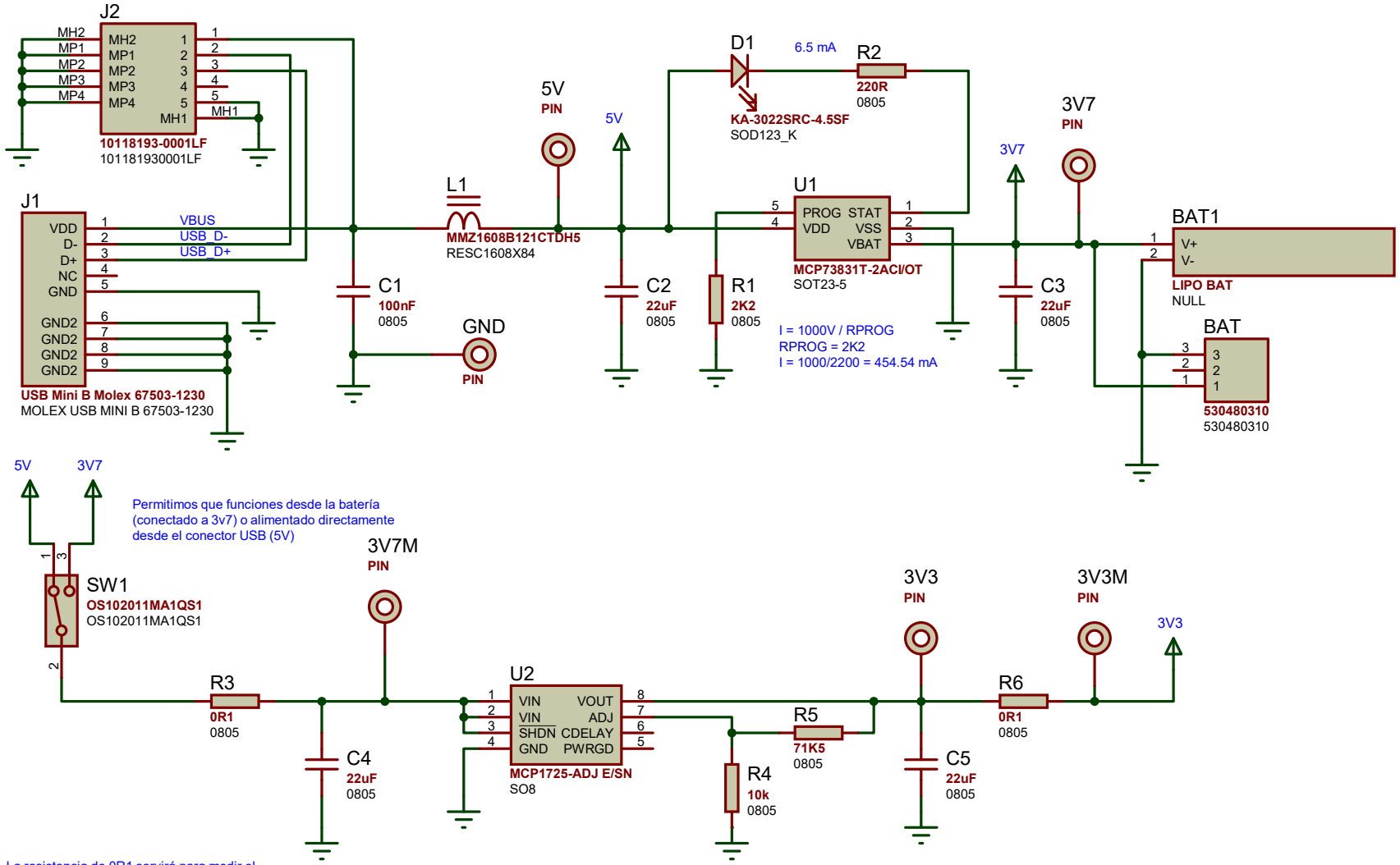
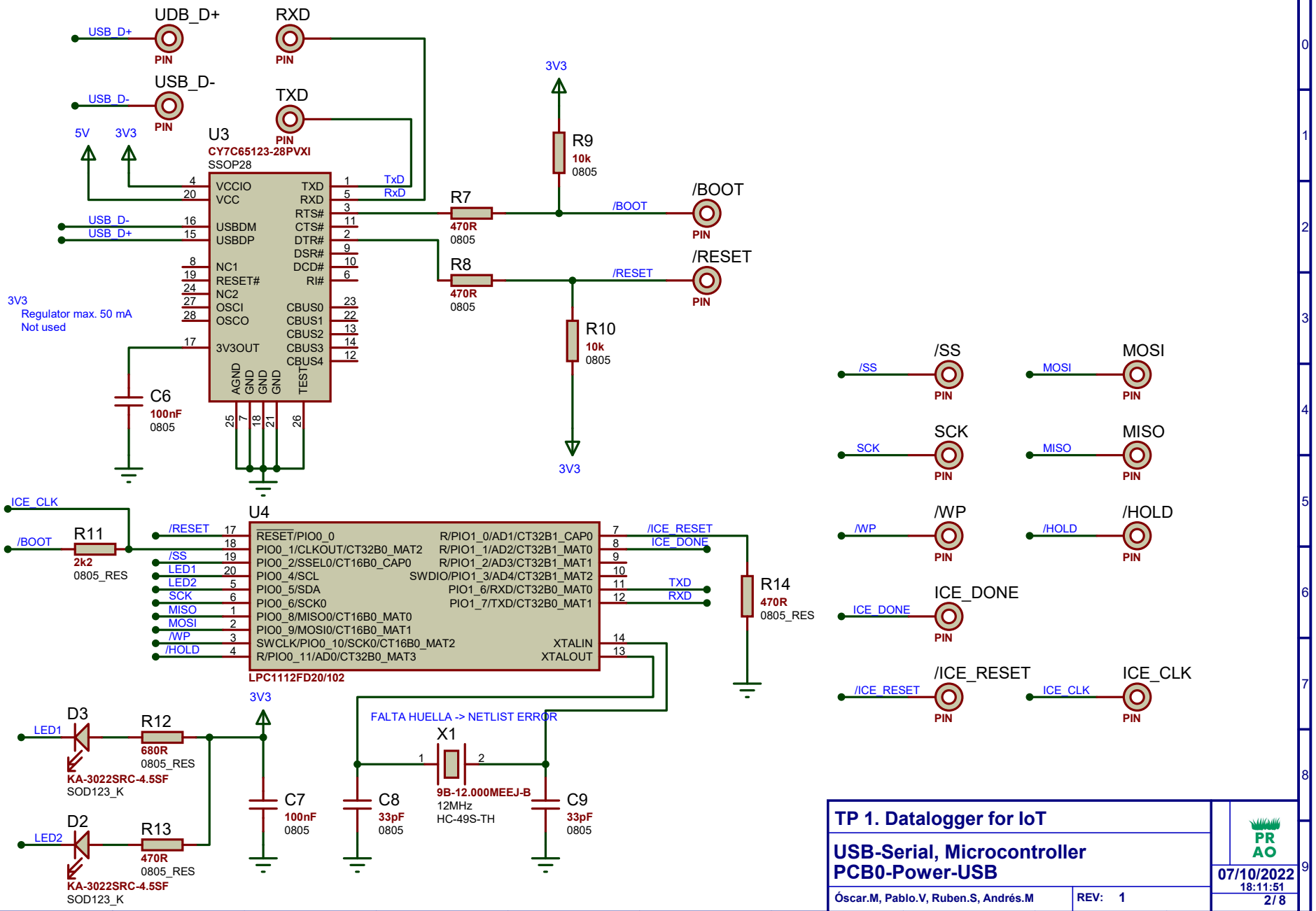

J2
MH2
MP1
MP2
MP3
MP4
MH1
10118193-0001LF
101181930001LF
J1
VDD
D-
D+
NC
GND
GND2
GND2
GND2
GND2
VBUS
USB_D-
USB_D+
USB Mini B Molex 67503-1230
MOLEX USB MINI B 67503-1230
L1
MMZ1608B121CTDH5
RESC1608X84
5V
PIN
5V
C1
100nF
0805
GND
PIN
C2
22uF
0805
D1
6.5 mA
R2
220R
0805
KA-3022SRC-4.5SF
SOD123_K
U1
PROG
VDD
STAT
VSS
VBAT
MCP73831T-2ACI/OT
SOT23-5
R1
2K2
0805
I = 1000V / RPROG
RPROG = 2K2
I = 1000/2200 = 454.54 mA
3V7
PIN
3V7
C3
22uF
0805
BAT1
V+
V-
LIPO BAT
NULL
BAT
530480310
530480310
5V
3V7
Permitimos que funciones desde la batería
(conectado a 3v7) o alimentado directamente
desde el conector USB (5V)
SW1
OS102011MA1QS1
OS102011MA1QS1
3V7M
PIN
R3
0R1
0805
C4
22uF
0805
U2
VIN
VIN
SHDN
GND
VOUT
ADJ
CDELAY
PWRGD
MCP1725-ADJ E/SN
SO8
R5
71K5
0805
R4
10k
0805
3V3
PIN
C5
22uF
0805
R6
0R1
0805
3V3M
PIN
3V3
La resistencia de 0R1 servirá para medir el
consumo midiendo el voltaje entre 3v7 y 3v7m
y multiplicándolo por 0. Como mucho caerán unos 40mV en ella.
Para una salida de 3V3
R1 = R2 * 7.04878
R2 debe estar entre 10k y 200k
Si R2 = 10k, R1 = 70.4878k --> 71.5k (E48)
Con lo que VOUT = 3.3415 V
TP 1. Datalogger for IoT
USB-Power
PCB0-Power-USB
Óscar.M, Pablo.V, Ruben.S, Andrés.M
REV: 1
PR
AO
07/10/2022
18:11:51
1/8



TP 1. Datalogger for IoT

USB-Serial, Microcontroller PCB0-Power-USB

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REV: 1

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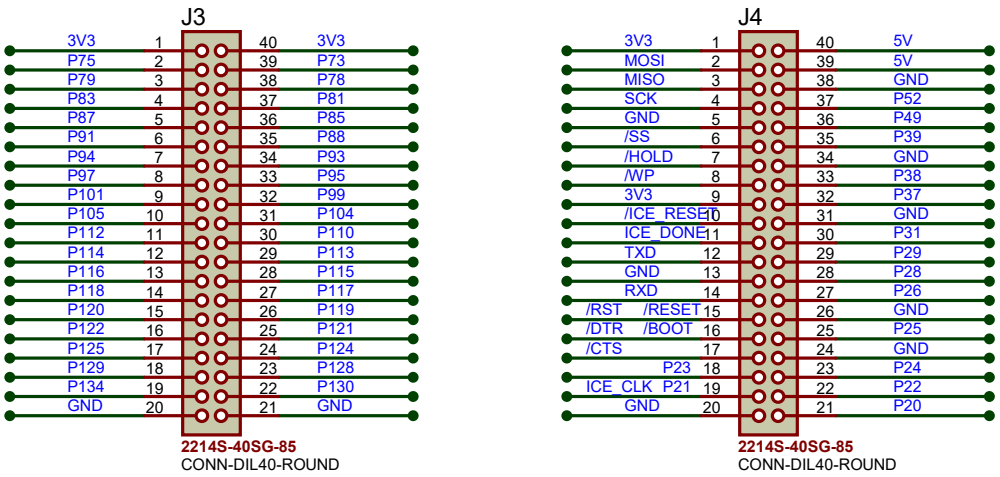

TP 1. Datalogger for IoT

Conectores
PCB0-Power-USB

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REV: 1

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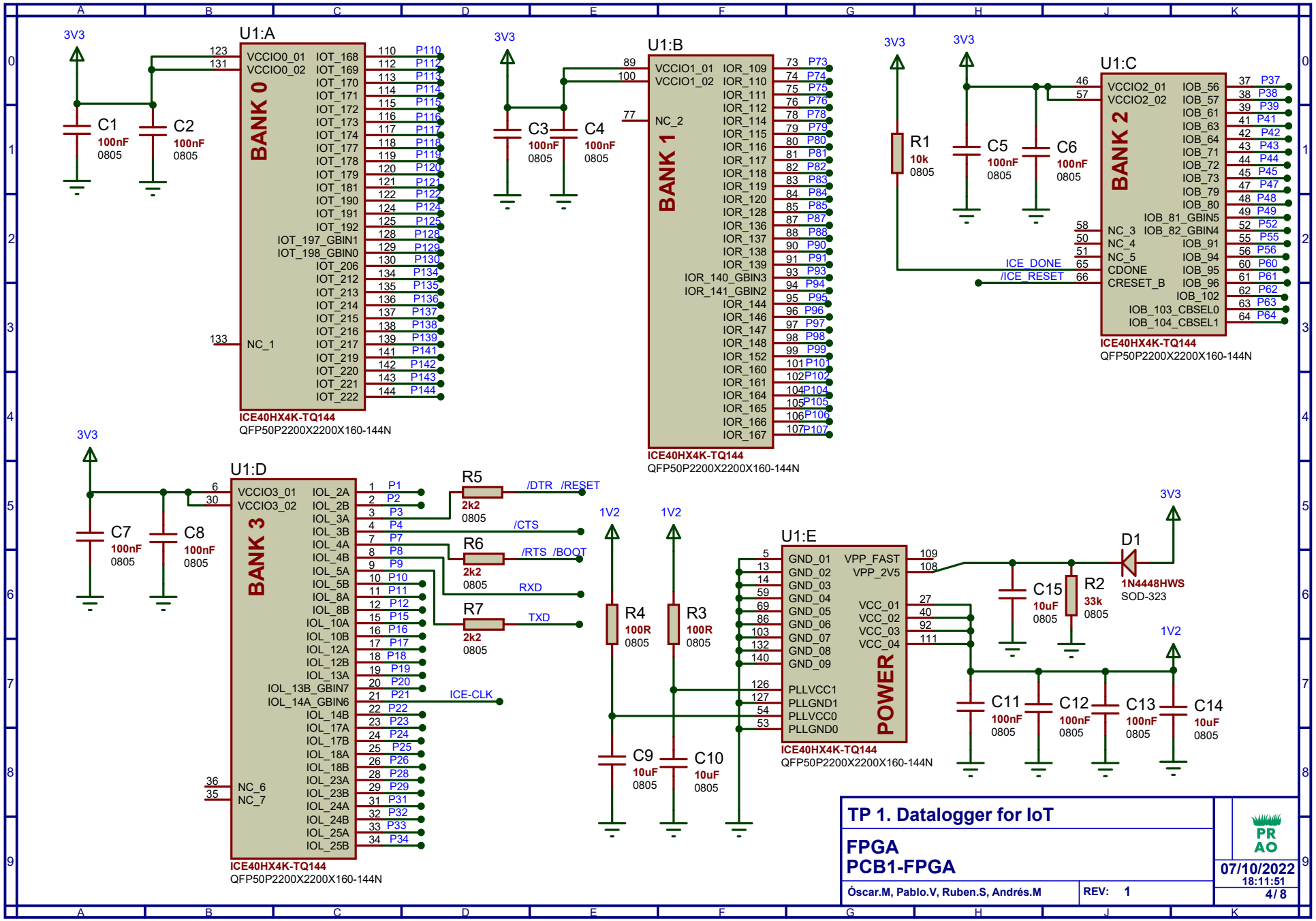
U1:A
BANK 0
VCCIO0_01
VCCIO0_02
NC_1
IOT_168
IOT_169
IOT_170
IOT_171
IOT_172
IOT_173
IOT_174
IOT_177
IOT_178
IOT_179
IOT_181
IOT_190
IOT_191
IOT_192
IOT_197_GBIN1
IOT_198_GBIN0
IOT_206
IOT_212
IOT_213
IOT_214
IOT_215
IOT_216
IOT_217
IOT_219
IOT_220
IOT_221
IOT_222
ICE40HX4K-TQ144
QFP50P2200X2200X160-144N
U1:B
BANK 1
VCCIO1_01
VCCIO1_02
NC_2
IOR_109
IOR_110
IOR_111
IOR_112
IOR_114
IOR_115
IOR_116
IOR_117
IOR_118
IOR_119
IOR_120
IOR_128
IOR_136
IOR_137
IOR_138
IOR_139
IOR_140_GBIN3
IOR_141_GBIN2
IOR_144
IOR_146
IOR_147
IOR_148
IOR_152
IOR_160
IOR_161
IOR_164
IOR_165
IOR_166
IOR_167
ICE40HX4K-TQ144
QFP50P2200X2200X160-144N
U1:C
BANK 2
VCCIO2_01
VCCIO2_02
NC_3
NC_4
NC_5
CDONE
CRESET_B
IOB_56
IOB_57
IOB_61
IOB_63
IOB_64
IOB_71
IOB_72
IOB_73
IOB_79
IOB_80
IOB_81_GBIN5
IOB_82_GBIN4
IOB_91
IOB_94
IOB_95
IOB_96
IOB_102
IOB_103_CBSEL0
IOB_104_CBSEL1
ICE_DONE
/ICE_RESET
ICE40HX4K-TQ144
QFP50P2200X2200X160-144N
U1:D
BANK 3
VCCIO3_01
VCCIO3_02
NC_6
NC_7
IOL_2A
IOL_2B
IOL_3A
IOL_3B
IOL_4A
IOL_4B
IOL_5A
IOL_5B
IOL_8A
IOL_8B
IOL_10A
IOL_10B
IOL_12A
IOL_12B
IOL_13A
IOL_13B_GBIN7
IOL_14A_GBIN6
IOL_14B
IOL_17A
IOL_17B
IOL_18A
IOL_18B
IOL_23A
IOL_23B
IOL_24A
IOL_24B
IOL_25A
IOL_25B
ICE40HX4K-TQ144
QFP50P2200X2200X160-144N
U1:E
POWER
GND_01
GND_02
GND_03
GND_04
GND_05
GND_06
GND_07
GND_08
GND_09
PLLVCC1
PLLGND1
PLLVCC0
PLLGND0
VPP_FAST
VPP_2V5
VCC_01
VCC_02
VCC_03
VCC_04
ICE40HX4K-TQ144
QFP50P2200X2200X160-144N
3V3
1V2
C1 100nF 0805
C2 100nF 0805
C3 100nF 0805
C4 100nF 0805
C5 100nF 0805
C6 100nF 0805
C7 100nF 0805
C8 100nF 0805
C9 10uF 0805
C10 10uF 0805
C11 100nF 0805
C12 100nF 0805
C13 100nF 0805
C14 10uF 0805
C15 10uF 0805
R1 10k 0805
R2 33k 0805
R3 100R 0805
R4 100R 0805
R5 2k2 0805
R6 2k2 0805
R7 2k2 0805
D1 1N4448HWS SOD-323
/DTR /RESET
/CTS
/RTS /BOOT
RXD
TXD
ICE-CLK
TP 1. Datalogger for IoT
FPGA
PCB1-FPGA
Óscar.M, Pablo.V, Ruben.S, Andrés.M
REV: 1
PR AO
07/10/2022
18:11:51
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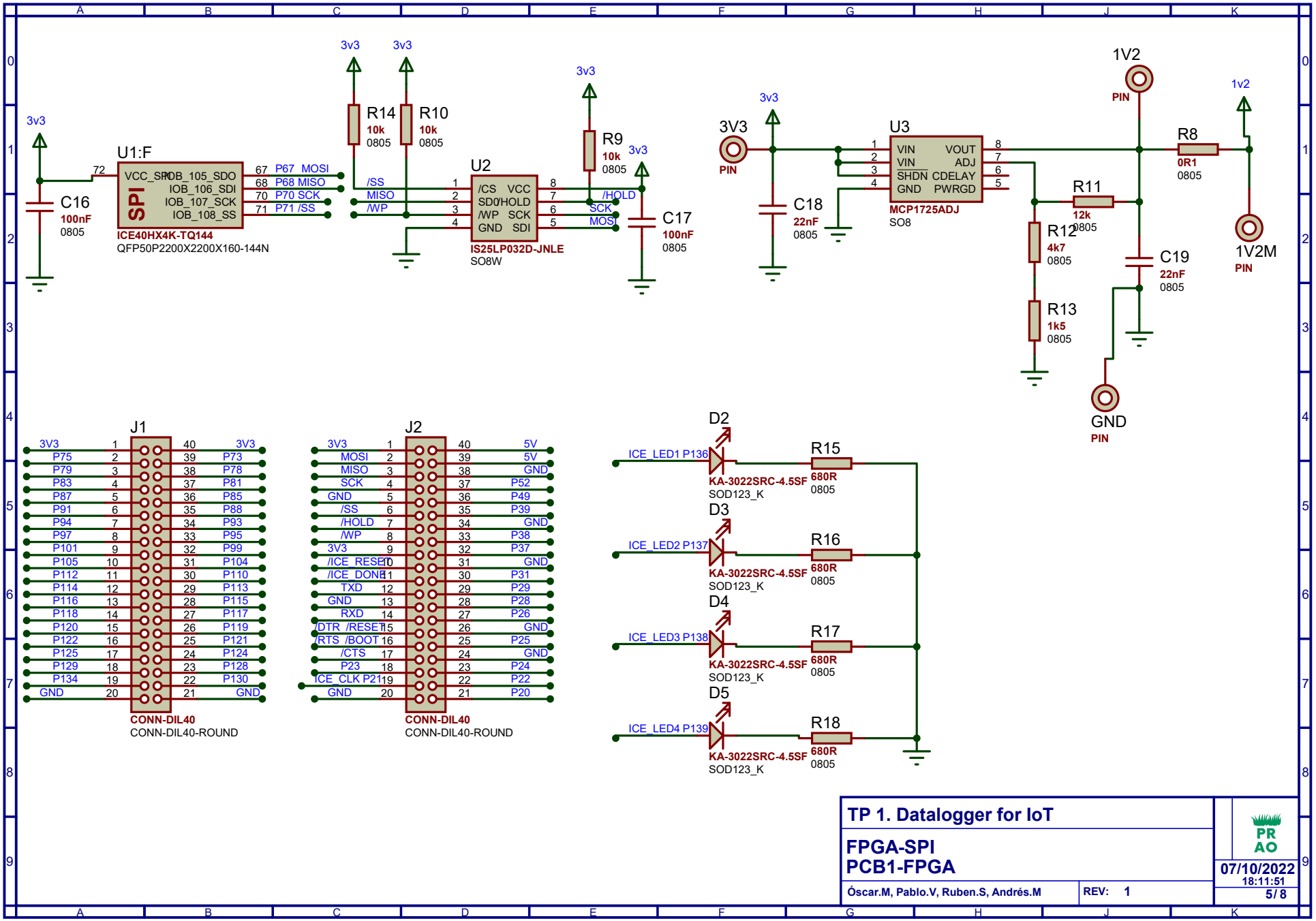

TP 1. Datalogger for IoT	
FPGA-SPI **PCB1-FPGA**	
Óscar.M, Pablo.V, Ruben.S, Andrés.M	REV: 1

PR AO

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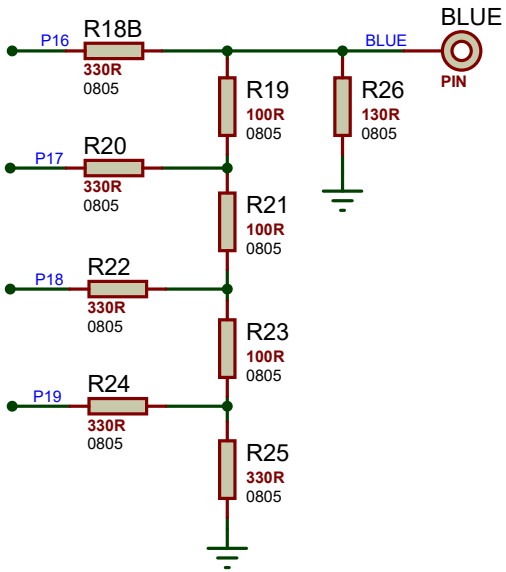

TP 1. Datalogger for IoT		PR AO
FPGA VGA output PCB1-FPGA		07/10/2022 18:11:51
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TP 1. Datalogger for IoT

PCB2-Sensors
PCB2-Sensors

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REV: 1

PR
AO

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TP 1. Datalogger for IoT

PCB3-Wireless
PCB3-Wireless

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REV: 1

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AO

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