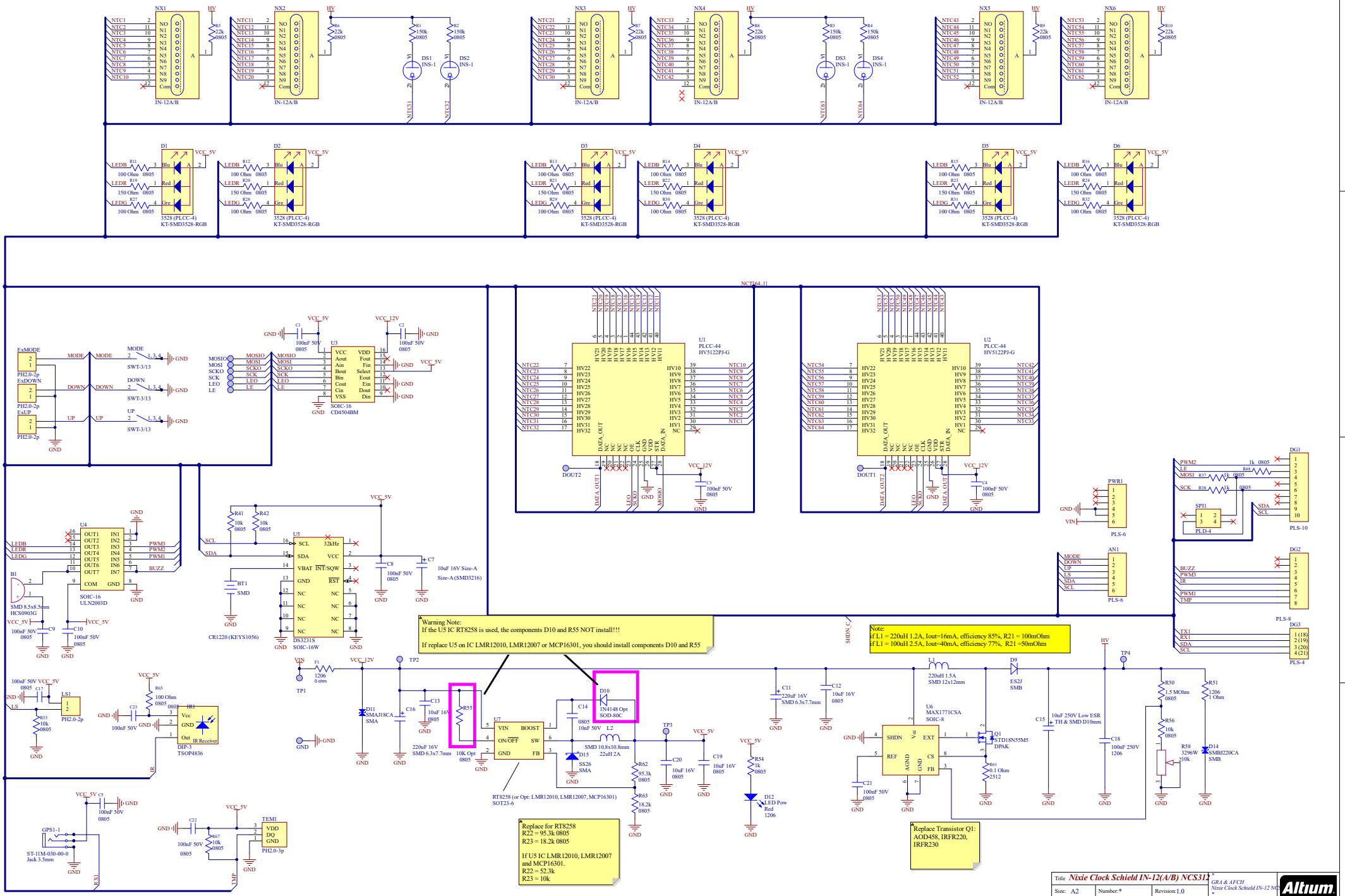
NX1
NX2
NX3
NX4
NX5
NX6
IN-12A/B
HV
DS1 INS-1
DS2 INS-1
DS3 INS-1
DS4 INS-1
D1
D2
D3
D4
D5
D6
VCC_5V
3528 (PLCC-4)
KT-SMD3528-RGB
U1
U2
PLCC-44
HV5122PJ-G
U3
SOIC-16
CD4504BM
U4
SOIC-16
ULN2003D
U5
DS3231S
SOIC-16W
U6
MAX1771CSA
SOIC-8
U7
RT8258 (or Opt: LMR12010, LMR12007, MCP16301)
SOT23-6
Warning 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 = 100mOhm
if L1 = 100uH 2.5A, Iout=40mA, efficiency 77%, R21 =50mOhm
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:
AOD458, IRFR220, IRFR230
Title Nixie Clock Schield IN-12(A/B) NCS312
Size: A2
Number:*
Revision:1.0
Date: 26.03.2017
Time: 15:55:53
Sheet* of *
File: D:\Dropbox\Project\Nixie Clock\PCB Nixie Clock Shield NCS312\Nixie Clock Shield.SchDoc
GRA & AFCH
Nixie Clock Schield IN-12 NCS
Grisha Anufriev
Altium