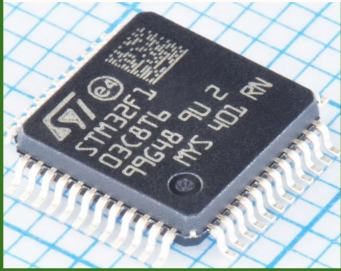
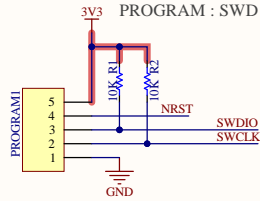


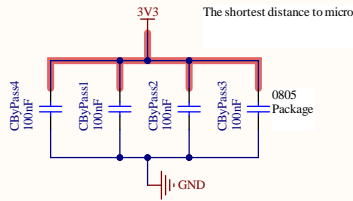
MCU STM32F103C8T6 Arshia Madadi



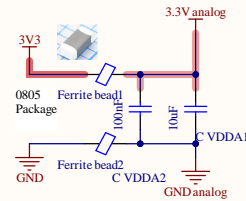
PROGRAM



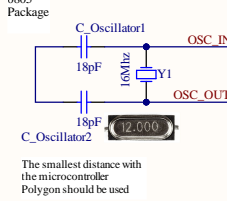
ByPass Cap



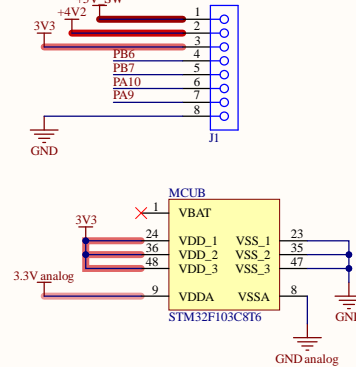
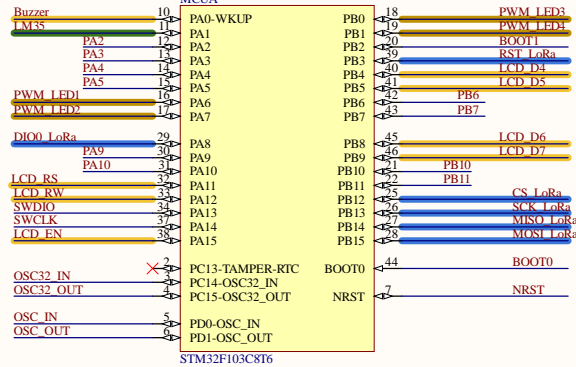
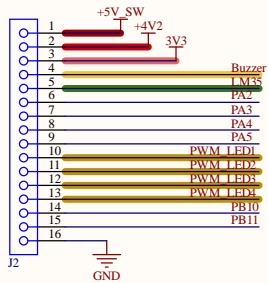
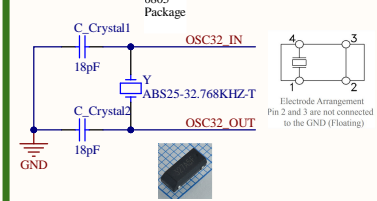
VDDA



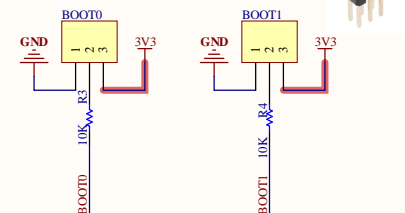
Oscillator



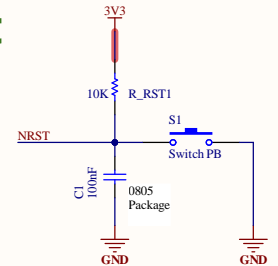
Crystal



BOOT



Rest

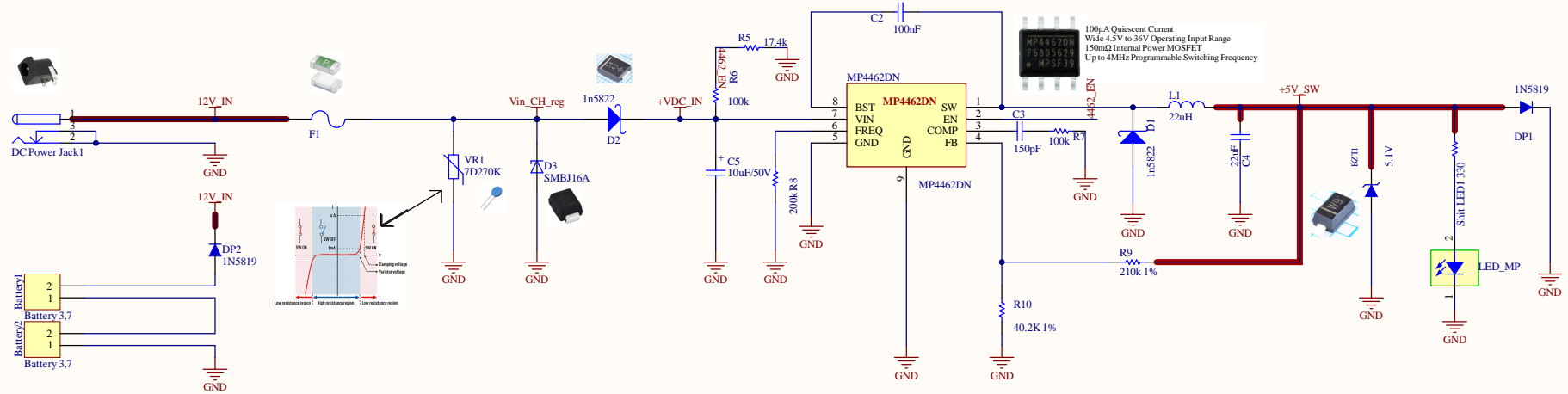


Title		
Size	Number	Revision
A		
Date:	11/01/2024	Sheet of
File:	D:\Git\MCU_stm32f103c8t6.SchDoc	Drawn By:

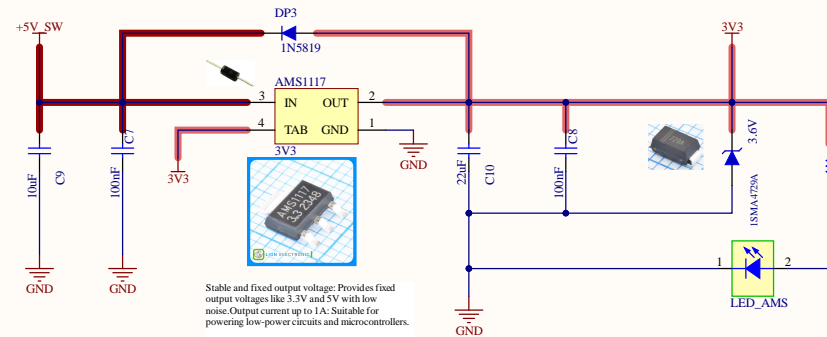
POWER

Arshia Madadi

POWER 12V->5V MP4462DN



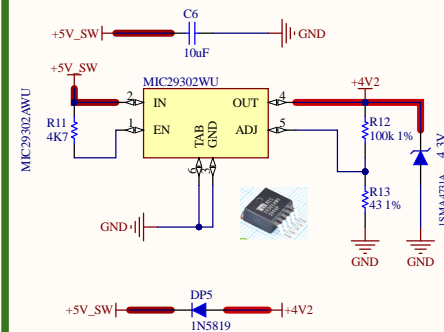
POWER 5V->3.3V AMS1117



Stable and fixed output voltage: Provides fixed output voltages like 3.3V and 5V with low noise. Output current up to 1A: Suitable for powering low-power circuits and microcontrollers.

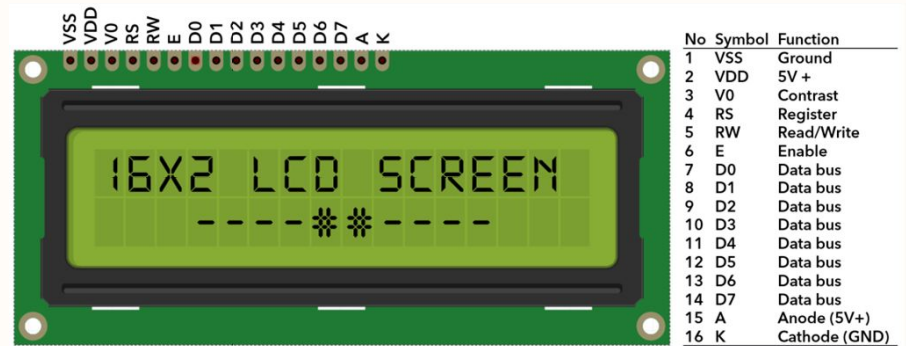
POWER 5V->4V2

MIC29302



Title POWER			
Size A	Number		Revision 1
Date:	11/01/2024	Sheet of	
File:	D:\Git\Power.SchDoc	Drawn By:	Arshia Madadi

B



C



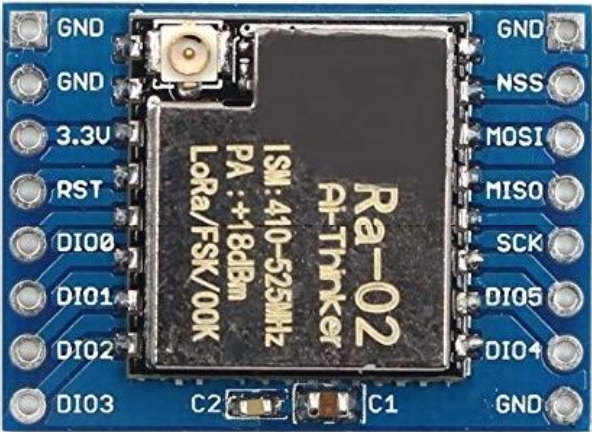
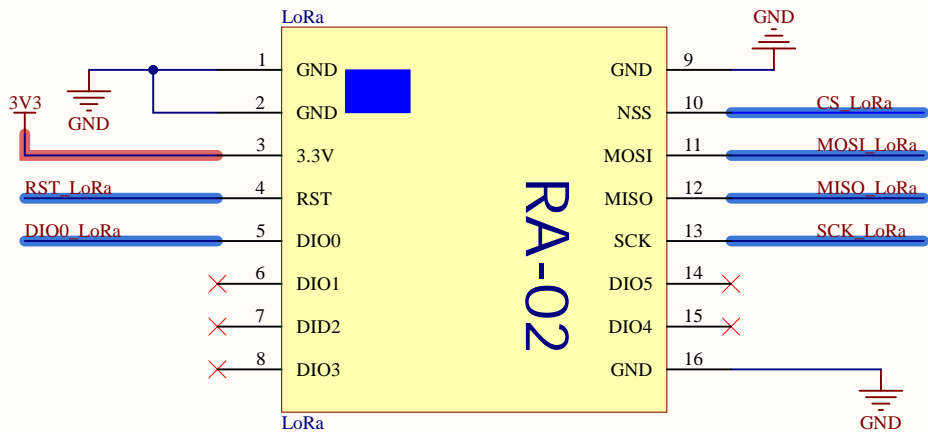
C



Size A	Number	Revision 1
Date:	11/01/2024	Sheet of
File:	D:\Git\...\UI.SchDoc	Drawn By: Arshlia Madadi

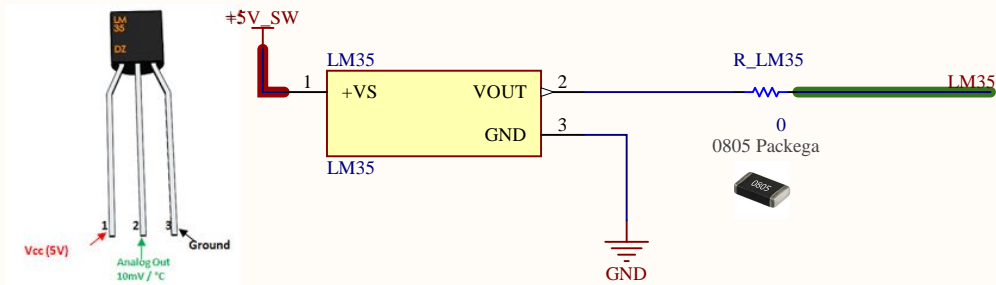
LoRa -RA-02 SX 1278

Protocol : SPI



Title Communications Chip		
Size A	Number	Revision 1
Date: 11/01/2024	Sheet of	
File: D:\Git\..\Communications_Chip.SchDoc	Drawn By: Arshia Madadi	

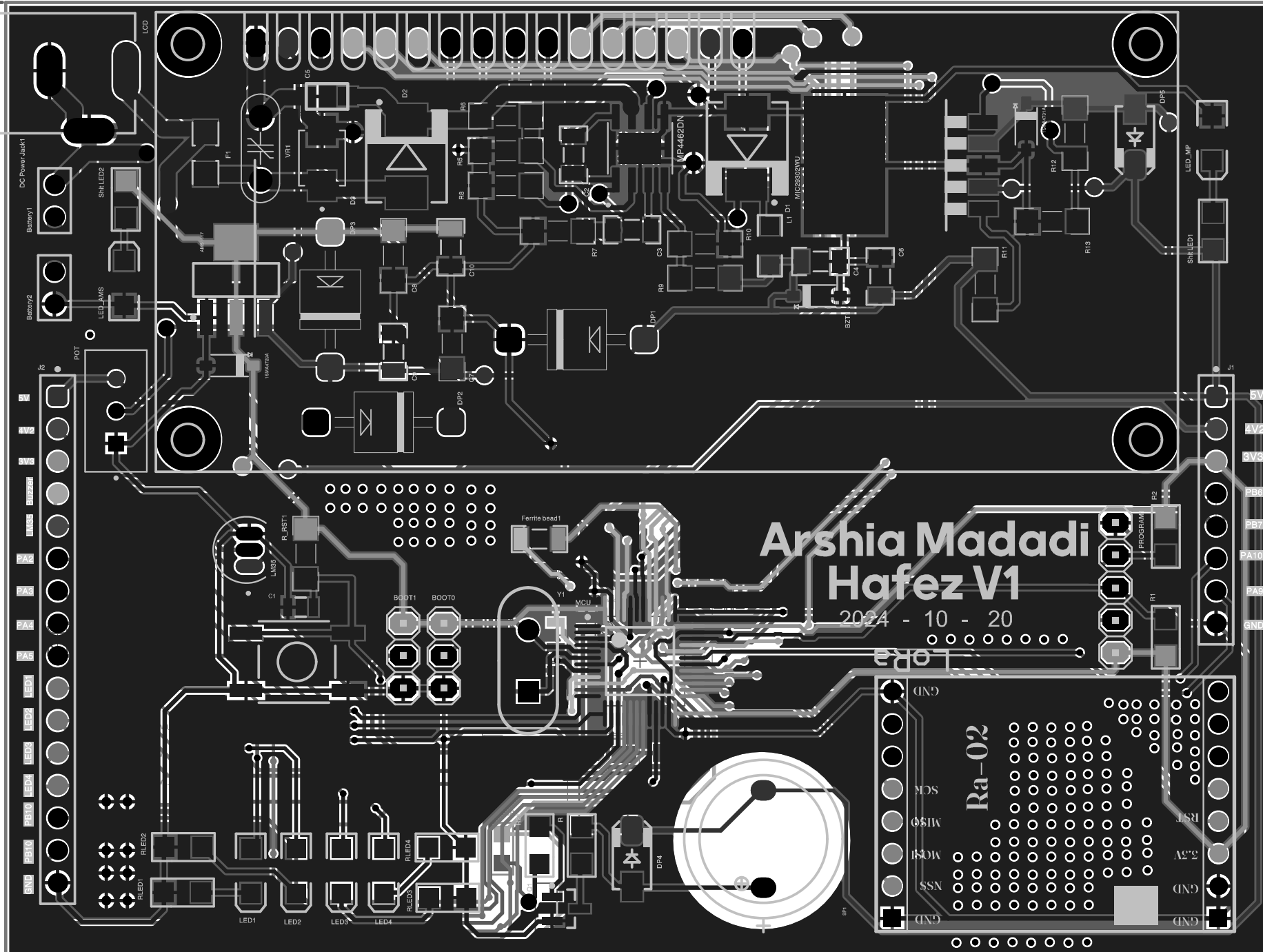
LM35 ADC Temperature sensor



Title ADC		
Size A	Number	Revision 1
Date:	11/01/2024	Sheet of
File:	D:\Git\..\ADC.SchDoc	Drawn By: Arshia Madadi

7.47 (cm)

9.89 (cm)



Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	10uF/50V		C5	1							
	LoRa		LoRa	1							
	MP4462DN		MP4462DN	1							
	100nF	2.0 mm x 1.25 mm	C1, C_VDDA2, CByPass1, CByPass2, CByPass3, CByPass4	6							
	10uF	2.0 mm x 1.25 mm	C_VDDA1	1							
	18pF	2.0 mm x 1.25 mm	C_Crystal1, C_Crystal2, C_Oscillator1, C_Oscillator2	4							
	ABS25-32.7680Hz T	32.768kHz As20ppm Crystal 12.5pf 50 kOhms ± 50µs, 5.50mm gitch	Y	1							
	SMBJ16A	600W, 18.8V, 5%, Unidirectional, TVS	D3	1							
	LCD	Alphanumeric LCD	LCD	1							
	STM32F103C8T6	ARM Cortex-M3 32-bit MCU, 64 KB Flash, 20 KB Internal RAM, 37 I/Os, 48-pin LQFP, 40 to 85 degC, Tray	MCU	1	STMicroelectronic	STM32F103C8T6	Volume Production	Mouse	811- STM32F103C8T6	5.55	5.55
	100nF	CAP 1206	C7, C8, C11	3							
	16MHz	Crystal Oscillator	Y1	1							
	DC Power Jack	DC Power Jack, Center Pin 2.5mm, Diameter: 5.7mm	DC Power Jack1	1							
	3.6V	DIODE ZENER GENERAL	15MM4729A	1							
	4.3V	DIODE ZENER GENERAL	15MM4731A	1							
	5.1V	DIODE ZENER GENERAL	BZT1	1							
	Ferrite Bead SMD	Ferrite Bead SMD	Ferrite bead1,	2							
	Battery 3.7	Header: 2-Pin	Battery1, Battery2	2							
	Header 3	Header: 3-Pin	BOOT0, BOOT1	2							
	Header 5	Header: 5-Pin	PROGRAM1	1							
	10uH	Inductor	L1	1							
	MIC29302AWU	Linear Voltage Regulator IC Positive Adjustable 1 Output 3A TO-240-5	MIC29302WU	1							
	C945	NPN Silicon Epitaxial Planar Transistor	Q1	1							
		PIEZO BUZZER ACTIVE	SP1	1							
	Switch PB	Push Button Switch	S1	1							
	10K	RES 1206	R3, R4, R_RST1	3							
	17.4K	RES 1206	R5	1							
	100K	RES 1206	R6, R7	2							
	200K	RES 1206	R8	1							
	210K 1%	RES 1206	R9	1							
	40.2K 1%	RES 1206	R10	1							
	4K7	RES 1206	R11	1							
	100K 1%	RES 1206	R12	1							
	43 1%	RES 1206	R13	1							
	47	Resistor	R	1							
	10K	Resistor	R1, R2, R15, R16, R17, R18, R21	7							
	49K	Resistor	R14	1							
	0	Resistor	R20, R_LM35, R_PWM1, R_PWM2, R_PWM3, R_PWM4	6							
	330	Resistor	RLED1, RLED2, RLED3, RLED4, Shit LED1, Shit LED2	6							
	1N5819	Schottky Rectifiers	DP1, DP2, DP3, DP4, DP5	5							
	1N6822	Schottky Rectifiers	D1, D2	2							
	SMD 1206 LED	SMD 1206 LED	LED1, LED2, LED3, LED4, LED_AMS, LED_MP	6							
	F=3.0 A	SMD Fuses 1206	F1	1							
	LM35	Temperature Sensor Analog, Local 0.1°C - 100.0°C 10mV/°C 10-92-3	LM35	1							
	100nF	TOTAL CAPACITOR SMD PACK	C2	1							
	150pF	TOTAL CAPACITOR SMD PACK	C3	1							
	22uF	TOTAL CAPACITOR SMD PACK	C4, C10	2							
	10uF	TOTAL CAPACITOR SMD PACK	C6, C9	2							
	POT	Trimmer, Potentiometer 10kohm 25turn Tpd	POT	1							
	70270K	VARIABLES	VR1	1							
	61300811821	WR-PHD Socket Header, THT, Vertical, pitch 2.54mm, 1 Row, 8P	J1	1							
	61301611821	WR-PHD Socket Header, THT, Vertical, pitch 2.54mm, 1 Row, 16P	J2	1							
	3V3	± 1 Volt, 800mA Low-Dropout Linear Regulator, 6 pin SOT-223	AMS1117	1							