-ij	TEXAS INSTRUMENTS
4	IEXAS INSTRUMENTS

tom #	Designator IPCB1 12V Supply.	Quantity 1 9	Value	COCCER EDSSS/2DS	Manufacturer Any On-Shore Technology	Description Printed Circuit Board Terminal Block, 3.5mm Pitch, 2r1, TH	7.0x8.2x6.5mm
	12V Supply, Batt_1, Batt_2, Batt_3, Batt_4, Batt_5, Batt_6, Batt_7, Batt_8 Batt, Charger,						
3	Batt, 7, Batt, 8 Batt, Charger,	3		ED120/2D6	On-Shore Technology	Terminal Block, 5.06 mm, 2x1, Brass, TH	2x1 5.08 mm Ten
4	Load Balt_, Charger_, GND, GND_,	6		575-8	Keystone	Standard Barsana Jack, Uninsulated, 8.9mm	Block Keystone575-8
	GND, GND_, Load_, LOAD_GND						
5	LOAD GND C1, C7	2	tor	CDB05C105KBRACTU ECPU1C104MAS	Kernet	CAP, CERM, 1 uF, 10 V, +/- 10%, X7R, 0805 CAP, Flim, 0.1 uF, 16 V, +/- 20%, 0805 SMD	0805
7	C2, C6, C8	1	tuff	CGASE SOTRECTOSKOBOAC 08055A102FATZA	Panasonic TDK	CAP, Film, 0.1 uf., 16 V, 44-20%, 0805 SMD CAP, CERM, 1 uf., 16 V, 44-10%, X/R, AEC-Q200 Grade 1, 0603 CAP, CERM, 1000 pf., 50 V, 44-1%, COGNPO, 0805	0603
3	C10, C14, C20,	4	1000p# 10µ#	GMC31X7R106K50NT	Cal-Chip Electronics	10 µF ±10% 50V Ceramic Capacitor X7R 1205 (3216 Metric)	1205
10	C11, C15, C17, C25, C26, C33,	7	0.1uF	C0603C104KSRACTU	Kernet	CAP, CERM, 0.1 uF, 50 V; +/- 10%, X7R, 0603	0603
11	C114	2	100×F	09039030414724	KYOCERA AVX	D 1 of a5% 50/ Caramir Conscion X79 0503 (1505 Malor)	0503
12	C12, C13 C16, C34, C79, C128	4	100nF	GRM31CR71E106MA12L	MuRata	0.1 µF ±5% 50V Ceramic Capacitor X7R 0503 (1608 Metric) CAP, CERM, 10 µF, 25 V,+/- 20%, X7R, AEC-Q200 Grade 1, 1205	1206
13	C128 C18	1			Murata	Chip Capacitor, 1 uF, +/- 10%, 100 V, -55 to 125 degC, 1210 (3225 Metric), RoHS, Tape and Reel GRM32ER72A105K401L	
15	C19, C27 C21, C23	2	100F 150pF	GRM32DR71E106KA12L T521D157M020ATE050	MuRata Kernet	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 1210 150 of Modest Testalon Polymer Connector 20V 2017 (7M3 Metric)	1210 2917
16	C24	1	tur.	293D 105X9050C2TE3	Vishay-Scraous	SOmOhm @ 100kHz CAP, TA, 1 uF, 50 V, +/- 10%, 4.6 ohm, SMD	6032-26
17	C28, C29, C126 C30, C31, C32, C122, C123	5	0.tuF	CGA6P3X751H106K250AB 08055C104KAT2A	TDK	CAP, CERM, 10 uF, 50 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210 CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0805	1210
19	C122, C123 C35, C36	2	1pF	CC0805CRNP098N1R0 CCM21R971H104KA37K	Yageo America Multivira	CAP, CERM, 1 pF, 50 V, 4/- 25%, COG/NPO, 0805 CAP, CERM, 0.1 uF, 50 V, 4/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
20	C37, C40, C42, C45, C47	5	0.1uF	GCM21BR71H104KA37K	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
21	C38, C43, C48 C39, C44, C49	3	100pF tuff	GCJ21BR71H105MA01L	Kernet MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, X7R, 0805 CAP, CERM, 1 µF, 50 V,+/- 20%, X7R, AEC-Q200 Grade 1, 0805	0805
23 24	C41, C46, C53 C51, C52 C84, C85, C92,	3 2	0.01uF 500pF	QMK21287103KG-T 08055A501GAT2A	Talyo Yuden AVX	CAP. CERM. 5.01 uF. 250 V. +/- 10%, X7R, 0805 CAP. CERM. 500 pF, 50 V. +/- 2%, COG/NPO, 0805 CAP. CERM. 1 uF, 16 V. +/- 10%, X7R, 0805	0805
25		8		GRM21BR71C105KA01L	MuRata	CAP, CERM, 1 uF, 16 V, 4/- 10%, X7R, 0808	0805
25	C102, C105 C86, C89, C94, C98, C103, C108,	8	680pF	06035A681FAT2A	AVX	CAP, CERM, 680 pF, 50 V, +/- 1%, COGNPO, 0603	0603
27	C111, C152 C87, C90, C95,	9	0.04	CT AND TOTAL PROPERTY.	Tru	CAR CERM O LATE FOUND AND VER AND COMP COMP LAND	0003
21	C99, C104, C107, C109, C153, C154	,	U.10P	CGAGE 2K/RTHTOHKUBUAA	I DK	CAP, CERM, 0.1 GP, 50 V, 41-10%, X/R, AEC-0220 GRISSI 1, 0003	0603
25	CER COL COR	27		C1608XSR1E105K080AC	TDK	CAP, CERM, 1 uF, 25 V, +/- 10%, XSR, 0603	0603
	C88, C91, C96, C100, C106, C110, C133, C134, C135, C136, C137, C138, C137, C138, C139, C140, C141, C142, C143, C144, C145, C146, C147, C148, C147, C148, C148, C150, C151, C150, C151, C150, C151, C150, C151,						
29	C112	1 8	58uF 1000pF	C3216XSR1A686M160AC C0603C102J5GACTU	TDK	CAP, CERM, 68 of, 10 V, +/- 20%, XSR, 1205, 190 CAP, CERM, 1000 pF, 50 V, +/- 5%, COG/NPO, 0603	1205_190
20	C112 C115, C116, C117, C118, C119, C120, C121, C156 C164		- Anape				
31	C121, C156	1	tof.	GCJ21AR72E102KKU1D	Murata	Care Constrict 0.000 of 2500/ XTB 500/ Paul State cares Sub-T	0805
37	D1 D2 C3 C4		2007	PMANUTE TP	Minn Communication	Cap Centeric 0.001uF 250V X7R 10% Pad 5MD 0805 Soft Termination 129C Automotive 17R 00de, Standard Recovery Recifier, 200 V, 1 A, SCID-123FL	0805 SOD-123FL
33	D1, D2, D3, D6, D9 D4, D5, D6	5	6.2V	MM SZS234B-7-F	Diodes Inc.	Diode Zener 5.2 V 500 eW SOD-123	SOD-123
34	H1, H2, H4	3	4.24	MM 5252348-7-F NY PMS 440 0025 PH 1902C	Diodes Inc. S&F Fastener Supply Securities	Machine Screw, Round, 84-90 x 154, Nylon, Philips panhead Standolf, Hev. D 51, 84-90 hillon.	Screw Standor
35	HS, HE, HB 12C_pull, J_1V85,	13		1902C SL 11 112 02G	Fischer Elektronik	Machine Scree, Round, 64-40 x 1.94, Nylon, Philips panhead Standoff, Hex, 0.5°L 64-40 Nylon Header, 2.54mm, 2x1, Gold, TH	Strew Standoff TH, 2-Leads, Bod 2.5a5.08mm, Ptd
	D4, D5, D6 H1, H2, H4 H5, H6, H6 I2C_pul, J_1V85, J_2V5, J_3V3, J_3V3_2, J_5V, J_heater, J_L5, J_pump, J_PWM, Sensor1, Sensor2, Sensor3						2.54mm
37	Sensor1, Sensor2, Sensor3 J1, J4, J5, J6, Supply Sel	5		SL 11 112 03G	Fischer Elektronik	Header, 2.54mm, 3x1, Gold, TH	TH, 3-Leads, Bod 2.5x7.62mm, Pitch 2.54mm
	anapphy ann	L.					
38	J2 J3	1		TSW-105-07-G-S SSB-XH-A (LF)(SN)	JST JST	Header, 190ml, Sx1, Gold, TH Connector Header Through Hole, Right Angle 9 position 0.095" (2.50mm) Header (shrouded), 100 ml, 7x2, Gold, TH	CONN FFC SP 7x2 Shrouded Hea
41	JTAG LBL1	1	1	SBH11-PBPC-D07-ST-BK THT-14-423-10	Sulina Connector Solutions Strady	Header (shrouded), 100 mil, 7x2, Gold, TH Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	
42	Q1, Q2, Q5, Q7,	7	40 V	ZXTP25040DFHTA	Diodes Inc.	Translator, PNP, 40 V, 3 A, SOT-23	0.200 inch SOT-23
43	Q9, Q12, Q14 Q3, Q4, Q6, Q8, Q10, Q13, Q15	11	100 V	PBSS8110T	NXP Semiconductor	Translator, NPN, 100 V, 1 A, SOT-23	SOT-23
	Q32, Q34, Q38, Q49						
44	Q49 Q11, Q25, Q26, Q27, Q26, Q29,	8	40 V	MMBT3904LP	Diodes Inc.	Translator, NPN, 40 V, 0.2 A, 3-UFDFN	3-UFDFN
45	Q27, Q28, Q29, Q30, Q31 Q17, Q18, Q19, Q20, Q21, Q22,	7		SQJQ466E-T1_GE3	Vishay	N-Channel 60 V 200A (Tc) 150W (Tc) Surface Mount PowerPAK® 8 x 8	PowerPAK 5 x 5L
46	023 024, 037, 039, 040, 041, 043, 044, 045, 046, 047, 048, 050	12	SOV	2917002KW	Pairchild Semiconductor	MOSPET, N-CH, 60 V, 0.31 A, 50T-323	S0T-323
47	Q47, Q48, Q50 Q33, Q35 Q36, Q42	2	60 V	MMBT2907ALT1G	ON Semiconductor	Transistor, PNP, 60 V, 0.6 A, S0T-23	SOT-23
45	Q36, Q42 R1, R120	2	10k	512337US-11-E3	Vlahay-Siliconix Panasonic		SOT-23 0805
50	R1, R120 R2, R82, R84, R90, R93, R98, R102, R141, R142	9	10.0k	RG2012P-103-B-T5	Susumu Co Ltd	RES, 10.0 k, 0.1%, 0.125 W, AEC-0200 GRISS 0, 0005	0805
51	R3, R83, R86, R91, R95, R99,	8	84.5	RC0603FR-0784RSL	Yageo	RES, 84.5, 1%, 0.1 W, 0603	0603
52	R103, R107 R4, R85, R87, R89, R94, R97,	7	3.01k	RT0805BRD073K01L	Yageo America	RES, 3.01 k, 0.1%, 0.125 W, 0805	0805
	R101						
53	R5, R88, R92, R96, R100, R104,	7	2.05k	RT0805BRD072K05L	Yageo America	RES, 2.05 k, 0.1%, 0.125 W, 0805	0805
54	R109 R6, R112, R113,	8	1.00k	RT0603BRD071KL	Yageo America	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
	R6, R112, R113, R114, R115, R116, R117, R118						
55	R7, R9, R14, R24,	15	499	CRCW0805499RFKEA	Vishay-Dale	RES, 499, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
	R7, R9, R14, R24, R25, R26, R29, R30, R31, R34, R35, R36, R38,						
56		8	24.9	CRCW251224R9FKEGHP	Vishay Dale	RES Thick Film, 24.9Q, 1%, 1.5W, 100ppm/°C, 2512	2512
56	RB, R26, R27, R32, R33, R37, R40, R43 B10, R49, B52		24.9	CRCW251224RSPREGRE	Visnay Dass	RES TRICK PIRE, 24:362, 1%, 1:5W, 100ppm* C, 2012	2012
57	R40, R43 R10, R49, R52, R56, R105, R124,	7	100k	RG2012P-104-B-T5	Susumu Co Ltd	RES, 100 k, 0.1%, 0.125 W, 0805	0805
**	R56, R105, R124, R140	L.	200	WC2012W 2011 C TO	B	THE SELECTION OF S	nene .
59 60	R12	1	1.00k	RG2012P-102-B-T5	Susumu Co Ltd	RES, 1.00 k, 0.1%, 0.125 W, 0805	0805
60	R15	1	20.0k 8.25k	RT0805BRD0720KL RT0805BRD078K25L	Yageo America Yageo America	RES, 8.25 k, 0.1%, 0.125 W, 0805	0805
63	R16 R17	1	5.43k 5.55k	RT0805BRD07EK49L RT0805BRD07EK5EL	Yageo America Yageo America	RES, 6.49 k, 0.1%, 0.125 W, 0805 RES, 8.66 k, 0.1%, 0.125 W, 0805	0805
65	R15 R19	E	2.05k 4.70k	RT08058RD072K06L RG2012P-472-8-T5	Yageo America Susumu Co Ltd	RES, 2.08 k, 0.1%, 0.125 W, 0805 RES, 4.70 k, 0.1%, 0.125 W, 0805	0805
65 67	R20 R21	EF	15.0k 2.0k	RG2012P-163-B-T5 CRCW08052K00JNEA	Susumu Co Ltd Vishay-Dale	RES, 16.0 k, 0.1%, 0.125 W, 0805 RES, 2.0 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
68 69	R22, R66, R67 R23	1	0 9.31k	MCR10E2H000 RT0805BRD079K31L		RES, 0, 5%, 0, 125 W, 0805 RES, 9,31 k, 0,1%, 0,125 W, 0805 RES, 10,0 k, 1%, 0,125 W, AEC-Q200 Grade 0, 0805	0805
70	R41, R42, R45, R47, R48, R50, R51, R53, R63	9	10.0k	CRCW080510K0FKEA	Yageo America Vishay-Dale	RES, 10.0 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
71	R51, R53, R63 R44	١.	0	36222R	TE Connectivity	RES, 0, 3 W, 2512	2512
72	R46, R54 R55	2	44.2k 1.00Meg	RT0805BRD0744K2L RC1206FR-071ML	Yageo America Yageo America	RES, 0, 3 W, 2512 RES, 44.2 k, 0.1%, 0.125 W, 0805 RES, 1.00 M, 1%, 0.25 W, 1206	0805 1205
74 75	R57, R59 R58	2	5.04k	RT0805BRD07EK04L ERJ-8ENF6192V	Yageo America Panasonic	RES, 6.04 k, 0.1%, 0.125 W, 0805	0805 1206
76	REO, RE1, RS4, RE5, RS8, R70,	7	49.9	MSS342KOSB49D9T	Panasonic TT Electronics/IRC	RES, 49.9, 1%, 0.15 W, 0005	0805
77	R72	-	30.1k	RT0805BRD0730K1L	Yageo America	RES. 30.1 k. 0.1%, 0.125 W. 0805	0805
78 79	R106 R108 R110, R111	1 2	55.1k	ERJ-6GEYJ512V	Yageo America Panasonic	RES, 30.1 k, 0.1%, 0.125 W, 0005 RES, 53 k, 5%, 0.125 W, 0005 RES, 5.1 k, 5%, 0.125 W, 0005	0805
80	R119 R128, R129, R130, R131.	5	100	CRCW0805100RJNEA MCT06030200002P500	Vishay-Dale Vishay/Beyschlag	RES, 100, 5%, 0.125 W, 0805 RES, 0, 5%, 0.125 W, 0603	0805
_	R130, R131, R132, R133 R139	Ш					Ь_
82	R143	1	20.0k 20.0k	RT0805DRE0720KL RG2012P-303-B-T5	Yageo America Susumu Co Ltd	RES, 20.0 k, 0.5%, 0.125 W, 0805 RES, 30.0 k, 0.1%, 0.125 W, 0805	0805
84		E	0.001	W52.36371L000FEA W52.36373L000FEA	Vishay-Dale Vishay-Dale	RES, 0.001, 1%, 3 W, WSL3637	WSL3637 9.14x9.4mm
35	TP1, TP16, TP22, TP23, TP24,	12		5000	Keystone Electronics, Keysto	RES, 0.000, 1%, 3.W. AEC-Q200 Grade 0, 9,14c9.4mm Test Point, Ministure, Red, TH	9.14x9.4mm Red Ministure Testpoint
	Rahuri2 TP1, TP16, TP22, TP23, TP24, TP23, TP24, TP25, TP26, TP37, TP26, TP35	9		5001	Keystone Electronics, Keysto	Test Point, Mnisture, Black, TH	
87	TPS, TPS, TPS, TP2, TP10 TP**	ľ	1				Black Ministure Testpoint
87	TP19, TP20,	6		5116	Keystone	Test Point, Ministure, Green, TH	Green Ministure Testpoint
87		_			ļ	Law York Chit	
	TP41, TP43	1	<u> </u>	TP_SM_1MM MSP430FR5969-SP	Any Texas Instruments	Imm Test Point, SMT MISHADOPROS009 16 MNs Utes-Low-Power Microcontroller featuring 64 KIS FRAMA, 24 BS RAM, 46 ID, RG200488 (VDPN-48) SV LVDS Quad CMIDS Differential Lim Driver, PACDOTEA (CFP-16) Radiation Hardward ZV, 6-A Load Banksh, MRSDGEA (CFP-16)	fmm Test Point, RGZ0048B
87 88 89 90	TP2, TP3, TP4, TP5, TP6, TP6, TP3, TP6, TP6, TP2, TP10, TP11 TP19, TP20, TP21, TP31, TP45, TP45 UI			ADC128S102QML-SP	Texas Instruments	All PRAN, 2 KB SRAM, 40 IO, RGZ0048B (VQFN-48) 3V LVDS Quad CMOS Differential Line Driver, NAC0016A (CFP-16)	NAC0016A
	TP41, TP43 TP45, TP46 UI	1		TPS7HQ211-SP TPS7A4501-SP	Texas instruments Texas instruments		HKU001GA
	IPAT, IPAT, IPAT, IPAS IPAS, IPAS UT	1 1 3			Texas instruments	3-Terminal Adjustable Regulator, 3-pin TO-32	NDT0003A
	U2 U3 U4, U6, U26 U5	3		LM4050QML-SP	Texas Instruments		
	1921, 1931, 1931, 1941, 1943, 1943, 1943, 1944, 1944, 195, 195, 195, 197, 197, 197, 197, 197, 197, 197, 197	1 1 3 1 1 1 3 2		LMA0S0QML-SP TLV1H103-SEP INA901-SP	Texas Instruments Texas Instruments Texas Instruments	Presents introduced and votage retreats. Radiation-Tolerant High-Speed Comparator with 3.5ns Propagation Delay Votage Output, Unidirectional Measurement Current-Shurt Monitor.	SOT-23-6 HKXXXXXA
89 90 91 92 93 94 95 96 97	U2 U3 U4; U5; U25 U5 U7 U8; U10; U12 U9; U11	1 1 3 1 1 2 2			I exas instruments	Precision, Tolkrant High-Speed Comparator with 3.5ms Propagation Delay Voltage Output, Unidirectional Measurement Current-Shuri Monitor, HOCODOMA (CFP) — 1990, RRIO, Wide Sucolv Rance Amolitier Precision, CMOS Input, RRIO, Wide Sucolv Rance Amolitier	
89 90 91 92 93 94 95	U2 U3 U4; U5; U25 U5 U7 U8; U10; U12 U9; U11	1 1 3 1 1 2 2		EM4050CML-SP TLVIHI03-SEP IN4901-SP EMP7704-SP INA1159H900EM	Texas Instruments Texas Instruments Texas Instruments Texas Instruments Texas Instruments Texas Instruments	3-returns Adjustice Regulator, 3-ph 10-32 Precision Micropere Shark Volkag Reference Rudation Tolerant High-Speed Compension with 3-fm Propagation Delay Volkage Odput, Unifercicional Manaument Current-Shurt Monitor, 90000004 (CTP-8) Precision, CADD Sput, RRID, Wide Supply Range Amplifiers Radasion-Hardened, High Common-Mode Volkage Difference Amplifier	SOT-23-6 HIXXXXXXX PLAT_PACK14 CFPS
89 90 91 92 93 94 95 96 97	U2 U3 U4, U6, U26 U5	1 1 3 1 1 1 3 2 7		EMP7704-SP INATHSHHKX/EM	Texas Instruments Texas Instruments		
89 90 91 92 93 94 95 96 97	U2 U3 U5 U5 U5 U5 U7 U8, U10, U12 U15, U11 U15, U19 U15, U17, U18, U20, U21, U22, U25 U25 U25 U25 U27	1 1 3 1 1 3 2 2 7	topf	EMP7704-SP INATHSHHKX/EM	Texas instruments Texas instruments Texas instruments		
89 90 91 92 93 94 95 96 97	U2 U3 U4, U6, U25 U5 U7 U8, U10, U12 U9, U11 U15, U12 U15, U17, U18, U20, U21, U22, U25, U21, U22,	1 1 3 1 1 3 2 7	topf tour 2007	LMP7704-SP INATHS4HICOEM	Texas Instruments Texas Instruments	Addition - Name 14th Space Companies 4th 3.5th Procession Chief Voltage Copics - Uniformity Measurement Corner Short Monday, 4th Control - Space - Spa	FLAT_PACK14 CFPS

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