X10

Цепь	Конт.
Вход PV+	1
Вход PV-	2

VT5
IPD053N08N3GATMA1

R24
10k
±5%

VD4
16V
MMSZ5246B-7-F

C19
33µF
63V

C20
33µF
63V

C21
33µF
63V

C22
33µF
63V

R23
100k
±1%

R27
4k7
±1%

TP8

ADC-VIN

C23
0.01µF
50V

GND

VCC3V3

TP7

ADC-IIN

D9
LMV321IDBVR

C24
0.1µF
16V

R26
10k ±1%

R28
10k
±1%

C25
0.01µF
50V

D8
ACS780LLRTR-050U-T

IP+

IP-

VOUT

GND

VCC

VCCIN

R25
100R ±5%

VCC5V

C26
0.1µF
16V

C27
1µF
100V

GND

TP9

VCCIN

D10

VIN

RON

UVLO

RTN

GND

BST

SW

FB

VCC

LM5017MRX/NOPB

R30
510k ±5%

R31
100k
±1%

R34
10k
±1%

C30
1µF
100V

C28
0.01µF
50V

L2
220µH ±10%

R33
88k7 ±1%

VD5
MBR0580S1-7

C31
2.2µF
16V

R35
10k
±1%

TP10

VCC12V

C32
10µF
16V

C33
10µF
16V

GND

VCC3V3

R29
1k
±5%

R32
10k
±5%

D11
MCP6541T-I/OT

IN+

IN-

OUT

C29
0.1µF
16V

OCP-INPUT

OCP-OUTPUT

D12
SN74LVC1G332DBVR

A

B

C

Y

TP11

FAULT

GND

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Manufacturer	PCBway
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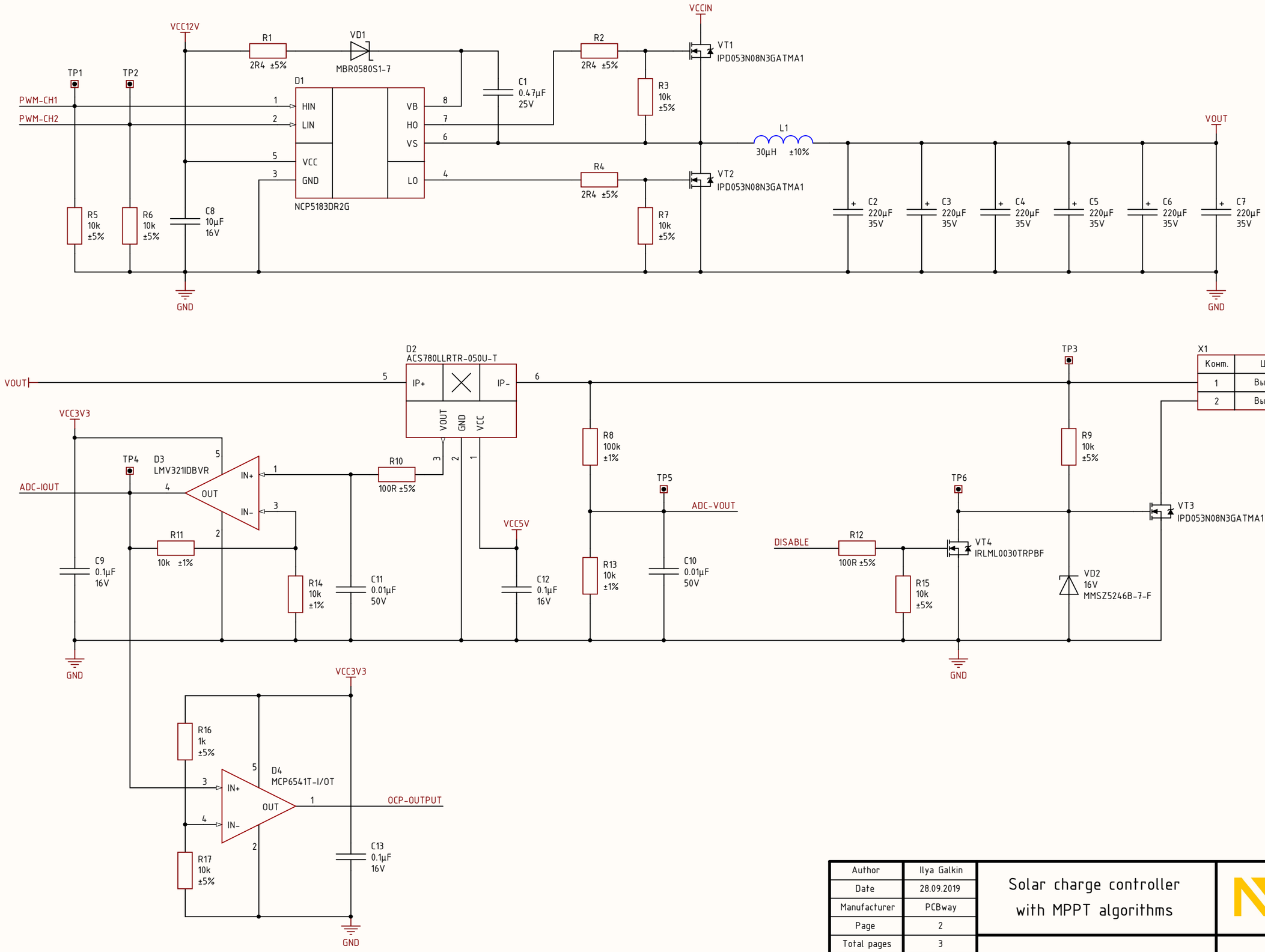
Solar charge controller
with MPPT algorithms

NORDIC ENERGY

Open Hardware Project



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Open Hardware Project

X2

Конт.	Цепь
1	GND
2	RX
3	GND
4	TX
5	RS485 DIR
6	IO2
7	IO1
8	CAN-L
9	GND
10	CAN-H
11	SYNC INPUT
12	SYNC OUTPUT

USART2-RX, USART2-TX, RS485-DIR, CAN-L, CAN-H, GND

"Интерфейсы"

X3

Конт.	Цепь
1	+12V
2	+12V
3	GND
4	GND

VCC12V, GND

"Питание"

X4

Конт.	Цепь
1	CAN-H
2	CAN-L

CAN-H, CAN-L

"CAN bus"

X5

Конт.	Цепь
1	ADC channel 1
2	PWM channel 1
3	GND
4	FAULT
5	ADC channel 2
6	PWM channel 2

GND

"Канал A"

X6

Конт.	Цепь
1	ADC channel 1
2	PWM channel 1
3	GND
4	FAULT
5	ADC channel 2
6	PWM channel 2

ADC-IOUT, PWM-CH1, GND, FAULT, ADC-VOUT, PWM-CH2

"Канал B"

X7

Конт.	Цепь
1	ADC channel 1
2	PWM channel 1
3	GND
4	FAULT
5	ADC channel 2
6	PWM channel 2

ADC-IIN, DISABLE, GND, ADC-VIN

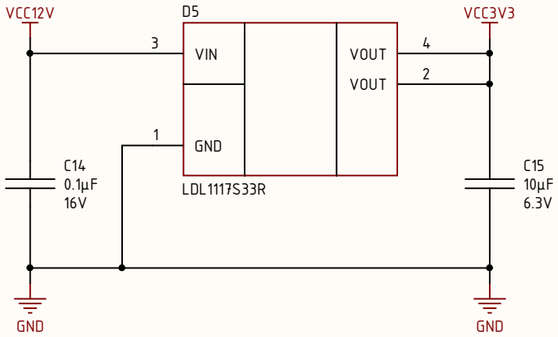
"Канал C"

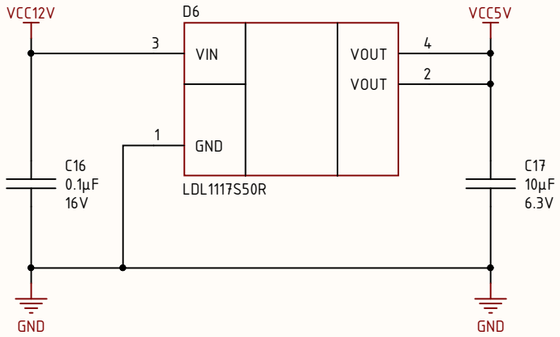
X8

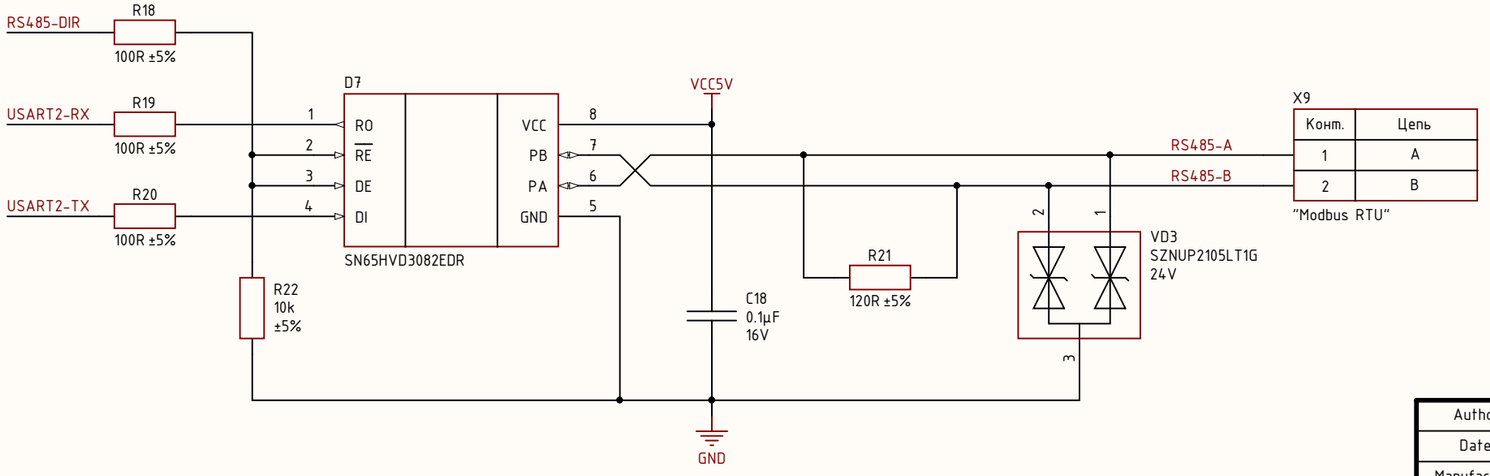
Конт.	Цепь
1	ADC channel 1
2	PWM channel 1
3	GND
4	FAULT
5	ADC channel 2
6	PWM channel 2

GND

"Канал D"







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NORDIC ENERGY

Open Hardware Project

INPUT
OUTPUT
CAN
RS485
"D"
"C"
"B"
"A"
"PORT"
"+12V"
MPPT CHARGE CONTROLLER
REV. 1.00
WWW.NORDIC-ENERGY.ORG