

BILL OF MATERIALS (BOM) FOR ALCS I/O CARD.

S.NO	LEGEND	VALUE with Tol.	PACKAGE	MAKE	Qty
1	C1,C2,C3,C4,C5, C6,C7,C8,C9,C10, C25	0.04uF/65V	1206	Walsin	11
2	C47	0.01uF/63V 10%Tol	1206	Walsin	1
3	C41,C46	0.01uF /50V	1206	Walsin	2
	C42 **,C43 **,C44 **, C45 **				
4	C11,C12,C13, C14,C15,C16	0.01uf /250V min. 10% Tol	1206	Walsin	6
	C17 **,C18 **, C21 **, C22 **, C36 **, C37**, C40 **, C41 **				
5	C38,C39,C19,C20,	1uF/35V. Alu. Elect Cap	5.3x5.3mm SMD	G-Luxon [VGV107M050S0ANG U30]/ Rubycon/ Jackson/ Panasonic	4
6	C32,C33	10uF/35V. Alu. Elect Cap	5.3x5.3mm SMD		2
7	C23	100uF/50V Electrolytic	10 x 8mm SMD		1
8	C26,C27,C28,C29, C24	22uF/35V. Alu. Elect Cap	5.3x5.3mm SMD		5
9	C30,C31,C34,C35, C48	0.1UF/ 50V Tol. 10%	SMD-1206		Vishay/Walsin
10	R26,R27,R30,R31, R34	1K5 -1%	805	Walsin/Yageo	5
11	R1,R4,R13,R16,	22E/22.1E -5%	805	Walsin/Yageo	4
	R5 **, R8 **, R9 **, R12 **, R17 **, R20 **, R21 **,R24 **				
12	R35,R38,R39,R46	1K5 -1%	0805	Walsin/Yageo	4
13	R42,R43,R47,R50, R51,R54,R55,R58, R59,R62,R63,R67, R68,R71,R72,R106, R107	1K5 -1%	0805	Walsin/Yageo	17
13a	R15	4.02K 1%	0805	Walsin/Vishay /Dale	1
	R7 **,R11 **,R19 **, R23 **				
14	R2	18K -1%	0805	Walsin/Bourns	1
15	R14	8K2 -1%	0805	Walsin/Bourns	1
	R6 **, R10 **,R18 **, R22 **				
15	R32,R28,R36,R40, R44,R48,R52,R56, R60,R64,R73	5K6 - 5%	0805	Walsin/Yageo	11

Rev Status :

Rev 01: R1,R4,R13&R16 Value changed. Different Makes added for components.

Rev 02: Sl. 12 & 13 merged as sl no.12 & sl no. 9 Tol. Value added.

Rev 03: C48 in sl no. 2 & C47 in sl no.9 is added. Rev 04: Page formatting done. Rev 05: C47 & C48 value changed. R15 resistor 4.02K added. Rev 06: Sl No. 5, 6 & 8 Capacitor changed from tantalum to electrolytic type. Rev 07: C47 added in sl no.2. Rev 08. Page formatting done. Rev 09. C25 Capacitor value changed in sl no. 1 and capacitors value changed in sl no.5 for C38, C39, C19 & C20. Rev 10: R2 value changed from 8.2 K TO 18K. Rev 11: Page formatting done.

NOTE: 1. ** These components are not required. 2. THIS BOM SHOULD BE READ ALONG WITH THE BOM NO. 4-00114-23275 & 4-00114-23276



BOM-1 OF ALCS I/O CARD

DRG NO: 4-00-114-32048	REV No. 01	DATE : 03-06-2017	PAGE NO. : 01 OF 01
Prepared AB	<i>[Signature]</i>	BHARAT HEAVY ELECTRICAL LTD, BOILER AUXILIARIES PLANT, RANIPET-632 406.	
Reviewed DSP	<i>[Signature]</i>		
Approved AMM	<i>[Signature]</i>		
DATE	15-09-2010	DRG NO: 4-00-114-32048	

BILL OF MATERIALS (BOM) FOR ALCS I/O CARD.

S.NO	LEGEND	VALUE with TOL.	PACKAGE	MAKE	Qty
16	R41,R45,R49,R25, R29,R33,R37,R53, R57,R61,R65,R69	4K7- 1%	0808	Walsin/Yageo	12
17	R66,R98,R100	620K 5% Tol	0805	Walsin	3
18	R75,R79,R83,R87, R91, R95, R102, R103,R104	2K2 5% Tol	0805	Walsin/Yageo	9
19	R82,R78,R86, R90,R74,R94	220E - Tol. 1% / 221E - Tol 1%	0805	Walsin/Yageo	6
20	R92,R96,R88, R84,R76,R80	1K - Tol. 1%	0805	Walsin/Yageo	6
21	R81,R77,R85, R89,R93,R97	10K - Tol. 1%	0805	Walsin	6
22	R99, R101	390E - Tol. 1% / 392E - Tol. 1%	0805	Walsin/Yageo	2
23	R105	407E/402 E - Tol. 1%	0805	Walsin/Yageo	1
24	R70	520K/511K - Tol. 1%	0805	Walsin	1
25	RF1	60R050 or RXEF050 or MF- R050	TH	Little Fuse, Bourns, Raychem	1
26	CON2	14 Pin (2X7) berg Female	Double row	Toyo	1
27	CON3	4 Pin (2X2) berg Female	Double row	Toyo	1
28	CON-4	10-PIN BERG Female	Double row	Toyo	1
29	CON-7	10-PIN BERG Female	Double row	Toyo	1
30	CON-9	10-PIN BERG Female	Double row	Toyo	1
31	CON-12	10-PIN BERG Female	Double row	Toyo	1
32	CON-13	10-PIN BERG Female	Double row	Toyo	1
33	AR1,AR4	ISO124U	SMD	Texas Instruments	2
	AR6 **				
34	CVR1,CVR4	TRA1-1222 or MA01-12D12		Traco Power or MINMAX	2
	CVR2 **,CVR3 **, CVR5 **,CVR6 **				
35	CVR7	TEL 3-2412 or MIW 1132		Traco Power or MINMAX	1
36	D6,D12	MiniMELF (Glass case) TZMB5V1 / BZV55-C5V1	(SOD-80)	VISHAY/NXP	2

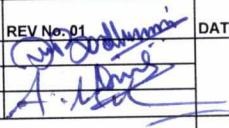
Rev Status :

Rev 01: Different Makes added for components.
 Rev 02: SI nos changed. SI no. 19,22 & 24 value changed.
 Rev 03: Components R3 & R15 are not required.
 Rev 04: CON 2, CON 3 Added. Rev 05: Page formatting done. Rev 06: SI no. 17&18 Tol. value added. Rev 07: Page formatting done
 Rev 08. Part no. changed for DC-DC convertor in SI. no.33. Rev 09. Part no. changed for DC-DC convertor CVR1 & CVR4 in SI. no.33. Rev
 10: New component RF1 introduced in si no.25. Rev 11: RF1 component part no. changed in SL no. 25

NOTE: 1. ** These components are not required. 2. THIS BOM SHOULD BE READ ALONG WITH THE BOM NO. 4-00114-23274 & 4-00114-23276



BOM-2 OF ALCS I/O CARD

DRG NO: 4-00-114-32049	REV No: 01	DATE : 03-06-2017	PAGE NO. : 01 OF 01
Prepared AB		BHARAT HEAVY ELECTRICAL LTD, BOILER AUXILIARIES PLANT, RANIPET-632 406.	
Reviewed DSP			
Approved AMM			
DATE	15-09-2010	DRG NO: 4-00-114-32049	

BILL OF MATERIALS (BOM) FOR ALCS I/O CARD.

S.NO	LEGEND	VALUE with Tol.	PACKAGE	MAKE	Qty
37	D5, D11	MiniMELF (Glass case) TZMB12V / BZV55-C-12	(SOD-80)	VISHAY/NXP	2
	D1 **, D2 **, D3 **, D4 **, D7 **, D8 **, D9 **, D10 **				
38	D13,D14,D15, D16,D17,D18	IN4148	(SOD-80)	VISHAY/NXP	6
39	D19	TVS Diode P6SMB39CA	SMD	Little Fuse	1
40	Z1,Z2	TZMC15 / BZV55-C15	(SOD-80)	VISHAY/NXP	
41	LD1,LD2,LD3,LD4, LD5,LD6, LD7,LD8, LD9,LD10,LD11, LD12 ,LD13,LD14, LD15, LD16,LD17	Green Led	1206	Everlight	17
42	LD18,LD19,LD20, LD21	AMBER Led	1206	Everlight	4
43	LD22	RED Led	1206	Everlight	1
44	LD23	RED Led	1206	Everlight	1
45	Q1,Q2,Q3,Q4,Q5,Q6	BC337-25/ BC817-25	SOT-23 SMD	Philips/NXP	6
46	RY1,RY2,RY3, RY4,RY5,RY6	RELAY-SPST	PCN-112D 3MHZ/ HF 49FD 012-1H12GF	TYCO/Hongfa	6
47	J1	50 Pin D Sub Female- gold plated	Right angle type.	Essen/ (MD-50-S-14(3)B), Amphenol (M24308/23-35F-L)	
48	J1 & J2	10mm 3 Pin berg with 1 No. 2 Pin jumper each	Straight Pin	Protectron & Toyo	1 no. Each
49	J3Pin & J4 Socket	10mm 5 Pin Berg and J4 5pin berg socket.	Straight Pin	Protectron & Toyo	01No. each
50	U1,U2,U3,U4,U5,U6, U7,U8, U9, U10, U11, U12,U13,U14,U15	CNY17-3S-M	SMD	Fairchild/ Everlite/ Liteon	15
51	PCB dimension 142mmX114mm	FR4 Grade	V00X/Arca-IO-card-V1.0	PC process, Anand Elecs, Shiltron	1

Rev Status :

Rev 01: D5 & D11 diode rating changed, Different Makes added for components,
 Rev 02: Additional part no. given for sl no. 33, 34 & 36.
 Rev 03: Additional part no. & Make added for sl no. 31 & 32.
 Rev 04: PCB description added in row no.49. Rev 05: Page formatting done. Rev 06: Sl No.44 Relay type no. added. Rev 07: Page formatting done. Rev 08: Page formatting done. Rev 09: Page formatting done. Rev 10: New component D19 introduced in sl no. 39. Rev 11: D19 component part no. changed in SL no. 39

NOTE: 1. ** These components are not required. 2. THIS BOM SHOULD BE READ ALONG WITH THE BOM NO. 4-00114-23274 & 4-00114-23275



BOM-3 OF ALCS I/O CARD

DRG NO: 4-00-114-32050	REV No: 01	DATE :03-06-2017	PAGE NO. : 01 OF 01
Prepared AB	BHARAT HEAVY ELECTRICAL LTD, BOILER AUXILIARIES PLANT, RANIPET-632 406.		
Reviewed DSP			
Approved AMM			
DATE	15-09-2010	DRG NO: 4-00-114-32050	