Description: Promotion Board – BMS – Pack Controller (with MCU)
Variant: A
Date: 29/05/2020
Bill of materials

Revision: 00
Customer Code: ADG-PT&S- 03-1946-50-R1.0

Designator	Footprint	Comment	Voltage	#Column Name Error:Manufacturer	Assembly Note	Quantity
C1, C2, C163, C164, C165, C166, C167	0603C	10pF	50V			7
C3, C5, C7, C9, C10, C11, C13, C14, C15, C16, C17, C18, C19, C20, C22, C23, C24, C84, C95, C100, C103, C108, C110, C126, C127, C162	0603C	100nF	50V			26
C4, C89	1206C	10uF	16V			2
C26	1206C	4.7uF	50V			1
C6, C8	0805C	4.7uF	16V			2
C12	0805C	3.3uF	16V			1
C21	1210C	2.2uF	100V			1
C25, C27, C77, C78, C79, C80	0603C	100nF	100V			6
C28, C36, C40, C45, C48, C51, C56, C59, C62, C64, C67, C69, C71, C86, C88, C155	0603C	47nF	100v			16
C29, C37, C41, C46, C49, C52, C58, C60, C63, C65, C68, C70, C72, C87	0603C	10nF	100V			14
C31	0603C	220nF	16V			1
C32, C33	0805C	2.2uF	16V			2
C39, C44, C55, C98, C106	0805C	1uF	16V			5
C42, C53, C96, C104	0603C	10nF	50V			4
C43, C47, C54, C57, C97, C99, C105, C107	0603C	22pF	50V			8
C61, C81, C82, C83, C85	0603C	2.2nF	50V			5
C88	0603C	6.8nF	50V			1
C73, C74, C75, C76	0603C	6.8nF	100V			4
C90	0603C	33pF	50V			1
C91, C157	0603C	68nF	50V			2
C92, C93, C161	0603C	47nF	50V			3
C111	6060PC	100uF/50V	50V			1
C112, C113	1210C	10uF	50V			2
C114	0603C	100nF	50V			1
C128, C147	0603C	2.2uF	16V		MCU related	2
C129, C131, C133, C138, C141, C143, C145	0603C	100nF	50V		MCU related	7
C130, C132, C134, C139, C142, C144, C146	0603C	10nF	50V		MCU related	7
C135, C136	0603C	20pF	50V		MCU related	2
C137, C140	0603C	1uF	16V		MCU related	2
C148, C150, C152	0603C	100nF	16V		MCU related	3
C149, C151, C153	0603C	10nF	16V		MCU related	3
C154	0603C	20pF	50V			1
C156	0603C	220nF	50V			1
C158, C159	1210C	22uF/25V	25V			2
C160	0603C	1uF/16V	16V			1
CGS_HOT	0603C	4.7nF	100V			1
D1, D2, D3, D4, D5	0805D	LED GREEN				5
D6	SMB	SMA6T68AY				1
D7	SOD323	SZMM3Z4V7T1G				1
D8	SMB	STTH2R02				1
D9, D10, D12, D13	0805D	LED				4
D19	DO-214AB	STPS3L40-Y				1
ISOPORT1, ISOPORT2	292303-1	USB A connector				2
JHOT	SIP3	Jumper				1
JP2, JP6	SIP3	Jumper			JP2, JP6 close for L9963 direction	2
JP3, JP7	SIP3	TXAMP_SEL Jumper				2
JP4, JP8	SIP3	Master SPICLK_SEL jumper				2
JP5, JP9	SIP3	TXEN/CPHA_SEL jumper				2
JP10, JP12, JP13	SIP2	GPIO99 jumper			JP10, close in default	3
JP14, JP15	SIP3	Jumper				2
L1, L2, L3, L4	0603L	60ohm-500mA Wurth 74279267				4
L5	1206R	SILM31KN102				1
L6	ESMIT4180	ESMIT4180				1
L7, L8	ESMIT4180	ESMIT4180			Assembled for L9963T	2
L9	SMD_4074	SMRH74-220MT		https://item.szlcsc.com/281191.html		1
MHOT	SO8	STS8N6LF6AG				1
P1	USB/SM0.8-6H5	USB_MINI_B			MCU related	1
P2	MX34028NF1_1	Header 14X2A (JAE connector)		MX34028NF2 https://www.mouser.com/ProductDetail/JAE-Electronics/MX34028NF2?qs=%2FhaZpyFadujwnKTtB7kXKJowfRzVA5zFZhhzVNJ5ZBQ91HDK5ZsqSqA%3D%3D		1
Q1	POWERFLAT5X6	STL8N10LF3				1
R1	0603R	12K				1
R2, R3, R93, R94	0603R	10R				4
R4, R9, R10, R11, R118, R156, R184	0603R	1K				7
R7, R8, R12, R15, R16, R113	0603R	4k7				6
R9	0603R	2k2				1
R17, R18	0603R	220				2
R20, R24, R171, R191, R192	0603R	0				5
BD1, BD2, BD3, BD4, BD5, BD6, BD7, BD8, BD9, BD10, BD11, BD12, BD13, BD14, BD15, BD16	0805-BEAD	MPZ2012S102ATD25				16
R21	1206R	10k				1
R23, R64, R68, R76, R77, R78, R79, R88, R99, R100, R104, R105, R106, R130, R132, R133, R142, R157, R172, R174, R186, R187, R188, R189, R190	0603R	10k				25
R26, R29, R33, R36, R41, R45, R51, R56, R61, R66, R72, R75, R84, R89, R92	0603R	100				17
R27, R31, R34, R38, R42, R48, R52, R59, R63, R69, R73, R82, R87, R90	2010R	39				14
R37, R39, R49, R53, R95, R96, R101, R102	0603R	60.4				8
R47, R54	0603R	0			Assembled for L9963T	2
R58	0805R	6K2				1
R62	0603R	18k				1
R67	0603R	3K9				5
R80, R81, R85, R86	2010R	1K5 2W				4
R70	0603R	NTCG163JH103HTDS				1
R107, R108	0805R	1k				2
R114, R115, R116, R117, R120, R121, R124, R125, R126, R127, R147, R148	0603R	33R				12
R119	0805R	0				1
R122, R155	0603R	0R				2
R123	0603R	6R8			MCU related	1
R128	0603R	10k				1
R129	0603R	10k			Assembled for L9963T	1
R131	0805R	470R				1
R134, R135, R136, R137, R144, R145, R146, R149, R150, R151	0603R	0R			Assembled for L9963T	10
R158	0603R	52.5k (52K3)				1
RP1	RES 0402X8	RESPACK3		Pananosic EXB2HV R000V	MCU related	1
RG_HOT	0603R	1K				1
RGS_HOT	0402R	100K				1
RHOT_LIM	2512R	47R				1
S1	SWITCH (SS-12D10)	SWITCH		https://item.szlcsc.com/300104.html		1
S2	SW2_SMT	RST button				1
TP1	TESTER1_1	C14 TP				1
TP2	TESTER1_1	3V3 USB TP				1
TP3	TESTER1_1	VBAT TP				1
TP4	TESTER1_1	VDD5 TP				1
TP5, TP9	TESTER1_1	GND TP				2
TP6, TP7	TESTER1_1	GNDB TP				2
TP8	TESTER1_1	RST TP				1
TP10	TESTER1_1	C13 TP				1
TP11	TESTER1_1	C12 TP				1
TP12	TESTER1_1	C11 TP				1
TP13	TESTER1_1	C10 TP				1
TP14	TESTER1_1	C9 TP				1
TP15	TESTER1_1	C8 TP				1
TP16	TESTER1_1	C7 TP				1
TP17	TESTER1_1	C6 TP				1
TP18	TESTER1_1	C5 TP				1
TP19	TESTER1_1	C4 TP				1
TP20	TESTER1_1	C3 TP				1
TP21	TESTER1_1	C2 TP				1
TP22	TESTER1_1	C1 TP				1
TP23	TESTER1_1	C0 TP				1
TP24	TESTER1_1	ISOHM TP				1
TP25	TESTER1_1	ISOHP TP				1
TP26, TP28, TP29	TESTER1_1	ISOP TP				3
TP27, TP30, TP31	TESTER1_1	ISOM TP				3
TP32	TESTER1_1	VDD6 TP				1
TP33	TESTER1_1	ADCV TP				1
TP_SDO_U16, TP_SCK_U16, TP_SDI_U16, TP_NCS_U16, TP_DIS_U16, TP_ISO_U16, TP_BNE_U16	TESTER1_1	MALE STRIP 1 PIN				7
P2	SCREW	SELF TAPPING SCREW M3X6				2
MTH1, MTH2, MTH3, MTH4						4
MTH1, MTH2, MTH3, MTH4						4
U1	LQFP50P1000X1000X16-64N	FT2232H			MCU related	1
U2, U3, U5, U6, U7, U10, U11, U12	SC-70-6	SN74LVC1T45DCK			MCU related	8
U4	SOT23-6L	USBLC6-2SC6			MCU related	1
U8	SO-8	M93S46-WMN6TP			MCU related	1
U9	SOT-223	LD1117S33TR			MCU related	1
U13	TSQFP50P1200X1200X120_HS-65M	L9963				1
U14, U15	SOT23-6L	USBLC6-2SC6Y				2
U16, U18	SO16	L9963T			Assembled for L9963T	2
U17, U19	SOT23-6L	USBLC6-2SC6Y			Assembled for L9963T	2
U22	OPT-SO	TLX9291		If no TLX9291, use PS2703		1
U23	SOT143-4	STM6315RBW13F			MCU related	1
U24	TSQFP50P1600X1600X120_HS-101M	SPC5745E64E3			MCU related	1
U26	PSSC24	L9001				1
X1	DC10A	DC-10A		CLIFF power supply connector (DC-10A/FC68148)		1
Y1	XTAL-SMD-1/2	12MHZ		NX3225GA-12MHZ https://item.szlcsc.com/167589.html	MCU related	1
Y2	XTAL_SOCKET (HC/49US)	20MHz			MCU related	1
						425

Approved	Notes