

Advancing
Battery Management

Midtronics, Inc.

Midtronics Production

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Page Arena PLM > Workspace Items > Bill of Materials > Redline

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Item #198-000310 In Production


PCBA, GEN 2, MDX-P600







Revision: »D_1 - In Production | **Effective as of 04/21/2016 01:48:49 PM, Unshared**

	# Item Number	Item Name	Phase	Reference Designator BOM Notes	Quantity
	1 184-000309 rev A	PCB, GEN 2, MDX-600	In Production	PCB1	1 each
	2 201-000005 rev A	BUZZER 2.3KHZ 4-6VDC PCB WASH	In Production	BZR1	1 each
	3 202-050005 rev A	BATTERY LITHIUM COIN 20MM W/LEGS	In Production	BT1	1 each
	4 204-350227 rev A	CAP, 220 uF, 6.3 V, 20%, SMD, Electrolytic	In Production	C48	1 each
	5 204-352107 rev A	CAP, 100 uF, 16 V, 20%, SMD, Electrolytic	In Production	C51-C54, C59-C60, C110	7 each
	6 204-373475 rev A	CAP, 4.7 uF, 25 V, 20%, SMD, Electrolytic	In Production	C4-C6, C11	4 each
	7 204-430476 rev A	CAP, 47 uF, 6.3 V, 20%, SMD, Electrolytic	In Production	C9, C18, C20, C22	4 each
	8 204-436105 rev A	CAP, 1.0 uF, 50 V, 20%, SMD, Electrolytic	In Production	C47	1 each
	9 204-510106 rev A	CAP, 10 uF, 6.3 V, 10%, SMD, Tantalum	In Production	C3, C29	2 each
	10 204-552105 rev A	CAP, 1.0 uF, 16 V, 20%, SMD, Tantalum	In Production	C58	1 each
	11 204-773105 rev C	CAP, 1.0 uF, 25 V, 10%, 1206, Ceramic	In Production	C12-C16, C33, C35-C39, C106-C107, C109	14 each
	12 204-780107 rev A	CAP CER 100UF 6.3V 20% X5R 1206	In Production	C49-C50, C88	3 each
	13 204-832106 rev A	CAP CER 10UF 16V 10% X5R 0805	In Production	C26, C112-C114	4 each
	14 204-834104 rev B	CAP, 0.1 uF, 50 V, 10%, 0805, Ceramic	In Production	C57	1 each
	15 204-92480a rev A	CAP, 8 pF, 50 V, 0.25 pF, 0603, Ceramic	In Production	C89-C90	2 each
	16 204-944101 rev A	CAP, 100 pF, 50 V, 5%, 0603, Ceramic	In Production	C116-C117	2 each
	17 204-944102 rev B	CAP 1000PF 50V CERAMIC NPO 0603	In Production	C8, C10, C23, C27, C56, C62-C64, C108, C111	10 each
	18 204-944221 rev A	CAP, 220 pF, 50 V, 5%, 0603, Ceramic	In Production	C24	1 each
	19 204-944471 rev A	CAP, 470 pF, 50 V, 5%, 0603, Ceramic	In Production	C31-C32	2 each
	20 204-952104 rev B	CAP, 0.1 uF, 16 V, 10%, 0603, Ceramic	In Production	C30	1 each
	21 204-953103 rev C	CAP, 0.01 uF, 25 V, 10%, 0603, Ceramic	In Production	C25, C55, C61, C65-C81, C91-C92, C95-C105	33 each
	22 204-954102 rev B	CAP, 1000 pF, 50 V, 10%, 0603, Ceramic	In Production	C93-C94	2 each

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	23 204-954103 rev A	CAP 0.01 uF 50V CERAMIC X7R 0603	In Production	C28, C42		2 each
	24 204-974104 rev B	CAP, 0.1 uF, 50 V, -20%, +80%, 0603, Ceramic	In Production	C1-C2, C7, C17, C19, C21, C34, C40-C41, C43-C46, C82-C87, C115		20 each
	25 205-060002 rev B 205-060002 rev B	CONN HEADER 6POS 4.2MM R/A TIN	In Production	J7		1 each
	26 205-130006 rev C 205-130006 rev C	CONN FFC/FPC 30POS .50MM VRT SMD	In Production	J2		1 each
	27 205-130013 rev A	1.00mm (.039") Right Angle, Non-ZIF, Top Contact Style Receptacle	In Production	J9		1 each
	28 205-140011 rev A	2 CIR HED.100 RT ANG FRIC LOCK	In Production	J8		1 each
	29 205-140023 rev B	CONN HEADER 2POS 1.25MM VERT SMD	In Production	J1		1 each
	30 205-140027 rev A	CONN HEADER 5POS .100 VERT TIN	In Production	J5		1 each
	31 205-140040 rev A	CONN 9POS HEADER VERT 1.25MM	In Production	J10		1 each
	32 205-160001 rev A	2.50mm (.098") PITCH SD MEMORY CARD CONNECTOR, SHIELDED, TOP MOUNT, PUSH-PUSH EJECTOR, LEAD-FREE	In Production	J11		1 each
	33 205-170005 rev A	CONN MOD JACK 4-4 RT/A PCB 50AU	In Production	J3		1 each
	34 206-000001 rev A	RESONATOR 8.00MHZ CERAMIC	In Production	Y1		1 each
	35 206-010032 rev A	CRYSTAL 48.000MHZ 18PF FUND SMD	In Production	Y2		1 each
	36 207-000009 rev B	DIODE ULTRAFAST HI COND SOT-23 C	In Production	D1-D2, D5		3 each
	37 207-000011 rev C	DIODE FAST HI COND 100V SOT-23	In Production	D7-D9, D12, D17-D18		6 each
	38 207-000022 rev A	3 AMP 100 PIV RECTIFIER	In Production	D19		1 each
	39 207-000031 rev B 207-000031 rev C	RECT PASSIVATED 1A 100V SMD MELF	In Production	D6, D10-D11		3 each
	40 207-000032 rev A	DIODE SW DUAL 75V 350MW SOT23	In Production	D23-D25		3 each
	41 207-000059 rev A	DIODE SCHOTTKY 30V 100MA SOT-23	In Production	D13		1 each
	42 207-000120 rev A	DIODE SCHOTTKY 40V 0.2A EMD2	In Production	D3-D4		2 each
	43 207-010006 rev A	MOSFET P-CH 12V 4.3A SOT-23	In Production	Q7		1 each
	44 207-010024 rev A	MOSFET N-CH 55V 17A DPAK	In Production	Q2		1 each
	45 207-010025 rev A	MOSFET P-CH 55V 11A DPAK	In Production	Q3, Q11		2 each
	46 207-080009 rev A	TRANSISTOR GP PNP AMP SOT-23	In Production	Q15		1 each
	47 207-080049 rev B	TRANSISTOR GP NPN AMP SOT-23	In Production	Q1, Q4-Q6, Q8-Q9, Q12-Q13		8 each
	48 207-080059 rev A	TRANS PREBIAS NPN 200MW UMT3	In Production	Q10		1 each
	49 207-260006 rev A	TRANSIL 600W 47V BIDIR DO-15	In Production	TVS1-TVS2		2 each
	50 209-030001 rev B	BEAD CORE 150MA, 1K @100MHz, 0603 SMD	In Production	L1-L2		2 each
	51 212-020031 rev A	INDUCTOR 33UH 0.43A SHIELD SMD	In Production	L3		1 each

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	52 212-070007 rev A	INDUCTOR POWER 4.7UH 1700MA 1515	In Production	L4		1 each
	53 212-070008 rev A	INDUCTOR POWER 2.2UH 1600MA 1210	In Production	L5		1 each
	54 213-020005 rev A	IC RAIL-TO-RAIL OP AMP 14-SOIC A	In Production	U3, U5		2 each
	55 213-020057 rev A	IC DIFF AMP HI-CMV PROG 8-SOIC	In Production	U23		1 each
	56 213-020069 rev A	IC PGA DIGITAL R-R OUT TSOT-23-8	In Production	U7		1 each
	57 213-020111 rev A	IC Op Amps Dual Single Supply SIP8	In Production	U15		1 each
	58 213-030027 rev A	IC BUFF/DVR TRI-ST DUAL 20TSSOP	In Production	U1-U2		2 each
	59 213-070018 rev A	ICs Single Supply Dual Comparator SIP8	In Production	U4		1 each
	60 213-130009 rev A	IC CONVERTER SWITCH CAP 8-SOIC	In Production	U12		1 each
	61 213-190020 rev A	IC SERIAL EEPROM 32K 1.8V 8-SOIC	In Production	U22		1 each
	62 213-240008 rev A	IC SRL FLASH 16MBIT 3V 16-SOIC	In Production	U21		1 each
	63 213-400001 rev A	IC MAX V CPLD 570 LE 100TQFP	In Production	U17	Part needs to come Pre-Programmed by Citizen System Japan if is not purchased from the distributor (SAGER).	1 each
	64 213-440017 rev A	IC MCU 32-bit SH726B ROMLess 3.3V 144-Pin LQFP	In Production	U16		1 each
	65 213-460001 rev A	IC SRAM RTC SERIAL 512B 16-SOIC	In Production	U20		1 each
	66 213-520018 rev A	IC RESET CMOS 2.8V 200MS 5SSOP	In Production	U19		1 each
	67 213-640018 rev B	IC VOLT REF PREC MICROPWR SOT-23	In Production	U9		1 each
	68 213-660004 rev B	IC LDO REG 3.3V 100MA SOT23-5	In Production	VR2		1 each
	69 213-660046 rev A	IC REGULATOR LDO 1A TO-263	In Production	VR1		1 each
	70 213-660058 rev A	IC VOLT REG FIXED POS SOT-223	In Production	U10		1 each
	71 213-660101 rev A	IC REG LDO 1.8V 0.2A 5SSOP	In Production	U25		1 each
	72 213-660108 rev A	IC REG BUCK SYNC ADJ 1A DL 12DFN	In Production	U13		1 each
	73 213-730004 rev A	IC MOTOR DRIVER PAR 24WQFN	In Production	U18		1 each
	74 216-030001 rev B	T1-3/4 INFRARED LED CLEAR LENS	In Production	LED2		1 each
	75 216-140003 rev A	LED RED CLEAR 0603 SMD	In Production	LED1, LED4-LED5		3 each
	76 222-050000 rev B	RES, 1 K, 125 mW, 5%, SMD	In Production	RP1-RP3		3 each
	77 222-050006 rev A 222-050006 rev B	RES ARRAY 22K OHM 8 RES 1206	In Production	RN1-RN5		5 each
	78 222-53100C rev A	RES, 0.10 Ohm, 1/4 W, 2%, 0805, SMD	In Production	R40		1 each
	79 222-68100A rev B	RES, 10 Ohm, 5 W, 5%, AXIAL	In Production	R35		1 each
	80 222-731501 rev A	RES, 1.5 K, 1/16 W, 0.1%, 0603, SMD	In Production	R107		1 each
	81 222-741213 rev A	RES, 121 K, 1/10 W, 1%, 0603, SMD	In Production	R155		1 each

	# Item Number	Item Name	Phase	Reference Designator BOM Notes	Quantity
	82 222-751000 rev A	RES, 100 Ohm, 1/10 W, 1%, 0603, SMD	In Production	R38, R62	2 each
	83 222-751001 rev A	RES, 1.00 K, 1/10 W, 1%, 0603, SMD	In Production	R32-R33, R37, R43, R51-R52, R69, R97, R109, R123, R130-R131, R136-R138, R148	16 each
	84 222-751002 rev B	RES, 10.0 K, 1/10 W, 1%, 0603, SMD	In Production	R1-R2, R15, R36, R39, R65, R70-R71, R76, R106, R113, R115, R121, R134, R149-R150	16 each
	85 222-751003 rev A	RES, 100 K, 1/10 W, 1%, 0603, SMD	In Production	R3, R8-R9, R11-R13, R16-R17, R20, R22-R23, R25, R28, R42, R45-R50, R64, R66-R68, R77, R110-R112, R114, R116-R118, R122, R125-R127, R151, R156-R157	39 each
	86 222-751004 rev A	RES, 1.00 M, 1/10 W, 1%, 0603, SMD	In Production	R6, R60, R129, R133	4 each
	87 222-75100A rev A	RES, 10 Ohm, 1/10 W, 1%, 0603, SMD	In Production	R10, R19	2 each
	88 222-75100B rev A	RES, 1.0 Ohm, 1/10 W, 1%, 0603, SMD	In Production	R7	1 each
	89 222-751102 rev A	RES, 11.0 K, 1/10 W, 1%, 0603, SMD	In Production	R18, R21, R53-R54	4 each
	90 222-751783 rev A	RES, 178 K, 1/10 W, 1%, 0603, SMD	In Production	R30	1 each
	91 222-75180A rev B	RES, 18 Ohm, 1/10 W, 1%, 0603, SMD	In Production	R119	1 each
	92 222-752002 rev B	RES, 20 K, 1/10 W, 1%, 0603, SMD	In Production	R14	1 each
	93 222-752003 rev B	RES, 200 K, 1/10 W, 1%, 0603, SMD	In Production	R5	1 each
	94 222-752201 rev A	RES, 2.20 K, 1/10W, 1%, 0603 SMD	In Production	R4, R63, R120	3 each
	95 222-752202 rev A	RES, 22 K, 1/10 W, 1%, 0603, SMD	In Production	R142-R144	3 each
	96 222-75220A rev A	RES, 22 OHM, 1/10W, 1%, 0603 SMD	In Production	R132	1 each
	97 222-752701 rev A	RES 2.70K OHM 1/10W 1% 0603 SMD	In Production	R31	1 each
	98 222-753002 rev B	RES, 30 K, 1/10 W, 1%, 0603, SMD	In Production	R78-R79, R105	3 each
	99 222-753300 rev A	RES, 330 Ohm, 1/10 W, 1%, 0603, SMD	In Production	R98, R145-R146	3 each
	100 222-754700 rev B	RES, 470 Ohm, 1/10 W, 1%, 0603, SMD	In Production	R44	1 each
	101 222-754702 rev A	RES, 47 K, 1/10 W, 1%, 0603, SMD	In Production	R100, R135, R139-R141, R147	6 each
	102 222-755363 rev A	RES, 536 K, 1/10 W, 1%, 0603, SMD	In Production	R154	1 each
	103 222-755901 rev B	RES, 5.90 K, 1/10 W, 1%, 0603, SMD	In Production	R61	1 each
	104 222-756191 rev A	RES, 6.19 K, 1/10 W, 1%, 0603, SMD	In Production	R41	1 each
	105 222-756342 rev A	RES, 63.4 K, 1/10 W, 1%, 0603, SMD	In Production	R34	1 each
	106 222-756802 rev A	RES, 68 K, 1/10 W, 1%, 0603, SMD	In Production	R29, R99, R104	3 each

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	107 222-760000 rev A	RES, 0.0 Ohm, 1/10 W, 5%, 0603, SMD	In Production	R24, R55-R56, R81, R83, R85-R86, R89-R95, R108		15 each
	108 222-781000 rev A	RES, 100 Ohm, 1/10 W, 1%, 0805, SMD	In Production	R75		1 each
	109 222-781131 rev A	RES, 1.13 K, 1/10 W, 1%, 0805, SMD	In Production	R73		1 each
	110 222-782370 rev A	RES, 237 Ohm, 1/10 W, 1%, 0805, SMD	In Production	R72		1 each
	111 222-791002 rev B	RES 10K OHM 1/10W 5% 0805 SMD	In Production	R74		1 each
	112 222-96030A rev A	RES 0.3 OHM 1/2W 1% 1206 SMD	In Production	R101-R102		2 each
	113 223-120016 rev A	OPTOISOLATOR W/BASE SMD	In Production	U11		1 each
	114 226-080002 rev C	6MM LIGHT TOUCH SWITCH 250GF	In Production	SW1-SW5		5 each
	115 228-030104 rev A	ASSEMBLY INSTRUCTIONS	In Production	DOC1		1 each
	116 228-040095 rev A	TESTING INSTRUCTIONS	In Production	DOC2		1 each
	117 299-000011 rev B	CRYSTAL 32.7680KHZ 12.5PF CYL & WIRE TIE	In Production	Y3		1 each
	118 299-000018 rev E 299-000018 rev F	PROGRAMMED IC, IC PIC MCU FLASH 64KX16 80TQFP AND FIRMWARE	In Production	U6		1 each
	119 299-000256 rev A	ASSY, IC + FIRMWARE, MDX-PIC12F508	In Production	U26		1 each
	120 299-000265 rev A	ASSY, IC + FIRMWARE, EN25Q64-104HIP	In Production	U14		1 each
	121 299-000271 rev A	IC REG LDO ADJ 3A TO220-3 WITH NYLON SCREW AND NUT	In Production	VR3		1 each