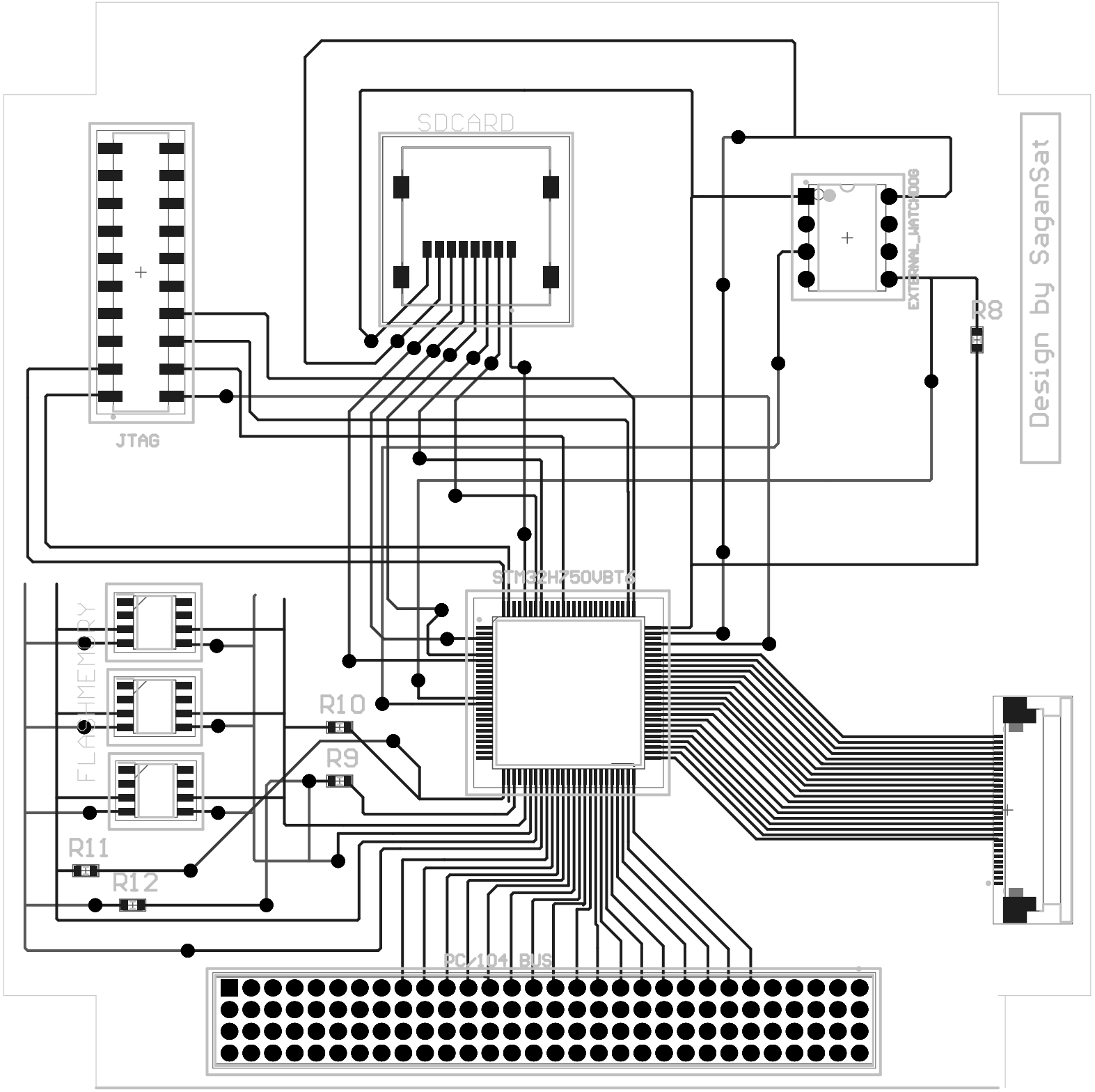
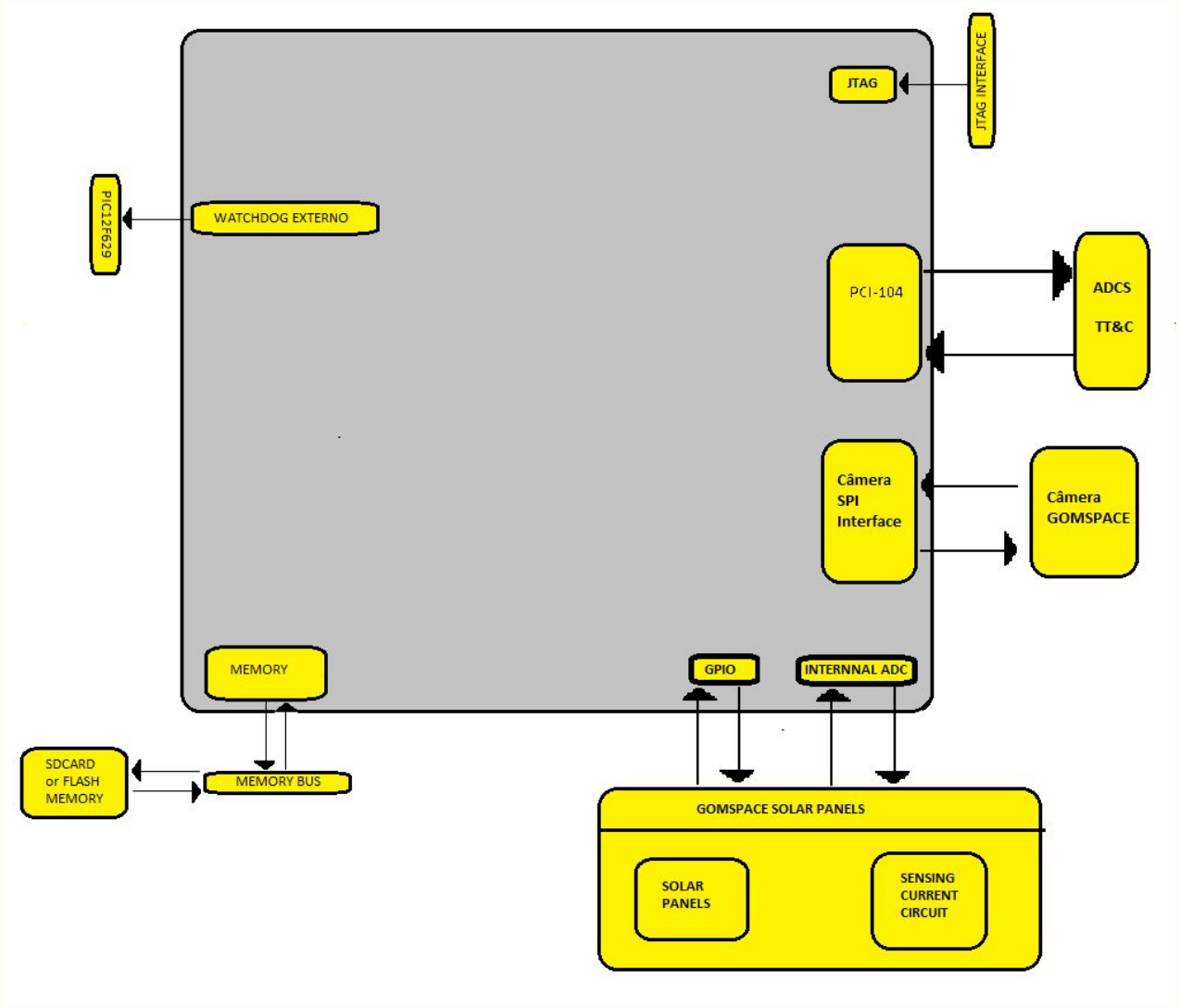

SDCARD
JTAG
EXTERNAL_WATCHDOG
R8
Design by SaganSat
STM32H750VBT6
FLASH MEMORY
R10
R9
R11
R12
PC/104 BUS



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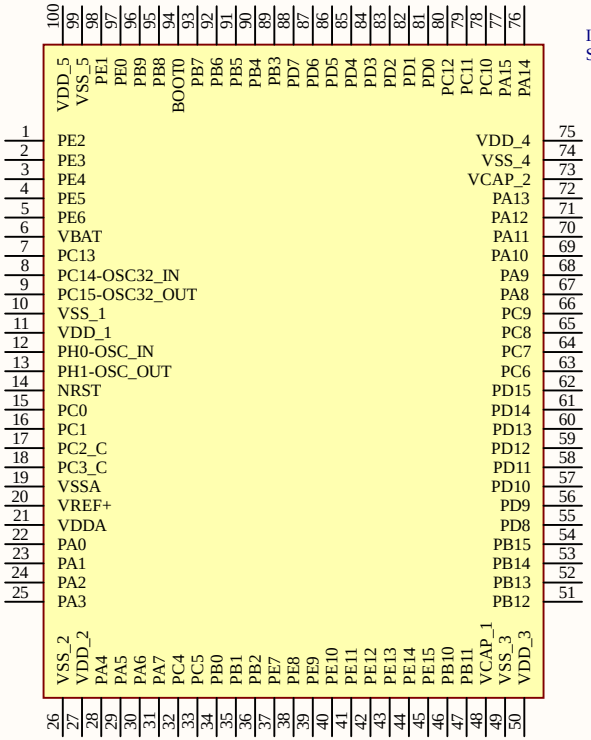
Size: A4	Number: SaganSat	Revision: V1.0
Date: 5/17/2021		Sheet of 0
File: D:\faculdade\..\Sheet1.SchDoc		Drawn By: Felipe Juliano

OBC

PIN DESCRIPTION

IC?
STM32H750VBT6



JTAG_INTERFACE

- JTMS_PIN-1PA13
- JTDO_PIN-PB3
- JTCK_PIN-PA14
- JTDI_PIN-PA15
- VCC
- GND

External Watchdog

- PIN 14 NRST
- PIN 15 PC0

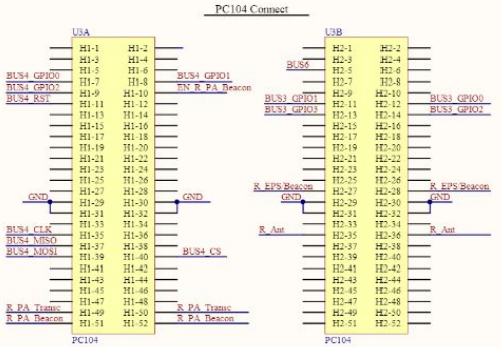
GomSpace Camera

- PIN 47 I2C_SDA
- PIN 46 I2C_SCL
- VCC
- GND
- CANH
- CANL

Non Volatile Memory

- PIN 26 VSS
- PIN 27 VDD
- PIN 28 PA4
- PIN 29 PA5
- PIN 30 PA6
- PIN 31 PA7

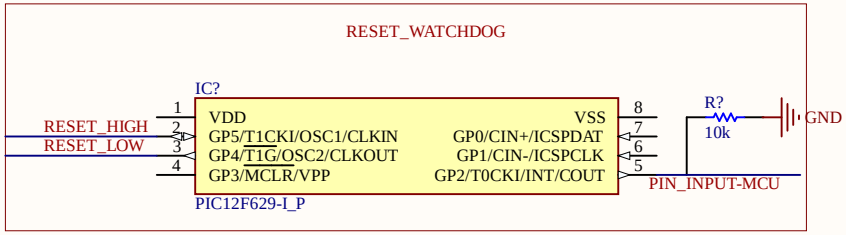
GomSpace Solar Panels

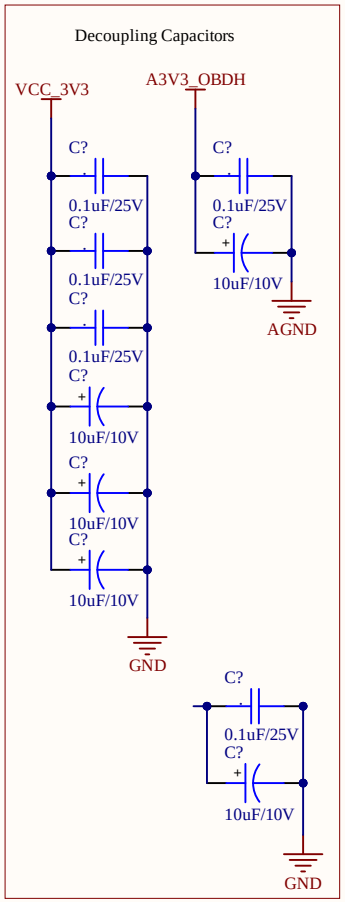


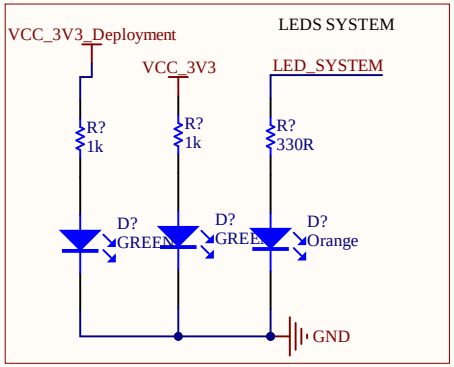
PCI_104 on MCU PINS

- GND_REF
- GND_REF
- GND_REF
- GND_REF
- BUS4_GPIO0 PD14
- BUS4_GPIO1 PD15
- BUS4_GPIO2 *
- BUS4 RST
- EN_R_PA_Beacon
- BUS4_CLK PBPD3
- BUS4_MISO PB14
- BUS4_MOSI PB15
- BUS4_CS PC11
- R_PA_TRANSC VDD_4
- R_PA_BEACON
- R_PA_TRANSC
- R_PA_BEACON
- BUS 6
- BUS3_GPIO0 PD10
- BUS3_GPIO1 PD11
- BUS3_GPIO2 PD12
- BUS3_GPIO3 PD13
- R_EPSBeacon
- R_EPSBeacon
- R_ANT
- R_ANT

Title	OBC MCU Main	
Size: A4	Number: SaganSat	Revision: V1.0
Date: 5/17/2021	Sheet of	
File: D:\faculdade\..\Sheet2.SchDoc	Drawn By: Felipe Juliano	

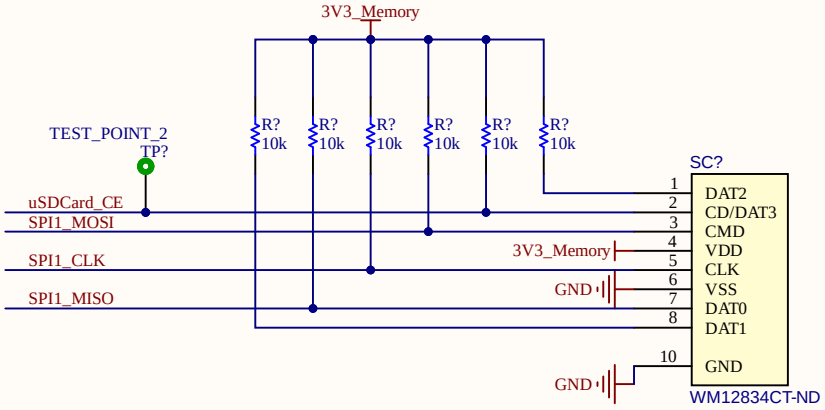




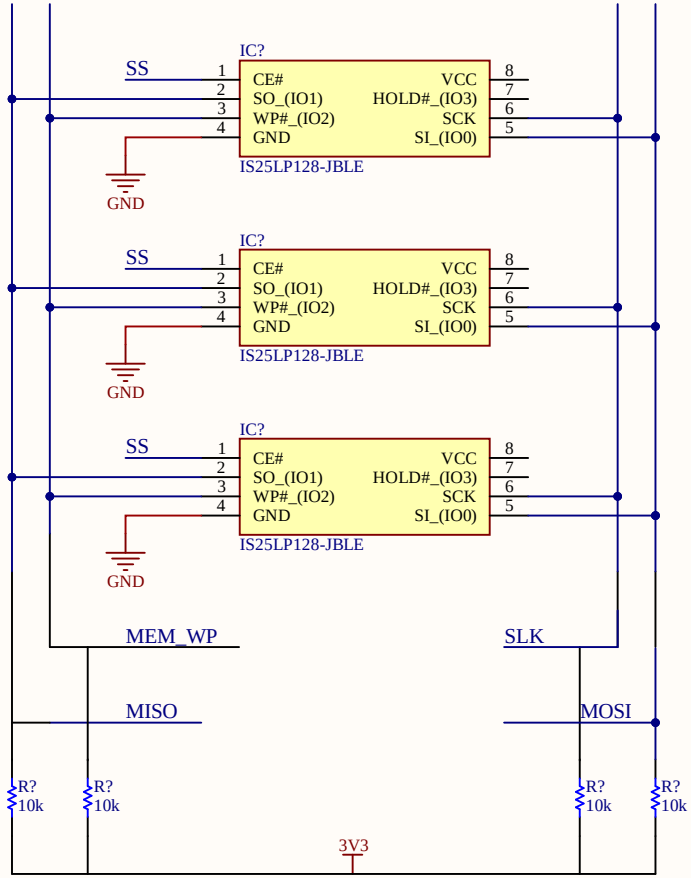


Title: OBC MCU Main		
Size: A4	Number: SaganSat	Revision: V1.0
Date: 5/17/2021		Sheet of
File: D:\faculdade\..\Sheet3.SchDoc		Drawn By: Felipe Juliano

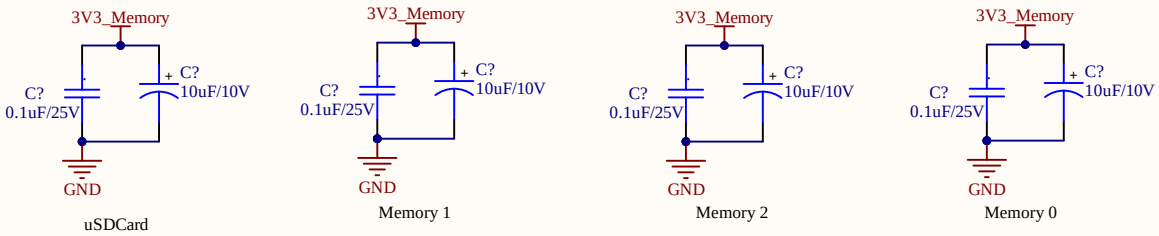
uSDCard



FLASH MEMORIES



Decoupling Capacitors



Title: Non Volatile Memory		
Size: A4	Number:	Revision:
Date: 5/17/2021		Sheet of
File: D:\faculdade\..\Sheet5.SchDoc		Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
0.1uF/25V	CAP CER 0.1UF 25V 10% X7R 0805	C?	CC0805	Cap_Cer_X7R_0.1uF_25V_0805	15
10uF/10V	CAP Tantalum 10uF 6.3V 10% 0805, CAP Tantalum 10uF 10V 20% 0805	C?	CC0805_Tantalum	Cap_Tant_SMD_10uF_6V3_0805, Cap_Tant_SMD_10uF_10V_0805	10
18pF/50V	CAP CER 18pF 50V 5% X7R 0805	C?	CC0805	Cap_Cer_X7R_18pF_50V_0805	3
GREEN	SMD Green LED	D?	0805-LED	LED/G_0805	2
Orange	SMD Orange LED	D?	0805-LED	LED/R_0603	1
IS25LP128-JBLE	Integrated Circuit	IC?	SOIC127P790X216-8N	IS25LP128-JBLE	3
PIC12F629-I_P	Integrated Circuit	IC?	DIP781W56P254L950H533Q8N	PIC12F629-I_P	1
STM32H750VBT6	Integrated Circuit	IC?	QFP50P1600X1600X160-100N	STM32H750VBT6	1
0R	RES 0R OHM 1/16W JUMPER 0805	J_V?, R?	0805	R0R_JUMPER_1/16W_0805	12
1k	RES 1.0K OHM 1/8W 1% 0805	R?	0805	R1.0k_1%_1/8W_0805	2
10k	RES 10K OHM 1/8W 1% 0805	R?	0805	R10k_1%_1/8W_0805	11
12K	RES 1.65K OHM 1/10W 0.1% 0805	R?	0805	R1.65K_1%_1/10W_0805	1
330R	RES 330R OHM 1/4W 1% 0805	R?	0805	R330R_1%_1/4W_0805	1
0.05R/0.5W	Current Sense Resistors - SMD 0.05ohm .5% 4 Terminal	RSense?	1206 - ohmite	R0.05R_0.5%_0.5W_1206	1
WM12834CT-ND	MicroSD CARD Connector	SC?	uSD_Card	MicroSD_Card_Connector	1
MAX9934TAUA+	MAX9934TAUA+	U?	MSOP-8	MAX9934TAUA+	1
TLV341AIDBVR	TLV341AIDBVR	U?	SOT-23 6L	TLV341AIDBVR	3