

ANALOG FRONTEND FOR LOW COST ULTRASOUND DEVICE BOM REV V1.3

DATE	COMPANY	COMMENT 1	COMMENT 2
2017-06-16	Columbia University - Creative Machines Lab		
COMMENT 3	COMMENT 4	TOTAL PARTS	
		63 (Unique 34)	
Ref	Qty	Value	Footprint
[C] - Capacitors			
C5	1	1n	Capacitors_SMD:C_0603
C21	1	2.2nF	Capacitors_SMD:C_0603
C20	1	6.8nF	Capacitors_SMD:C_0603
C8 C9	2	1u	Capacitors_SMD:C_0603
C14 C13 C16 C11 C12 C15 C17 C23 C4 C2 CLMD1 CINH1 C7 C6	14	0.1ÂµF	Capacitors_SMD:C_0603
C18 C19	2	1nF	Capacitors_SMD:C_0603
C3	1	0.33ÂµF	Capacitors_SMD:C_0603
C1	1	10ÂµF	Capacitors_Tantalum_SMD:CP_Tantalum_Case-A_EIA-3216-18_Reflow
C22	1	470pF	Capacitors_SMD:C_0603
[CFB] -			
CFB1	1	18nF	Capacitors_SMD:C_0603
[CSH] -			
CSH1	1	22pF	Capacitors_SMD:C_0603
[D] - Diodes			
D1	1	BAV99T	custom:SOT-523
[J] -			
J3 J1 J4 J2	4	CONN_COAXIAL	custom:SMA_uxcell
J5	1	CONN_02X06	Pin_Headers:Pin_Header_Straight_2x06_Pitch2.54mm
[L] - Inductors			
L1	1	1u	Capacitors_THT:C_Radial_D5_L6_P2.5
L6 L3 L2 L4 L5	5	120nH FB	Resistors_SMD:R_0603

[LS] -

LS1	1	Piezo	Pin_Headers:Pin_Header_Straight_1x02_Pitch2.54mm
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[P] - Connectors

P2 P1 P3	3	CONN_01X02	Pin_Headers:Pin_Header_Straight_1x02_Pitch2.54mm
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[Q] - Transistors

Q1	1	IRF510N	TO_SOT_Packages_THT:TO-220_Vertical
Q2	1	IRF9510N	TO_SOT_Packages_THT:TO-220_Vertical

[R] - Resistors

R2	1	15	Resistors_THT:R_Axial_DIN0411_L9.9mm_D3.6mm_P12.70mm_Horizontal
R1 R5	2	100	Resistors_SMD:R_0805
R4 R7	2	200k	Resistors_SMD:R_0805
R3	1	1k	Resistors_SMD:R_0805
R8 R9	2	100	Resistors_SMD:R_0603
R6 R10	2	237	Resistors_SMD:R_0603
R11	1	68	Resistors_SMD:R_0805

[RFB] -

RFB1	1	274	Resistors_SMD:R_0603
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[T] -

T1	1	CX2041NLT	custom:CX2041NLT
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[U] - Semiconductors

U6	1	LTC5507	custom:TSOT-23-6_MK06A
U5	1	AD8331	custom:QSOP-20_3.9x8.6mm_Pitch0.64mm
U1	1	LM7805CT	TO_SOT_Packages_THT:TO-220_Vertical
U3 U4	2	LM7171	Housings_DIP:DIP-8_W7.62mm
U2	1	MD0100N8	TO_SOT_Packages_SMD:SOT89-3_Housing_Handsoldering

BOM made with [KICAD BOM WIZARD](#)
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