B5 and P2/B6(J2/A29=0V,J2/A30=5V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.495223	Volts DC	PASS
3	7.07Vrms at P2/B5 and P2/B6(J2/A29=0V,J2/A30=5V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	5.002835	Volts DC	PASS

63)	EXC MON:CHANNEL4-LAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B7 and P2/B8(J2/A29=5V,J2/A30=5V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B7 and P2/B8(J2/A29=5V,J2/A30=5V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.492082	Volts DC	PASS
3	7.07Vrms at P2/B7 and P2/B8(J2/A29=5V,J2/A30=5V,J2/A31=0V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	5.001495	Volts DC	PASS

64)	EXC MON:CHANNEL1-RAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B9 and P2/B10(J2/A29=0V,J2/A30=0V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B9 and P2/B10(J2/A29=0V,J2/A30=0V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.493891	Volts DC	PASS
3	7.07Vrms at P2/B9 and P2/B10(J2/A29=0V,J2/A30=0V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	5.004751	Volts DC	PASS

65)	EXC MON:CHANNEL2-RAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B11 and P2/B12(J2/A29=5V,J2/A30=0V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B11 and P2/B12(J2/A29=5V,J2/A30=0V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.493243	Volts DC	PASS

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3	7.07Vrms at P2/B11 and P2/B12(J2/A29=5V,J2/A30=0V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	5.006209	Volts DC	PASS

66)	EXC MON:CHANNEL3-RAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B13 and P2/B14(J2/A29=0V,J2/A30=5V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B13 and P2/B14(J2/A29=0V,J2/A30=5V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.493892	Volts DC	PASS
3	7.07Vrms at P2/B13 and P2/B14(J2/A29=0V,J2/A30=5V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	4.998389	Volts DC	PASS

67)	EXC MON:CHANNEL4-RAOA EXC MON						
SL NO.	INPUT POINT	OUTPUT POINT	LOWER LIMIT	UPPER LIMIT	MEASURED VALUE	UNITS	RESULT
1	0Vrms at P2/B15 and P2/B16(J2/A29=5V,J2/A30=5V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	-0.1	0.1	0.1	Volts DC	PASS
2	3.535Vrms at P2/B15 and P2/B16(J2/A29=5V,J2/A30=5V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	2.4491	2.5489	2.496994	Volts DC	PASS
3	7.07Vrms at P2/B15 and P2/B16(J2/A29=5V,J2/A30=5V,J2/A31=5V,J2/A32=0V)	J3/A28&GND	4.8981	5.0979	5.003035	Volts DC	PASS

Tested by:Shridhar Hegde