

Bill of Materials

HV56020_22 2X2-CH 225V AMP ARRAY

Document Number: 02-00093 PCB Number: 04-11215
Part Number: ADM00924 Revision: 1
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Drawn By: Miguel Salcedo



Creation Date: 24.06.2020
Creation Time: 10:12

Quantity	Designator	Description_	Manufacturer 1	Manufacturer Part Number 1
6	C1, C2, C37, C43, C46, C51	CAP CER 2.2uF 16V 10% X5R SMD 0402	TDK	C1005X5R1C225K050BC
1	C3	CAP CER 4.7uF 16V 10% X5R SMD 0603	TDK	C1608X5R1C475K080AC
3	C4, C6, C23	CAP CER 10000pF 50V 10% X7R SMD 0402	Yageo	CC0402KRX7R9BB103
3	C5, C8, C9	CAP CER 4.7uF 10V 10% X5R SMD 0402	TDK	C1005X5R1A475K050BC
1	C7	CAP CER 4700pF 50V 10% X7R SMD 0402	Murata	GRM155R71H472KA01J
3	C10, C16, C20	CAP CER 4.7uF 35V 10% X5R SMD 0603	Murata	GRM188R6YA475KE15D
8	C11, C14, C17, C18, C19, C21, C35, C44	CAP CER 0.1uF 25V 10% X7R SMD 0402	TDK	C1005X7R1E104K050BB
3	C12, C49, C53	CAP CER 1uF 35V 10% X5R SMD 0402	Murata	GRM155R6YA105KE11D
2	C13, C15	CAP CER 6.8pF 50V 0.1pF NP0 SMD 0402	Murata	GRM1555C1H6R8BA01D
1	C22	CAP CER 10uF 25V 20% X5R SMD 0603	TDK	C1608X5R1E106M080A
1	C24	CAP CER 1uF 25V 20% X5R SMD 0603	Panasonic	ECJ-1V41E105M
4	C26, C27, C39, C41	CAP CER 10000pF 16V 10% X7R SMD 0402	KEMET	C0402C103K4RACTU
2	C28, C29	CAP CER 100uF 16V 20% X5R SMD 1210	Yageo	CC1210MKX5R7BB107
3	C32, C40, C52	CAP CER 0.22uF 450V 10% X7T SMD 1210	TDK	C3225X7T2W224K200A
1	C33	CAP CER 0.01uF 450V 10% X7T SMD 0805 AEC-Q200	TDK	CGA4F4X7T2W103M08
1	C34	CAP CER 100pF 25V 10% NP0 SMD 0603	AVX	06033A101KAT2A
2	C36, C45	CAP CER 10uF 25V 20% X5R SMD 0603	Murata	GRM188R61E106MA73D
2	C38, C42	CAP CER 22uF 10V 20% X5R SMD 0603	Samsung	CL10A226MPCNUBE
4	C47, C48, C54, C55	CAP CER 3300pF 16V 10% X7R SMD 0402	Murata	GRM15XR71C332KA86D
1	C50	CAP CER 0.033uF 16V 10% X7R SMD 0402	TDK	CGA2B2X7R1C333K050
1	D1	DIO TVS PRTR5V0U2X 5.5V SMD SOT-143	Nexperia	PRTR5V0U2X.215
1	D2	DIO SCKY SMD24 500mV 2A 40V SOD-123FL	MCC	SMD24PL-TP
1	D3	DIO RECT BYM07-300 0.5A 300V DO213-AA AEC-Q101	Vishay Semiconductors	BYM07-300-E3/98
1	D4	DIO ZENER DZ2W39000L 39V 1W SMD SOD-123FL	Panasonic	DZ2W39000L
1	D5	DIO RECT SBRT4U10LP-7 0.5V 4A 10V SMD U-DFN2020-2 AEC-Q101	Diodes	SBRT4U10LP-7
1	D6	DIO SCKY BAT54XV2T1G 30V 200mA 40V SOD-523	ON Semiconductor	BAT54XV2T1G
1	FB1	FERRITE 470R@100MHz 1A SMD 0603	Murata	BLM18PG471SN1D
1	J1	CON HDR-2 Male 1x2 SHROUD 2MM MH THT R/A	JST	S2B-PH-K-S(LF)(SN)
1	J2	CON USB2.0 MICRO-B FEMALE TH/SMD R/A	Amphenol ICC / FCI	10118194-0001LF
1	J4	CON HDR 1.5 Female Gold 1x6 RA SMD	Molex	5040500691
1	J5	CON FFC/FPC 1mm 6P Female 2005290060 SMD R/A	Molex	2005290060
1	J6	CON HDR-1.5 Male 1x3 GOLD SMD R/A	Molex	5040500391
1	L1	FIXED IND 10UH 1.2A 240 MOHM SMD	Murata	LQH3NPN100MJRL

1	L2	IND 0.906uH:95.303uH 1:10 10.7A SMD UA8164-CE	Coilcraft	UA8164-CE
2	LD1, LD2	DIO LED GREEN 1.7V 20mA 3.92mcd Diffuse SMD 0603	Osram Opto	LGL29K-G2J1-24-Z
1	R1	RES TKF 100k 1% 1/10W SMD 0603	Panasonic	ERJ3EKF1003V
4	R2, R3, R15, R20	RES TKF 10k 5% 1/16W SMD 0402	Vishay Dale	CRCW040210K0JNED
1	R4	RES TKF 49.9k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF4992V
1	R6	RES TF 1k 0.1% 1/16W SMD 0402	Yageo	RT0402BRD071KL
1	R7	RES TKF 2k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF2001X
4	R8, R10, R18, R19	RES TKF 5.1k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF5101X
1	R9	RES TKF 7.5M 1% 1/10W SMD 0603	Rohm	KTR03EZPF7504
1	R11	RES TKF 39.2k 1% 1/10W SMD 0603	Stackpole Electronics	RMCF0603FT39K2
1	R12	RES TKF 0R 1/10W SMD 0603	Panasonic	ERJ-3GEY0R00V
1	R13	RES TKF 3.3k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ332V
1	R14	RES TKF 10M 1% 1/10W SMD 0603 HV AEC-Q200	Rohm	KTR03EZPF1005
1	R16	RES SHUNT 0.003R 1% 1/2W 0805 AEC- Q200	Rohm	PMR10EZPFV3L00
1	R17	RES TKF 499k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF4993V
2	R21, R24	RES TKF 200k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF2003X
2	R22, R25	RES TKF 150k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF1503X
1	R23	RES TKF 225k 1% 1/16W SMD 0402	Stackpole Electronics	RMCF0402FT255K
1	R26	RES TKF 4.7k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ472V
3	R27, R28, R29	RES TKF 10k 5% 1/10W SMD 0402	Panasonic	ERJ-2GEJ103X
1	R30	RES TKF 330R 1% 1/10W SMD 0402	KOA Speer	RK73H1ETTP3300F
1	R31	RES TKF 100R 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF1000X
1	S1	SWITCH SLIDE SPDT 4V 0.3A MLL1200S	TE Connectivity Alcoswit	MLL1200S
1	XC1	CRYSTAL 32.768kHz 7pF SMD CM7V- T1A	Micro Crystal	CM7V-T1A 32.768 kHz 7

Microchip Parts listed below

1	B1	MCHP RF BLUETOOTH RN4871-I/RM130	Microchip	RN4871IRM130
2	M1, M2	MCHP ANALOG MOSFET N-CH TN2106 60V 280mA 360mW 2.5R SOT23-3	Microchip Technology	TN2106K1-G
1	U1	MCHP ANALOG LDO 3.3V 300mA MCP1812AT-033/OT SOT23-5	Microchip	MCP1812AT-033/OT
1	U2	MCHP ANALOG LDO ADJ MIC94325YMT- TR TDFN-6	Microchip	MIC94325YMT-TR
1	U3	MCHP ANALOG BATTERY CHARGER MCP73830T-2AAI/MYY TDFN-6	Microchip	MCP73830T-2AAI/MYY
1	U4	MCHP MCU 32-BIT 48MHz 256kB 32kB ATSAML21J18B-MNT QFN-64	Microchip Technology	ATSAML21J18B-MNT
1	U5	MCHP MEMORY SERIAL FLASH 4Mb 40MHz SST25PF040CT-40I/NP 8-UDFN (2x3)	Microchip	SST25PF040CT-40I/NP
2	U6, U7	MCHP ANALOG DAC 2-Ch 12-Bit MCP48FEB22-E/UN MSOP-10	Microchip Technology	MCP48FEB22-E/UN
1	U8	MCHP ANALOG HV DRIVER 2-Ch HV56020-V/KXX QFN-43	Microchip Technology Inc	HV56020-V/KXX
1	U9	MCHP ANALOG HV DRIVER 2-Ch HV56022-V/KNX QFN-20	Microchip Technology Inc	HV56022-V/KNX

Mechanical Parts to be added in the package

1	LABEL1	LABEL, ASSY W/REV LEVEL (SMALL MODULES) PER MTS-0002		

PCB

1	PCB1	Printed Circuit Board		04-11215-R1
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Do Not Populate Parts listed below

0	C56, C57, C58, C59	CAP CER 0.01uF 450V 10% X7T SMD 0805 AEC-Q200	TDK	CGA4F4X7T2W103M08
1	J3	CON TAG 10P TC2050 SMT NO LEGS	Tag-Connect	TC2050-IDC-NL
0	R5	RES TKF 10k 5% 1/16W SMD 0402	Vishay Dale	CRCW040210K0JNED
0	R32	RES TF 1k 0.1% 1/10W SMD 0603	Panasonic	ERA-3AEB102V

Approved	Notes	Description
