
Appendix C

Circuit diagrams

Abstract

In this appendix are presented the electronic schemes for analog part of the power supply subsystem and for MCU.

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C.1. Implementation scheme for MCU

The scheme used to implement the digital part of the power supply subsystem, the MCU, is presented in figure C.1.

C.2. Implementation scheme for analog part

The analog part of the power supply refers to the other circuitry described in detail in Chapter 4. The scheme is presented in figure C.2.

C.3. List of components

In table C.3 is stated the bill of material, both for the MCU and for the rest of the power supply board.

Designator	PartType	Designator	PartType	Designator	PartType
Batt100	3.7V	C207	0.33u	R145	20k
Batt101	3.7V	D100	PRL5817	R146	560R
Batt102	3.7V	D101	PRL5817	R147	1k15
Batt103	3.7V	D102	PRL5817	R148	250R
C100	220u	D103	PRL5817	R149	1k
C101	220u	D104	PRL5817	R150	1k
C102	1u	D105	SB540	R151	1k
C103	0.1u	D106	SB540	R152	1k
C104	0.1u	D107	LL4148	R153	5k
C105	0.1u	D108	LL4148	R154	5k
C106	0.1u	D109	LL4148	R155	5k
C107	0.1u	D110	LL4148	R156	5k
C108	0.1u	D111	LL4148	R157	0.01R
C109	0.1u	D112	LL4148	R158	2M
C110	0.1u	D113	LL4148	R159	1R5
C111	0.1u	D114	LL4148	R200	100k
C112	0.1u	JP100	JUMPER	R201	100k
C113	0.1u	JP101	JUMPER	R202	100k
C114	0.1u	L100	22u	R203	100k
C115	0.1u	L101	12u	R204	100k
C116	0.1u	Q100	MTD20N03HDL	R205	100k
C117	0.1u	Q101	NTD456P	R206	100k
C118	0.1u	R100	10k	R207	10R
C119	0.1u	R101	10k	R208	4k7
C120	0.1u	R102	10k	R209	240k
C121	0.1u	R103	10k	R210	4k8

C122	68u	R104	10k	S100	Kill switch
C123	68u	R105	10k	SC100	2.6V
C124	300u	R106	10k	SC101	2.6V
C125	300u	R107	0.033R	SC102	2.6V
C126	100p	R108	0.033R	SC103	2.6V
C127	100p	R109	93k3	SC104	2.6V
C128	1u	R110	0.25R	SC105	2.6V
C129	1u	R111	200R	SC106	2.6V
C130	1u	R112	200R	SC107	2.6V
C131	10u	R113	0.1R	SC108	2.6V
C132	10u	R114	0.1R	SC109	2.6V
C133	10n	R115	0.1R	U100	MAX1771
C134	10n	R116	0.1R	U101	UCC3911-DP1
C135	10n	R117	0.1R	U102	UCC3911-DP1
C136	10n	R118	0.1R	U103	MAX4372F
C137	10n	R119	0.1R	U104	MAX4372F
C138	10n	R120	0.1R	U105	MAX4372F
C139	10n	R121	2k	U106	MAX4372F
C140	10n	R122	2k	U107	MAX4372F
C141	10n	R123	2k	U108	ADP3810
C142	10n	R124	2k	U109	MAX4372T
C143	10n	R125	2k	U110	LM78L05
C144	0.22u	R126	2k	U111	TPS2034
C145	47u	R127	2k	U112	TPS2030
C146	0.33u	R128	2k	U113	TPS2030
C147	22u	R129	2k	U114	TPS2030
C148	22u	R130	2k	U115	MAX835
C149	22u	R131	2k	U116	MAX835
C150	22u	R132	2k	U117	MAX835
C151	22u	R133	2k	U118	MAX835
C152	0.47u	R134	2k	U119	MAX4372H
C153	4.7u	R135	2k	U120	MAX4372H
C154	4.7u	R136	2k	U121	MAX4372H
C155	4.7u	R137	2k	U122	MAX4372H
C200	0.1u	R138	2k	U123	MAX1744
C201	0.1u	R139	2k	U124	SE555D
C202	0.1u	R140	2k	U200	ADG706
C203	0.1u	R141	2k	U201	ADG706
C204	0.1u	R142	90k	U202	PIC16C774
C205	10u	R143	20k	U203	ADG704
C206	22p	R144	20k	U204	AD8072