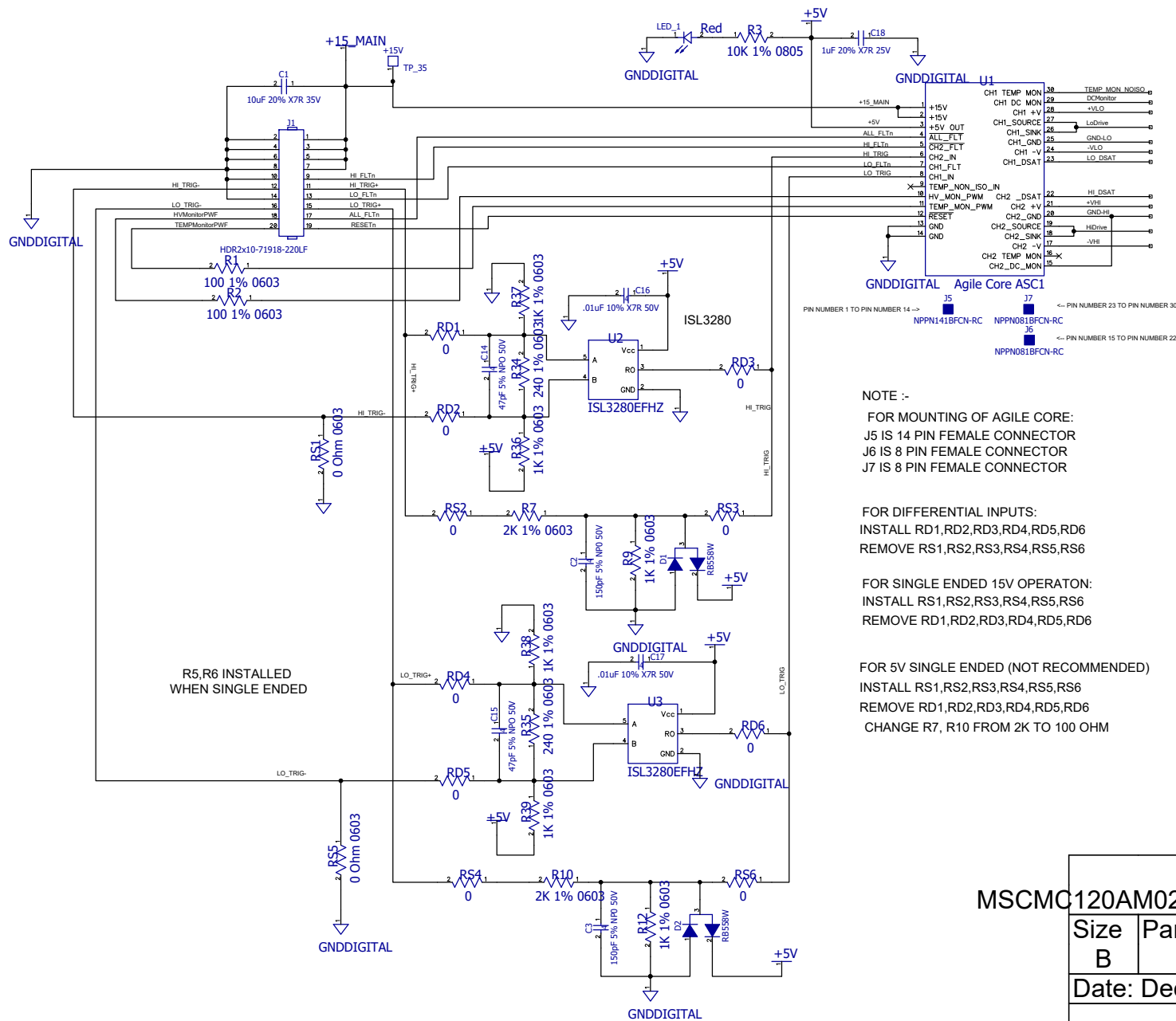




AGILESWITCH LLC

MSCMC120AM02CT6LIAG - 1200V 742A SiC Module A

Size	Part Number	Rev
B	SP6CA1	2
CONTROL I/O		
Date: Dec 21, 2019		Updated By Vipin
		Sheet 1 of 2

AgileSwitch, LLC Bill of Materials		CONFIDENTIAL AND PROPRIETARY
Part:	SP6CA1	RoHS Compliant = Yes
Version:	3	
Date:	3/26/2020	
Description:	SP6L1 module Adapter board	

NOTE: All Rs and Cs have a Manufacturer and part number but can be substituted with a different manufacturer if spec is the same for lower cost, unless otherwise noted.

Item	Qty	RefDes	Part	Tol	Footprint	Description	Manufacturer	Manufacturer P/N	Alternate Manufacturer1	Alternate Manufacturer1 P/N	Notes
1	1	PCB	PCB			PCB Bare Printed Circuit Board	Kingford	AS-17900 Rev 2	-	-	
2	5	C1, C6, C9, C18A, C8A	10uF	20%	CAP_1206	10uF 20% X7R 35V	TDK	C3216X7R1V106M160AC	TDK	C3216X7R1V106M160AE	
3	2	C14, C15	47pF	5%	CAP_0402	47pF 5% NPO 50V	Murata	GCM1555C1H470JA16D	Murata	GRM1555C1H470JA01D	
4	2	C16, C17	.01uF	10%	CAP_0402	.01uF 10% X7R 50V	Murata	GRM155R71H103KA88D	Murata	GCN155R71H103KA55D	
5	1	C18	1uF	20%	CAP_0603	1uF 20% X7R 25V	Murata	GCM188R71E105MA64D	TDK	C0603X7R1E102M030BA	
6	2	C2, C3	150pF	5%	CAP_0402	150pF 5% NPO 50V	Murata	GCM1555C1H151JA16D	Murata	GRM1555C1H151FA01D	
7	1	C5	1000pF	5%	CAP_0603	1000pF 5% NPO 50V	Murata	GRM1885C1H102JA01J	Murata	GCM1885C1H102JA16J	
8	4	C7, C10, CST1, CST2	47pF	5%	CAP_0603	47pF 5% NPO 50V	Murata	GCM1885C1H470JA16D	Murata	GRM1885C1H470JA01J	
9	2	C8, C11	22uF	20%	CAP_1210	22uF 20% X7R 25V	Murata	GRM32ER71E226ME15L	TDK	CGA6P3X7R1E226M250AB	
10	2	D1, D2	DIODE		EMD3	DIODE ARRAY SCHOTTKY 30V EMD3	Rohm	RB558WTL	-	-	
11	1	D4	DIODE		SOD323	DIODE ZENER 5.6V 400MW SOD323	Nexperia USA Inc.	PDZ5_6B,115	-	-	
12	4	D5, D6, D9, D10	DIODE		DO2148A	DIODE GEN PURP 1KV 1A DO2148A	Vishay	GF1M-E3	-	-	
13	2	D7, D11	DIODE		POWERDI123	DIODE ZENER 20V 1W POWERDI123	Diodes Inc	DFLT17A-7	-	-	
14	2	D8, D12	DIODE		DO219AB	DIODE ZENER 5.1V 800MW DO219AB	Vishay	BZD27C5V1P-E3-08	-	-	
15	1	J1	CONN		0.1" (2.54mm)	CONN HEADER VERT 20POS 2.54MM	FCI	71918-220LF	-	-	
16	1	J5	CONN		0.079" (2.00mm)	CONN HDR 14POS 0.079 GOLD PCB	Sullins Connector Solutions	NPPN141BFCN-RC	Harwin	M22-7131442	
17	2	J6,J7	CONN		0.079" (2.00mm)	CONN HDR 8POS 0.079 GOLD PCB	Sullins Connector Solutions	NPPN081BFCN-RC	Harwin	M22-7130842	
18	1	LED_1	LED		LED_0603	LED GREEN CLEAR 1608 SMD	Kingbright	APHD1608LCGCK	-	-	
19	2	Q1, Q3	TRANS		SOT89-3	TRANS NPN 50V 7A SOT89-3	On Semi	2SC569-TD-E	-	-	
20	2	Q2, Q4	TRANS		SOT89-3	TRANS PNP 50V 7A SOT89-3	On Semi	2SA2016-TD-E	-	-	
21	2	R1, R2	100	1%	RES_0603	100 1% 0603	Vishay	CRCW0603100RFKEA	Yageo	RC0603FR-07100RL	
22	5	R14, R15, R16, R17, R18	200K	1%	RES_2010	200K 1% 2010	Vishay	CRCW2010200KFKEF	Stackpole	RMCF2010FT200K	
23	1	R19	2.94K	1%	RES_0603	2.94K 1% 0603	Vishay	CRCW06032K94FKEA	Yageo	RC0603FR-072K94L	
24	2	R20, R27	220	1%	RES_0603	220 1% 0603	Vishay	CRCW0603220RFKEA	Yageo	RC0603FR-07220RL	
25	2	R24, R30	43	1%	RES_0805	43 1% 0805	Vishay	CRCW080543R0FKEA	Panasonic	ERJ-6ENF43RDV	
26	3	R3, R26, R33	10K	1%	RES_0805	10K 1% 0805	Vishay	CRCW080510K0FKEA	Stackpole	RMCF0805FT10K0	
27	2	R34, R35	240	1%	RES_0603	240 1% 0603	Vishay	CRCW0603240RFKEA	Yageo	RC0603FR-07240RL	
28	2	R7, R10	2K	1%	RES_0603	2K 1% 0603	Vishay	CRCW06032K00FKEA	Yageo	RC0603FR-072KL	
29	6	R9, R12, R36, R37, R38, R39	1K	1%	RES_0603	1K 1% 0603	Vishay	CRCW06031K00FKEA	Yageo	RC0603FR-071KL	
30	8	RG1, RG2, RG3, RG4, RG5, RG6, RG7,	2.2	5%	RES_2512	2.2 5% 2512	Vishay	CRCW25122R20JNEGHP	Panasonic	ERJ-1TYJ2R2U	
31	6	RS1, RS2, RS3, RS4, RS5, RS6	0		RES_0603	0 Ohm 0603	Vishay	CRCW06030000Z0EA	Panasonic	ERJ-1GNR0R0DC	
32	2	U2, U3	IC		SOT-753	IC RECEIVER 0/1 RS422/485 SC74A	Intersil	ISL3280EFHZ-T	-	-	
33	2	VBUS, NTC	TERM		0.2" (5.08mm)	TERM BLK 2P SIDE ENT 5.08MM PCB	TE Connectivity	282837-2	-	-	

Do Not Populate

1	J3	CONN	0.079" (2.00mm)	CONN HEADER VERT 4POS 2MM	JST Sales America	B04B-PASK-1(LF)(SN)	DNP
1	J4	CONN	0.079" (2.00mm)	CONN HEADER VERT 5POS 2MM	JST Sales America	B05B-PASK-1(LF)(SN)	DNP
6	RD1, RD2, RD3, RD4, RD5, RD6	0	RES_0603	0 Ohm 0603	Vishay	CRCW06030000Z0EA	DNP