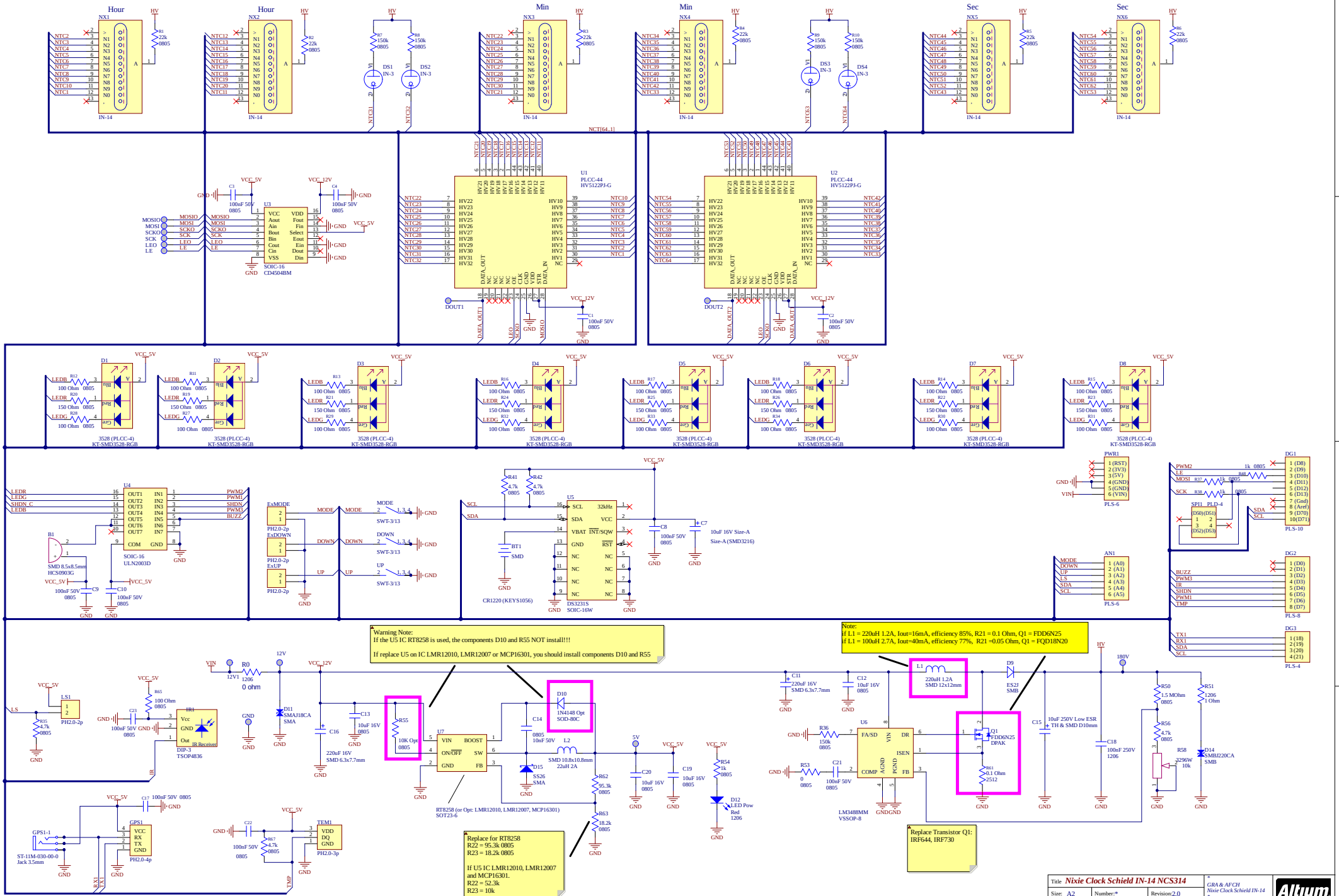
Hour
NX1
IN-14
Hour
NX2
IN-14
Min
NX3
IN-14
Min
NX4
IN-14
Sec
NX5
IN-14
Sec
NX6
IN-14
DS1 IN-3
DS2 IN-3
DS3 IN-3
DS4 IN-3
U1 PLCC-44 HV5122PJ-G
U2 PLCC-44 HV5122PJ-G
U3 SOIC-16 CD4504BM
U4 SOIC-16 ULN2003D
U5 DS3231S SOIC-16W
D1 3528 (PLCC-4) KT-SMD3528-RGB
D2 3528 (PLCC-4) KT-SMD3528-RGB
D3 3528 (PLCC-4) KT-SMD3528-RGB
D4 3528 (PLCC-4) KT-SMD3528-RGB
D5 3528 (PLCC-4) KT-SMD3528-RGB
D6 3528 (PLCC-4) KT-SMD3528-RGB
D7 3528 (PLCC-4) KT-SMD3528-RGB
D8 3528 (PLCC-4) KT-SMD3528-RGB
PWR1 PLS-6
DG1 PLS-10
DG2 PLS-8
DG3 PLS-4
AN1 PLS-6
B1 SMD 8.5x8.5mm HCS0903G
BT1 SMD CR1220 (KEYS1056)
LS1 PH2.0-2p
IR1 DIP-3 TSOP4836 IR Receiver
GPS1 PH2.0-4p
GPS1-1 ST-11M-030-00-0 Jack 3.5mm
TEM1 PH2.0-3p
U7 RT8258 (or Opt: LMR12010, LMR12007, MCP16301) SOT23-6
U6 LM3488MM VSSOP-8
Q1 FDD6N25 DPAK
L1 220uH 1.2A SMD 12x12mm
D9 ES2J SMB
D10 1N4148 Opt SOD-80C
D11 SMAJ18CA SMA
D12 LED Pow Red 1206
D14 SMBJ220CA SMB
D15 SS26 SMA
L2 SMD 10.8x10.8mm 22uH 2A
Warning Note:
If the U5 IC RT8258 is used, the components D10 and R55 NOT install!!!
If replace U5 on IC LMR12010, LMR12007 or MCP16301, you should install components D10 and R55
Note:
if L1 = 220uH 1.2A, Iout=16mA, efficiency 85%, R21 = 0.1 Ohm, Q1 = FDD6N25
if L1 = 100uH 2.7A, Iout=40mA, efficiency 77%, R21 =0.05 Ohm, Q1 = FQD18N20
Replace for RT8258
R22 = 95.3k 0805
R23 = 18.2k 0805
If U5 IC LMR12010, LMR12007 and MCP16301.
R22 = 52.3k
R23 = 10k
Replace Transistor Q1: IRF644, IRF730
Title Nixie Clock Schield IN-14 NCS314
Size: A2
Number:*
Revision:2.0
Date: 15.08.2017
Time: 11:12:06
Sheet* of *
File: D:\Dropbox\Project\Nixie_Clock\PCB_Nixie_Clock_Shield_NCS314_v2\Nixie_Clock_Shield.SchDoc
GRA & AFCH
Nixie Clock Schield IN-14
Grishu Anafriev
Altium