



Parts marked with 'X' in Column 'M' may be replaced by equivalent alternatives as long as the specs in column 'F,G,H' are met. All other parts must be provided as specified.

PCB Name: AMC_Mainboard

PCB Number: 9471-01

Date Time: 08/08/2023 13:23

Variant:

Price Total in €: =SUM(K5:K53)

Total Parts: 48

Equipped Parts: 48

Originator: Penno Marek

ID: 5293

RoHS

Is replaceable

RefDes	Side	Type	Manufacturer No.	Manufacturer	Value	Package	Description	Distributor	Order No.	Price in €			Comment	Orderbase No.	DES Y Part No.
C1	Bottom	SMD	GRM155R71C104KA88D	MURATA	100n	0402	Capacitor 100n 16V 10% Ceramic X7R	Farnell	1118151	0.005	X	X		Z01650	CAPA001346
C10	Top	SMD	C1005X7R1C224K050BC	TDK COMPONENTS	220n	0402	Capacitor 220n 16V 10% Ceramic X7R	Farnell	2346888	0.098	X	X		Z06966	CAPA002978
C11	Bottom	SMD	KRM55WR71H336MH01K	MURATA	33u	2220	Capacitor 33u 50V 20% Ceramic	Mouser	81-KRM55WR71H336MH1K	3.208	X	X		Z13087	CAPA003940
C12	Top	SMD	GRM155R71C104KA88D	MURATA	100n	0402	Capacitor 100n 16V 10% Ceramic X7R	Farnell	1118151	0.005	X	X		Z01650	CAPA001346
C13	Bottom	SMD	CGB2A1X5R1E105K033BC	TDK COMPONENTS	1u	0402	Capacitor 1u 25V 10% Ceramic	Digi-Key	445-13185-1-ND	0.031	X	X		Z10263	CAPA003454
C14	Top	SMD	CGB2A1X5R1E105K033BC	TDK COMPONENTS	1u	0402	Capacitor 1u 25V 10% Ceramic	Digi-Key	445-13185-1-ND	0.031	X	X		Z10263	CAPA003454
C15	Bottom	SMD	CGB2A1X5R1E105K033BC	TDK COMPONENTS	1u	0402	Capacitor 1u 25V 10% Ceramic	Digi-Key	445-13185-1-ND	0.031	X	X		Z10263	CAPA003454
C16	Bottom	SMD	KRM55WR71H336MH01K	MURATA	33u	2220	Capacitor 33u 50V 20% Ceramic	Mouser	81-KRM55WR71H336MH1K	3.208	X	X		Z13087	CAPA003940
C17	Top	SMD	GRM155R71C104KA88D	MURATA	100n	0402	Capacitor 100n 16V 10% Ceramic X7R	Farnell	1118151	0.005	X	X		Z01650	CAPA001346
C18	Top	SMD	C0805C224K5RACTU	KEMET	220n	0805	Capacitor 220n 50V 10% Ceramic X7R	Farnell	1288261	0.015	X	X		Z01808	CAPA102787
C19	Top	SMD	C0805C224K5RACTU	KEMET	220n	0805	Capacitor 220n 50V 10% Ceramic X7R	Farnell	1288261	0.015	X	X		Z01808	CAPA102787
C2	Top	SMD	C1005X7R1C224K050BC	TDK COMPONENTS	220n	0402	Capacitor 220n 16V 10% Ceramic X7R	Farnell	2346888	0.098	X	X		Z06966	CAPA002978
C3	Top	SMD	GRM155R71C104KA88D	MURATA	100n	0402	Capacitor 100n 16V 10% Ceramic X7R	Farnell	1118151	0.005	X	X		Z01650	CAPA001346
C4	Bottom	SMD	GRM155R71C104KA88D	MURATA	100n	0402	Capacitor 100n 16V 10% Ceramic X7R	Farnell	1118151	0.005	X	X		Z01650	CAPA001346
C5	Bottom	SMD	GRM155R71C104KA88D	MURATA	100n	0402	Capacitor 100n 16V 10% Ceramic X7R	Farnell	1118151	0.005	X	X		Z01650	CAPA001346
C6	Bottom	SMD	CGA5L3X7R1H225K	TDK COMPONENTS	2u2	1206	Capacitor 2u2 50V 10% Ceramic X7R	Digi-Key	445-6986-1-ND	0.820	X	X		Z07755	CAPA101323
C7	Bottom	SMD	GRM188R6YA106MA73D	MURATA	10u	0603	Capacitor 10u 35V 20% X5R	Mouser	81-GRM188R6YA106MA3D	0.304	X	X		Z11471	CAPA104022
C8	Top	SMD	CC0603KRX7R9BB104	YAGEO	100n	0603	Capacitor 100n 50V 10% Ceramic X7R	Mouser	603-CC603KRX7R9BB104	0.083	X	X		Z00890	CAPA003980
C9	Top	SMD	CC0603KRX7R9BB104	YAGEO	100n	0603	Capacitor 100n 50V 10% Ceramic X7R	Mouser	603-CC603KRX7R9BB104	0.083	X	X		Z00890	CAPA003980
F3	Bottom	SMD	2036-09-SM-RPLF	BOURNS		2036-xx-SM	GAS DISCHARGE TUBE, 3P, 20KA, 550V	Farnell	2128765	1.151	X			Z08746	MISC003213
F4	Bottom	SMD	1812L110/33MR	LITTELFUSE		1812	POLYFUSE, PTC, 1812, 1.1A; Holding Current Max Ih:1.1A; Tripping Curre...	Farnell	1822213	0.371	X			Z08605	FUSE003215
F5	Top	SMD	TBU-RS055-300-WH	BOURNS		DFN-7	A Dual uni-directional 550V, 300mA, 7-Pin DFN pkg TBU for RS485	Mouser	652-TBU-RS055-300-WH	2.828	X				FUSE004487
J2	Bottom	THT	S6B-XH-A-1(LF)(SN)	JST CONNECTOR		6 Pin Header	Conn Shrouded Header HDR 6 POS 2.5mm Solder RA Thru-Hole Box	Digi-Key	455-4229-ND	0.331	X			Z13155	CONN003956
J3	Bottom	THT	M22-2010305	HARWIN		M22-201	CONNECTOR, HEADER, THT, 2MM, 3WAY	Mouser	855-M22-2010305	0.181	X				CONN102431
J4	Bottom	THT	7-215079-6	TE CONNECTIVITY		micromatch 1.27mm	MICRO-MATCH FOB.06P Connector System: Board-to-Board Number of Positio...	Digi-Key	A30729CT-ND	0.784	X			Z13185	CONN003992
J5	Bottom	SMD	1702473	PHOENIX CONTACT	PTSM 0,5/ 2-2,5	PTSM 0,5/ 2-2,5	CONN TERM BLK 2POS R/A 2.5MM SMD	Farnell	1793797	1.540	X			Z13360	CONN104324
J6	Bottom	SMD	1702473	PHOENIX CONTACT	PTSM 0,5/ 2-2,5	PTSM 0,5/ 2-2,5	CONN TERM BLK 2POS R/A 2.5MM SMD	Farnell	1793797	1.540	X			Z13360	CONN104324
L3	Bottom	SMD	BLM18PG121SN1	MURATA		0603	Inductor Ferrite Filter 25% 2A	Farnell	1515738	0.064	X			Z07531	INDU100957
R1	Top	SMD	CRCW04021K00FKED	VISHAY	1k	0402	Resistor 1k 50V 1% 0.063W Ceramic	Farnell	2121603	0.003	X	X		Z01682	RESI100158
R10	Bottom	SMD	CRCW040210K0FKED	VISHAY	10k	0402	Resistor 10k 50V 1% 0.063W	Farnell	2121730	0.003	X	X		Z01781	RESI100156
R11	Top	SMD	CR0402-FX-1001GLF	BOURNS	1k	0402	Resistor 1k 50V 1% 0.063W	Farnell	2321754	0.008	X	X		Z09859	RESI003414
R12	Top	SMD	CR0402-FX-1001GLF	BOURNS	1k	0402	Resistor 1k 50V 1% 0.063W	Farnell	2321754	0.008	X	X		Z09859	RESI003414
R13	Top	SMD	CRCW04021K00FKED	VISHAY	1k	0402	Resistor 1k 50V 1% 0.063W Ceramic	Farnell	2121603	0.003	X	X		Z01682	RESI100158
R14	Top	SMD	CRG0402ZR	TE CONNECTIVITY	0R	0402	Resistor 0R 50V 5% 0.063W Ceramic	Farnell	2692334	0.002	X	X		Z01159	RESI001971
R2	Top	SMD	CRCW04021K00FKED	VISHAY	1k	0402	Resistor 1k 50V 1% 0.063W Ceramic	Farnell	2121603	0.003	X	X		Z01682	RESI100158
R3	Top	SMD	RL1206FR-070R39L	YAGEO	0R39	1206	Resistor 0R39 1% 0.25W	Mouser	603-RL1206FR-070R39L	0.357	X	X		Z13191	RESI003979
R4	Top	SMD	RL1206FR-070R39L	YAGEO	0R39	1206	Resistor 0R39 1% 0.25W	Mouser	603-RL1206FR-070R39L	0.357	X	X		Z13191	RESI003979
R5	Top	SMD	RT0402BRD07165KL	YAGEO	165K	0402	Resistor 165K 50V 0.1%	Mouser	603-RT0402BRD07165KL	0.441	X	X		Z13150	RESI003960
R6	Top	SMD	HRG3216P-1200-D-T1	SUSUMU	120R	1206	Resistor 120R 200V 0.5% 1W	Digi-Key	408-1874-1-ND	0.859	X	X			RESI104742
R9	Bottom	SMD	CRCW040210K0FKED	VISHAY	10k	0402	Resistor 10k 50V 1% 0.063W	Farnell	2121730	0.003	X	X		Z01781	RESI100156
U1	Top	SMD	AS5030-ATST	AMS		TSSOP-16	Rotary Position Sensor 5.5V Digital Output 16-Pin TSSOP T/R. Halleffek...	Mouser	985-AS5030-ATST	5.054	X			Z13144	ICDA003954
U2	Bottom	SMD	LTM8020IV#PBF	ANALOG DEVICES		LGA-21	Regulator Module (Power) DC-DC, 1-OUT 1.25V to 5V, 0.2A, Input 4V to 3...	Mouser	584-LTM8020IV#PBF	9.543	X			Z13153	ICAN003957
U3	Top	SMD	SN65HVD1782DR	TEXAS INSTRUMENTS	SN65HVD1782	SOIC-8	Device Type:Transceiver	Digi-Key	296-23802-1-ND	1.662	X			Z02535	ICD1101087
U4	Top	SMD	AVR128DA32-I/PT	MICROCHIP		TQFP-32	Microcontroller 8-Bit AVR RISC 128K-byte Flash 2.5V/3.3V/5V 32-Pin TQF...	Digi-Key	150-AVR128DA32-I/PT-ND	0.000	X				ICD1004155
U5	Top	SMD	A4988SETTR-T	ALLEGRO MICRO SYSTEMS		QFN-28	DMOS Microstepping Driver with Translator and overcurrent Protection	Arrow	A4988SETTR-T	1.550	X				ICDA004156
U6	Top	SMD	SHT31A-DIS	SENSIRION		DFN-8	AUTOMOTIVE SENSOR HUMID/TEMP 2% HUMIDITY/TEMPERATURE SENSOR, DFN-EP-8	Mouser	403-SHT31ADIS-B2.5KS	5.638	X			Z13182	ICDA004003
V1	Bottom	SMD	SMCJ24A	FAIRCHILD		DO-214AB	DIODE, TVS, 24V, 1500W, SMC; Diode Type:TVS, Unidirectional; Voltage, ...	Farnell	9844031	0.375	X			Z08751	DIOD001187
V2	Top	SMD	CDSOT23-SM712	BOURNS		SOT-23	DIODE, UNIDIR TVS, 2 LINE, 7V&12V, SOT23; Voltage Vrwm:12V; Breakdown ...	Farnell	1824869	1.585	X			Z08602	DIOD003212