

# Bill of Materials

# ADM00735 - MCP37x10-200 12-Bit Single Ch Evaluation Board

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 Part Number: ADM00735  
 Revision: 1  
 Engineer: Idan Shtayer  
 Drawn By: Idan Shtayer



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Quantity	Column=Designator	Column=Description_	Column=Manufacturer 1	Column=Manufacturer Part Number 1	Column=Supplier 1	Column=Supplier Part Number 1
2	Uin.0, UinA.0	1:1 Flux Coupled Transformer 0.3-200MHz	M/A-Com Tech Solutions	MABAES0060	Digikey	1465-1317-1-ND
1	U10	1:1 Mini Wideband Transformer 0.25-750MHz	CoilCraft	WBC1-1TL_	CoilCraft	WBC1-1TL_
2	J13, J15	Backplane Connector Header 40POS 2.5mm Press Fit RA Thru-Hole	Tyco	6469169-1	Avnet	6469169-1
2	SW2, SW3	DIP Switch 4POS Half Pitch 24V	C&K Components	TDA04H0SB1	Digikey	CKN9065-ND
1	SW1	Switch Tactile SPST-NO 0.05A 12V	Panasonic ECG	EVQ-5PN04K	Digikey	P13595SCT-ND
1	D5	Schottky Diode GP LN 20V SOT-23	Avago Technologies	HSMS-2812-TR1G	Digikey	516-1814-6-ND
2	Jin.0, J10	SMA Connector 50 Ohm Right Angle	TE Connectivity	5-1814400-1	Digikey	A97593-ND
2	U20, U21	IC UHS Dual Buffer with Open Drain Outputs SC706	Fairchild Semiconductor	NC7WZ07P6X	Digikey	NC7WZ07P6XTR-ND
1	J17	Power Jack Connector 2.1x5.5MM SMD	CUI Inc.	PJ-002AH-SMT	Digikey	CP-002AHPJCT-ND
3	U11, U22, U23	IC Dual-Bit Dual-Supply Bus Transceiver	Texas Instruments	SN74AVC2T245RSWR	Avnet	296-23684-2-ND
2	J5, J16	12 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold or Gold, GXT™	Amphenol FCI	68602-212HLF	Digikey	609-3373-ND
9	FB1, FB2, FB4, FB5, FB6, FB7, FB8, FB9, FB13	Ferrite Chip 5 Ohm 300mA 0402	Murata	BLM15BA050SN1D	Digikey	490-5179-1-ND
3	D1, D3, D4	LED Red/Clear 636NM 0402 SMD	Lumex Opto	SML-LX0402SIC-TR	Digikey	67-1878-1-ND
1	F1	PTC Resettable Fuse 0.75A 24V 1812	Bel Fuse Inc.	0ZCG0075AF2B	Digikey	507-1764-1-ND
1	D2	Zener Diode 6V 5W DO214AA	Micro Commercial Co.	SMBJ5340B-TP	Digikey	SMBJ5340B-TPMSCT-ND
8	R1n.0, R1p.0, R36, R38, R103, R104, R136, Rc.0	Resistor 0.0 Ohm 1/16W 0402 SMD	Vishay Dale	CRCW04020000Z0ED	Digikey	541-0.0JDKR-ND
4	R37, R43, R46, R60	Resistor 1.00 Ohm 1/16W 1% 0402 SMD	Vishay Dale	CRCW04021R00FKED	Digikey	541-1.00LLTR-ND
2	R2n.0, R2p.0	Resistor 4.99 Ohm 1/16W 1% 0402 SMD	Vishay Dale	CRCW04024R99FKED	Digikey	541-4.99LLTR-ND
2	Rcn.0, Rcp.0	Resistor 24.9 Ohm 1/16W 0.1% 0402 SMD	TE Connectivity	9-1879212-8	Digikey	A102737TR-ND
6	R3n.0, R3p.0, R40, R47, R89, R90	Resistor 49.9 Ohm 1/16W 0.1% 0402 SMD	Panasonic	ERA-2AEB49R9X	Digikey	P49.9DCDKR-ND
3	R2, R81, R82	Resistor 330 Ohm 1/16W 1% 0402 SMD	Yageo	RC0402FR-07330RL	Digikey	311-330LRDKR-ND
4	R51, R52, R96, R122	Resistor 1K Ohm 1/16W 1% 0402 SMD	Yageo	RC0402FR-071K1L	Digikey	311-1.00KLRCT-ND
21	R1, R3, R4, R27, R28, R29, R31, R34, R59, R61, R97, R98, R99, R102, R109, R111, R115, R117, R118, R119, R123	Resistor 10K Ohm 1/16W 1% 0402 SMD	Yageo	RC0402FR-0710K1L	Digikey	311-10.0KLRCT-ND
6	R66, R67, R74, R77, R86, R93	Resistor 20K Ohm 1/16W 1% 0402 SMD	Yageo	RC0402FR-0720K1L	Digikey	311-20.0KLRDKR-ND
2	R65, R92	Resistor 40.2K Ohm 1/16W 1% 0402 SMD	Yageo	RC0402FR-0740K2L	Digikey	311-40.2KLRDKR-ND
2	R63, R84	Resistor 69.8K Ohm 1/16W 1% 0402 SMD	Vishay Dale	CRCW040269K8FKED	Digikey	541-69.8KLRCT-ND
2	R72, R76	Resistor 147K Ohm 1/16W 1% 0402 SMD	Vishay Dale	CRCW0402147KFKED	Digikey	541-147KLRTR-ND
1	C2.0	Ceramic Capacitor 3.3pF 50V NP0 0402	Samsung EM America	CL05C3R3CB5NNNC	Digikey	1276-1141-1-ND
1	C111	Ceramic Capacitor 150pF 50V 5% NP0 0402	Samsung EM America	CL05C151JB5NNNC	Digikey	1276-1046-1-ND
5	C62, C92, C101, C112, C116	Ceramic Capacitor 1000pF 50V 10% X7R 0402	Samsung EM America	CL05B102KB5NCNC	Digikey	1276-1492-1-ND

3	C31, C114, C173	Ceramic Capacitor 5600pF 50V 10% X7R 0402	Samsung EM America	CL05B562KB5NNNC	Digikey	1276-1579-6-ND
6	C29, C32, C33, C41, C63, Cc.0	Ceramic Capacitor 0.1uF 50V 10% X7R 0402	TDK Corporation	CGA2B3X7R1H104K050BB	Digikey	445-6899-1-ND
3	C170, C172, C182	Ceramic Capacitor 0.22uF 10V 10% X5R 0402	Samsung EM America	CL05A224KP5NNNC	Digikey	1276-1049-6-ND
1	C46	Ceramic Capacitor 1uF 10V 10% X5R 0402	Samsung EM America	CL05A105KP5NNNC	Digikey	1276-1076-6-ND
1	C76	Ceramic Capacitor 2.2uF 6.3V 20% X5R 0402	Samsung EM America	CL05A225MQ5NNNC	Digikey	1276-1469-6-ND
10	C30, C40, C44, C45, C117, C121, C131, C141, C147, C153	Ceramic Capacitor 4.7uF 6.3V 20% X5R 0402	Samsung EM America	CL05A475MQ5NQNC	Digikey	1276-1483-6-ND
6	C123, C124, C135, C142, C148, C155	Ceramic Capacitor 10uF 6.3V 20% X5R 0603	Samsung EM America	CL10A106MQ8NNNC	Digikey	1276-1119-6-ND
4	Underside of Board	Cylindrical Bumpers 0.375" Diameter Black	3M	SJ61A4	Digikey	SJ5750-0-ND

#### Microchip Parts listed below

1	U13	IC 18-Bit Analog-to-Digital Converter with I2C Interface	Microchip	MCP3421A0T-E/CH	Digikey	MCP3421A0T-E/OTTR-ND
1	U6	IC 18-Bit Analog-to-Digital Converter with I2C Interface	Microchip	MCP3421A1T-E/CH	Digikey	MCP3421A1T-E/OTTR-ND
1	U18	IC 18-Bit Analog-to-Digital Converter with I2C Interface	Microchip	MCP3421A2T-E/CH	Digikey	MCP3421A2T-E/OTTR-ND
1	U25	IC 18-Bit Analog-to-Digital Converter with I2C Interface	Microchip	MCP3421A3T-E/CH	Digikey	MCP3421A3T-E/OTTR-ND
6	U5, U12, U14, U16, U17, U19	IC LDO Regulator Adjustable 1.5A 8DFN	Microchip	MCP1727-ADJE/MF	Digikey	MCP1727-ADJE/MF-ND
1	U1	IC EEPROM 128KBIT 400KHz 8SOIC	Microchip	24LC128-I/SN	Digikey	24LC128-I/SN-ND
1	U8	IC 12-Bit 200 Msps Low-Power Single Channel ADC	Microchip	MCP37D10-200I/TE	Microchip	MCP37D10-200I/TE

#### Mechanical Parts to be added in the package

1	Included in packaged box	Wall Mount AC Adapters 5W 5V 1.0A 2 pole USA plug	Mean Well	GS06U-1P1J	Mouser	709-GS06U-1P1J
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#### Do Not Populate Parts listed below

3	R5, R39, R49	0 ohm Resistor (0402)	<generic>		Digikey	
3	FB3, FB10, FB11	Ferrite Chip 5 Ohm 300mA 0402	Murata	BLM15BA050SN1D	Digikey	490-5179-1-ND
1	Rin.0	49.9 Ohm Resistor (0402)	<generic>		Digikey	
2	R41, R44	24.9 Ohm Resistor (0402)	<generic>		Digikey	
6	C48, C167, C168, C169, C171, C183	220nF Capacitor (0402)	<generic>		Digikey	
3	R42, R45, R48	1k Resistor (0402)	<generic>		Digikey	
3	C1.0, C105, C106	150pF Capacitor (0402)	Samsung EM America	CL05C151JB5NNNC	Digikey	1276-1046-1-ND
1	R112	10k Resistor (0402)	<generic>		Digikey	
6	C118, C125, C136, C143, C149, C156	3.3uF Capacitor (0603)	<generic>		Digikey	
1	Y2	200 MHz Differential Crystal Oscillator	Crystek	CCPD-034-50-200.000	Digikey	744-1041-ND
1	Y1	100 MHz Crystal Oscillator	Crystek	CCHD-950-50-100.000	Digikey	744-1054-ND
5	M1, M2, M3, M4, M5	Mounthole				
11	TP3, TP4, TP5, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21	SIP-1P Test Point				

#### Notes

Crystal Oscillator	An oscillator can be added using the instructions found in the MCP37xxx Evaluation Kit User's Guide (section: "Input/Output Optimization")
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