Component

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Component Groups:
Component Count:
Fitted Components:
Number of PCBs:
Total components:
Schematic Version:
Schematic Date:
BoM Date:
Schematic Source:
KiCad Version:

Description
Capacitor, 0.1uF, 50V, 5%, 0805
Capacitor, 100pF, 50V, 5%, 0805
Capacitor, 10uF, 10V, 10%, 0805
Capacitor, 1uF, 25V, 10%, 0805
Capacitor, 2.2uF, 10V, 10%, 0603
Capacitor, 30pF, 50V, 5%, 0805
Capacitor, 22uF, 16V, 20%, 1206

Capacitor, 47uF, 6.3V, 20%, 0805
Diode, Zener, 18V, 5W, 5%
LED, Green, 2.2V, 20mA, 0805
Fuse, PTC, 500mA, 16V, 1210
Microcontroller, 8-bit, 1KB RAM, 16KB Flash
Connector header through hole 2x3 0.100" (2.54mm)
Micro-MaTch connector 6 pin female right angle
Micro-MaTch connector 20 pin female right angle

MOSFET, N-channel, 30V, 6A
Resistor, 0 ohm jumper, 0.1W, 0603
Resistor, 0 ohm jumper, 3W, 2512
Resistor, 100, 0.25W, 1%, 0805
Resistor, 100K, 0.125W, 1%, 0805
Resistor, 10K, 0.25W, 1%, 0805
Resistor, 1K, 0.25W, 1%, 0805
Resistor, 200, 0.125W, 5%, 0805

Resistor, 1.07K, 0.125W, 0.1%, 0805
High speed CAN transceiver, 1Mb/s
Op-amp, general purpose
Single channel positive logic NOR gate
Single channel positive logic AND gate

CRYSTAL 16.0000MHZ 18PF SMD

33
90
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Thu 09 May 2019 08:50:00 PM EDT
/home/jerry/OlinCollege/Formula/MKIV-Boards/Boards/Brakelight_Shutdown_BSPD/Brakelight_Shutdown_BSPD.sch
Eeschema 5.0.2-bee76a0~70~ubuntu18.04.1

Part	References	Value
C_0.1uF	C1 C6 C8 C9 C101 C103	C_0.1uF
C_100pF	C2	C_100pF
C_10uF	C5	C_10uF
C_1uF	C10	C_1uF
C_2.2uF	C102	C_2.2uF
C_30pF	C3 C4	C_30pF
C_22uF	COUT101	C_22uF
C_33uF	COUT102	C_33uF
C_47uF	COUT103	C_47uF
D_Zener_18V	D101	D_Zener_18V
LED_0805	D1 D4 D5 D7 D8 D9 D10 D11 D12 D13 D102 D103	LED_0805
F_500mA_16V	F101	F_500mA_16V
ATMEGA16M1	IC1	ATMEGA16M1
CONN_02X03	J3	CONN_02X03
MM_F_RA_06	J1	MM_F_RA_06
MM_F_RA_20	J2	MM_F_RA_20
L_100uH	L101	L_100uH
SSM3K333R	Q1 Q2 Q3 Q4 Q5 Q6 Q7	SSM3K333R
R_0	R33	R_0
R_0_2512	R104	R_0_2512
R_100	R1	R_100
R_100K	R2 R4 R9 R22 R29 R30 R37 R103	R_100K
R_10K	R3 R6 R8 R11 R13 R18 R23 R24 R25 R27 R31 R32 R34 R39	R_10k
R_1K	R21 R26 R28 R35	R_1K
R_200	R5 R14 R17 R41 R42 R44 R45 R46 R101 R105	R_200
R_25K	R102	R_25K
R_1.07K	R7	R_71.5K
MCP2561-E_SN	U3	CAN_Transceiver
MCP6001	U2 U7	MCP6001
SN74LVC1G02	U5 U6	SN74LVC1G02
SN74LVC1G08	U1	SN74LVC1G08
TPS560430YF	U101	TPS560430YF
Crystal_SMD	Y1	Crystal_SMD

Footprint	Quantity Per PCB
C_0805_OEM	6
C_0805_OEM	1
C_0805_OEM	1
C_0805_OEM	1
C_0603_1608Metric	1
C_0805_OEM	2
C_1206_OEM	1
Fuse_1812	1
C_0805_OEM	1
DO-214AA	1
LED_0805_OEM	12
Fuse_1210	1
TQFP-32_7x7mm_Pitch0.8mm	1
Pin_Header_Straight_2x03	1
micromatch_female_ra_6	1
micromatch_female_ra_20	1
L_100uH	1
SOT-23F	7
R_0603_1608Metric	1
R_2512_OEM	1
R_0805_OEM	1
R_0805_OEM	8
R_0805_OEM	14
R_0805_OEM	4
R_0805_OEM	10
R_0805_OEM	1
R_0805_OEM	1
SOIC-8_3.9x4.9mm_Pitch1.27mm_OEM	1
SOT-23-5_OEM	2
SOT-23-5_OEM	2
SOT-23-5_OEM	1
SOT-23-6_Handsoldering	1
Crystal_SMD_FA238	1

Datasheet
http://datasheets.avx.com/X7RDielectric.pdf
https://content.kemet.com/datasheets/KEM_C1003_C0G_SMD.pdf
http://www.samsungsem.com/kr/support/product-search/mlcc/__icsFiles/afieldfile/2018/06/20/CL21A106KPFNNNE.pdf
http://www.samsungsem.com/kr/support/product-search/mlcc/__icsFiles/afieldfile/2018/06/20/CL21A105KAFNNNE.pdf
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http://www.te.com/commerce/DocumentDelivery/DDEController?Action=showdoc&DocId=Customer+Drawing%7F338070%7F
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http://www.te.com/commerce/DocumentDelivery/DDEController?Action=srchrtrv&DocNm=9-1773463-7&DocType=DS&DocLa
https://www.seielect.com/Catalog/SEI-rncp.pdf
https://industrial.panasonic.com/cdbs/www-data/pdf/RDA0000/AOA0000C304.pdf
http://www.bourns.com/data/global/pdfs/CRS.pdf
https://www.seielect.com/Catalog/SEI-rncp.pdf
https://www.seielect.com/Catalog/SEI-RMCF_RMCP.pdf
https://www.te.com/commerce/DocumentDelivery/DDEController?Action=srchrtrv&DocNm=1773200-1&DocType=DS&DocLa
https://industrial.panasonic.com/cdbs/www-data/pdf/RDM0000/AOA0000C307.pdf
http://www.microchip.com/mymicrochip/filehandler.aspx?ddocname=en561044
http://ww1.microchip.com/downloads/en/DeviceDoc/21733j.pdf
http://www.ti.com/lit/ds/symlink/sn74lvc1g02.pdf
http://www.ti.com/lit/ds/symlink/sn74lvc1g08.pdf
http://www.ti.com/lit/ds/symlink/tps560430.pdf
https://support.epson.biz/td/api/doc_check.php?dl=brief_FA-238V_en.pdf

Package	MPN	MFN	
Value	478-3352-1-ND	Digi-Key DK	
Value	399-1122-1-ND	Digi-Key	
	1276-1052-1-ND	DK	
	1276-2887-1-ND	DK	
	311-1451-1-ND	DK	
Value	1276-1130-1-ND	Digi-Key	
	445-11693-1-ND	DK	
	445-3924-1-ND	C4532X7R1C336M250KC	
	1276-6467-1-ND	DK	
	SMBJ5355B-TPMSCT-ND	DK	
	475-1410-1-ND	DK	
	507-1786-1-ND	DK	
Value	ATMEGA16M1-AU-ND	Digi-Key	
Value	609-3234-ND	Digi-Key	
)-6	338070-6	TE	
	2-338070-0	TE	
	445-15759-1-ND	Digikey	
	SSM3K333RLFCT-ND	DK	
	P0.0GCT-ND	DK	
	A121322CT-ND	DK	
Value	RNCP0805FTD100RCT-ND	Digi-Key	
	P100KCCT-ND	DK	
Value	CRS0805-FX-1002ELFCT-ND	Digi-Key DK	
	RNCP0805FTD1K00CT-ND	DK	
Value	RMCF0805JT200RCT-ND	DK Digi-Key	
		A124124CT-ND	
	P1.07KDACT-ND	DK	
Value	MCP2561-E/SN-ND	Digi-Key	
	MCP6001T-I/OTCT-ND	DK	
	296-11598-1-ND	DK	
	296-11602-1-ND	DK	
	TPS560430YFDBVR	TPS560430YFDBVR-ND	
Value	SER3686CT-ND	Digi-Key	

PurchasingLink
https://www.digikey.com/products/en?keywords=478-3352-1-ND
https://www.digikey.com/product-detail/en/kemet/C0805C101J5GACTU/399-1122-1-ND/411397
https://www.digikey.com/product-detail/en/samsung-electro-mechanics/CL21A106KPFNNNE/1276-1052-1-ND/3889138
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https://www.digikey.com/product-detail/en/tdk-corporation/C3216JB1C226M160AB/445-11693-1-ND/3953359
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https://www.digikey.com/product-detail/en/bel-fuse-inc/0ZCH0050FF2G/507-1786-1-ND/4156209
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http://www.te.com/usa-en/product-2-338070-0.html

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https://www.digikey.com/products/en?keywords=A121322CT-ND
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https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERJ-6ENF1003V/P100KCCT-ND/119551
https://www.digikey.com/products/en?keywords=CRS0805-FX-1002ELFCT-ND
https://www.digikey.com/products/en?keywords=RNCP0805FTD1K00CT-ND
https://www.digikey.com/products/en?keywords=RMCF0805JT200RCT-ND
https://www.digikey.com/product-detail/en/te-connectivity-passive-product/CPF-A-0805B25KE/A124124CT-ND/5970044

https://www.digikey.com/products/en?keywords=mcp2561-e%2Fsn
https://www.digikey.com/product-detail/en/microchip-technology/MCP6001T-I-OT/MCP6001T-I-OTCT-ND/697158
https://www.digikey.com/product-detail/en/texas-instruments/SN74LVC1G02DCKR/296-11598-1-ND/385737
https://www.digikey.com/product-detail/en/texas-instruments/SN74LVC1G08DCKR/296-11602-1-ND/385741

https://www.digikey.com/products/en?keywords=SER3686CT-ND

Link

https://www.digikey.com/product-detail/en/tdk-corporation/NLFV32T-101K-EF/445-15759-1-ND/4328055

Digi-key Part Number

CPF-A-0805B25KE

Purchasing Link

https://www.digikey.com/product-detail/en/texas-instruments/TPS560430XDBVR/296-50420-6-ND/9685813