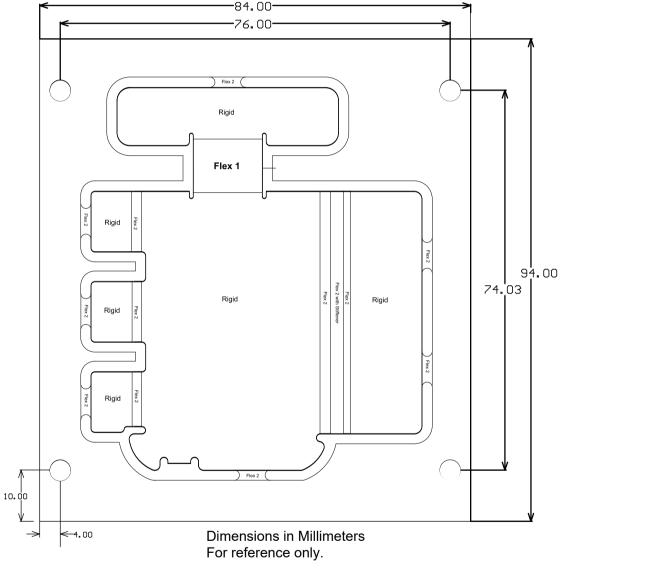


ECN	REV	DESCRIPTION
DCN-104	01	Initial Engineering Released. Never Build.
DCN-110	02	- Updated BOM (refer to Page 1 of the Schematic for changes) - Added component placement - Updated Notes
DCN-120	03	- Updated Notes - Added pin 1 designators on component placement drawing - Added Inspection Criteria Box - Updated BOM
	04	- BOM correction
DCN-145	05	- Delete R1-R8 from BOM and add note to not populate



	INSPECTION CRITERIA			BY	DATE			•			
	YES NO		DRAWN								
		INSPECTION REQUIRED	Х		K. Kowalski 07-18-202		122				
	YES NO		CHECKED			\blacksquare	SYNAPSF	Diam	edical Inc.		
	CERTIFICATE REQUIRED X		T. Crish	07-18-2022	DOCUMENT NAME		TNAME	DIOIN	edicai inc.		
Insp	p. Item										
	Α	Inspect to current 51-2001-08 Inspect	ion Proce	edure			NNP Power Module (PM1)				
	В	REF 51-2001-09 Inspect report			MATERIAL PCB Assembly Draw			ıg			
	C RoHS Certificate required D E		N/A FINISH N/A		SIZE DOCUMENT NO. 51-2001			REV			
								5			
					SCALE:	N/A	NEXT ASSY N/A	SHEE	T 1 OF 6		

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Item	Designator	SBI	Description	Manufacturer	Manufacturer Part Number	Suggested Supplier	Suggested Supplier Part Number
1	Ref.	51-2001-01_4	Module (PM1) PCB Schematic Drawing 51-2001-1_03	N/A	N/A	N/A	N/A
2	Ref.	52-2001_04	NNP Power Module PCB, Unpopulated 52-2001_04	See note #1.	N/A	See Note #1	N/A
3	Ref.	51-2001-07_01	NNP Power Module Pick and Place 51-2001-07_01	N/A	N/A	N/A	N/A
4	C1, C3, C4, C6, C7, C9, C10, C11, C12, C14, C15, C16, C18, C19, C20, C24, C26, C28, C33, C34, C35, C37, C59, C63, C64, C65, C67, C68, C72, C73, C74, C75, C76, C80, C81, C82, C83, C84, C85, C86, C88, C89, C90, C93, C94, C95, C96, C97, C98, C99, C100, C101	53-0040-1	0.1uF, 16V, X7R, 0402, RoHS	Murata Electronics Northh	GRM155R71C104KA88D	Digi-Key	490-3261-6-ND
5	C13, C17	53-0077	4.7uF, 25V, X5R, 10%, 0805, RoHS	Murata Electronics North America	GRM21BR61E475KA12L	Digi-Key	490-3335-6-ND
6	C2, C5, C21, C22, C62, C71, C79	53-0041-2	1000pF, 50V, C0G, 5%, 0402, RoHS	Murata Electronics North America	GRM1555C1H102JA01D	Digi-Key	490-3244-6-ND
7	C23, C66	53-0078	1.0uF, 6.3V, X5R, 20%, 0402, RoHS	Murata Electronics North America	GRM152R60J105ME15D	Digi-Key	490-10006-6-ND
8	C27	53-0041-4	220pF, 50V, C0G 5%, 0402, RoHS	Kemet	C0402C221J5GACTU	Digi-Key	399-7776-6-ND
9	C29	53-0092	1.0pF, 50V, C0G, 25%, 0402, RoHS	Murata Electronics North America	GRM1555C1H1R0CA01D	Digi-Key	490-3199-6-ND
10	C30	53-0044-1	5.6pF, 50V, C0G, 10%, 0402, RoHS	Murata Electronics North America	GRM1555C1H5R6DA01D	Digi-Key	490-5946-1-ND
11	C31	53-0041-5	8.2pF, 50V, C0G, 5%, 0402, RoHS	Kemet	C0402C829J5GACTU	Digi-Key	399-10038-6-ND
12	C32	53-0044-2	3.9pF, 50V, C0G, 10%, 0402, RoHS	Murata Electronics North America	GRM1555C1H3R9CA01D	Digi-Key	490-5940-6-ND
13	C36	53-0041-1	68pF, 50V, C0G, 0402, 5%, RoHS	Murata Electronics North America	GRM1555C1H680JA01D	Digi-Key	490-5876-6-ND
14	C38, C39	53-0041-6	15pF, 50V, C0G, 5%, 0402, RoHS	Murata Electronics North America	GRM1555C1H150JA01D	Digi-Key	490-5888-6-ND
15	C40, C41, C42, C56		CAP CER 10UF 50V X5R 1206, RoHS	Murata Electronics North America	GRT31CR61H106KE01L	Digi-Key	490-12456-1-ND
16	C43	53-0070	0.15uF, 16V, X7R, 10%, 0603, RoHS	Murata Electronics North America	GRM188R71C154KA01D	Digi-Key	490-3292-6-ND
17	C44	53-0080	100uF, 10V, X5R, 20%, 1210, RoHS	Murata Electronics North America	GRM32ER61A107ME20L	Digi-Key	490-9969-6-ND
18	C45, C57	53-0041-7	10pF, 50V, C0G, 5%, 0402, RoHS	Murata Electronics North America	GRM1555C1H100JA01D	Digi-Key	490-5921-6-ND
19	C47	53-0081	10uF, 16V, X5R, 10%, 0805, RoHS	Murata Electronics North America	GRM21BR61C106KE15L	Digi-Key	490-3886-6-ND
20	C48	53-0082	22uF, 6.3V, X5R, 20%, 0805,RoHS	Murata Electronics North America	GRM219R60J226ME47D	Digi-Key	490-9950-6-ND
21	C50	53-0083	1500pF, 50V, X7R, 10%, 0402, RoHS	Murata Electronics North America	GRM155R71H152KA01D	Digi-Key	490-3245-6-ND
22	C53	53-0039	10uF, 6.3V, X5R, 0603_20%, RoHS	Murata Electronics North America	GRM188R60J106ME47J	Digi-Key	490-6405-6-ND
12	C58	53-0072	4700pF, 50V,C0G, 0402, 10%, RoHS	Murata Electronics North America	GRM155R71H472KA01D	Digi-Key	490-1308-6-ND
24	C8, C46, C49, C51, C52, C54, C55, C60, C61, C69, C70, C77, C78	53-0076	4.7uF, 10V, X5R, 10%, 0603, RoHS	Murata Electronics North America	GRM185R61A475KE11D	Digi-Key	490-11988-6-ND
25	C87, C91	53-0041-8	39pF, 50V, C0G, 5%, 0402, RoHS	Murata Electronics North America	GRM1555C1H390JA01D	Digi-Key	490-5871-6-ND
						CHECKED	DATE 07-18-2022 O7-18-2022 DOCUMENT NAME NNP Power Module (PM1)

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DOCUMENT NAME

NNP Power Module (PM1)
PCB Assembly Drawing

SIZE DOCUMENT NO.
B

51-2001

SCALE: N/A

N/A

SHEET 2 OF 6

lt€	tem	Designator	SBI	Description	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number
	26	C92	53-0085	0.1uF, 50V, X7R, 10%, 0603, RoHS	Murata Electronics North America	GRM188R71H104KA93D	Digi-Key	490-1519-6-ND
	27	D1, D2, D3, D4, D6, D7, D9	54-0084	Schottky Diode, 40V, 500mA, SOD123, RoHS	Micro Commercial Co	MBR0540-TP	Digi-Key	MBR0540TPMSDKR-ND
	28	D10	54-0112	Schottky Diode, 20V, 1000mA, SOD123W, RoHS	NXP Semiconductors	PMEG2010BER,115	Digi-Key	568-6503-6-ND
	29	D5, D8	54-0111	Zener Diode, 15V, 1W, DI123, RoHS	Diodes Incorporated	DFLZ15Q-7	Digi-Key	DFLZ15Q-7DIDKR-ND
		F1, F2, F3, F4		PTC Resettable, 500mA, 0.4 ohm, 6V, 1206, RoHS		1206L050YR	Digi-Key	F2112DKR-ND
	31	FB1, FB2, FB3, FB4, FB5	54-0114	Ferrite, 100mA, 10hm, 0402, RoHS	Laird-Signal Integrity Products	HZ0402A601R-10	Digi-Key	240-2364-1-ND
	32	L1	53-0094	Ferrite, 250mA, 1.1ohm, 0402, RoHS	Murata Electronics North America	BLM15HG102SN1D	Digi-Key	490-3999-6-ND
	33	L2	53-0089-4	47nF, 0402, 5%, RoHS	Coilcraft	0402CS-47NXJLU	MOUSER	994-0402CS-47NXJLU
	34	L3	53-0089-3	33nH, 0402, 5%, RoHS	Coilcraft	0402CS-33NXJLU	MOUSER	994-0402CS-33NXJLU
	35	L4	53-0089-2	27nH, 0402, 5%, RoHS	Coilcraft	0402CS-27NXJLW	MOUSER	994-0402CS-27NXJLW
	36	L5	53-0089-1	18nH, 0402, 5%, RoHS	Coilcraft	0402CS-18NXJLU	MOUSER	994-0402CS-18NXJLU
	37	L6	53-0090	47uH, 830mA, 20%, RoHS	Pulse	P1166.473NLT	MOUSER	673-P1166.473TNLT
	38	L7	54-0115	10uH, 1.6A, 20%, 3030, RoHS	Pulse	P1166.103NLT	Digi-Key	553-1790-6-ND
	39	L8	54-0116	10uH, 1.1A, 2626, 20%, RoHS	Panasonic Electronic Components	ELL-6RH100M	Digi-Key	PCD1345DKR-ND
	40	L9	54-0117	2.7uH, 1.8A, 2626, 20%, RoHS	Panasonic Electronic Components	ELL-6RH2R7M	Digi-Key	PCD1339DKR-ND
	41	LED1	53-0035	LED, Red, 0402, 20mA ,2V, 140mcd, RoHS	Lumex Opto/Components Inc.	SML-LX0402SIC-TR	Digi-Key	67-1878-6-ND
	42	R17, R27, R101	53-0048	0.0 ohm, 1/16W, 0402, RoHS	Vishay Dale	CRCW04020000Z0ED	Digi-Key	541-0.0JDKR-ND
	43	R10	53-0049-22	7.5k ohm, 0.1%, 1/16W, 0402, RoHS	Vishay Dale	TNPW04027K50BEED	Digi-Key	TNP7.50KDADKR-ND
	44	R100, R104	53-0088	0.0 ohm, 1/8W, 0805, RoHS	Vishay Dale	CRCW08050000Z0EA	Digi-Key	541-0.0ADKR-ND
	45	R102	53-0049-35	38.3k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW040238K3FKED	Digi-Key	541-38.3KLDKR-ND
		R11, R13, R16, R18, R19, R20, R21, R22, R24, R29, R31, R32, R37, R39, R45, R46, R47, R48, R49, R50	53-0075	0.0 ohm, 1/16W, 0603, RoHS	Vishay Dale	CRCW06030000Z0EA	Digi-Key	541-0.0GDKR-ND
3	47	R14		3.0k ohm, 1/5W, 1%, 0402, RoHS	Vishay Dale	CRCW04023K00FKEDHP	Digi-Key	541-CRCW04023K00FKEDHPCT-ND
	48	R118	53-0049-36	549k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW0402549KFKED	Digi-Key	541-549KLDKR-ND
	49	R125	53-0049-11	150k ohm, 1%, 1/16W, smd, 0402, RoHS	Vishay Dale	CRCW0402150KFKED	Digi-Key	541-150KLDKR-ND
		R15, R60, R61, R65, R68, R77, R78, R81, R83, R92, R93, R96, R98	53-0049-4	1.0k ohm 1% 1/16W smd 0402 RoHS	Vishay Dale	CRCW04021K00FKED	Digi-Key	541-1.00KLDKR-ND
	51	R23	53-0023-03	20 ohm, 1%, 1/8W, 0805, RoHS	Vishay Dale	CRCW080520R0FKEA	Digi-Key	541-20.0CDKR-ND
	52	R25	53-0084	100k ohm, 0.1%, 1/8W, 0805, RoHS	Vishay Dale	TNPW0805100KBEEA	Digi-Key	TNP100KABDKR-ND

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					NNP Power Modul	le (PM	11)		
N	MATERIAL			PCB Assembly Drawing					
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	Item	Designator	SBI	Description	Manufacturer	Manufacturer Part Num	per	Supplier	Supplier Part Number
	53	R26	53-0086	750 ohm, 0.1%, 1/8W, 0805, RoHS	Susumu	RG2012P-751-B-T5		Digi-Key	RG20P750BDKR-ND
	54	R28	53-0049-23	56k ohm, 1%, 1/16 W, 0402, RoHS	Vishay Dale	CRCW040256K0FKED		Digi-Key	541-56.0KLDKR-ND
	55	R34, R62, R79, R94	53-0095	1M ohm, 1/16W, 1%, 0402, RoHS	Vishay Dale	CRCW04021M00FKED		Digi-Key	541-1.00MLDKR-ND
	56	R35	53-0049-24	5.1K ohm, 1%, 1/16W, smd, 0402, RoHS	Vishay Dale	CRCW04025K10FKED		Digi-Key	541-5.10KLDKR-ND
1	57	R36, R54, R71, R86	53-0049-25	374k ohm, 1%, 1/16W, 0402,RoHS	Vishay Dale	CRCW0402374KFKED		Digi-Key	541-374KLDKR-ND
	58	R51		470k ohm, 1%, 1/5W, 0402, RoHS	Vishay Dale	CRCW0402470KFKEDI	-IP	Digi-Key	541-470KYCT-ND
	59	R38, R67, R82, R97	53-0087	0.02 ohm, 1%, 1/10W, 0603, RoHS	Vishay Dale	WSL0603R0200FEA		Digi-Key	WSLJ02DKR-ND
	60	R40	53-0049-26	340k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW0402340KFKED		Digi-Key	541-340KLDKR-ND
	61	R41	53-0049-27	15.0k ohm, 1%, 1/16W, smd, 0402, RoHS	Vishay Dale	CRCW040215K0FKED		Digi-Key	541-15.0KLDKR-ND
	62	R42, R126	53-0049-28	200k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW0402200KFKED		Digi-Key	541-200KLDKR-ND
	63	R43	53-0049-29	60.4k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW040260K4FKED		Digi-Key	541-60.4KLDKR-ND
	64	R44	53-0049-30	24.9k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW040224K9FKED		Digi-Key	541-24.9KLDKR-ND
	65	R52		69.8k, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW040269K8FKTD		Digi-Key	541- CRCW040269K8FKTDCT- ND
;	66	R53, R55, R57, R66, R69, R70, R72, R74, R84, R85, R87, R89, R99, R105, R112, R113, R114, R115, R117, R122	53-0049-7	100k ohm, 1%, 1/16W, smd, 0402, RoHS	Vishay Dale	CRCW0402100KFKED		Digi-Key	541-100KLDKR-ND
	67	R56, R73, R88	53-0049-32	1.0 ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW04021R00FNED		Digi-Key	541-1.00LLCT-ND
	68	R58, R75, R90	53-0049-33	113k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW0402113KFKED		Digi-Key	541-113KLDKR-ND
	69	R59, R76, R91, R103, R108, R109, R110, R111, R116	53-0049-8	10.0k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	6CRCW040210K0FKED	Onb	Digi-Key	541-10.0KLDKR-ND
	70	R106, R107		1.5k ohm, 1%, 1/5W, 0402, RoHS	Vishay Dale	CRCW04021K50FKEDI	HP	Digi-Key	541-1.50KYCT-ND
	71	R63, R80, R95, R119, R120, R121, R123, R124, R127, R128, R129	53-0049-2	49.9k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW040249K9FKED		Digi-Key	541-49.9KLDKR-ND
	72	R64	53-0049-34	232k, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW0402232KFKED0	<u> </u>	Digi-Key	541-4084-6-ND
	73	R9, R33	53-0049-21	30k ohm, 1%, 1/16W, 0402, RoHS	Vishay Dale	CRCW040230K0FKED		Digi-Key	541-30.0KLDKR-ND
	74	RV1	53-0091	Thermistor, 10k, radial, NTC, RoHS	Amphenol Advanced Sensors	MA100BF103A		MOUSER	527-MA100BF103A
	75	SW1	54-0085	Reed SW, RoHS	Coto Technology	CT05-1535-J1		Digi-Key	306-1151-6-ND
	76	U1	54-0086	ADC, 16bit, I2C, SOT23-6, RoHS	Texas Instruments	ADS1110A0IDBVT		Digi-Key	296-14461-6-ND
	77	U11	54-0093	Comparator, 2.7-5.5V, 40ns, SC70-5, RoHS	Maxim Integrated	MAX9140EXK+T		Digi-Key	MAX9140EXK+TDKR-ND
	78	U12	54-0094	Ultra high speed Inverter, SC70-5, RoHS	Fairchild Semiconductor	NC7SZ14P5X		Digi-Key	NC7SZ14P5XDKR-ND
	79	U14	54-0095	Low-Power Sub-1 GHz RF Transceiver, QFN20, RoHS	Texas Instruments	CC1101RGPR		Digi-Key	296-35718-6-ND
	80	U15	54-0096	DC buck, 3.6-36V, 600mA, TSOT23-6, RoHS	Linear Technology	LT1933ES6#TRMPBF		Digi-Key	LT1933ES6#TRMPBFDKR-ND
	81	U16	54-0097	Buck Boost DC/DC, 600mA, DFN, RoHS	Linear Technology	LTC3440EDD#PBF		Digi-Key	LTC3440EDD#PBF-ND
							BY DRAWN K. Kowalski	DATE 07-18-2022	,
							CHECKED T. Crish	07-18-2022 DOCUME	
							MATERIAL NA		NNP Power Module (PM1) PCB Assembly Drawing

MATERIAL N/A PCB Assembly Drawing REV 5 SIZE DOCUMENT NO. 51-2001 FINISH N/A SCALE: N/A NEXT ASSY N/A SHEET 4 OF 6

Designation Sell Designation Sell Description Manufacturer Manufacturer Part Number Supplier								
83 U18 S4-0079 Vollage inverter, 1.16-5.5V, 50mA, SOT23-6, RoHS	Item	Designator	SBI	Description	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number
RoHS	82	U17, U26, U34, U42	54-0052	Current Monitor, 2.5V-20V, 1%, RoHS	Diodes Incorporated	ZXCT1010E5TA	Digi-Key	ZXCT1010DKR-ND
RoHS RoHS MAX6018AEUR21+T Digi-Key MAX6018AEUR21+TDKR-ND 85 U.2 U13 54-0087 Ref. 2.048V, 5uA, SOT23-3. RoHS Maxim Integrated MAX6018AEUR21+T Digi-Key LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBFDKR-ND 80 U22, U30, U38 54-0101 Ideal diode, 2.6-5-5V, 2.6A, SOT23-5, RoHS Linear Technology LTC4411ES5#TRMPBF Digi-Key LTC4411ES5#TRMPBFDKR-ND 80 U23, U39, U31, U37, U39, S-0102 54-0102 MOSFET ZN, 60V, 0.305A, RoHS Vishay Siliconix SI1026X-T1-GE3 Digi-Key LTC4411ES5#TRMPBFDKR-ND 91 U24, U32, U40 54-0103 Dual P-Channel Mosfet, SOT563, RoHS Vishay Siliconix SI1023X-T1-GE3 Digi-Key SI1023X-T1-GE3CT-ND 91 U25, U33, U41 54-0104 VLDD, 150mA, SOT23-5, RoHS Linear Technology LTC1444ES5-SDBTRMPBF Digi-Key SI1023X-T1-GE3CT-ND 92 U28, U33, U34 54-0104 VLDD, 150mA, SOT23-5, RoHS Linear Technology LTC6184ESS-SDBTRMP	83	U18	54-0079		ON Semiconductor	NCP1729SN35T1G	Digi-Key	NCP1729SN35T1GOSDKR-ND
B8 U20 S4-0099 DC, Booster, 2.4-16V, TSOT23 Linear Technology LT3467AES6#TRMPBF Digi-Key LT3467AES6#TRMPBFDKR-ND DIGPOT, 100Kohm, IZC, SC70 Analog Devices Inc. AD5246BKS2100-RL7 Digi-Key AD5246BKS2100-RLDKR-ND Digi-Key AD5246BKS2100-RLDKR-ND Digi-Key AD5246BKS2100-RLDKR-ND Digi-Key Digi-Key AD5246BKS2100-RLDKR-ND Digi-Key Digi-Key LT0411ES5#TRMPBFDKR-ND Digi-Key LT0411ES5#TRMPBFDKR-ND Digi-Key	84	U19	54-0098		Texas Instruments	LM3670MF-1.8/NOPB	Digi-Key	LM3670MF-1.8/NOPBDKR-ND
87 U21 S4-0100 DIGPOT, 10Kohm, 12C, SC70 Analog Devices Inc. AD5246BKS2100-RL7 Digi-Key AD5246BKSZ100RLDKR-ND 88 U22, U30, U38 S4-0101 Ideal diode, 2.6-5.5V, 2.6A, SOT23-5, RoHS Linear Technology LTC4411ES5#TRMPBF Digi-Key LTC4411ES5#TRMPBFDKR-ND 99 U23, U29, U31, U37, U39, 44-0102 MOSFET 2N, 60V, 0.305A, RoHS Vishay Siliconix S11026X-T1-GE3 Digi-Key S11026X-T1-GE3CT-ND 90 U24, U32, U40 S4-0103 Dual P-Channel Mosfet, SOT663, RoHS Vishay Siliconix S11023X-T1-GE3 Digi-Key S11023X-T1-GE3CT-ND 91 U25, U33, U41 S4-0104 VLDO, 150mA, SOT23-5, ROHS Linear Technology LTC1844ES5-SD#TRMPBF Digi-Key LT	85	U2, U13	54-0087	Ref, 2.048V, 5uA, SOT23-3, RoHS	Maxim Integrated	MAX6018AEUR21+T	Digi-Key	MAX6018AEUR21+TDKR-ND
88 U22, U30, U38 S4-0101 Ideal diode, 2.6-5.5V, 2.6A, SOT23-5, ROHS Linear Technology LTC4411ES\$#TRMPBF Digi-Key LTC4411ES\$#TRMPBFDKR-ND 90 U24, U32, U40 S4-0103 Dual P-Channel Mosfet, SOT563, RoHS Vishay Siliconix S11026X-T1-GE3 Digi-Key S11026X-T1-GE3CT-ND 91 U24, U32, U40 S4-0103 Dual P-Channel Mosfet, SOT563, RoHS Linear Technology LTC1844ES\$-SD#TRMPBF Digi-Key LTC184ES\$-SD#TRMPBF Digi-Key LTC	86	U20	54-0099	DC, Booster, 2.4-16V, TSOT23	Linear Technology	LT3467AES6#TRMPBF	Digi-Key	LT3467AES6#TRMPBFDKR-ND
89 U33 U29, U31, U37, U39, U45 MOSFET 2N, 60V, 0.305A, RoHS Vishay Siliconix SI1026X-T1-GE3 Digi-Key SI1026X-T1-GE3CT-ND	87	U21	54-0100	DIGPOT, 100Kohm, I2C, SC70	Analog Devices Inc.	AD5246BKSZ100-RL7	Digi-Key	AD5246BKSZ100RLDKR-ND
U45	88	U22, U30, U38	54-0101	Ideal diode, 2.6-5.5V, 2.6A, SOT23-5, RoHS	Linear Technology	LTC4411ES5#TRMPBF	Digi-Key	LTC4411ES5#TRMPBFDKR-ND
91 U25, U33, U41 54-0104 VLDO, 150mA, SOT23-5, RoHS Linear Technology LTC1844ES5-SD#TRMPBF Digi-Key LTC1844ES5-SD#TRMPBF Digi-Key LTC1844ES5-SD#TRMPBFDKR-ND 89 U27, U35, U43 54-0105 Op Amp, R-R, 1uA, RoHS Linear Technology LT6003CDC#TRMPBF Digi-Key LT6003CDC#TRMPBFDKR-ND 92 U28, U36, U44 54-0106 LI-ION Gas Guage, I2C, QFN10, RoHS Texas Instruments BQ27200DRKR Digi-Key 296-17521-6-ND 93 U3 54-0088 Flash, 32Mbit, SPI, SO8 Adesto Technologies AT45DB321E-SHF-T Digi-Key 1265-1097-6-ND 94 U4 54-0089 RAM, 256Kbit, SPI, TSSOP8, ROHS MicroChip Technology 23K256T-I/ST Digi-Key 23K256T-I/STDKR-ND 95 U46 54-0107 UC 1.8Voore 3.3VIO 16kB RAM 256kB FLA QFP NXP Semiconductors LPC2129FBD64/01,15 Digi-Key 296-13407-6-ND 96 U47 54-0060 Voltage detector Reset, SC70-5, ROHS Texas Instruments TPS3805H33DCKR Digi-Key 296-13407-6-ND 98 U5 54-0108 Analog Switch, DUAL, 2-Channel, SSO	89		54-0102	MOSFET 2N, 60V, 0.305A, RoHS	Vishay Siliconix	SI1026X-T1-GE3	Digi-Key	SI1026X-T1-GE3CT-ND
89 U27, U35, U43 54-0105 Op Amp, R-R, 1uA, RoHS Linear Technology LT6003CDC#TRMPBF Digi-Key LT6003CDC#TRMPBFDKR-ND 92 U28, U36, U44 54-0106 LI-ION Gas Guage, I2C, QFN10, RoHS Texas Instruments BQ27200DRKR Digi-Key 296-17521-6-ND 93 U3 54-0088 Flash, 32Mbit, SPI, SO8 Adesto Technologies AT45DB321E-SHF-T Digi-Key 1265-1097-6-ND 94 U4 54-0089 RAM, 256Kbit, SPI, TSSOP8, RoHS MicroChip Technology 23K256T-I/ST Digi-Key 23K256T-I/STDKR-ND 95 U46 54-0107 uC1.8Vcore 3.3VIO 16kB RAM 256kB FLA QFP NXP Semiconductors LPC2129FBD64/01,15 Digi-Key 2368-4315-ND 96 U47 54-0060 Voltage detector Reset, SC70-5, RoHS Texas Instruments TPS3805H33DCKR Digi-Key 296-13407-6-ND 97 U48, U49, U50 54-0108 Analog Switch, DUAL, 2-Channel, SSOP8, RoHS Texas Instruments TS5A23166DCUR Digi-Key 296-17906-6-ND 99 U6 54-0074 Tri-axis accelerometer, I2C, LGA10, RoHS Kionix KXTE9	90	U24, U32, U40	54-0103	Dual P-Channel Mosfet, SOT563, RoHS	Vishay Siliconix	SI1023X-T1-GE3	Digi-Key	SI1023X-T1-GE3CT-ND
92 U28, U36, U44 54-0106 LHON Gas Guage, I2C, QFN10, RoHS Texas Instruments BQ27200DRKR Digi-Key 296-17521-6-ND 93 U3 54-0088 Flash, 32Mbit, SPI, SO8 Adesto Technologies AT45DB321E-SHF-T Digi-Key 1265-1097-6-ND 94 U4 54-0089 RAM, 256Kbit, SPI, TSSOP8, RoHS MicroChip Technology 23K256T-I/ST Digi-Key 23K256T-I/STDKR-ND 95 U46 54-0107 uC 1.8Vcore 3.3VIO 16kB RAM 256kB FLA QFP NXP Semiconductors QFP LPC2129FBD64/01,15 Digi-Key 2368-4315-ND 96 U47 54-0060 Voltage detector Reset, SC70-5, RoHS Texas Instruments TPS3805H33DCKR Digi-Key 296-13407-6-ND 97 U48, U49, U50 54-0108 Analog Switch, DUAL, 2-Channel, SSOP8, RoHS Texas Instruments TS5A23166DCUR Digi-Key 296-17906-6-ND 98 U5 54-0074 Tri-axis accelerometer, I2C, LGA10, RoHS Kionix KXTE9-2050 MOUSER 912-KXTE9-2050 99 U6 54-0090 Precision μPower Oscillator, ADJ 1.7-5-5V,5MHz, USOP8, RoHS Linear Technology	91	U25, U33, U41	54-0104	VLDO, 150mA, SOT23-5, RoHS	Linear Technology	LTC1844ES5-SD#TRMPBF	Digi-Key	LTC1844ES5-SD#TRMPBFDKR-ND
93 U3 54-0088 Flash, 32Mbit, SPI, SO8 Adesto Technologies AT45DB321E-SHF-T Digi-Key 1265-1097-6-ND 94 U4 54-0089 RAM, 256Kbit, SPI, TSSOP8, RoHS MicroChip Technology 23K256T-I/ST Digi-Key 23K256T-I/STDKR-ND 95 U46 54-0107 UC 1.8Vcore 3.3VIO 16kB RAM 256kB FLA NXP Semiconductors LPC2129FBD64/01,15 Digi-Key 568-4315-ND 96 U47 54-0060 Voltage detector Reset, SC70-5, RoHS Texas Instruments TPS3805H33DCKR Digi-Key 296-13407-6-ND 97 U48, U49, U50 54-0108 Analog Switch, DUAL, 2-Channel, SSOP8, ROHS Texas Instruments TS5A23166DCUR Digi-key 296-17906-6-ND 98 U5 54-0074 Tri-axis accelerometer, I2C, LGA10, RoHS Kionix KXTE9-2050 MOUSER 912-KXTE9-2050 99 U6 54-0090 Precision µPower Oscillator, ADJ 1.7-5.5V,5MHz, uSOP8, RoHS Linear Technology LTC6930IMS8-5.00#PBF Digi-Key LTC6930IMS8-5.00#PBF-ND 100 U7 54-0091 CPLD, 3.3V, 10nS, XPLA3, QFP48, RoHS Intersil EL7156CSZ Digi-Key EL7156CSZ-T7DKR-ND 101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, RoHS Intersil EL7156CSZ Digi-Key 644-1063-6-ND 102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND 206 23K256T-I/ST Digi-Key Digi-Key Digi-Key Digi-Key C44-1063-6-ND 207 23K256T-I/ST Digi-Key Digi-K	89	U27, U35, U43	54-0105	Op Amp, R-R, 1uA, RoHS	Linear Technology	LT6003CDC#TRMPBF	Digi-Key	LT6003CDC#TRMPBFDKR-ND
94 U4 54-0089 RAM, 256Kbit, SPI, TSSOP8, RoHS MicroChip Technology 23K256T-I/ST Digi-Key 23K256T-I/STDKR-ND 95 U46 54-0107 uC 1.8Vcore 3.3VIO 16kB RAM 256kB FLA QFP NXP Semiconductors LPC2129FBD64/01,15 Digi-Key 568-4315-ND 96 U47 54-0060 Voltage detector Reset, SC70-5, RoHS Texas Instruments TPS3805H33DCKR Digi-Key 296-13407-6-ND 97 U48, U49, U50 54-0108 Analog Switch, DUAL, 2-Channel, SSOP8, RoHS Texas Instruments TS5A23166DCUR Digi-Key 296-17906-6-ND 98 U5 54-0074 Tri-axis accelerometer, I2C, LGA10, RoHS Kionix KXTE9-2050 MOUSER 912-KXTE9-2050 99 U6 54-0090 Precision μPower Oscillator, ADJ 1.7-5.5V,5MHz, uSOP8, RoHS Linear Technology LTC6930IMS8-5.00#PBF Digi-Key LTC6930IMS8-5.00#PBF-ND 100 U7 54-0091 CPLD, 3.3V, 10nS, XPLA3, QFP48, ROHS Xilinx Inc. XCR3032XL-10VQG44C Digi-Key 122-1957-ND 101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, ROHS Inters	92	U28, U36, U44	54-0106	LI-ION Gas Guage, I2C, QFN10, RoHS	Texas Instruments	BQ27200DRKR	Digi-Key	296-17521-6-ND
95 U46 54-0107	93	U3	54-0088	Flash, 32Mbit, SPI, SO8	Adesto Technologies	AT45DB321E-SHF-T	Digi-Key	1265-1097-6-ND
QFP Voltage detector Reset, SC70-5, RoHS Texas Instruments TPS3805H33DCKR Digi-Key 296-13407-6-ND	94	U4	54-0089	RAM, 256Kbit, SPI, TSSOP8, RoHS	MicroChip Technology	23K256T-I/ST	Digi-Key	23K256T-I/STDKR-ND
97 U48, U49, U50 54-0108 Analog Switch, DUAL, 2-Channel, SSOP8, RoHS 98 U5 54-0074 Tri-axis accelerometer, I2C, LGA10, RoHS Kionix KXTE9-2050 MOUSER 912-KXTE9-2050 99 U6 54-0090 Precision μPower Oscillator, ADJ 1.7-5.5V,5MHz, uSOP8, RoHS 100 U7 54-0091 CPLD, 3.3V, 10nS, XPLA3, QFP48, RoHS Xilinx Inc. XCR3032XL-10VQG44C Digi-Key 122-1957-ND 101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, RoHS Intersil EL7156CSZ Digi-Key 644-1063-6-ND 102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND	95	U46	54-0107		NXP Semiconductors	LPC2129FBD64/01,15	Digi-Key	568-4315-ND
98 U5 54-0074 Tri-axis accelerometer, I2C, LGA10, RoHS Kionix KXTE9-2050 MOUSER 912-KXTE9-2050 99 U6 54-0090 Precision μPower Oscillator, ADJ 1.7-5.5V,5MHz, uSOP8, RoHS Linear Technology LTC6930IMS8-5.00#PBF Digi-Key LTC6930IMS8-5.00#PBF-ND 100 U7 54-0091 CPLD, 3.3V, 10nS, XPLA3, QFP48, RoHS Xilinx Inc. XCR3032XL-10VQG44C Digi-Key 122-1957-ND 101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, RoHS Intersil EL7156CSZ Digi-Key EL7156CSZ-T7DKR-ND 102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND	96	U47	54-0060	Voltage detector Reset, SC70-5, RoHS	Texas Instruments	TPS3805H33DCKR	Digi-Key	296-13407-6-ND
99 U6 54-0090 Precision μPower Oscillator, ADJ 1.7-5.5V,5MHz, uSOP8, RoHS Linear Technology LTC6930IMS8-5.00#PBF Digi-Key LTC6930IMS8-5.00#PBF-ND 1.7-5.5V,5MHz, uSOP8, RoHS Xilinx Inc. XCR3032XL-10VQG44C Digi-Key 122-1957-ND 101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, RoHS Intersil EL7156CSZ Digi-Key EL7156CSZ-T7DKR-ND 102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND	97	U48, U49, U50	54-0108		Texas Instruments	TS5A23166DCUR	Digi-key	296-17906-6-ND
100 U7 54-0091 CPLD, 3.3V, 10nS, XPLA3, QFP48, RoHS Xilinx Inc. XCR3032XL-10VQG44C Digi-Key 122-1957-ND 101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, RoHS Intersil EL7156CSZ Digi-Key EL7156CSZ-T7DKR-ND 102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND	98	U5	54-0074	Tri-axis accelerometer, I2C, LGA10, RoHS	Kionix	KXTE9-2050	MOUSER	912-KXTE9-2050
101 U8, U9, U10 54-0092 Pin driver, 15nS, 40 MHz, SO8, RoHS Intersil EL7156CSZ Digi-Key EL7156CSZ-T7DKR-ND 102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND	99	U6	54-0090		Linear Technology	LTC6930IMS8-5.00#PBF	Digi-Key	LTC6930IMS8-5.00#PBF-ND
102 Y1 54-0109 Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS NDK NX2520SA-26.000000MHZ Digi-Key 644-1063-6-ND	100	U7	54-0091	CPLD, 3.3V, 10nS, XPLA3, QFP48, RoHS	Xilinx Inc.	XCR3032XL-10VQG44C	Digi-Key	122-1957-ND
	101	U8, U9, U10	54-0092	Pin driver, 15nS, 40 MHz, SO8, RoHS	Intersil	EL7156CSZ	Digi-Key	EL7156CSZ-T7DKR-ND
103 Y2 54-0110 Crystal 10MHz 20pF HC-49US ECS Inc. ECS-100-20-30B-TR Digi-Key XC1117DKR-ND	102	Y1	54-0109	Xtal, 26MHz, 2.5x2.0x0.7mm, RoHS	NDK	NX2520SA-26.000000MHZ	Digi-Key	644-1063-6-ND
	103	Y2	54-0110	Crystal 10MHz 20pF HC-49US	ECS Inc.	ECS-100-20-30B-TR	Digi-Key	XC1117DKR-ND

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