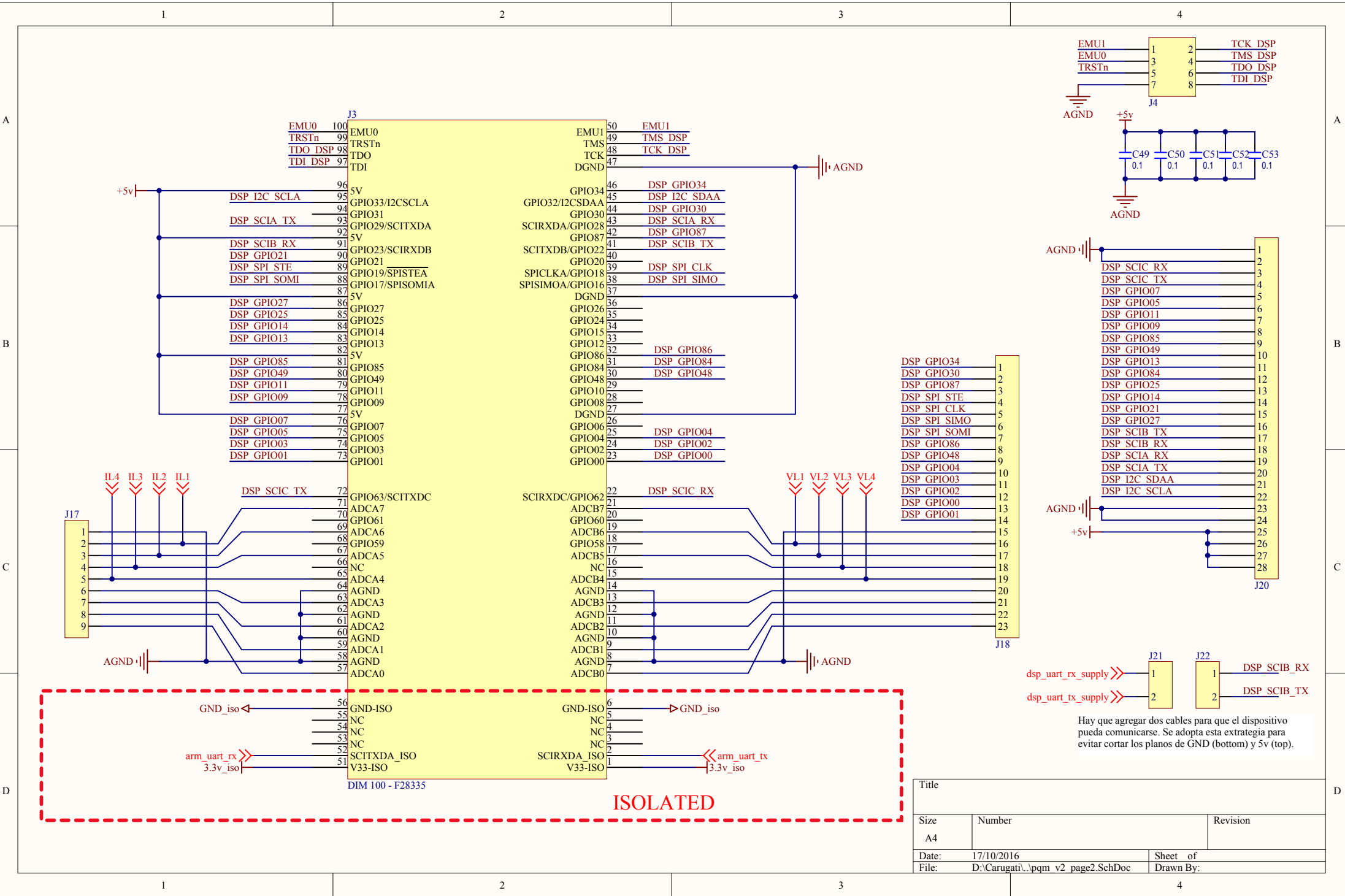


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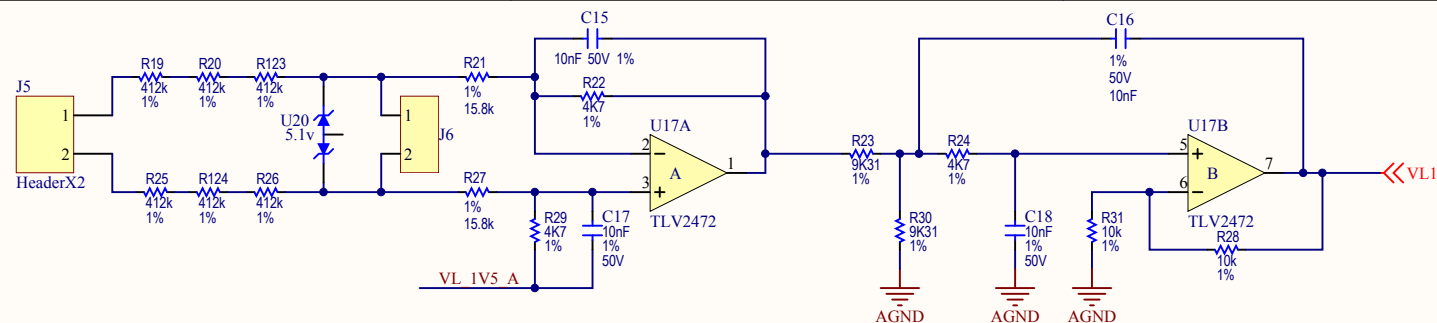
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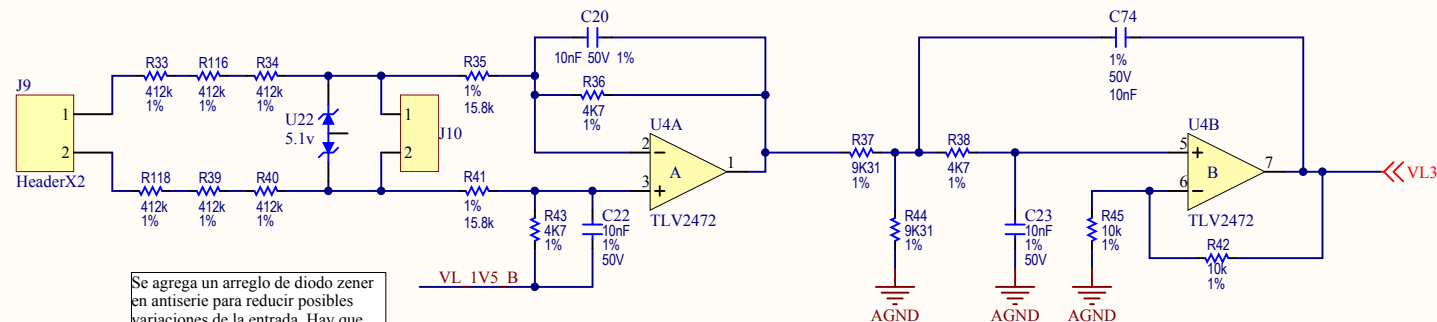
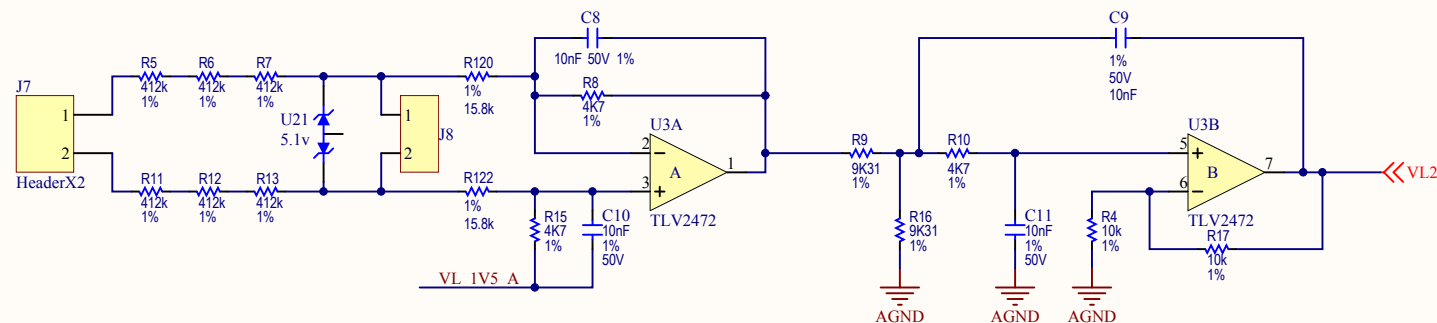
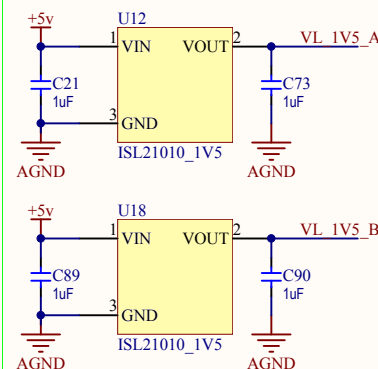


ADECUACION DE SEÑALES CANALES DE TENSION

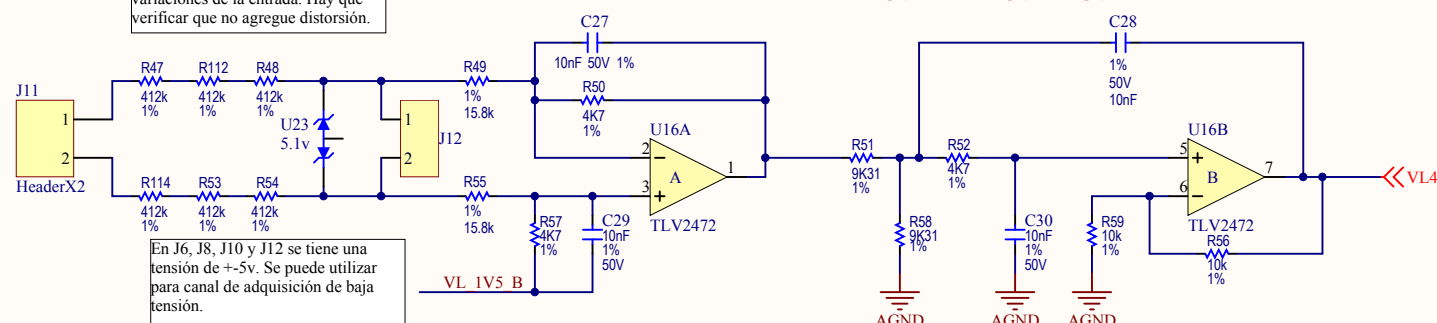
Butterwork de 3er orden
Frecuencia de corte de 3400kHz
Entrada -400v a +400v
Salida 0 a 3v

MICROPOWER VOLTAGE REFERENCE

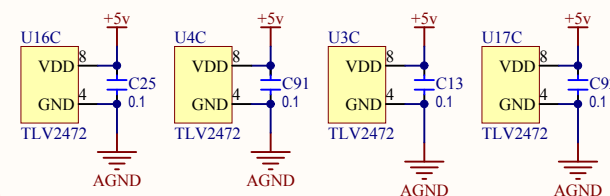
Reference output voltages: 1.5V
Output current source capability: -1mA to 25mA
Resistencia de salida = 0.025 (peor caso segun curvas del fabricante)
NOTA: Peor caso (simulación) Iout = +/-161uA por canal. Utilizo 2 referencias, una cada 2 canales.



Se agrega un arreglo de diodo zener en antiserie para reducir posibles variaciones de la entrada. Hay que verificar que no agregue distorsión.



En J6, J8, J10 y J12 se tiene una tensión de +-5v. Se puede utilizar para canal de adquisición de baja tensión.



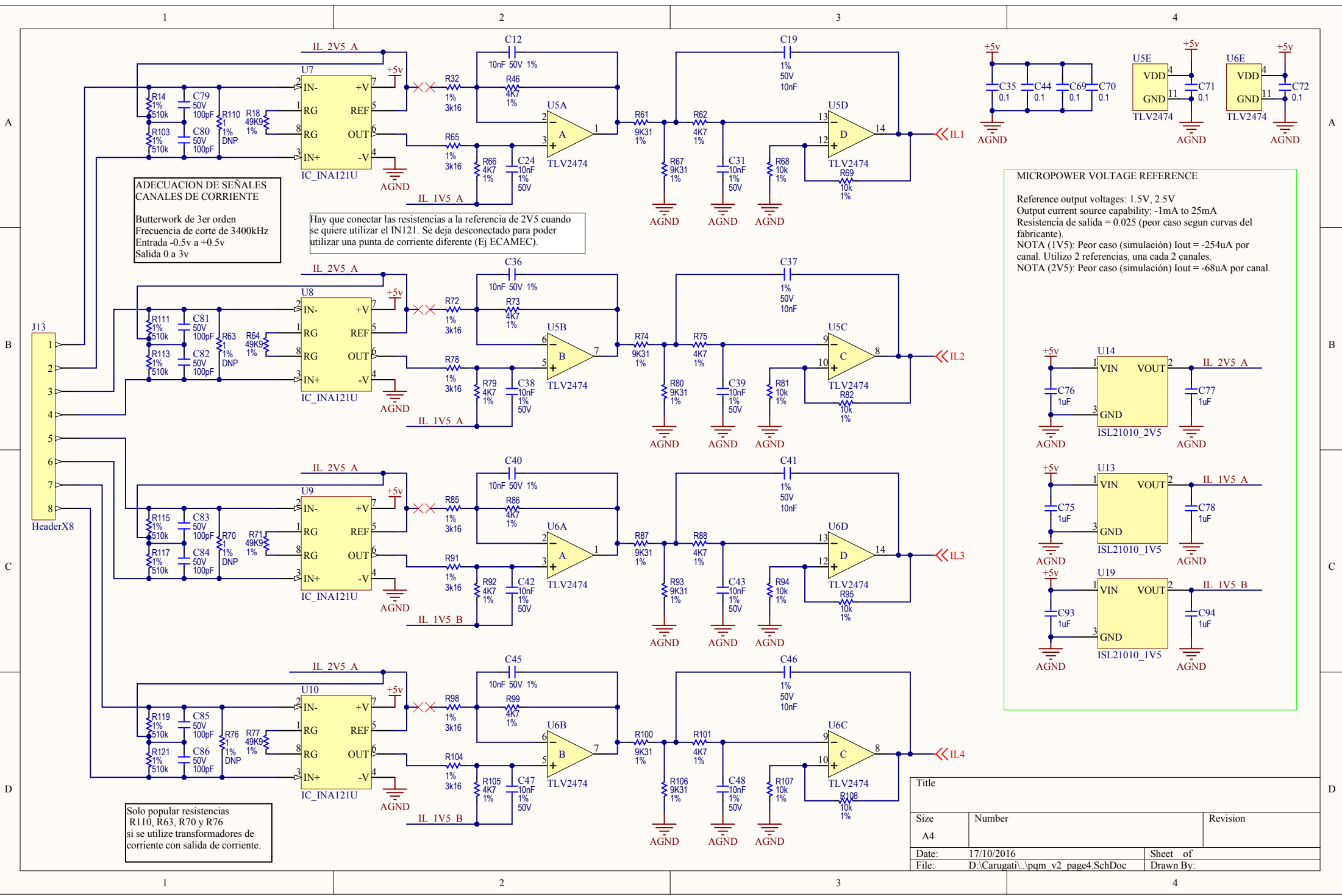
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ADECUACION DE SEÑALES
CANALES DE CORRIENTE

Butterwork de 3er orden
Frecuencia de corte de 3400kHz
Entrada -0.5v a +0.5v
Salida 0 a 3v

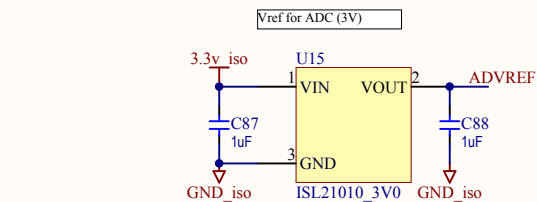
Hay que conectar las resistencias a la referencia de 2V5 cuando se quiere utilizar el IN121. Se deja desconectado para poder utilizar una punta de corriente diferente (Ej ECAMEC).

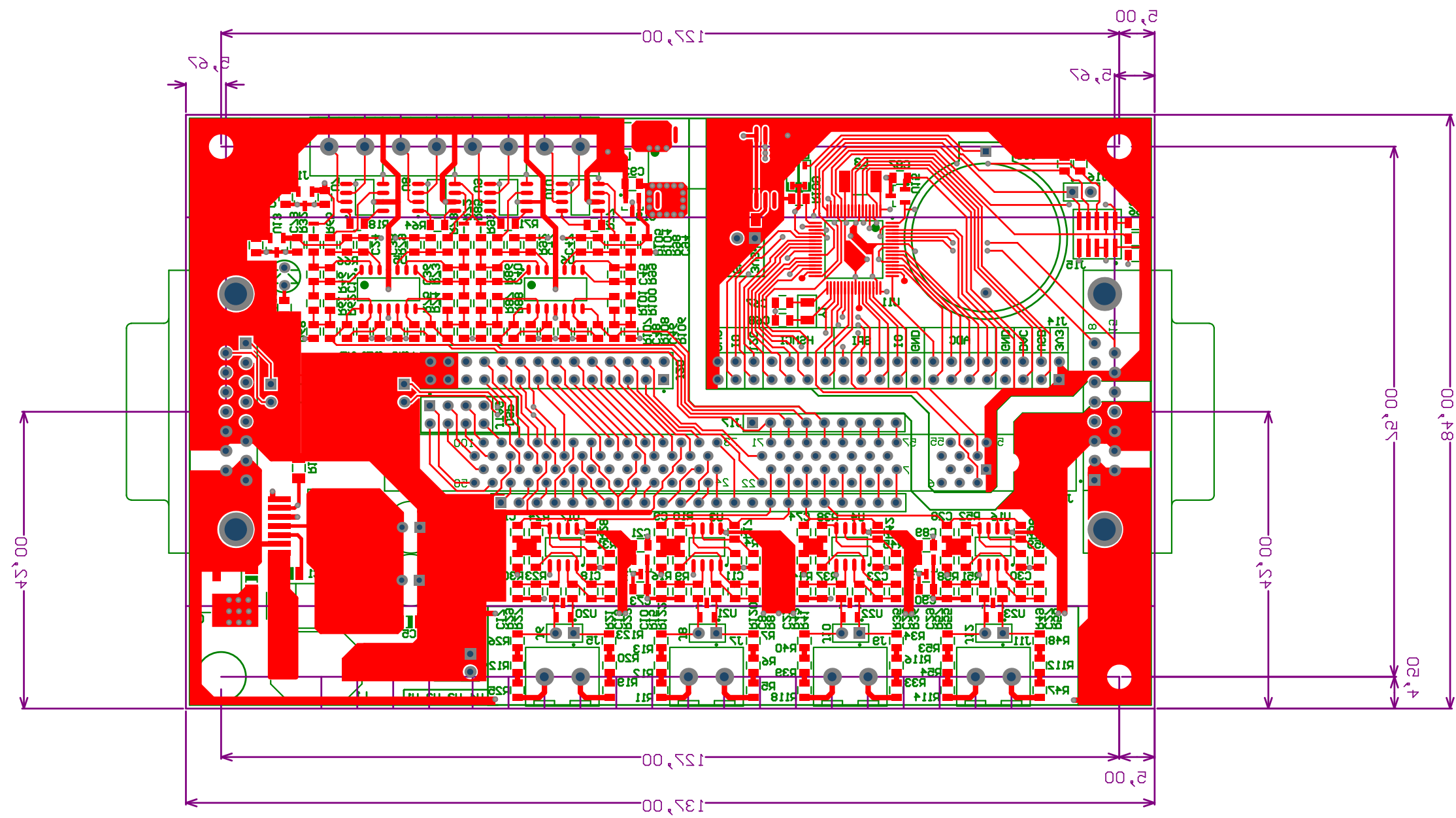
MICROPOWER VOLTAGE REFERENCE

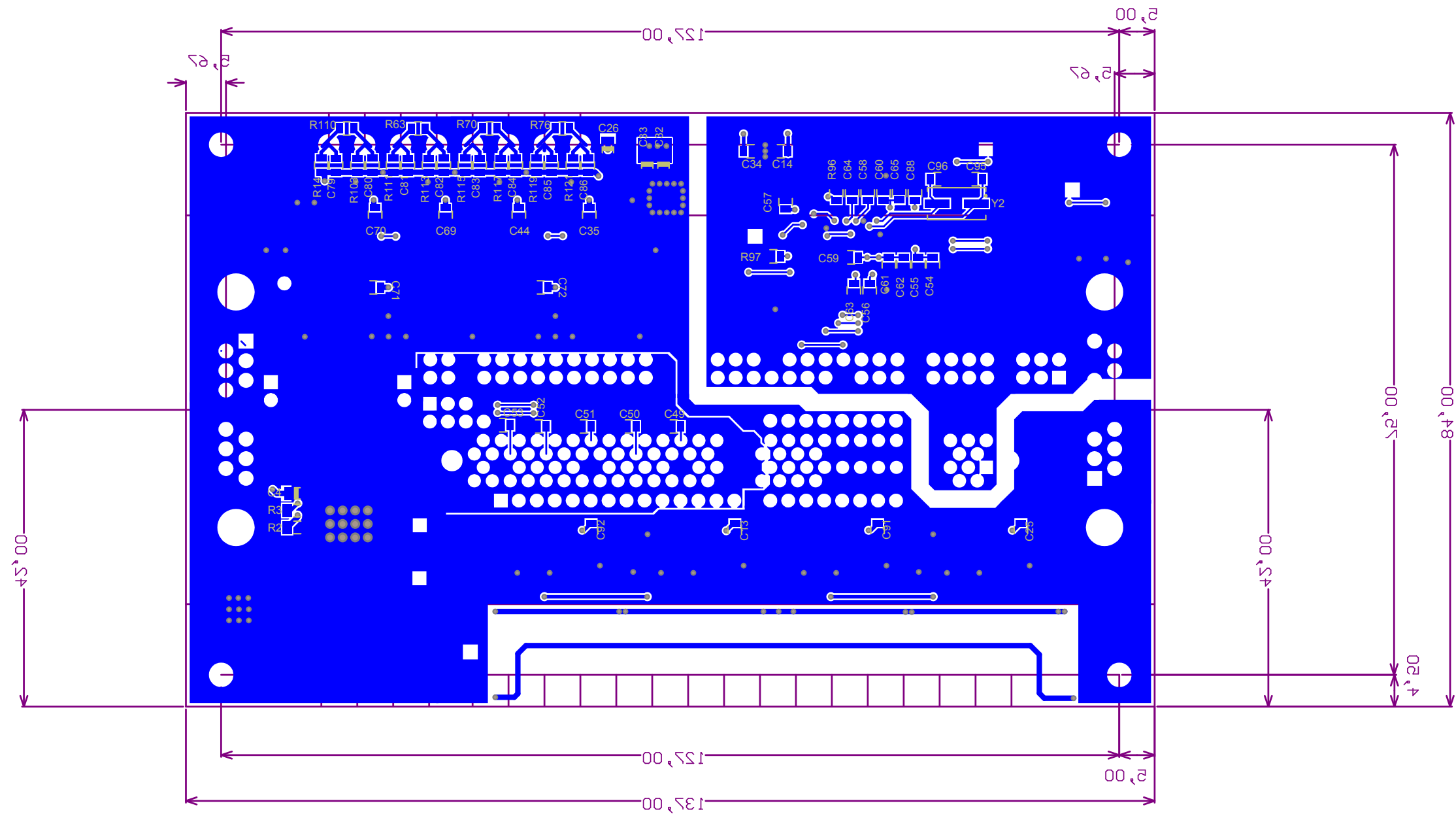
Reference output voltages: 1.5V, 2.5V
Output current source capability: -1mA to 25mA
Resistencia de salida = 0.025 (peor caso segun curvas del fabricante).
NOTA (1V5): Peor caso (simulación) Iout = -254uA por canal. Utilizo 2 referencias, una cada 2 canales.
NOTA (2V5): Peor caso (simulación) Iout = -68uA por canal.

Solo popular resistencias
R110, R63, R70 y R76
si se utilize transformadores de corriente con salida de corriente.

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Comment	Description	Digkey Part Number	Mouser Part Number	Quantity
CAP_C3216X7R2J103K115AA_TDK	10000pF, 630 V, Capacitores cerámicos, X7R, 1206 (3216 métrico), 0.126" L x 0.063" A (3.20 mm x 1.60 mm)	445-2291-1-ND	810-C3216X7R2J103K	1
CAP_EEE-1HA470XP_PANASONIC	47pF 50V Aluminum Capacitors Radial, Can - SMD 2000 Hrs @ 85°C	PCE3929CT-ND	667-EEE-1HA470XP	1
CAP_C3216X7R1E105M085AA_TDK	1 µF, 25 V, Capacitores cerámicos, X7R, 1206 (3216 métrico), 0.126" L x 0.063" A (3.20 mm x 1.60 mm)	445-4024-1-ND	810-C3216X7R1E105M-2	5
CAP_ELXY250ELL121MF15D_UC	CAP ALUM 120UF 20%25V RADIAL	565-1791-ND	881-ELXY250ELL121MF1	2
CAP_GRM2195C1H103FA01D_MURATA	CAP CER 10000PF 50V NP0 0805	490-8295-1-ND	811-GRM2195C1H103FA1D	32
CAP_CC0805KRX7R8BB104_YAGEO	CAP CER 0.1UF 25V 10%X7R 0805	311-1141-1-ND	803-CC0805KRX7R8BB104	26
CAP_CC0805KKX7R7BB105_YAGEO	CAP CER 1UF 16V X7R 0805	311-1365-1-ND	803-CC0805KKX7R7BB105	13
CAP_CC1206KX7R7BB225_YAGEO	CAP CER 2.2UF 16V X7R 1206	311-1957-1-ND	803-CC1206KX7R7BB225	1
CAP_C2012X6S1C106K085AC_TDK	CAP CER 10UF 16V 10%X6S 0805	445-14483-1-ND	810-C2012X6S1C106K0C	3
CAP_C0805X150J5GACTU_KEMET	CAP CER 15PF 50V NP0 0805	399-7428-1-ND	80-C0805X150J5G	4
CAP_CC0805JRNPO9BN101_YAGEO	CAP CER 100PF 50V NP0 0805	311-1111-1-ND	803-CC0805JRNPO9BN101	8
DIO_SK36_MICROCOM	DIODE SCHOTTKY 60V 3A SMC	SK36-TPMSCT-ND	833-SK36-TP	1
DIO_DB2J20900L_PANASONIC	DIODE SCHOTTKY 20V 500MA SMINI2	DB2J20900LCT-ND	667-DB2J20900L	2
LED	LED			1
CON_DB_15	Microcapacitor Assembly, 15 Position, Right Angle, 8.08mm Series, Amplimite, with Screwllocks			2
DIM 100 - F28335		A121375-ND	571-5390213-1	1
CON_Header_2X4				1
HeaderX2				4
CON_RADX2				7
HeaderX8				1
CON_HeaderX40				1
CON_20021121-00010C4LF_FCI	CONN HEADER 10POS DLE UNSRRO SMD	609-3695-1-ND	649-202112100010C4LF	1
COM_HeaderX9				1
Header_DSP_1				1
CON_BAT	HOLDER COMCELL 2032 RETAINRCLIP	BS-7-ND	122-2420-GR	1
CON_HeaderX30				1
CON_RADX2b				2
MAG_SRR1005-100M_BOURNS	FIXED IND 10UH 2A 65 MOHM SMD	SRR1005-100MCT-ND	652-SRR1005-100M	1
MAG_CM453232-100KLCT_BOURNS	FIXED IND 10UH 2A 65 MOHM SMD	CM453232-100KLCT-ND	652-CM453232-100KL	2
RES_ERJ8-BENF2551V_Panasonic	RES SMD 2.55K OHM 1% 1/4W 1206	P2.55KFCT-ND	667-ERJ8-BENF2551V	1
RES_ERJ8GEYJ822V_Panasonic	RES SMD 8.2K OHM 5% 1/4W 1206	P8.2KECT-ND	667-ERJ8GEYJ822V	1
RES_ERJ8-BENF7321V_Panasonic	RES SMD 7.32K OHM 1% 1/4W 1206	P7.32KFCT-ND	667-ERJ8-BENF7321V	1
RES_RC0805FR-0710KL_YAGEO	RES SMD 10K OHM 1% 1/8W 0805	311-10.0KCRCT-ND	803-RC0805FR-0710KL	16
RES_RC0805FR-07412KL_YAGEO	RES SMD 412K OHM 1% 1/8W 0805	311-412KCRCT-ND	803-RC0805FR-07412KL	24
RES_RC0805FR-074K7L_YAGEO	RES SMD 4.7K OHM 1% 1/8W 0805	311-4.70KCRCT-ND	803-RC0805FR-074K7L	24
RES_RC0805FR-079K31L_YAGEO	RES SMD 9.31K OHM 1% 1/8W 0805	311-9.31KCRCT-ND	803-RC0805FR-079K31L	16
RES_RC0805FR-07510KL_YAGEO	RES SMD 510K OHM 1% 1/8W 0805	311-510KCRCT-ND	803-RC0805FR-07510KL	8
RES_RC0805FR-0749K9L_YAGEO	RES SMD 49.9K OHM 1% 1/8W 0805	311-49.9KCRCT-ND	803-RC0805FR-0749K9L	4
RES_RC0805FR-0715K8L_YAGEO	RES SMD 15.8K OHM 1% 1/8W 0805	311-15.8KCRCT-ND	803-RC0805FR-0715K8L	8
RES_RC0805FR-073K16L_YAGEO	RES SMD 3.16K OHM 1% 1/8W 0805	311-3.16KCRCT-ND	803-RC0805FR-073K16L	8
RES_RC1206FR-0710KL_Yageo	RES SMD 10K OHM 1% 1/4W 1206	311-10.0KFRCI-ND	803-RC1206FR-0710KL	1
RES_RC0805FR-071RL_YAGEO	RES SMD 1 OHM 1% 1/8W 0805	311-1.00CRCT-ND	803-RC0805FR-071RL	4
RES_AC0805JR-07100KL_YAGEO	RES SMD 100K OHM 5% 1/8W 0805	YAG3756CT-ND	803-RC0805JR-07100KL	5
RES_RC0805JR-0710KL_YAGEO	RES SMD 10K OHM 5% 1/8W 0805	311-10KARCT-ND	803-RC0805JR-0710KL	2
RES_RC0805JR-07330RL_YAGEO	RES SMD 330 OHM 5% 1/8W 0805	311-330ARCT-ND	803-RC0805JR-07330RL	1
IC_LM22673TJ-ADJ	3A SIMPLE SWITCHER® Step-Down Voltage Regulator with Adjustable Soft-Start and Current Limit, 7-pin TO-263 Thin	LM22673TJ-ADJ/NOPBCT-ND	926-LM22673TJADJNOPB	1
IC_DCR010503U_T1	IC REG ISOLATED 3.3V 0.3A 12SOP	296-9450-6-ND	595-DCR010503U	1
IC_TLV2472_ANALOG	IC OPAMP GP 2.8MHZ RRO 8SOIC	296-2440-1-ND	595-TLV2472CDR	4
IC_TLV2474_ANALOG	IC OPAMP GP 2.8MHZ RRO 14SOIC	296-2442-1-ND	595-TLV2474CDR	2
IC_INA121U	IC OPAMP INSTR 600KHZ 8SOIC	INA121UA-ND	595-INA121UA	4
IC_ATSAM4S8BA-AU_ATMEL	IC MCU 32BIT 512KB FLASH 64QFP	ATSAM4S8BA-AU-ND	556-ATSAM4S8BA-AU	1
ISL21010_1V5	IC VREF SERIES 1.5V SOT23-3	ISL21010ICFH315Z-TRCT-ND	968-ISL21010ICFH315ZT	4
ISL21010_2V5	IC VREF SERIES 2.5V SOT23-3	ISL21010ICFH325Z-TRCT-ND	968-ISL21010ICFH325ZT	1
ISL21010_3V0	IC VREF SERIES 3V SOT23-3	ISL21010ICFH330Z-TRCT-ND	968-ISL21010ICFH330ZT	1
IC_IAZ23C5V6-E3-18_VISHAY	DIODE ZENER ARRAY 5.6V SOT23	AZ23C5V6-E3-18CT-ND	78-AZ23C5V6-E3-18	4
MSC_ECS-327-12-5-34S-TR_ECS	CRYSTAL 32.7680KHZ 12.5PF SMD	XC1967CT-ND	520-ECS327-12-534ST	1
MSC_ECS-120-20-3X-TR_ECS	12 MHz ±30 ppm Cristales 20 pF 60 Ohm	XC1770DKR-ND	520-120-20-3XT	1