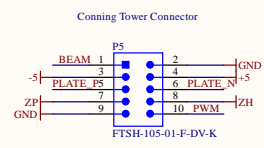
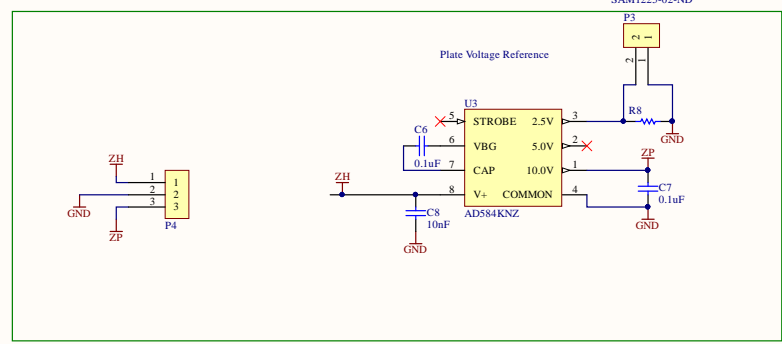
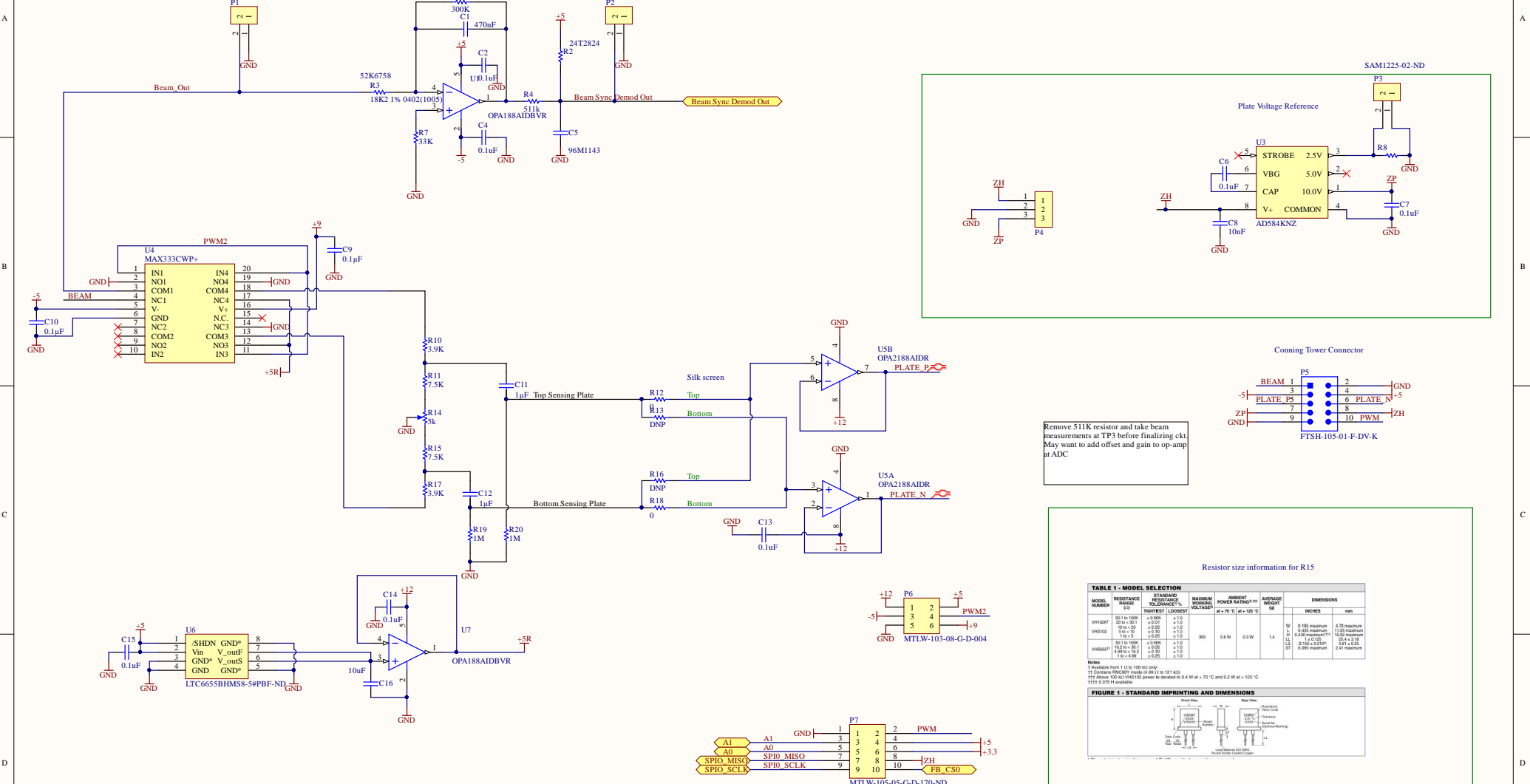


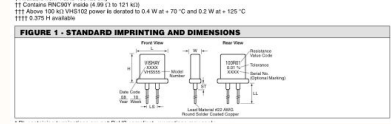
# SYNCH DEMOD

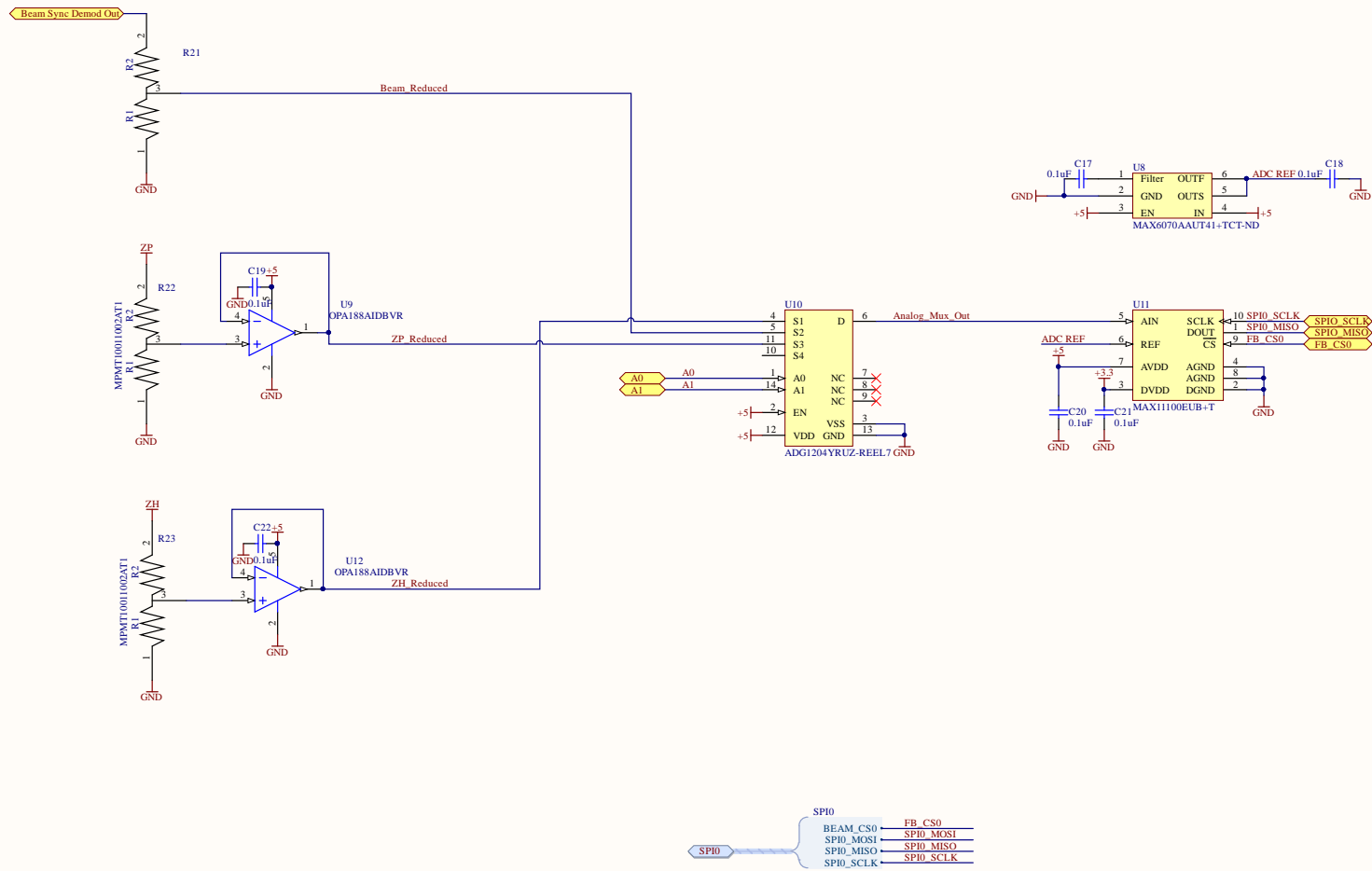


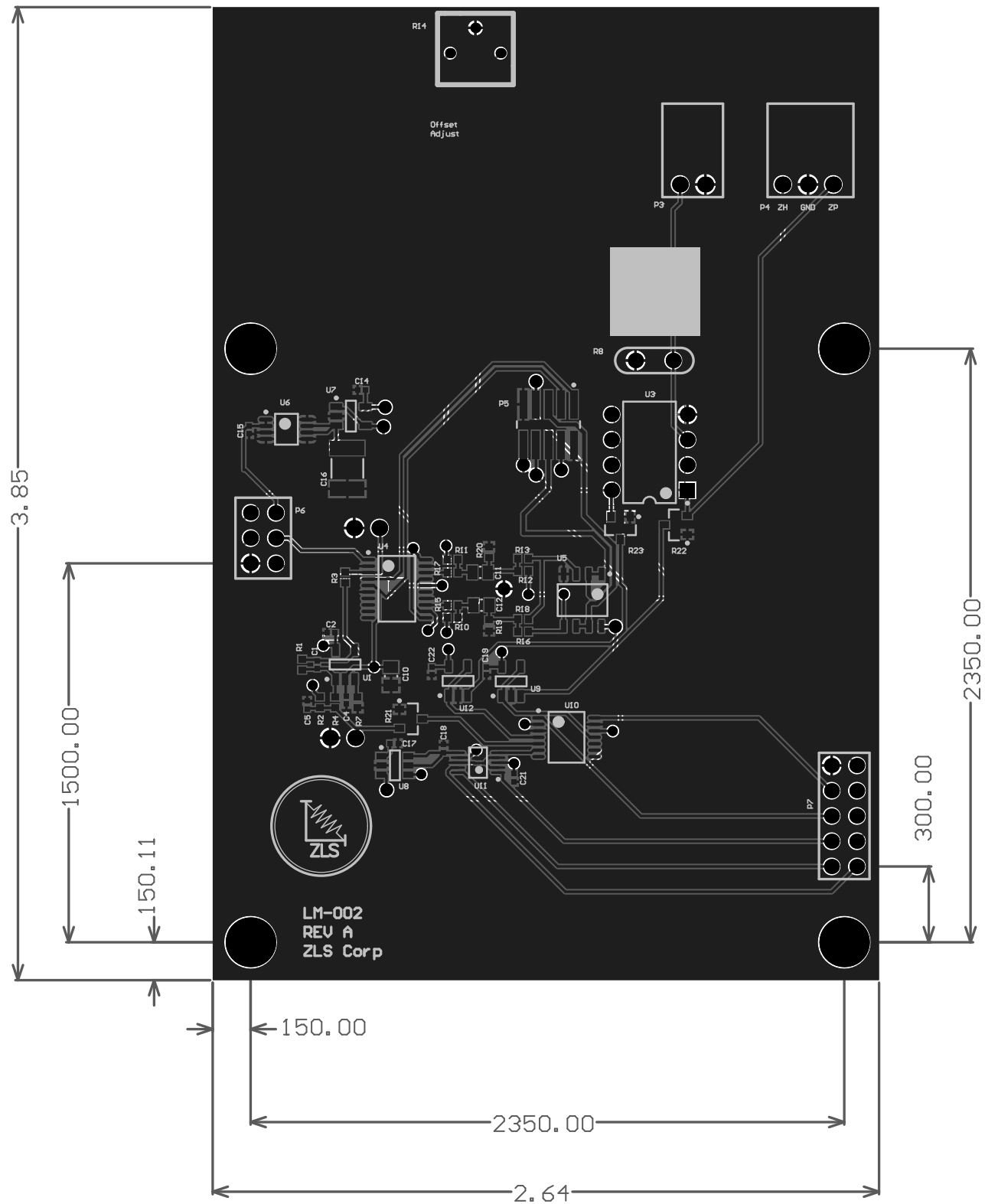
Remove 511K resistor and take beam measurements at TP3 before finalizing ckt. May want to add offset and gain to op-amp at ADC.

Resistor size information for R15

MODEL NUMBER	RESISTANCE RANGE (Ω)	STANDARD RESISTANCE TOLERANCE (%)	MAXIMUM WORKING VOLTAGE	POWER RATING (1) (W)	AVERAGE WEIGHT (g)	DIMENSIONS (mm)	
						INCHES	MM
V400100T	50 Ω to 100K	±0.50%	±1.0	0.125 W	0.125	0.188 maximum	4.75 maximum
V400100T	100 Ω to 10K	±0.25%	±1.0	0.125 W	0.125	0.188 maximum	4.75 maximum
V400100T	10K to 100K	±0.25%	±1.0	0.125 W	0.125	0.188 maximum	4.75 maximum
V400000T	100 Ω to 10K	±0.50%	±1.0	0.125 W	0.125	0.188 maximum	4.75 maximum
V400000T	10K to 100K	±0.50%	±1.0	0.125 W	0.125	0.188 maximum	4.75 maximum







Comment	Description	Designator	Footprint	LibRef	Quantity
		C1, C5	CAPC0402(1005)60_L	CMP-1034-01343-1	2
0.1uF	CAP CER 0.1UF 10V X7R 0402	C2, C4, C6, C7, C13, C14, C15, C17, C18, C19, C20, C21, C22	CAPC0402(1005)60_L	CMP-1034-00252-1	13
Multilayer Ceramic Capacitors MLCC - SMD/SMT 0.01uF 50volts 10% X7R	Multilayer Ceramic Capacitors MLCC - SMD/SMT 0.01uF 50volts 10% X7R	C8	CAPC0805(2012)14 5_N	CMP-1036-04795-1	1
CAP CER 0.1UF 25V X7R 0805	CAP CER 0.1UF 25V X7R 0805	C9, C10	CAPC0805(2012)14 5_N	CMP-1036-04795-1	2
CAP CER TUF 25V X7R 0805	CAP CER TUF 25V X7R 0805	C11, C12	CAPC0805(2012)15 5_L	CMP-1036-04882-1	2
CAP FILM 10UF 20% 16VDC 1812	CAP FILM 10UF 20% 16VDC 1812	C16	CAPC1812(4532)25 0_N	CMP-1040-01653-1	1
SSW-102-02-G-S- RA		P1, P2, P3	SSW-102-02-G-S- RA	SSW-102-02-G-S- RA	3
SSW-103-02-G-S- RA		P4	SSW-103-02-G-S- RA	SSW-103-02-G-S- RA	1
FTSH-105-01-F-DV- K	Male Header, Pitch 1.27 mm, 2 x 5 Position, Height 6.12 mm, RoHS, Tube	P5	SMTC-FTSH-105-01- L-DV-K_V	CMP-2000-05352-1	1
MTLW-103-08-G-D- 004	Header, 3-Pin, Dual row	P6	MTLW-103-08-G-D- 004	Header 3X2	1
TLW-105-05-G-D		P7	TLW-105-05-G-D	TLW-105-05-G-D	1
300K		R1	RESC0402(1005)_M	CMP-1011-00651-1	1
		R2	RESC0402(1005)_M	CMP-1011-00651-1	1
18K2 1% 0402(1005)	18K2 0.063W 1% 0402 (1005 Metric) SMD	R3	RESC0402(1005)_M	CMP-1011-00651-1	1
511k		R4	RESC0402(1005)_M	CMP-1011-00651-1	1
33K		R7	RESC0402(1005)_M	CMP-1011-00651-1	1
TBD		R8	VH102K	CMP-1013-00393-1	1
3.9K		R10, R17	RESC0402(1005)_M	CMP-1011-00463-1	2
7.5K		R11, R15	RESC0402(1005)_M	CMP-1011-00463-1	2
0		R12, R18	RESC0402(1005)_M	CMP-1011-00651-1	2
DNP		R13, R16	RESC0402(1005)_M	CMP-1011-00651-1	2
TRIMMER 5K OHM 0.25W PC PIN	TRIMMER 5K OHM 0.25W PC PIN	R14	Trimmer 2.54	Trimmer	1
1M		R19, R20	RESC0402(1005)_M	CMP-1011-00463-1	2
MPM		R21	SOT95P230X102- 3N-MPM	MPM	1
MPMT10011002AT 1	RES NTRK 2 RES MULT OHM TO236- 3	R22, R23	SOT95P230X102- 3N-MPM	MPM	2
OPA188AIDBVR	Precision, Low Noise, Rail-to-Rail Output, Zero-Drift Operational Amplifier, 4 to 36 V, -40 to 125 degC, 5-pin SOT23 (DBV5), Green (RoHS & no Sb/Br)	U1, U7, U9, U12	DBV0005A_M	CMP-0809-00005-2	4
AD584KNZ	Pin Programmable, Precision Voltage Reference, + 2.5 / + 5 / + 7.5 / + 10 Prog V Output, 4.5 to 30 V Supply, Commercial, 8-pin DIP (N-8), Tube	U3	ADI-N-8	CMP-0784-00054-1	1
MAX333CWP+	IC SWITCH QUAD SPDT 20TSSOP	U4	TSOP45P640X90- 20N	MAX333CWP+	1
OPA2188AIDR	0.03 uV/degC, 6 uV Vos, Low Noise, Rail-to-Rail Output, Zero-Drift Operational Amplifier, 4 to 36 V, -40 to 105 degC, 8-pin SOIC (D8), Green (RoHS & no Sb/Br)	U5	D0008A_L	CMP-0272-00241-3	1
LTC6655BHMS8- 5#PBF		U6	TSOP65P490X110- 8N	LTC6655BHMS8- 5#PBF	1
MAX6070AAUT41+ T	IC VREF SERIES 4.096V SOT23	U8	SOT95P280X445- 6N	MAX6070AAUT41+ T	1
ADG1204YRUZ- REEL7	Low Capacitance, Low Charge Injection, +/-15 V / +12 V, 4:1 ICMOS Multiplexer, 120 Ohm Ron, 14-pin SOP (RU-14), Reel	U10	ADI-RU-14_L	CMP-0793-00109-1	1
MAX11100EUB+T	16-Bit, +5V, 200ksp/s ADC with 10uA Shutdown, 10-Pin uMAX, - 40°C to +85°C, Pb- Free, Tape and Reel	U11	U10+2_L	CMP-0249-00017-1	1