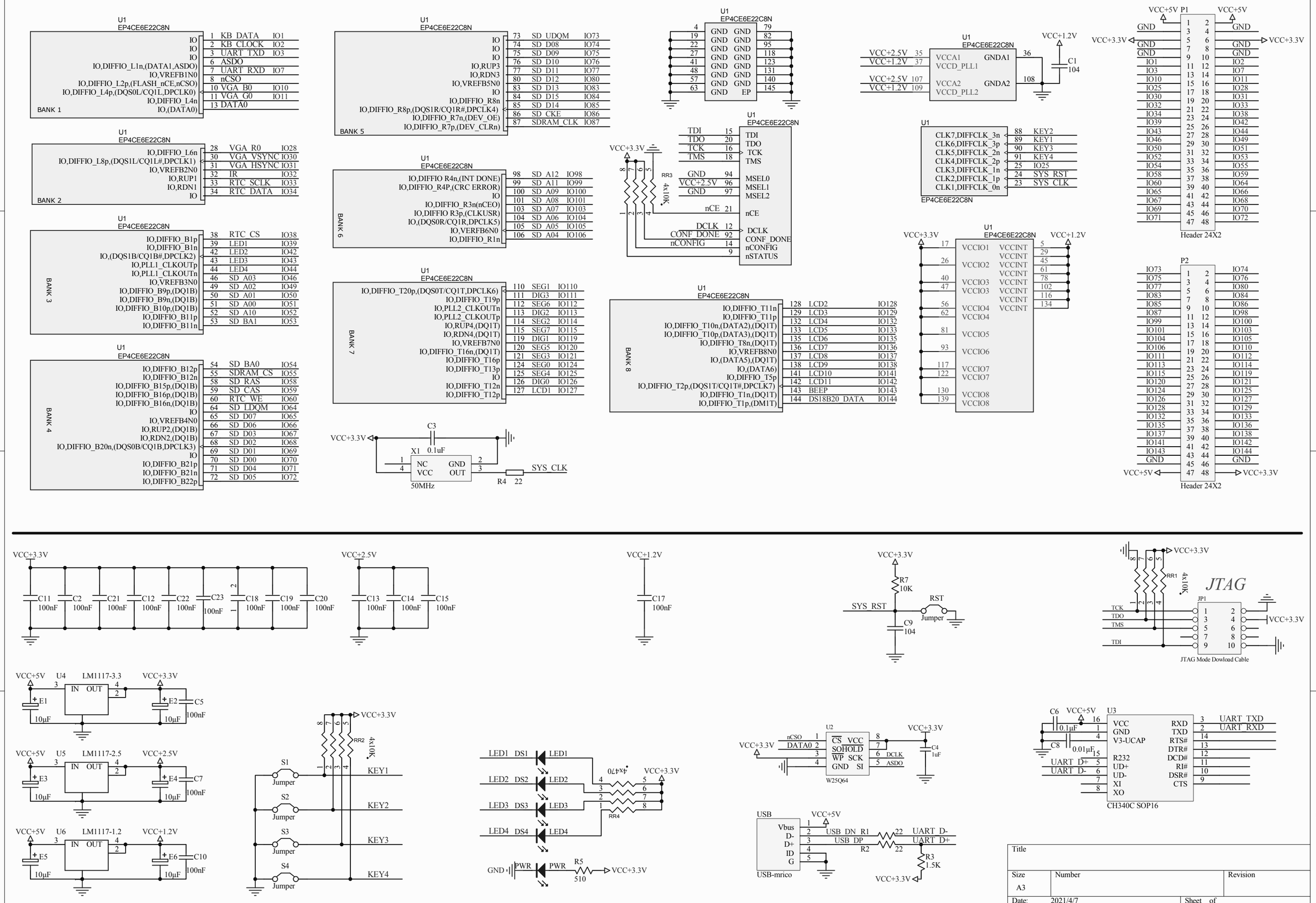
U1
EP4CE6E22C8N
BANK 1
IO
IO
IO
IO,DIFFIO_L1n,(DATA1,ASDO)
IO,VREFB1N0
IO,DIFFIO_L2p,(FLASH_nCE,nCSO)
IO,DIFFIO_L4p,(DQS0L/CQ1L,DPCLK0)
IO,DIFFIO_L4n
IO,(DATA0)
1 KB_DATA IO1
2 KB_CLOCK IO2
3 UART_TXD IO3
6 ASDO
7 UART_RXD IO7
8 nCSO
10 VGA_B0 IO10
11 VGA_G0 IO11
13 DATA0
BANK 2
IO,DIFFIO_L6n
IO,DIFFIO_L8p,(DQS1L/CQ1L#,DPCLK1)
IO,VREFB2N0
IO,RUP1
IO,RDN1
IO
28 VGA_R0 IO28
30 VGA_VSYNC IO30
31 VGA_HSYNC IO31
32 IR IO32
33 RTC_SCLK IO33
34 RTC_DATA IO34
BANK 3
IO,DIFFIO_B1p
IO,DIFFIO_B1n
IO,(DQS1B/CQ1B#,DPCLK2)
IO,PLL1_CLKOUTp
IO,PLL1_CLKOUTn
IO,VREFB3N0
IO,DIFFIO_B9p,(DQ1B)
IO,DIFFIO_B9n,(DQ1B)
IO,DIFFIO_B10p,(DQ1B)
IO,DIFFIO_B11p
IO,DIFFIO_B11n
38 RTC_CS IO38
39 LED1 IO39
42 LED2 IO42
43 LED3 IO43
44 LED4 IO44
46 SD_A03 IO46
49 SD_A02 IO49
50 SD_A01 IO50
51 SD_A00 IO51
52 SD_A10 IO52
53 SD_BA1 IO53
BANK 4
IO,DIFFIO_B12p
IO,DIFFIO_B12n
IO,DIFFIO_B15p,(DQ1B)
IO,DIFFIO_B16p,(DQ1B)
IO,DIFFIO_B16n,(DQ1B)
IO
IO,VREFB4N0
IO,RUP2,(DQ1B)
IO,RDN2,(DQ1B)
IO,DIFFIO_B20n,(DQS0B/CQ1B,DPCLK3)
IO
IO,DIFFIO_B21p
IO,DIFFIO_B21n
IO,DIFFIO_B22p
54 SD_BA0 IO54
55 SDRAM_CS IO55
58 SD_RAS IO58
59 SD_CAS IO59
60 RTC_WE IO60
64 SD_LDQM IO64
65 SD_D07 IO65
66 SD_D06 IO66
67 SD_D03 IO67
68 SD_D02 IO68
69 SD_D01 IO69
70 SD_D00 IO70
71 SD_D04 IO71
72 SD_D05 IO72
BANK 5
IO
IO
IO
IO,RUP3
IO,RDN3
IO,VREFB5N0
IO
IO,DIFFIO_R8n
IO,DIFFIO_R8p,(DQS1R/CQ1R#,DPCLK4)
IO,DIFFIO_R7n,(DEV_OE)
IO,DIFFIO_R7p,(DEV_CLRn)
73 SD_UDQM IO73
74 SD_D08 IO74
75 SD_D09 IO75
76 SD_D10 IO76
77 SD_D11 IO77
80 SD_D12 IO80
83 SD_D13 IO83
84 SD_D15 IO84
85 SD_D14 IO85
86 SD_CKE IO86
87 SDRAM_CLK IO87
BANK 6
IO,DIFFIO R4n,(INT DONE)
IO,DIFFIO_R4P,(CRC ERROR)
IO
IO,DIFFIO_R3n(nCEO)
IO,DIFFIO R3p,(CLKUSR)
IO,(DQS0R/CQ1R,DPCLK5)
IO,VERFB6N0
IO,DIFFIO_R1n
98 SD_A12 IO98
99 SD_A11 IO99
100 SD_A09 IO100
101 SD_A08 IO101
103 SD_A07 IO103
104 SD_A06 IO104
105 SD_A05 IO105
106 SD_A04 IO106
BANK 7
IO,DIFFIO_T20p,(DQS0T/CQ1T,DPCLK6)
IO,DIFFIO_T19p
IO,PLL2_CLKOUTn
IO,PLL2_CLKOUTp
IO,RUP4,(DQ1T)
IO,RDN4,(DQ1T)
IO,VREFB7N0
IO,DIFFIO_T16n,(DQ1T)
IO,DIFFIO_T16p
IO,DIFFIO_T13p
IO
IO,DIFFIO_T12n
IO,DIFFIO_T12p
110 SEG1 IO110
111 DIG3 IO111
112 SEG6 IO112
113 DIG2 IO113
114 SEG2 IO114
115 SEG7 IO115
119 DIG1 IO119
120 SEG5 IO120
121 SEG3 IO121
124 SEG0 IO124
125 SEG4 IO125
126 DIG0 IO126
127 LCD1 IO127
BANK 8
IO,DIFFIO_T11n
IO,DIFFIO_T11p
IO,DIFFIO_T10n,(DATA2),(DQ1T)
IO,DIFFIO_T10p,(DATA3),(DQ1T)
IO,DIFFIO_T8n,(DQ1T)
IO,VREFB8N0
IO,(DATA5),(DQ1T)
IO,(DATA6)
IO,DIFFIO_T5p
IO,DIFFIO_T2p,(DQS1T/CQ1T#,DPCLK7)
IO,DIFFIO_T1n,(DQ1T)
IO,DIFFIO_T1p,(DM1T)
128 LCD2 IO128
129 LCD3 IO129
132 LCD4 IO132
133 LCD5 IO133
135 LCD6 IO135
136 LCD7 IO136
137 LCD8 IO137
138 LCD9 IO138
141 LCD10 IO141
142 LCD11 IO142
143 BEEP IO143
144 DS18B20_DATA IO144
GND GND
EP
VCC+3.3V
C3
0.1uF
X1
NC
VCC
GND
OUT
50MHz
SYS_CLK
R4 22
TDI 15
TDO 20
TCK 16
TMS 18
GND 94
VCC+2.5V 96
GND 97
nCE 21
DCLK 12
CONF_DONE 92
nCONFIG 14
9
TDI
TDO
TCK
TMS
MSEL0
MSEL1
MSEL2
nCE
DCLK
CONF_DONE
nCONFIG
nSTATUS
RR3
4x10K
VCC+2.5V 35
VCC+1.2V 37
VCC+2.5V 107
VCC+1.2V 109
VCCA1
VCCD_PLL1
VCCA2
VCCD_PLL2
GNDA1
GNDA2
36
108
VCC+1.2V
C1
104
CLK7,DIFFCLK_3n 88 KEY2
CLK6,DIFFCLK_3p 89 KEY1
CLK5,DIFFCLK_2n 90 KEY3
CLK4,DIFFCLK_2p 91 KEY4
CLK3,DIFFCLK_1n 25 IO25
CLK2,DIFFCLK_1p 24 SYS_RST
CLK1,DIFFCLK_0n 23 SYS_CLK
VCC+5V P1 VCC+5V
VCC+3.3V
GND
IO1 IO2
IO3 IO7
IO10 IO11
IO25 IO28
IO30 IO31
IO32 IO33
IO34 IO38
IO39 IO42
IO43 IO44
IO46 IO49
IO50 IO51
IO52 IO53
IO54 IO55
IO58 IO59
IO60 IO64
IO65 IO66
IO67 IO68
IO69 IO70
IO71 IO72
Header 24X2
VCCIO1
VCCIO2
VCCIO3
VCCIO4
VCCIO5
VCCIO6
VCCIO7
VCCIO8
VCCINT
17
26
40
47
56
62
81
93
117
122
130
139
5
29
45
61
78
102
116
134
P2
IO73 IO74
IO75 IO76
IO77 IO80
IO83 IO84
IO85 IO86
IO87 IO98
IO99 IO100
IO101 IO103
IO104 IO105
IO106 IO110
IO111 IO112
IO113 IO114
IO115 IO119
IO120 IO121
IO124 IO125
IO126 IO127
IO128 IO129
IO132 IO133
IO135 IO136
IO137 IO138
IO141 IO142
IO143 IO144
GND GND
VCC+5V 45 46 VCC+3.3V
Header 24X2
VCC+3.3V
C11 100nF
C2 100nF
C21 100nF
C12 100nF
C22 100nF
C23 100nF
C18 100nF
C19 100nF
C20 100nF
VCC+2.5V
C13 100nF
C14 100nF
C15 100nF
VCC+1.2V
C17 100nF
VCC+3.3V
R7 10K
SYS_RST
RST
Jumper
C9 104
RR1
4x10K
JTAG
JP1
TCK
TDO
TMS
TDI
VCC+3.3V
JTAG Mode Dowload Cable
VCC+5V U4 LM1117-3.3 VCC+3.3V
IN OUT
E1 10μF
E2 10μF
C5 100nF
VCC+5V U5 LM1117-2.5 VCC+2.5V
E3 10μF
E4 10μF
C7 100nF
VCC+5V U6 LM1117-1.2 VCC+1.2V
E5 10μF
E6 10μF
C10 100nF
RR2
4x10K
S1 Jumper KEY1
S2 Jumper KEY2
S3 Jumper KEY3
S4 Jumper KEY4
LED1 DS1 LED1
LED2 DS2 LED2
LED3 DS3 LED3
LED4 DS4 LED4
4x470
RR4
GND PWR PWR R5 510 VCC+3.3V
U2
nCSO 1
DATA0 2
3
4
CS VCC
SO HOLD
WP SCK
GND SI
8
7
6 DCLK
5 ASDO
W25Q64
C4 1uF
USB
Vbus
D-
D+
ID
G
USB-mrico
VCC+5V
USB_DN R1 22 UART_D-
USB_DP R2 22 UART_D+
R3 1.5K
U3
C6 0.1μF
C8 0.01μF
VCC
GND
V3-UCAP
R232
UD+
UD-
XI
XO
RXD
TXD
RTS#
DTR#
DCD#
RI#
DSR#
CTS
UART_TXD
UART_RXD
CH340C SOP16
Title
Size A3
Number
Revision
Date: 2021/4/7
Sheet of
File: E:\自己产品20161226\..\EP4CE6E22C8_Mini.SchDoc
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