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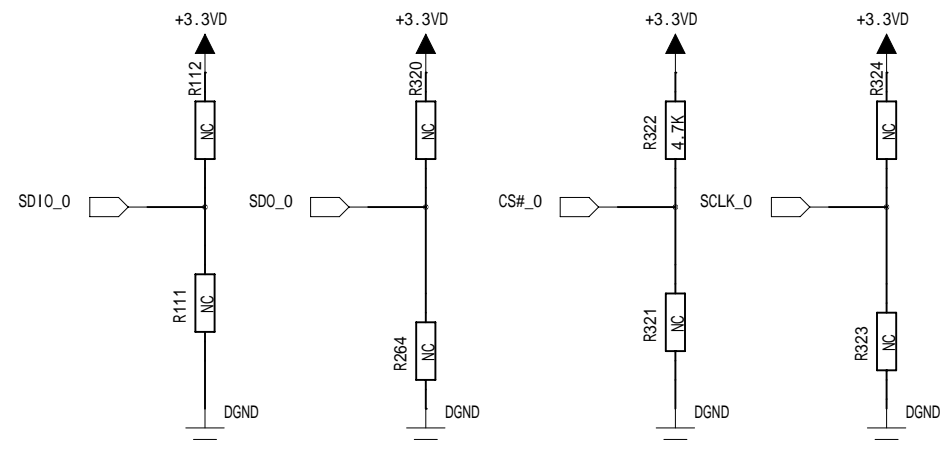
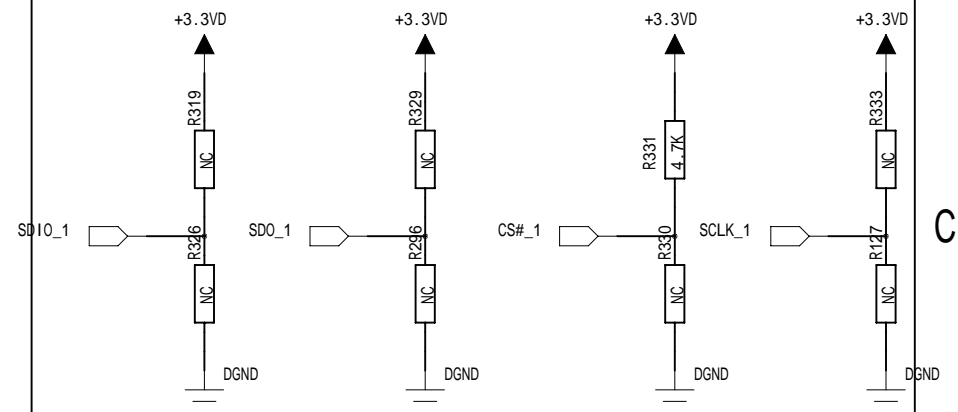
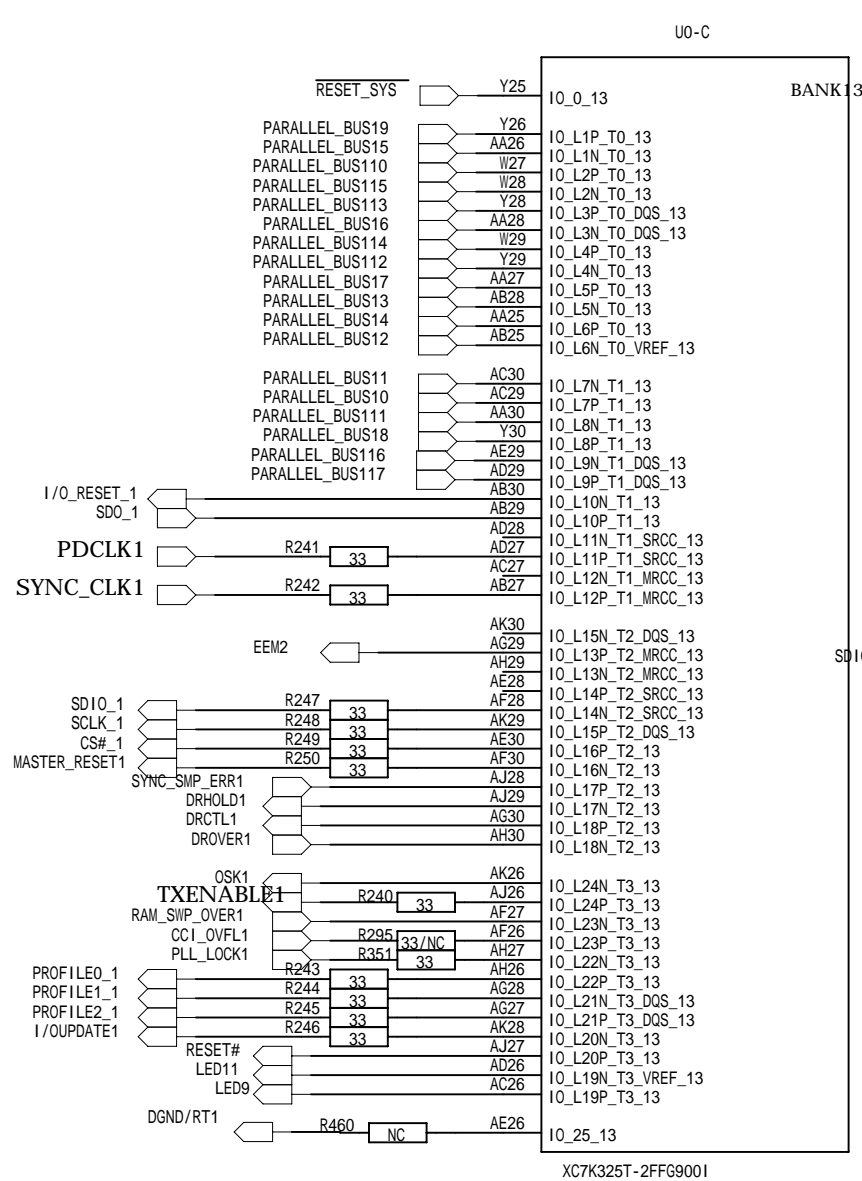
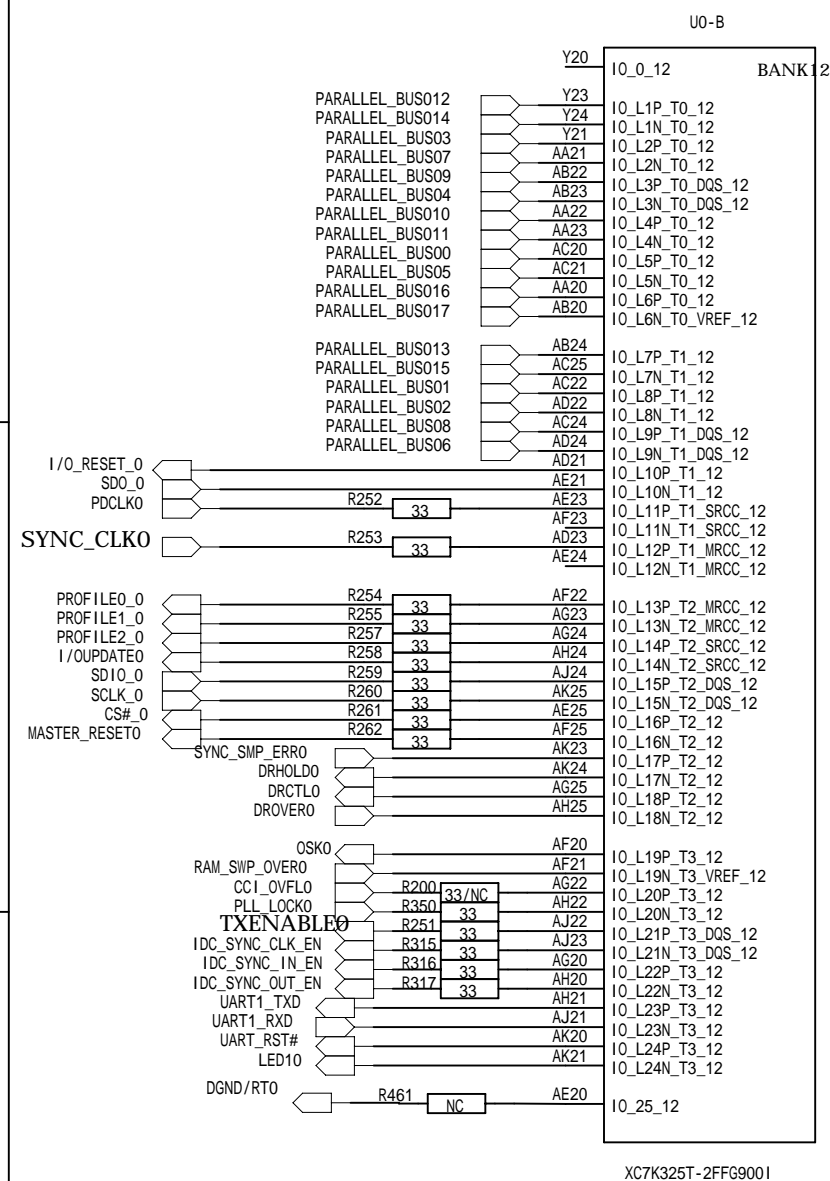
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IIIS

K7DDS

DRAWN:

WangBo

DATED:

2023.11.03

SHEET: 3 OF

40

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3.3V bank

U0-F

BANK16

F23

IO_0_16

IO_L1P_T0_16
IO_L1N_T0_16
IO_L2P_T0_16
IO_L2N_T0_16
IO_L3P_T0_DQS_16
IO_L3N_T0_DQS_16
IO_L4P_T0_16
IO_L4N_T0_16
IO_L5P_T0_16
IO_L5N_T0_16
IO_L6P_T0_16
IO_L6N_T0_VREF_16

IO_L7P_T1_16
IO_L7N_T1_16
IO_L8P_T1_16
IO_L8N_T1_16
IO_L9P_T1_DQS_16
IO_L9N_T1_DQS_16
IO_L10P_T1_16
IO_L10N_T1_16

IO_L11P_T1_SRCC_16
IO_L11N_T1_SRCC_16
IO_L12P_T1_MRCC_16
IO_L12N_T1_MRCC_16

IO_L13P_T2_MRCC_16
IO_L13N_T2_MRCC_16
IO_L14P_T2_SRCC_16
IO_L14N_T2_SRCC_16

IO_L15P_T2_DQS_16
IO_L15N_T2_DQS_16
IO_L16P_T2_16
IO_L16N_T2_16

IO_L17P_T2_16
IO_L17N_T2_16
IO_L18P_T2_16
IO_L18N_T2_16

IO_L19P_T3_16
IO_L19N_T3_VREF_16
IO_L20P_T3_16
IO_L20N_T3_16

IO_L21P_T3_DQS_16
IO_L21N_T3_DQS_16
IO_L22P_T3_16
IO_L22N_T3_16

IO_L23P_T3_16
IO_L23N_T3_16
IO_L24P_T3_16
IO_L24N_T3_16

IO_25_16

XC7K325T-2FFG9001

U0-G

Bank17

G19

IO_0_17
IO_L1P_T0_17
IO_L1N_T0_17
IO_L2P_T0_17
IO_L2N_T0_17
IO_L3P_T0_DQS_17
IO_L3N_T0_DQS_17
IO_L4P_T0_17
IO_L4N_T0_17
IO_L5P_T0_17
IO_L5N_T0_17
IO_L6P_T0_17
IO_L6N_T0_VREF_17

IO_L7P_T1_17
IO_L7N_T1_17
IO_L8P_T1_17
IO_L8N_T1_17
IO_L9P_T1_DQS_17
IO_L9N_T1_DQS_17
IO_L10P_T1_17
IO_L10N_T1_17

IO_L11P_T1_SRCC_17
IO_L11N_T1_SRCC_17
IO_L12P_T1_MRCC_17
IO_L12N_T1_MRCC_17

IO_L13P_T2_MRCC_17
IO_L13N_T2_MRCC_17
IO_L14P_T2_SRCC_17
IO_L14N_T2_SRCC_17

IO_L15P_T2_DQS_17
IO_L15N_T2_DQS_17
IO_L16P_T2_17
IO_L16N_T2_17

IO_L17P_T2_17
IO_L17N_T2_17
IO_L18P_T2_17
IO_L18N_T2_17

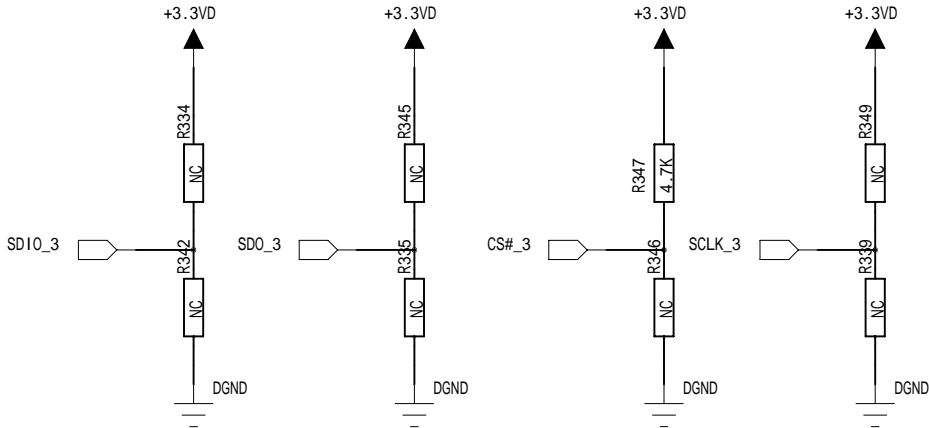
IO_L19P_T3_17
IO_L19N_T3_VREF_17
IO_L20P_T3_17
IO_L20N_T3_17

IO_L21P_T3_DQS_17
IO_L21N_T3_DQS_17
IO_L22P_T3_17
IO_L22N_T3_17

IO_L23P_T3_17
IO_L23N_T3_17
IO_L24P_T3_17
IO_L24N_T3_17

IO_25_17

XC7K325T-2FFG9001



IIIS

K7DDS

DRAWN:

WangBo

DATED:

2023.11.03

SHEET: 5 OF

40

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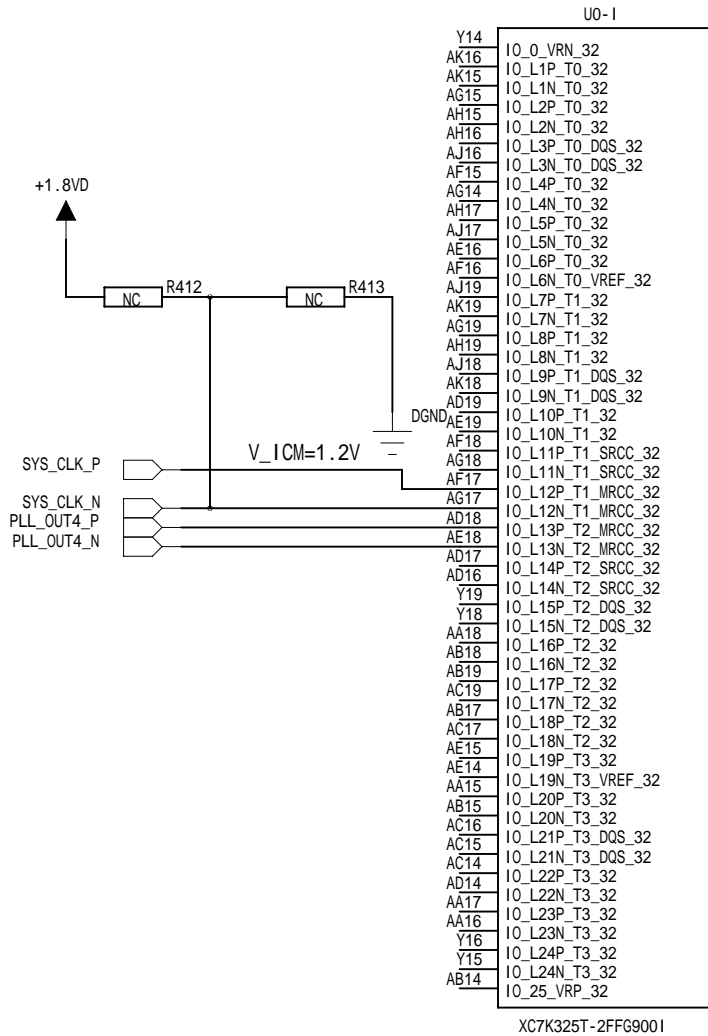
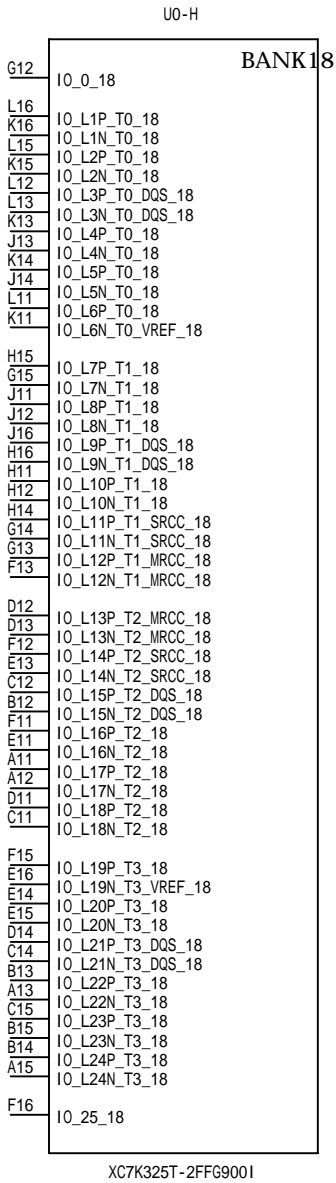
C

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IIIS

K7DDS

DRAWN:

WangBo

DATED:

2023.11.03

SHEET:

6 OF

40

6

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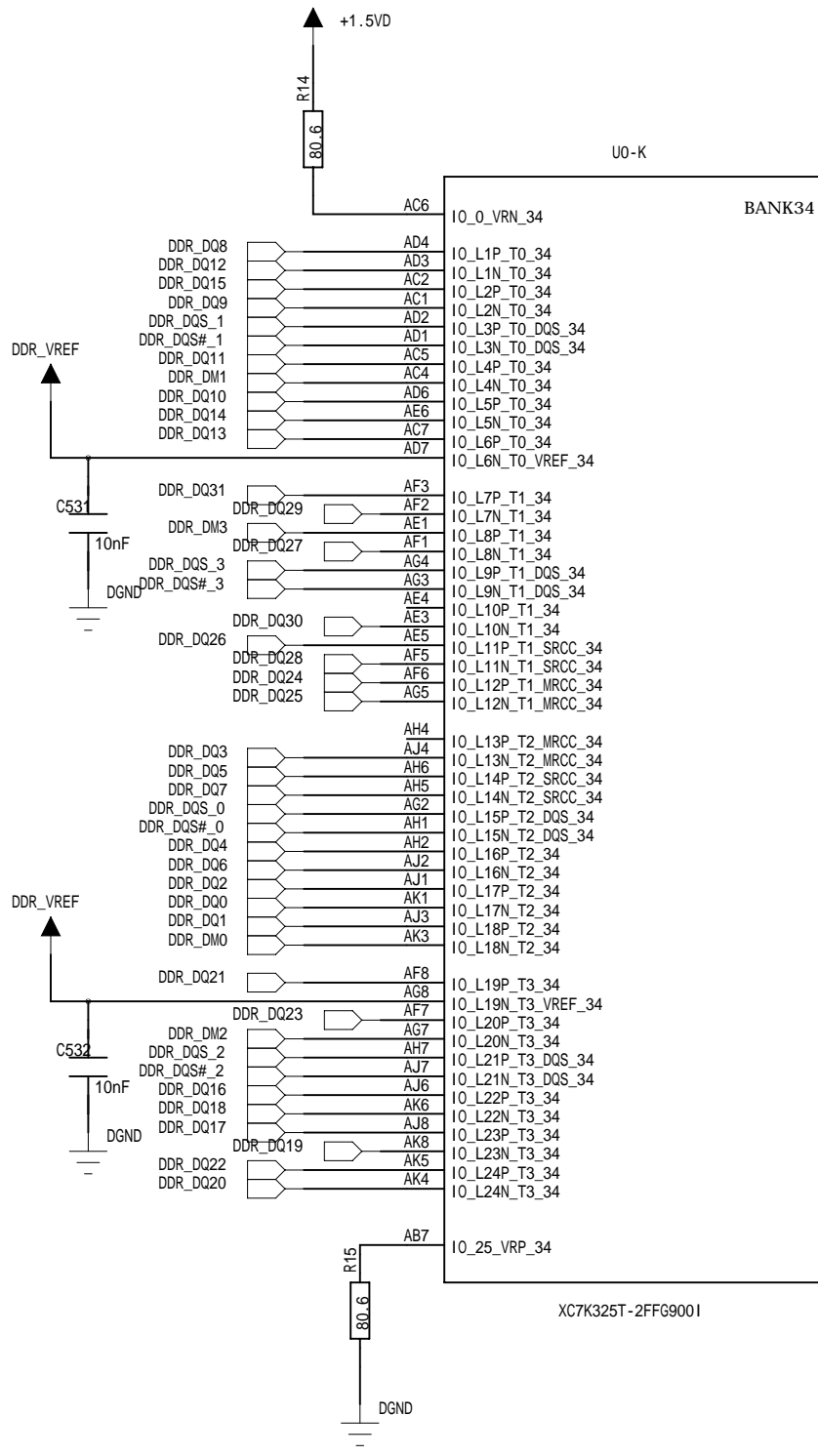
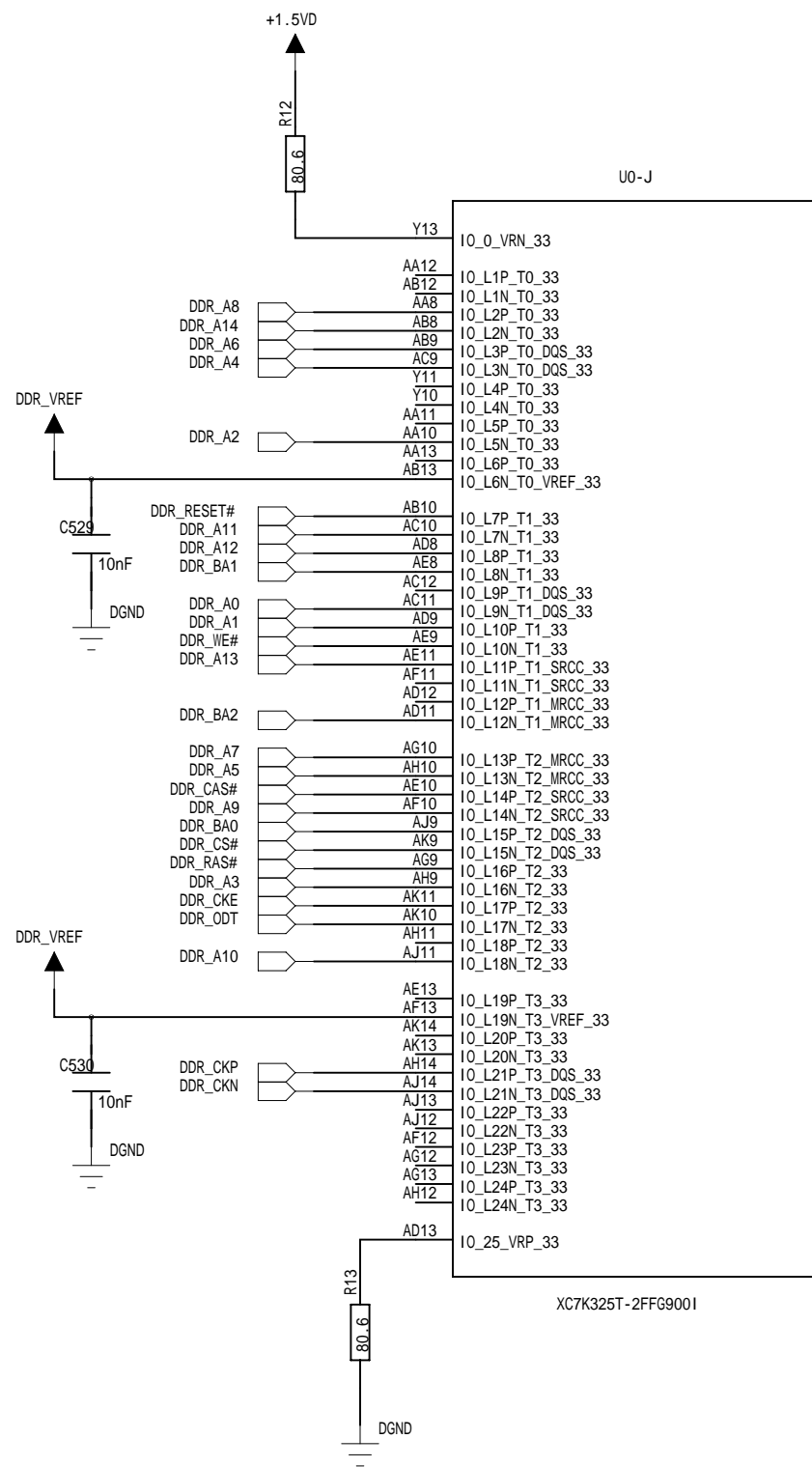
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IIIS

K7DDS

DRAWN:

WangBo

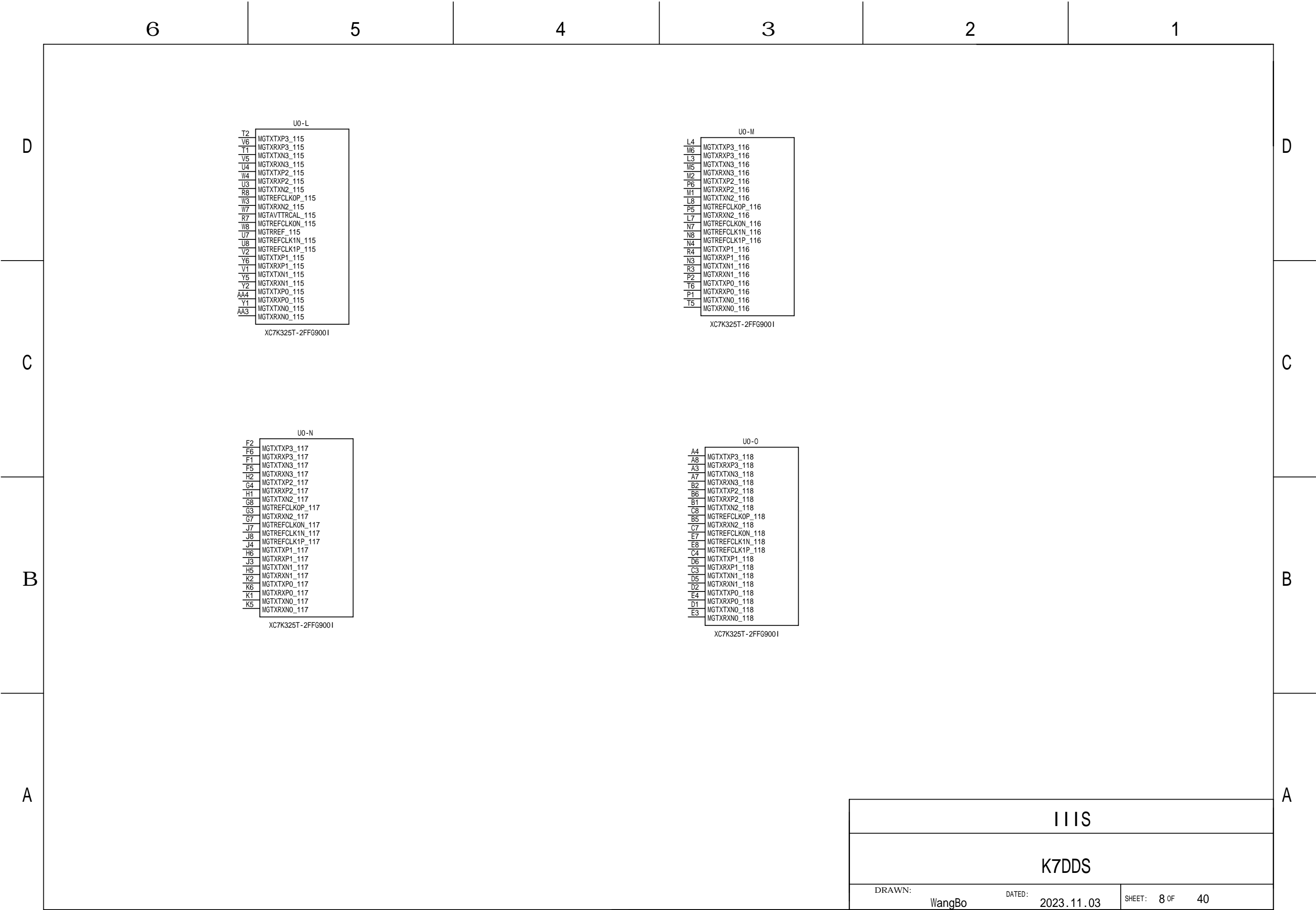
DATED:

2023.11.03

SHEET:

7 OF

40



U0-O

A4

A8

A3

A7

B2

B6

B1

C8

B5

C7

E7

E8

C4

D6

C3

D5

D2

E4

D1

E3

MGTXXP3_118

MGTXXP3_118

MGTXXN3_118

MGTXXN3_118

MGTXXP2_118

MGTXXP2_118

MGTXXN2_118

MGTREFCLKOP_118

MGTXXN2_118

MGTREFCLKON_118

MGTREFCLK1N_118

MGTREFCLK1P_118

MGTXXP1_118

MGTXXP1_118

MGTXXN1_118

MGTXXN1_118

MGTXXN1_118

MGTXXP0_118

MGTXXP0_118

MGTXXN0_118

MGTXXN0_118

XC7K325T-2FFG900I

IIIS

K7DDS

DRAWN:WangBo

DATED:2023.11.03

SHEET: 8 OF 40

6

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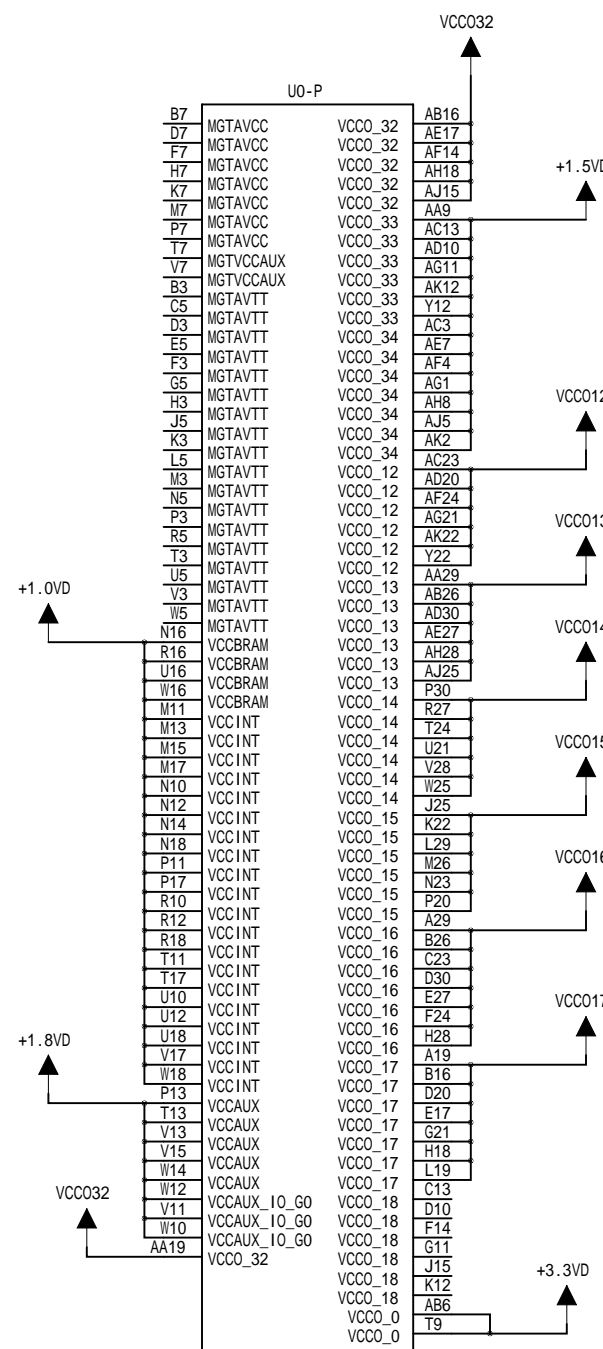
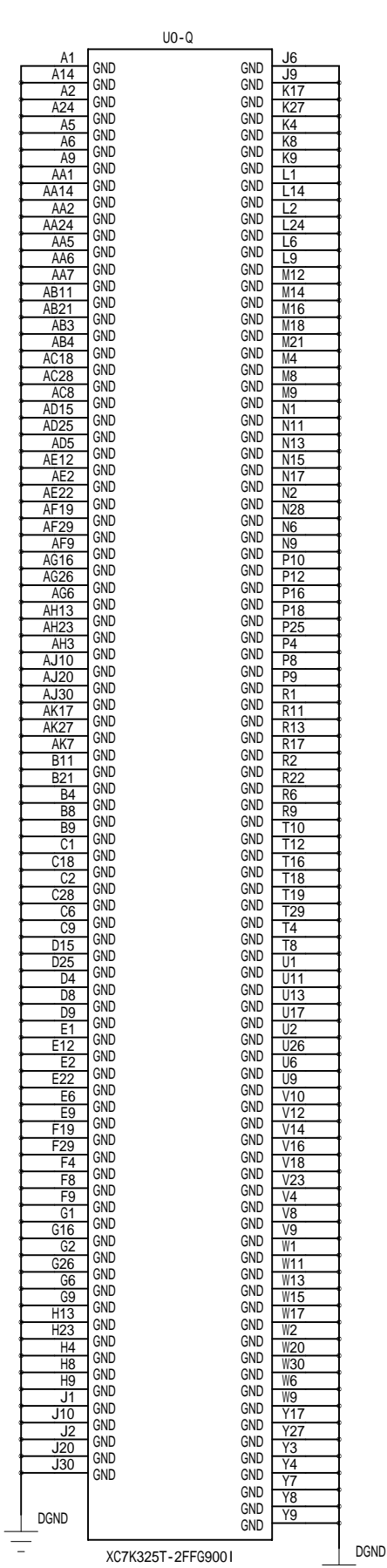
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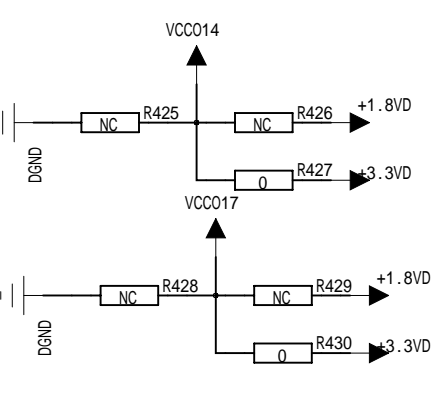
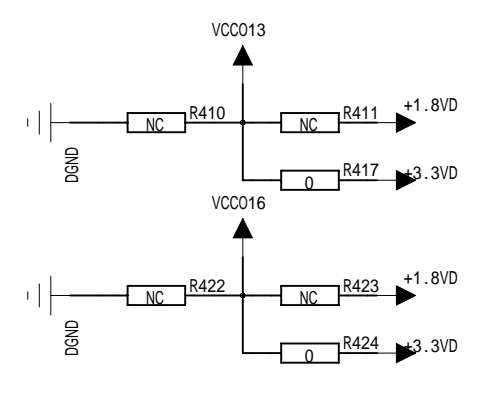
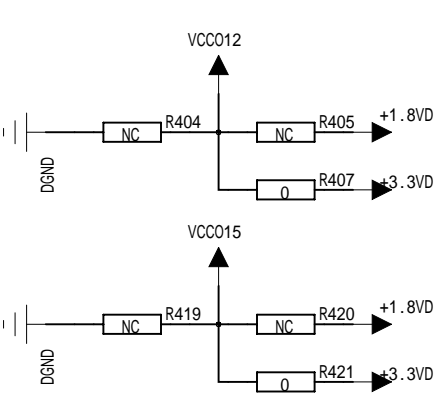
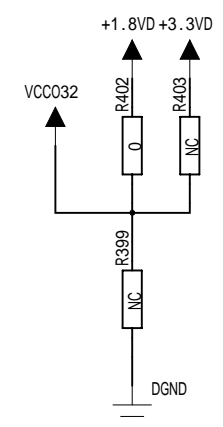
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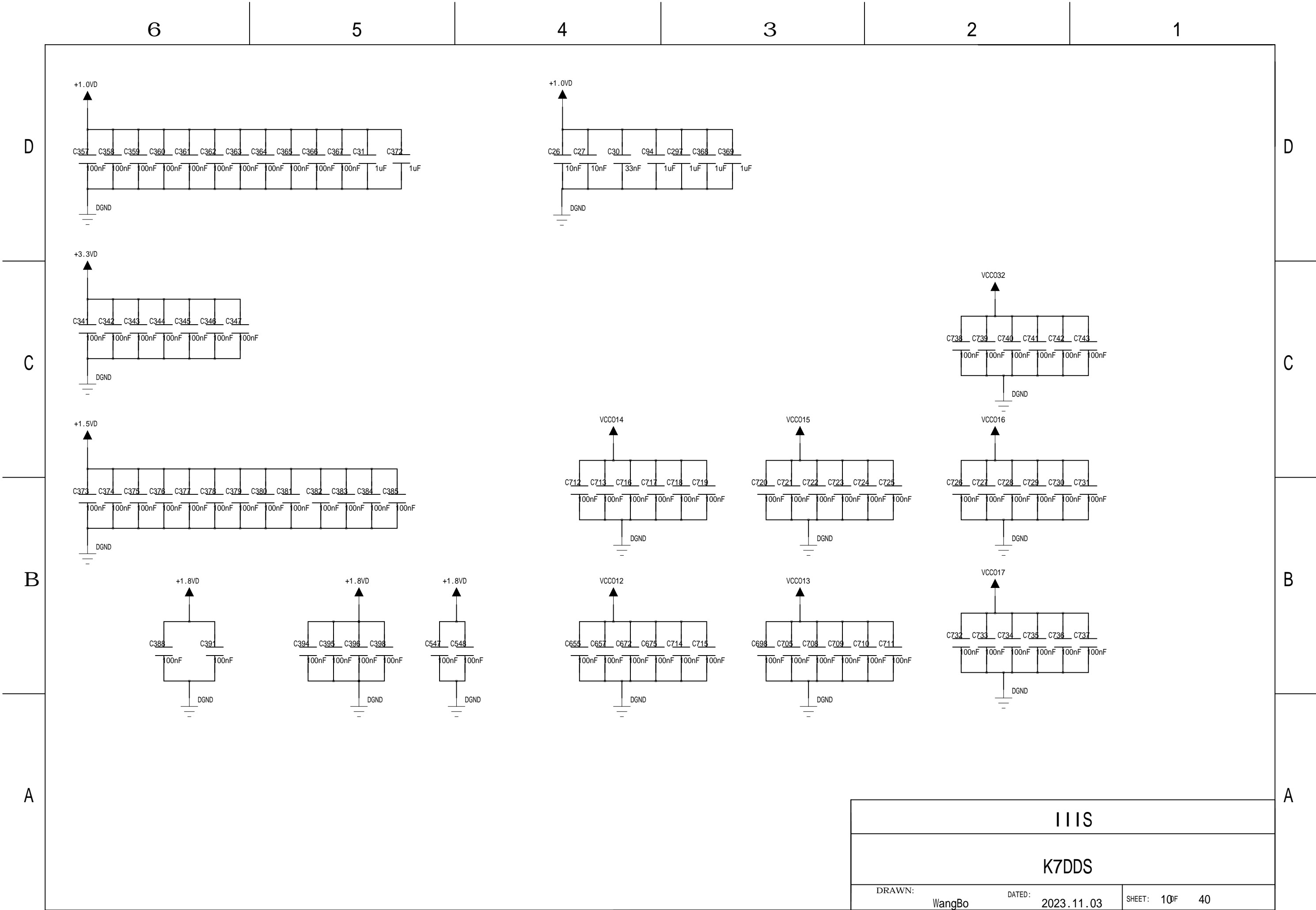
A



VCCINT , VCCBRAM->VCCAUX , VCC_AUXIO->VCC0
ramptime 0.2-50ms



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K7DDS		
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K7DDS		
DRAWN: WangBo	DATED: 2023.11.03	SHEET: 10F 40

6

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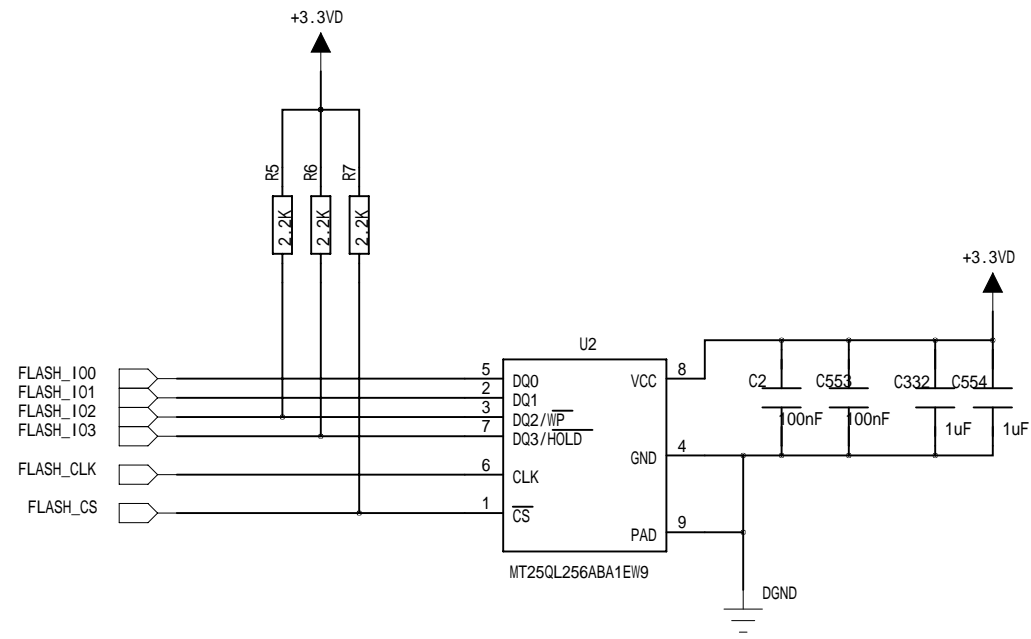
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IIIS

K7DDS

DRAWN:

WangBo

DATED:

2023.11.03

SHEET: 11F

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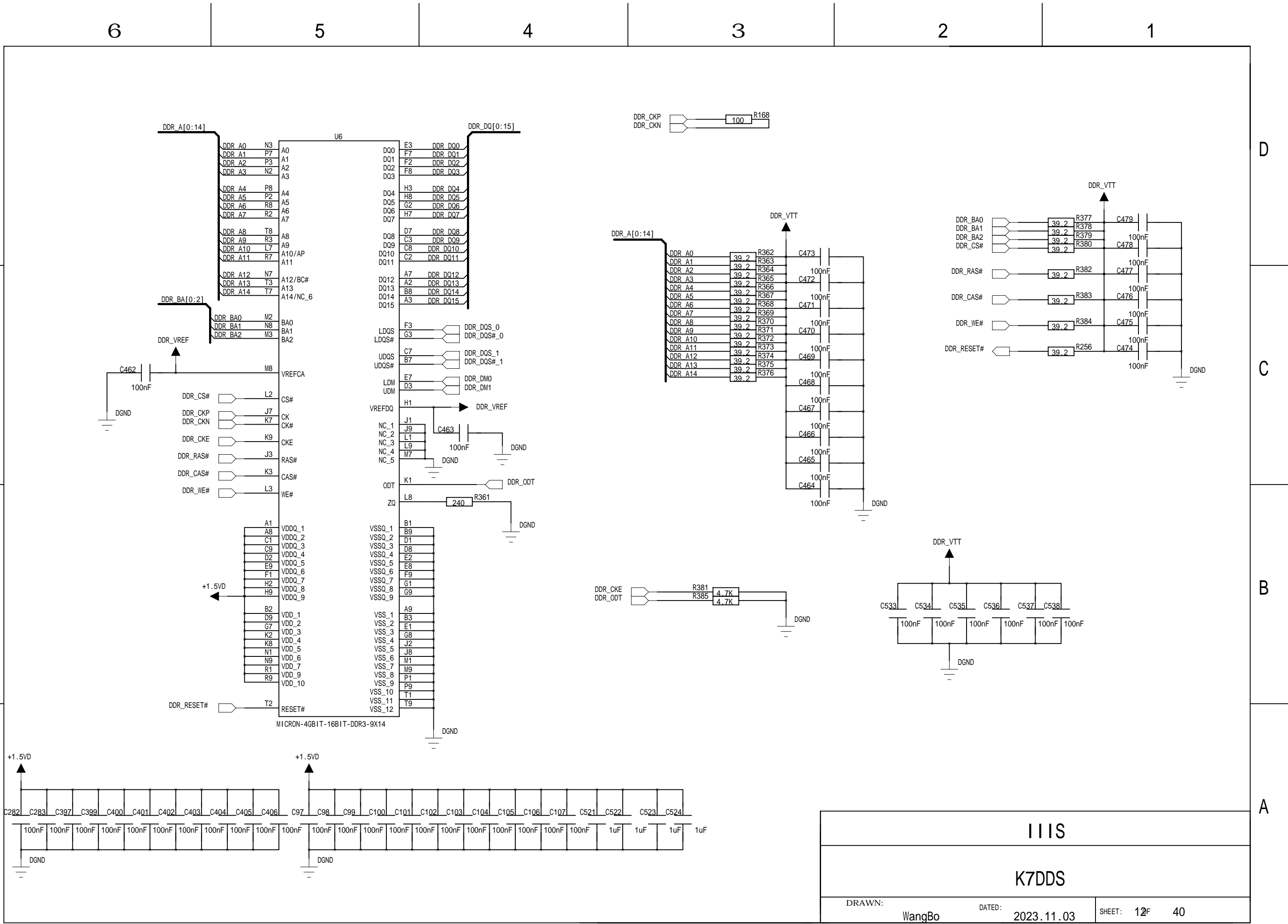
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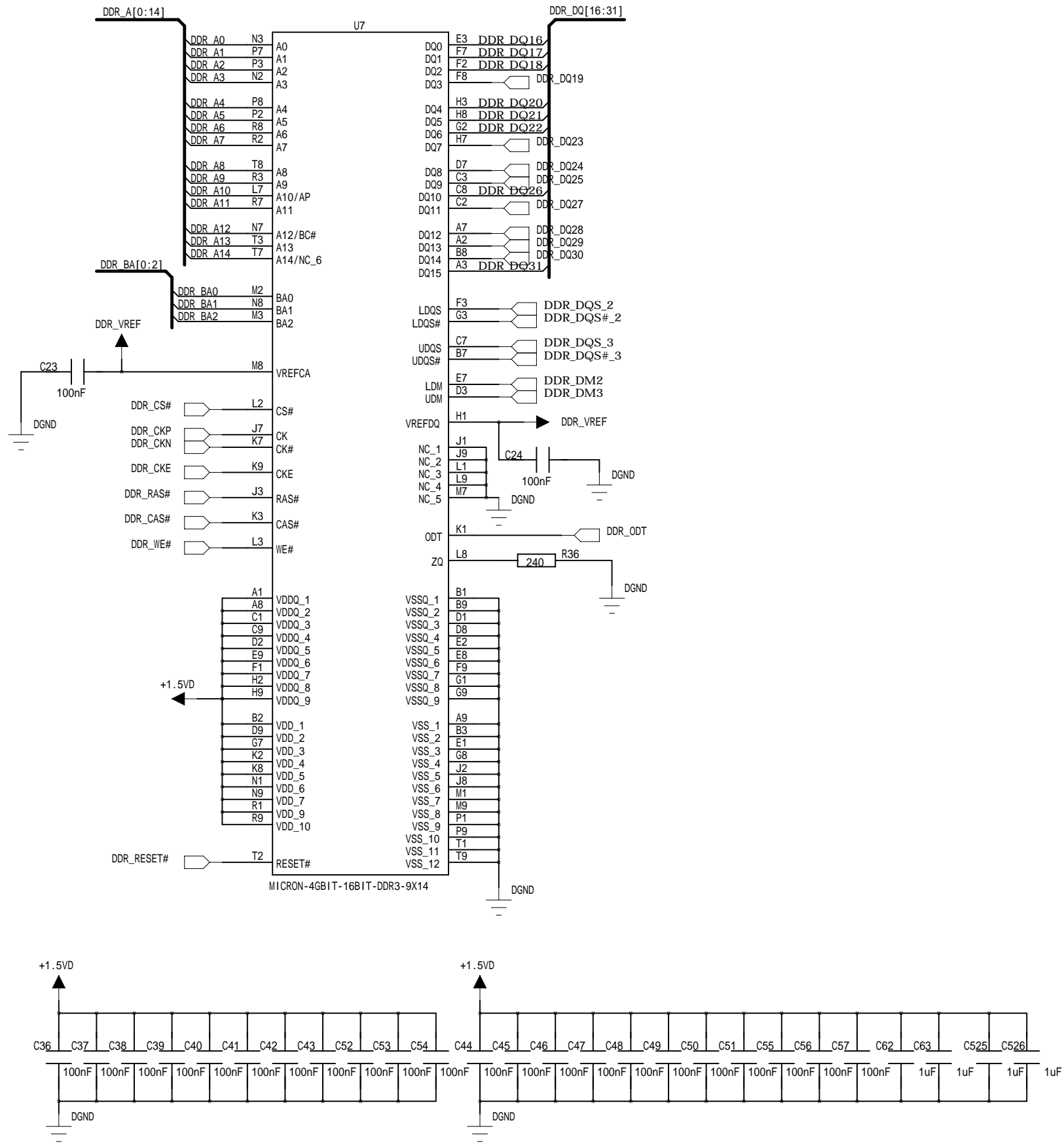
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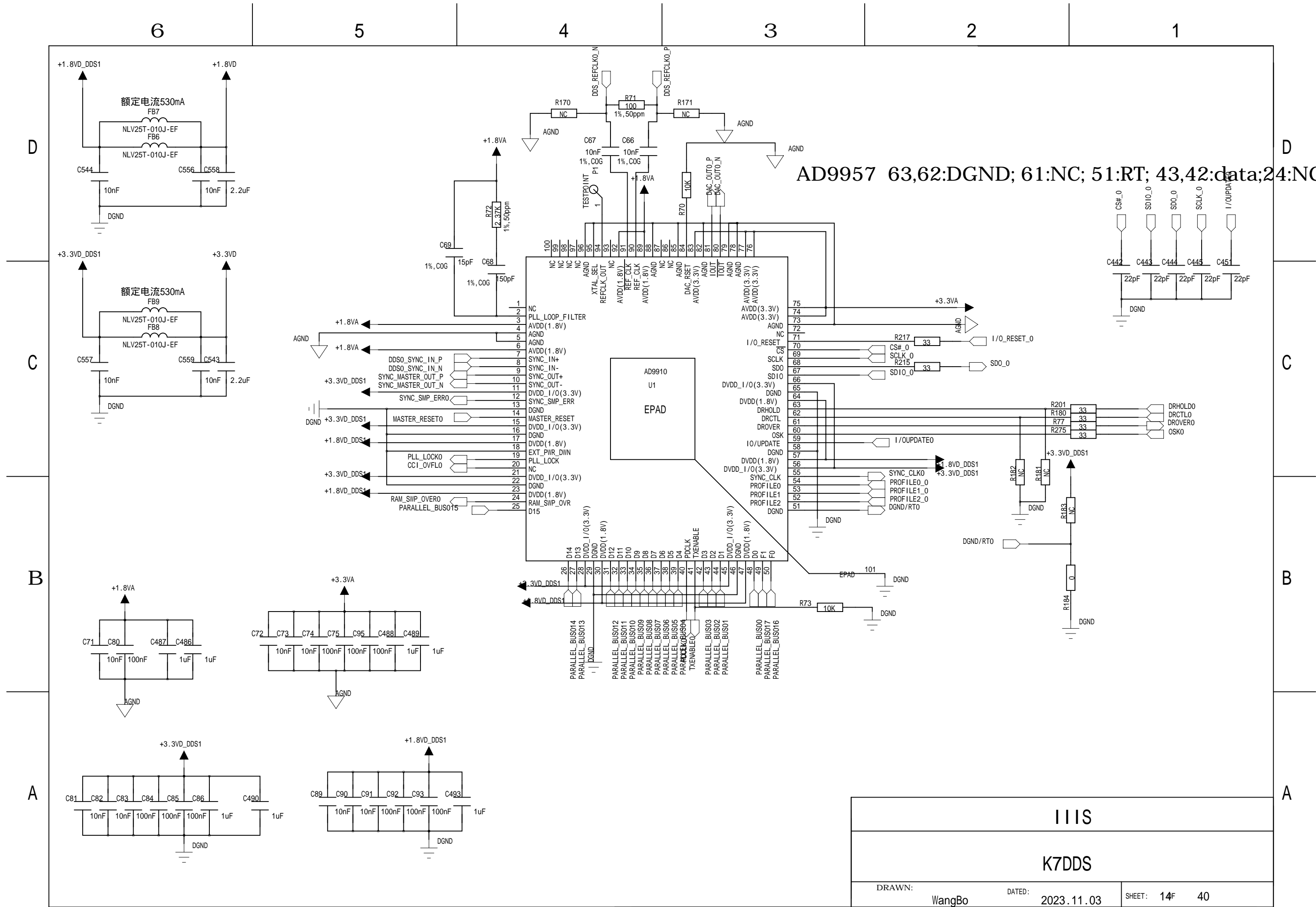
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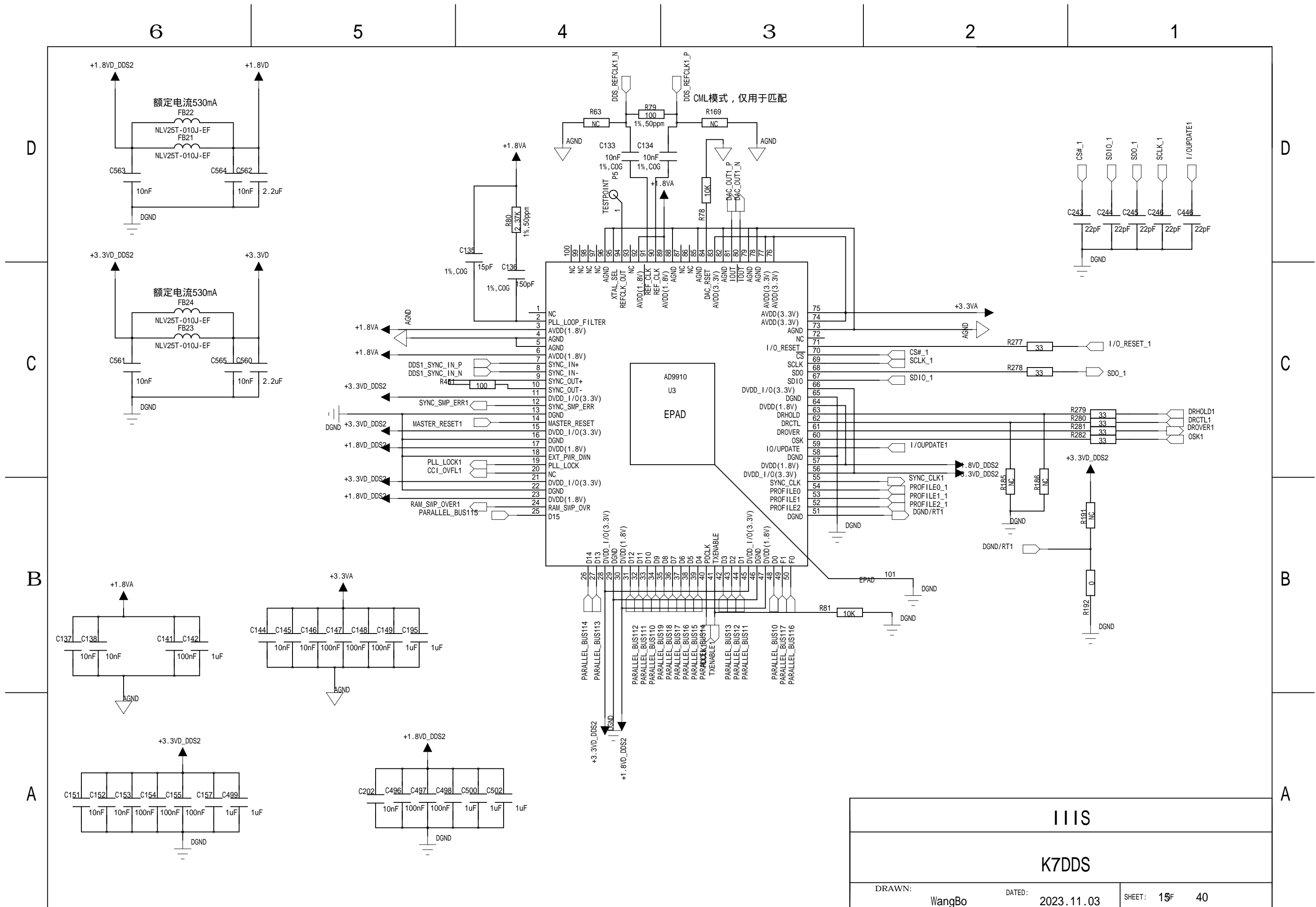
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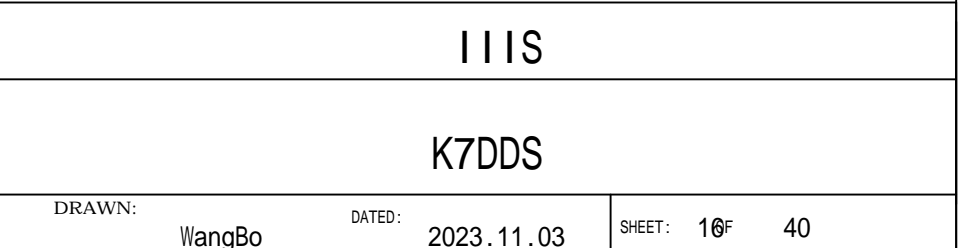
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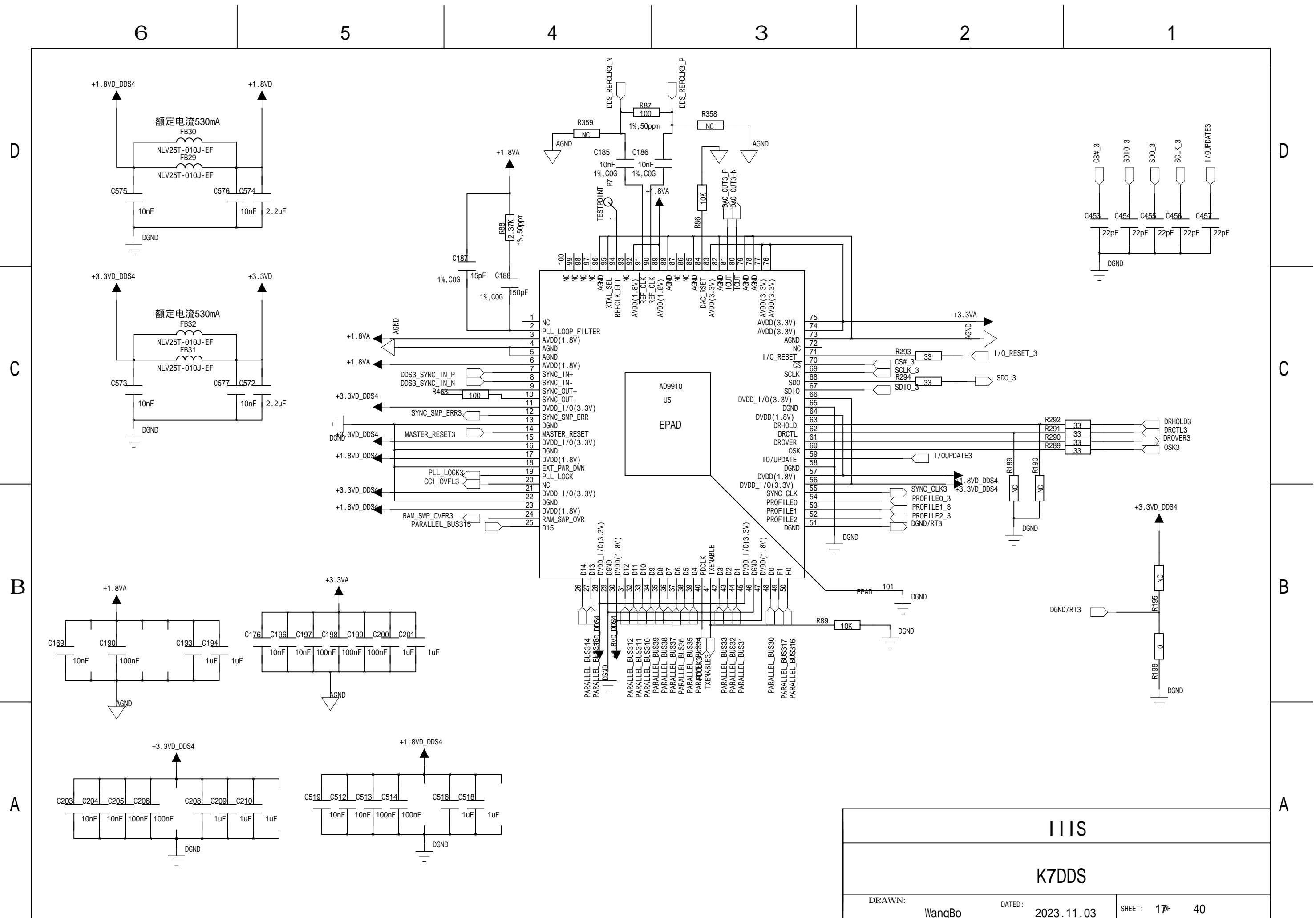


IIIS		
K7DDS		
DRAWN: WangBo	DATED: 2023.11.03	SHEET: 13F 40









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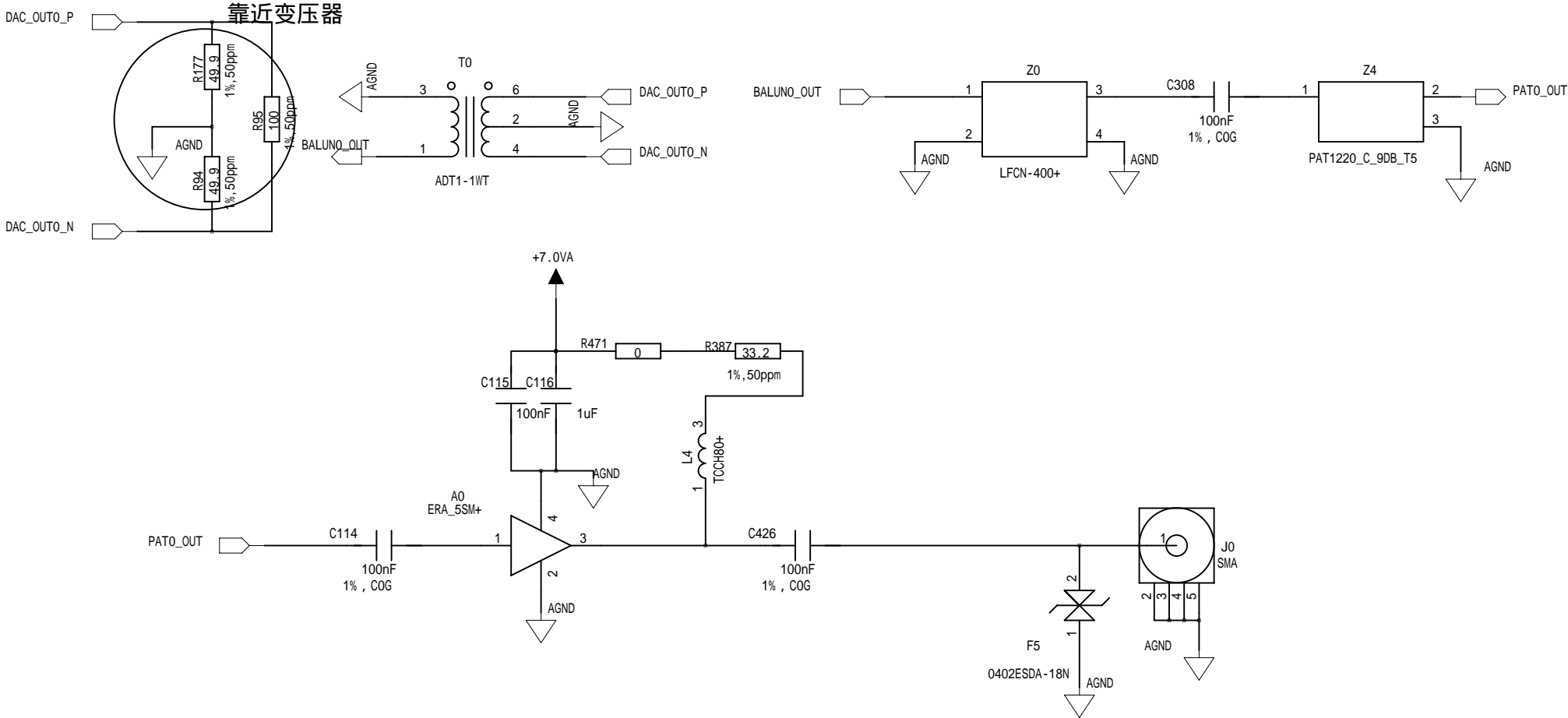
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IIIS

K7DDS

DRAWN:

DATED:

SHEET: 180F

40

WangBo

2023.11.03

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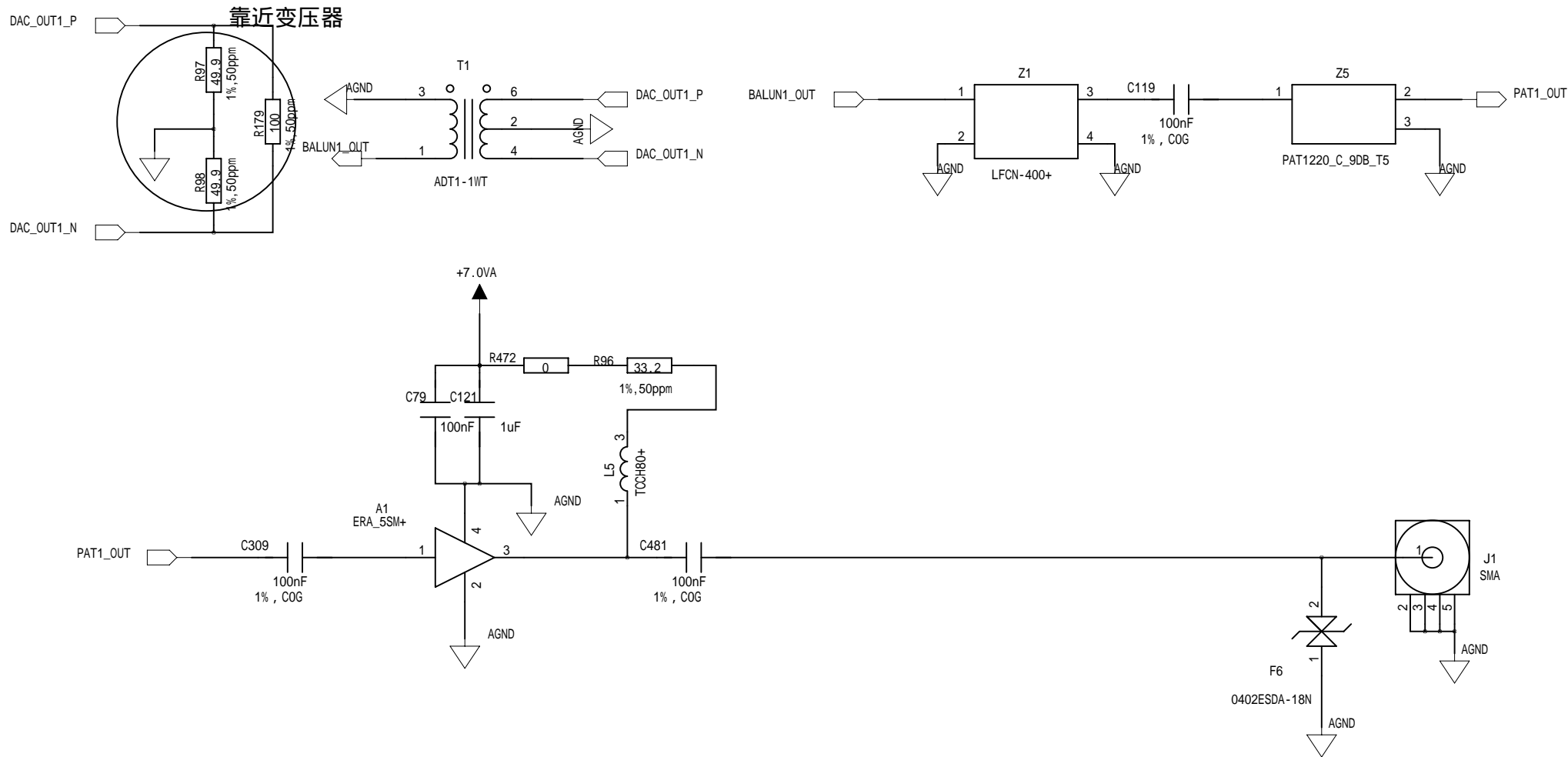
C

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IIIS

K7DDS

DRAWN: WangBo

DATED: 2023.11.03

SHEET: 19 40

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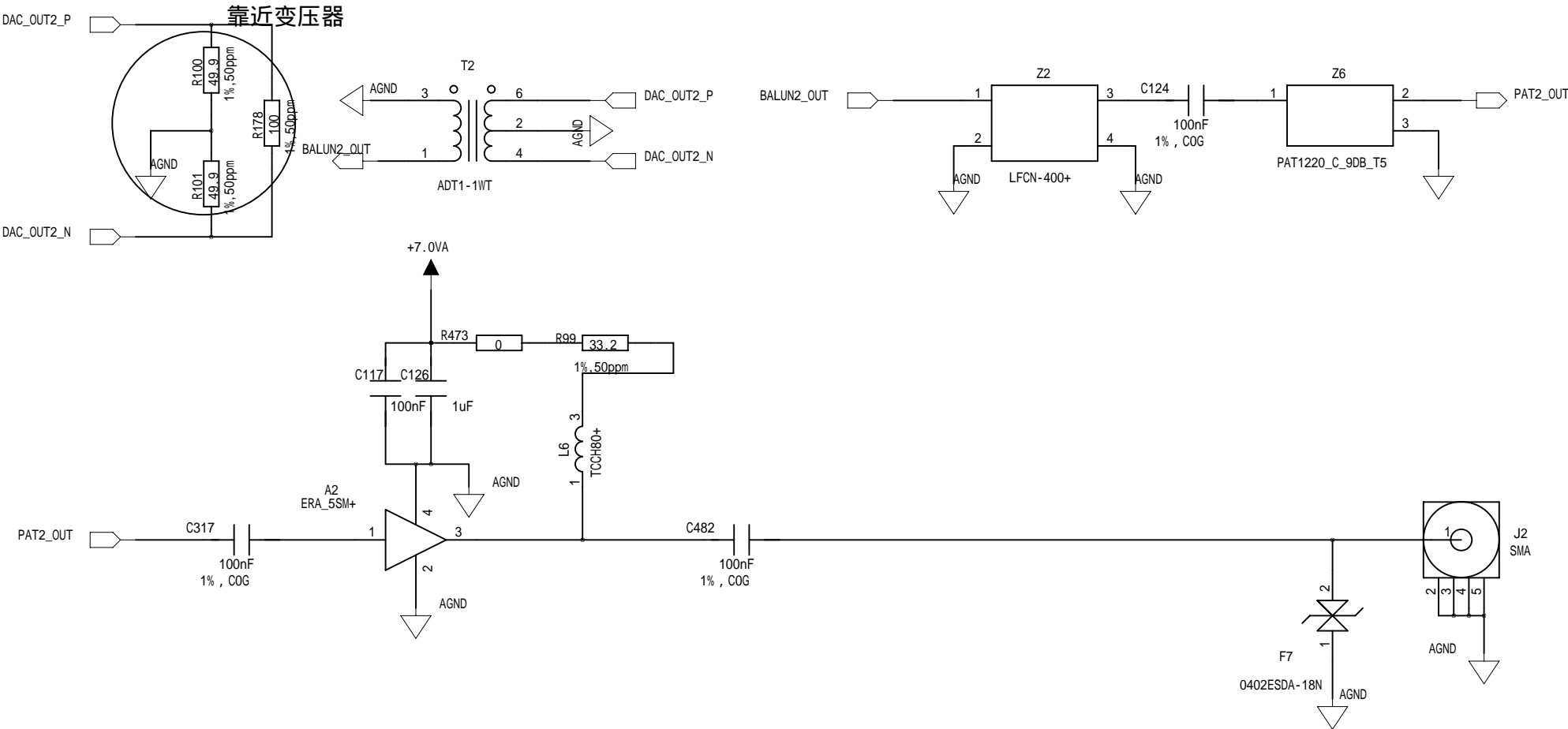
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IIIS		
K7DDS		
DRAWN: WangBo	DATED: 2023.11.03	SHEET: 20F 40

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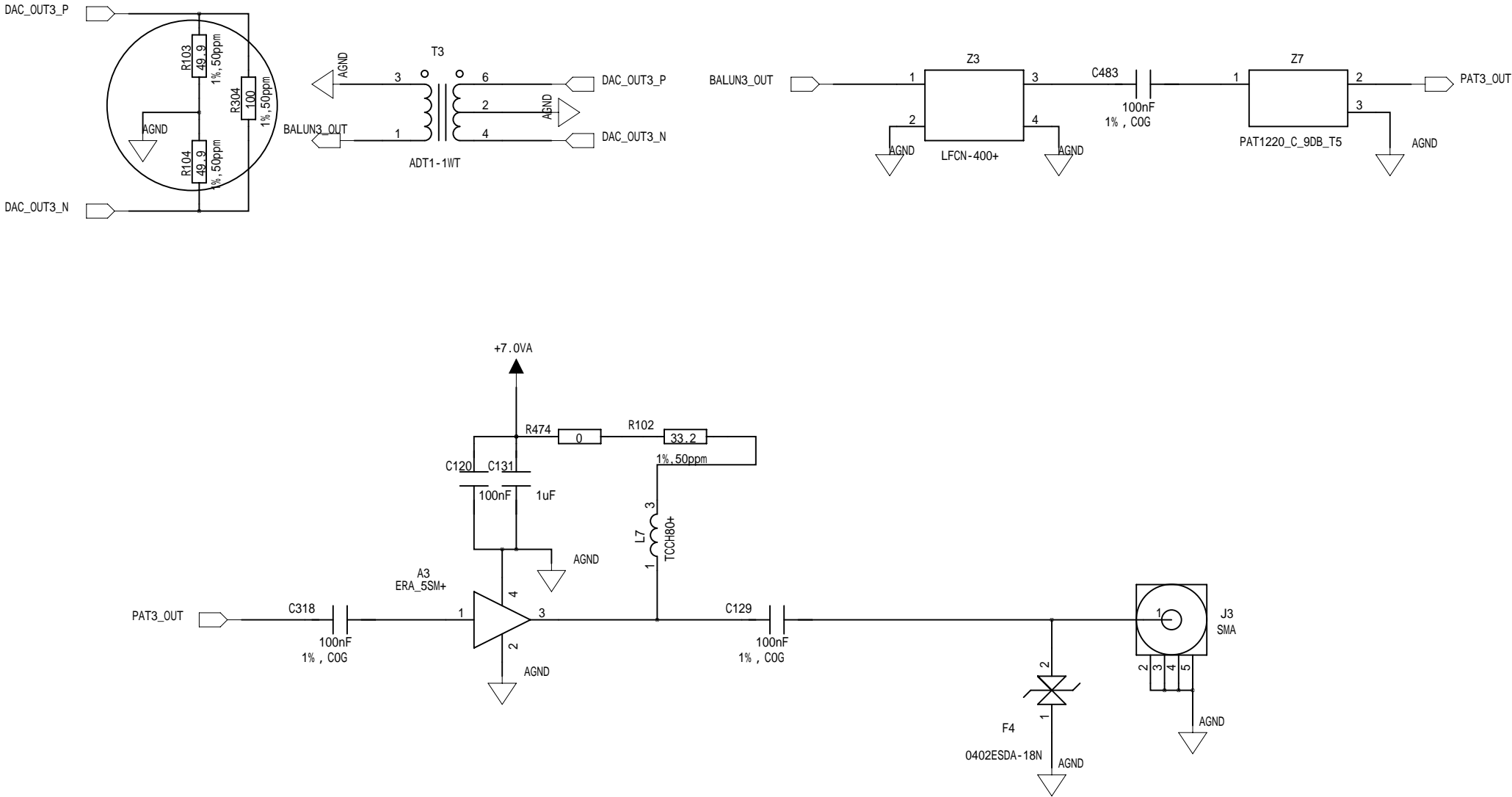
A

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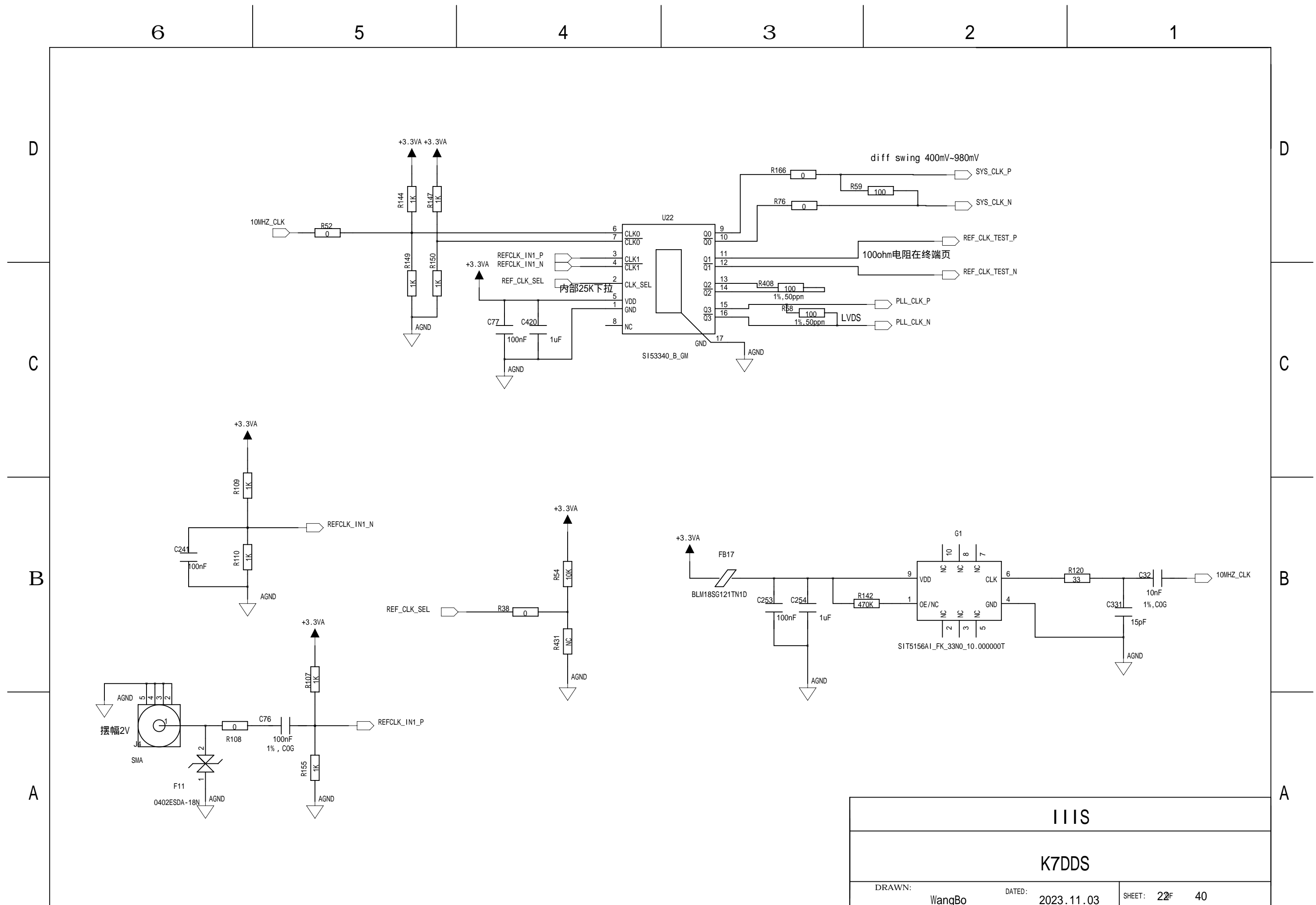
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IIIS		
K7DDS		
DRAWN: WangBo	DATED: 2023.11.03	SHEET: 21 / 40



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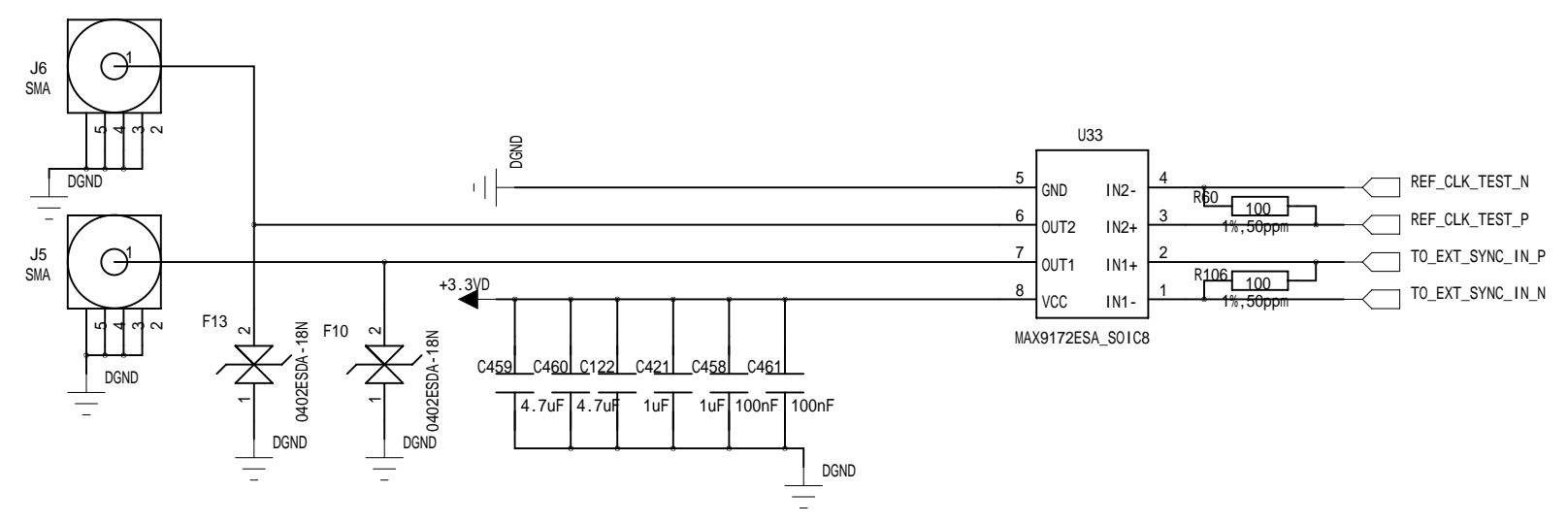
A

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IIIS

K7DDS

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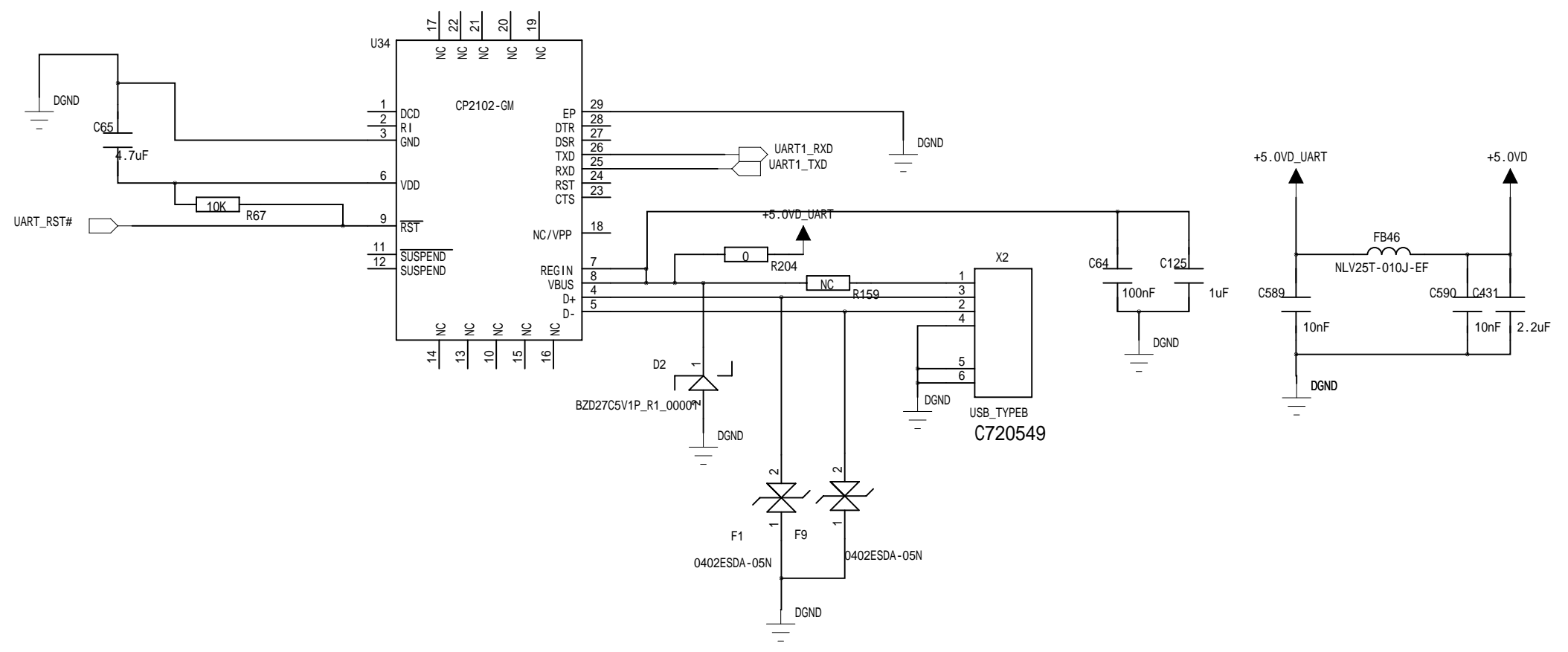
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IIIS		
K7DDS		
DRAWN: WangBo	DATED: 2023.11.03	SHEET: 20F 40

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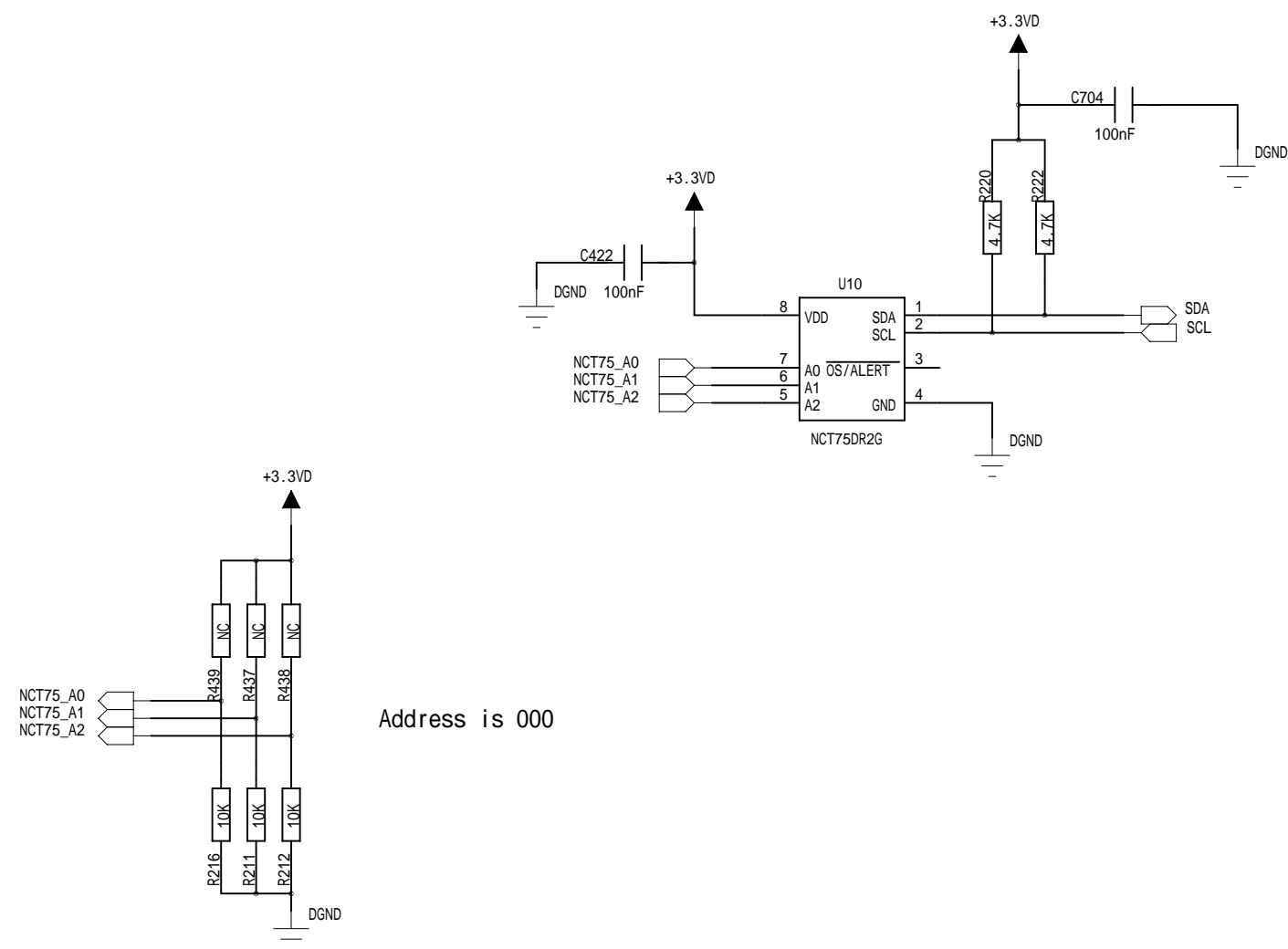
A

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IIIS

K7DDS

DRAWN:

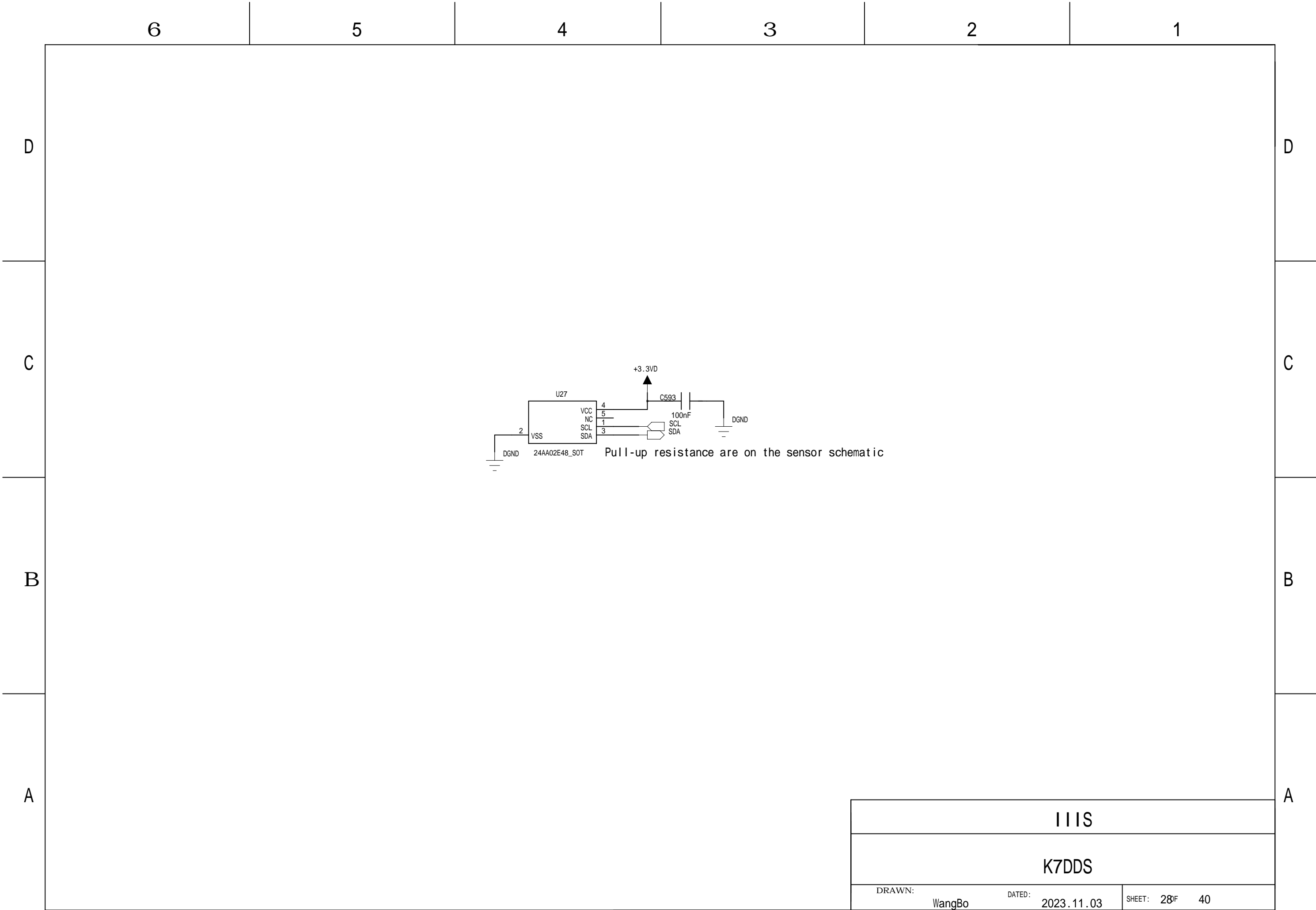
WangBo

DATED:

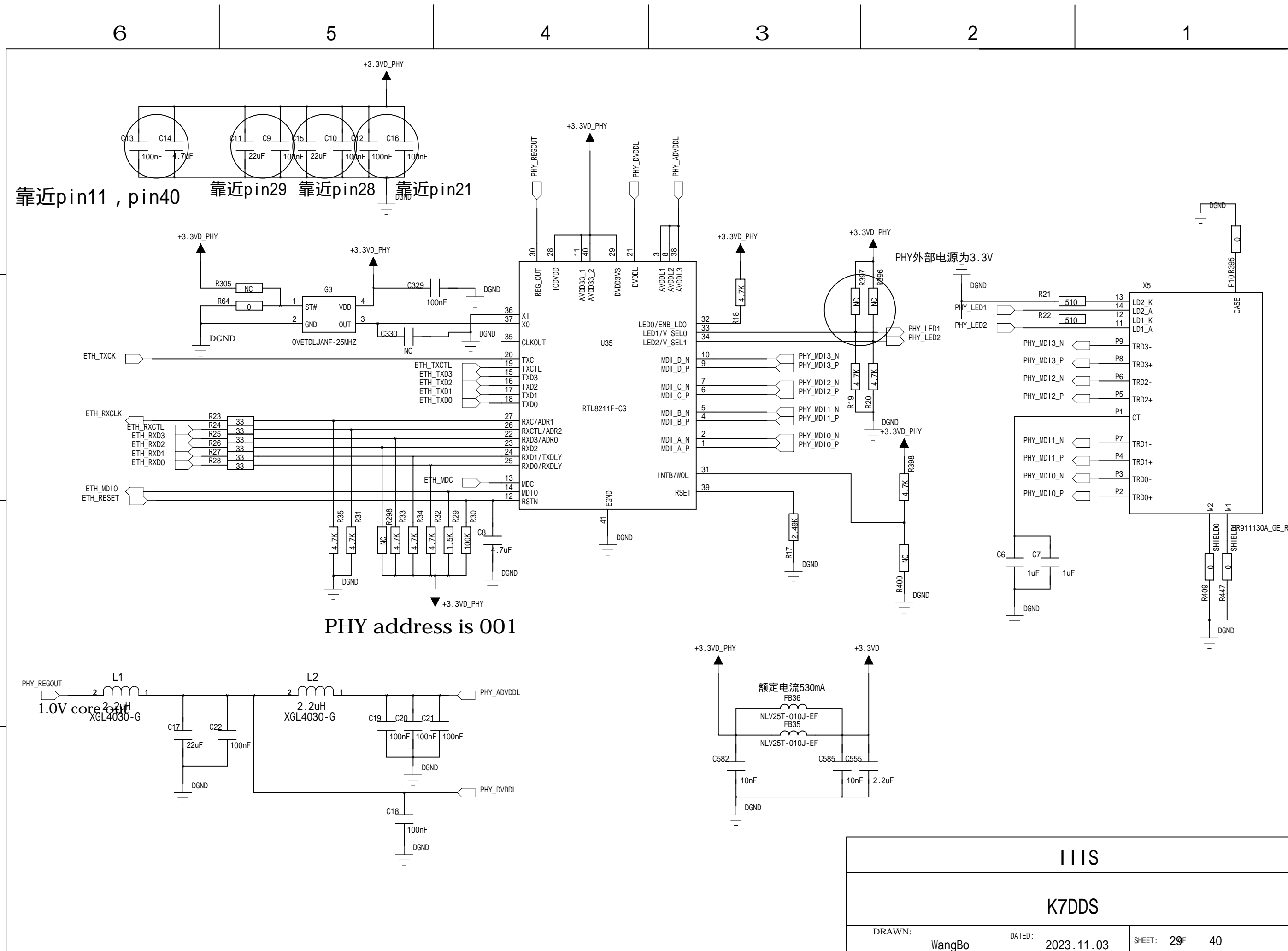
2023.11.03

SHEET: 27^F

40



IIIS		
K7DDS		
DRAWN: WangBo	DATED: 2023.11.03	SHEET: 28 OF 40



靠近pin11 , pin40

靠近pin29

靠近pin28

靠近pin21

PHY address is 001

PHY外部电源为3.3V

1.0V core out

IIIS

K7DDS

DRAWN:

DATED:

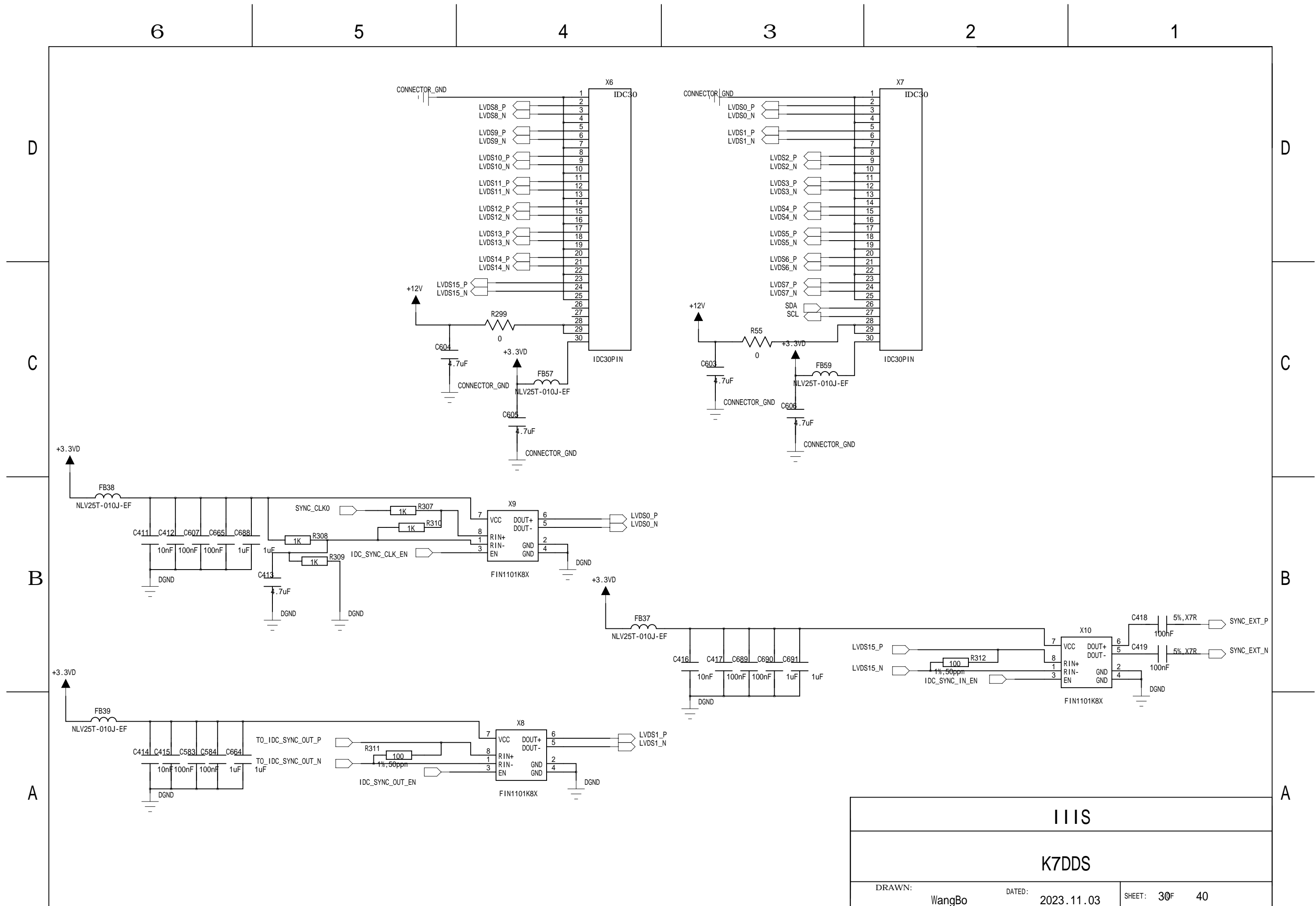
2023.11.03

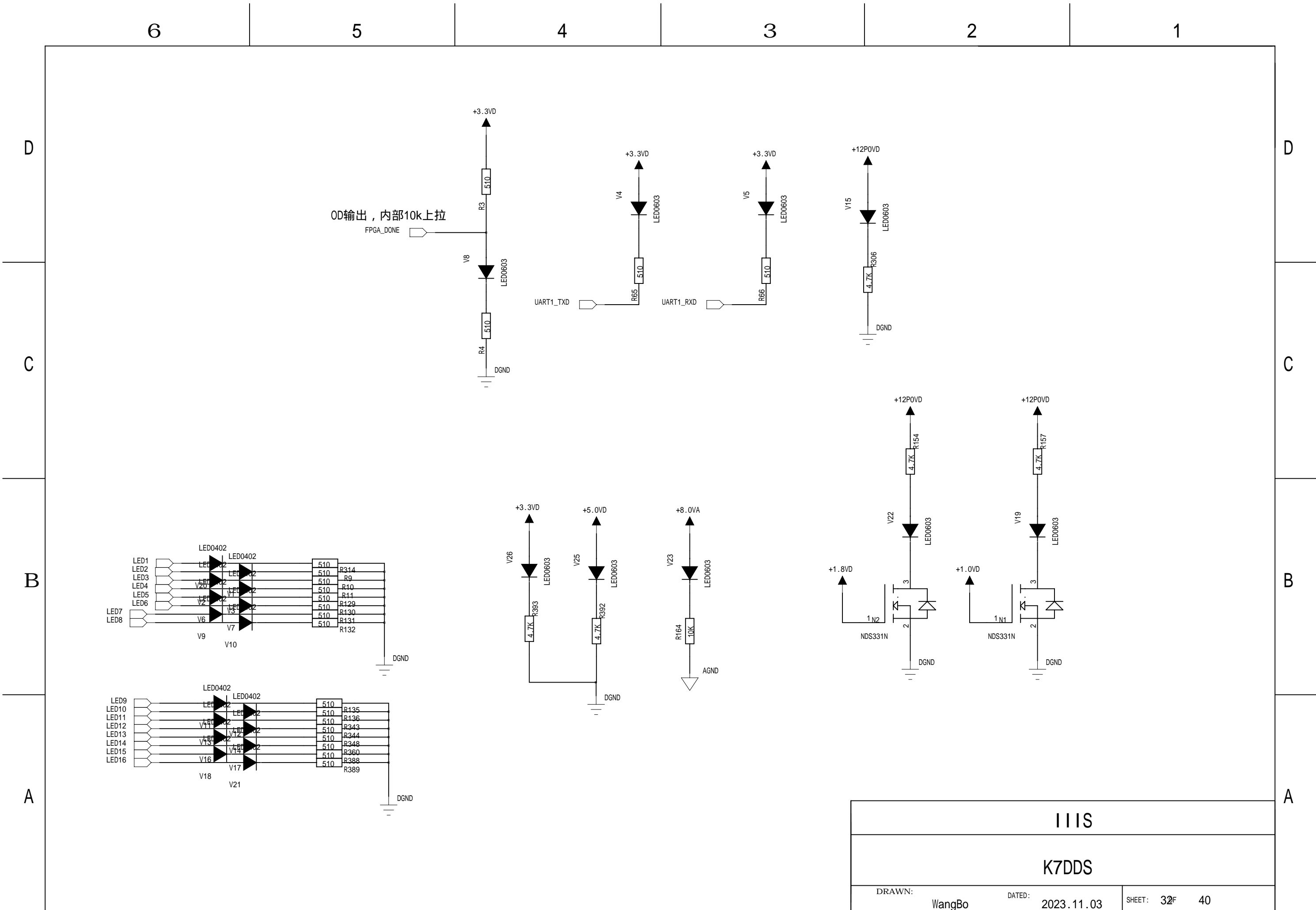
SHEET:

29

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WangBo





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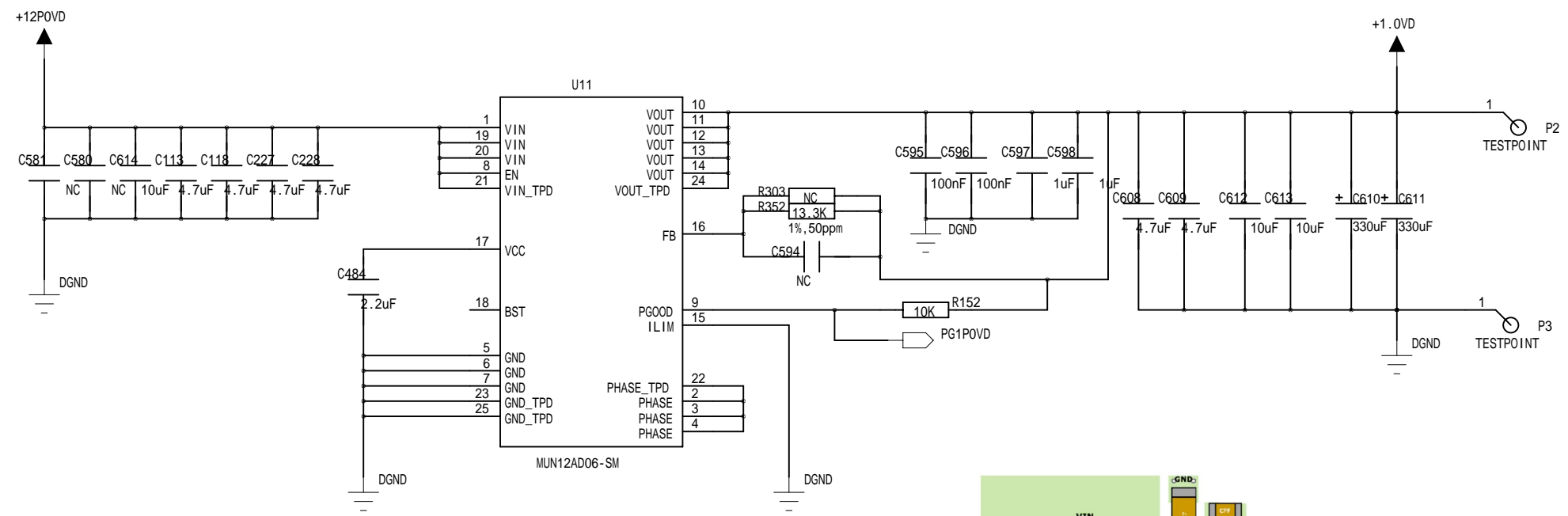
C

B

B

A

A



$$V_{out}(V) = 0.6 \times \left(1 + \frac{R_{FB}}{20K} \right)$$

Vout (V)	RFB(kΩ)
1.0	13.3(0.1%)
1.2	20.0(0.1%)
1.8	40.2(0.1%)
2.5	63.3(0.1%)
3.3	90.8(0.1%)
5.0	147(0.1%)

TABLE 1 Resistor values for common output voltages

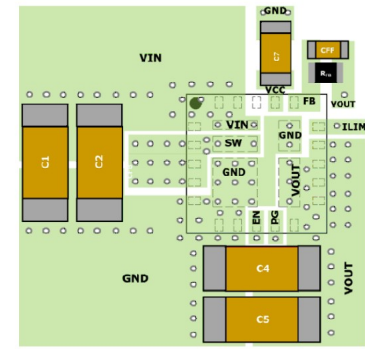
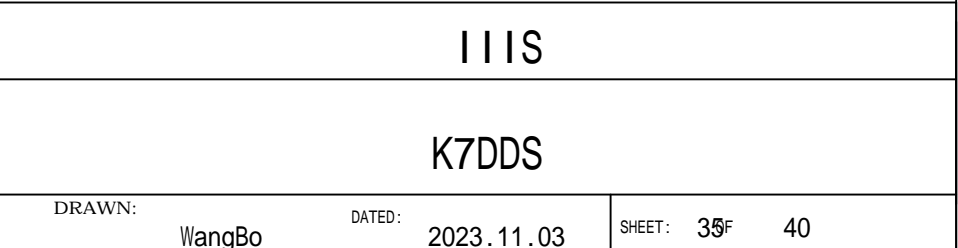
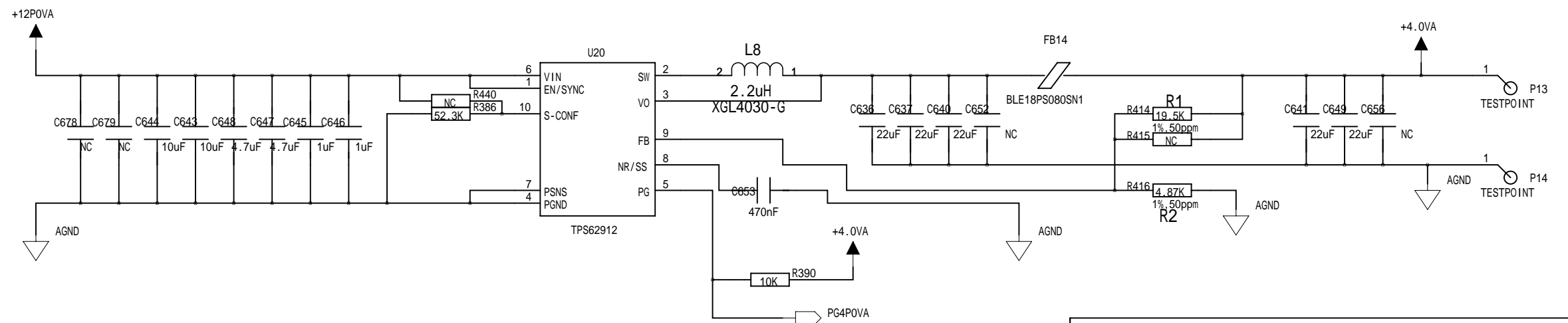
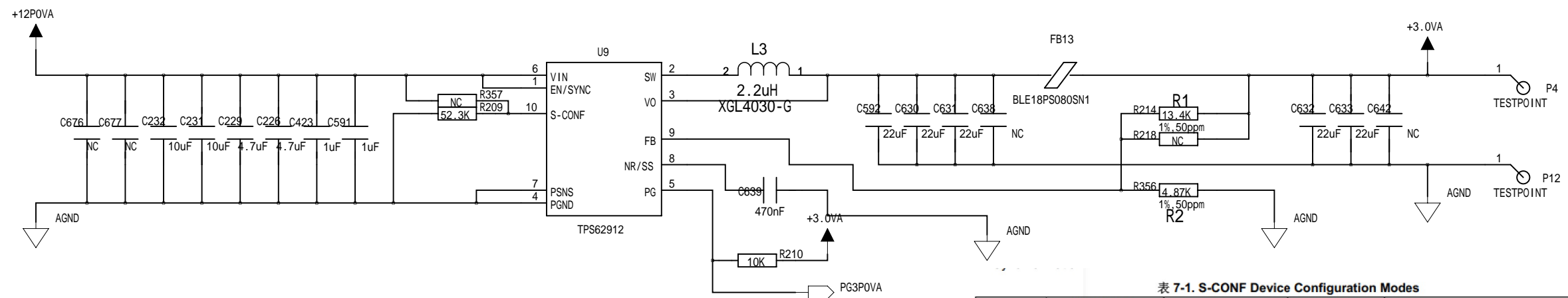


FIG.45 Recommendation Layout (Top)

IIIS

K7DDS





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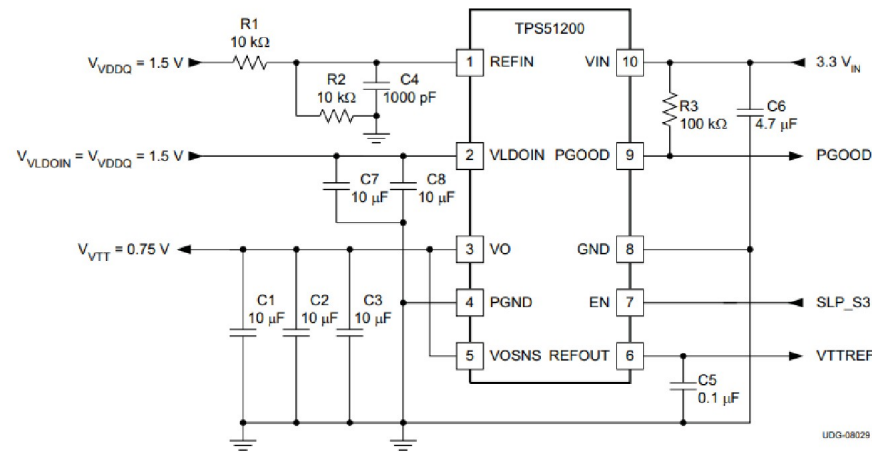
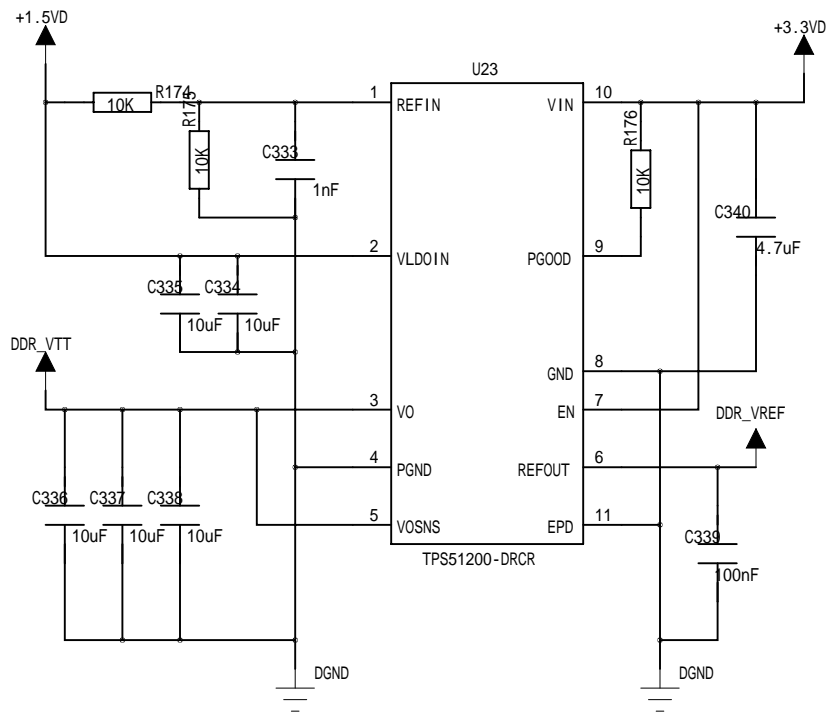


Figure 24. 3.3-V_{IN}, DDR3 Configuration

IIIS

K7DDS

DRAWN:

WangBo

DATED:

2023.11.03

SHEET:

37F

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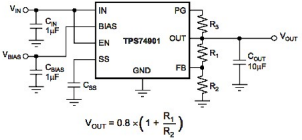
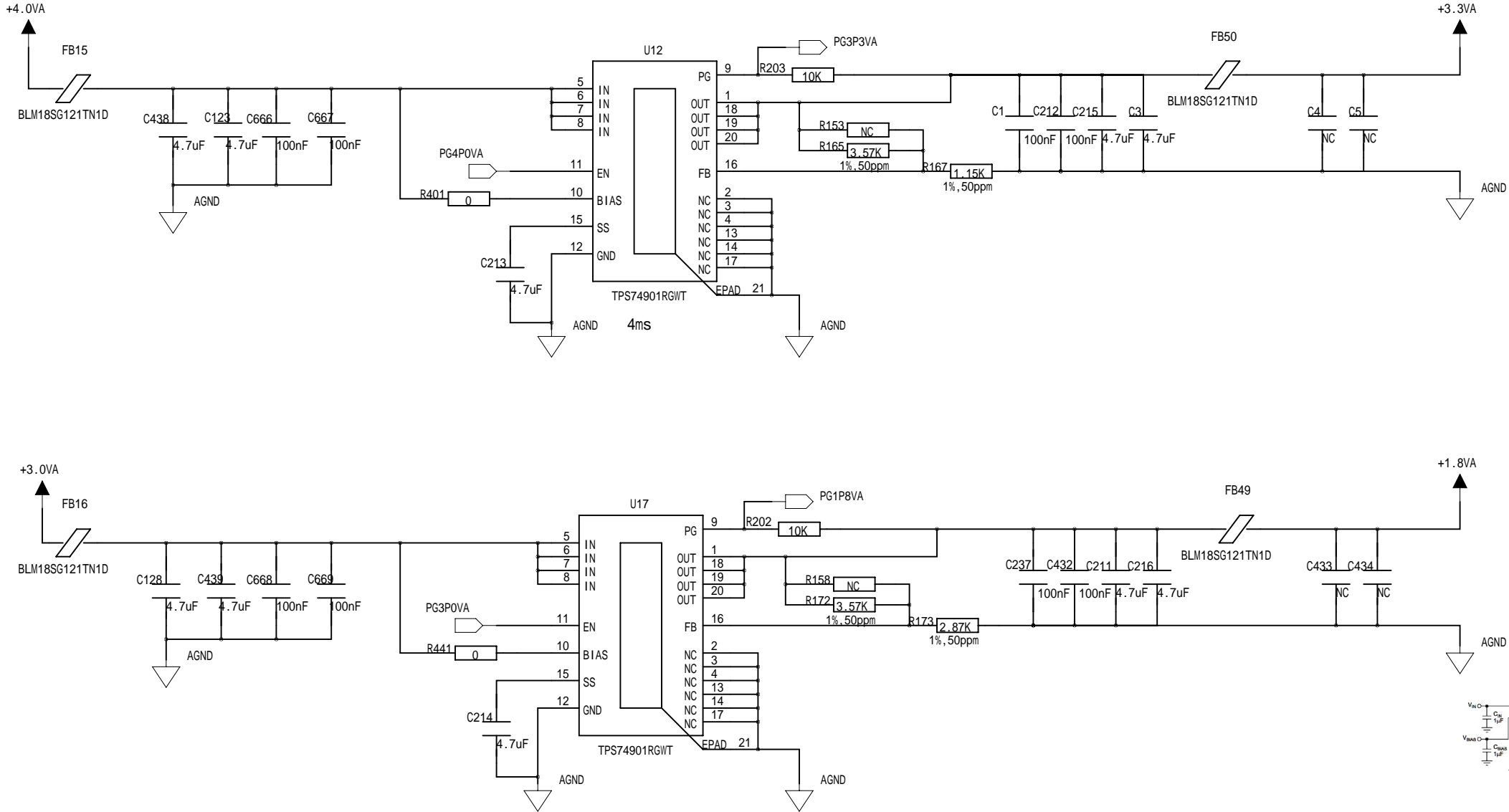
C

B

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A



IIIS

K7DDS

DRAWN:

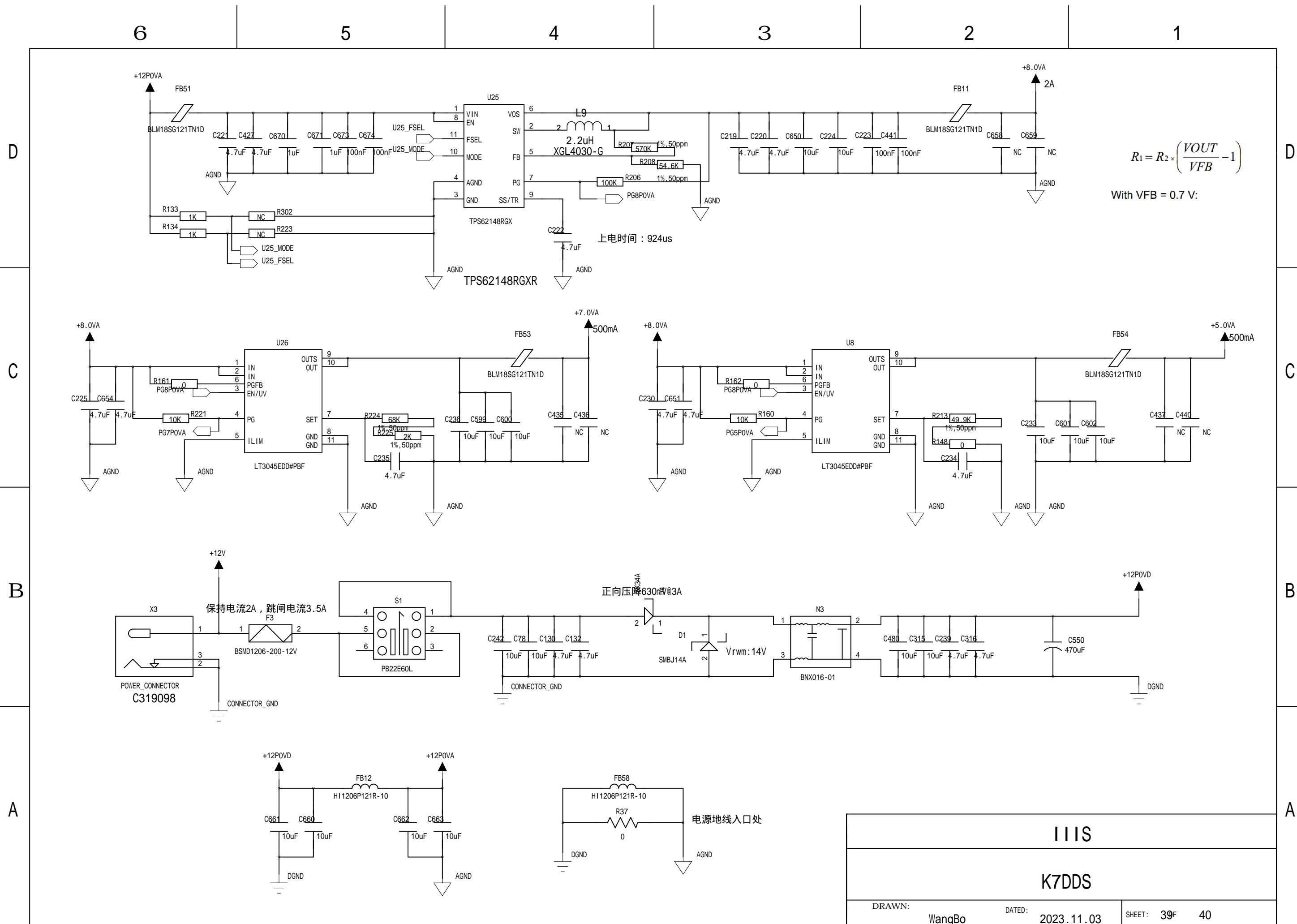
WangBo

DATED:

2023.11.03

SHEET: 38F

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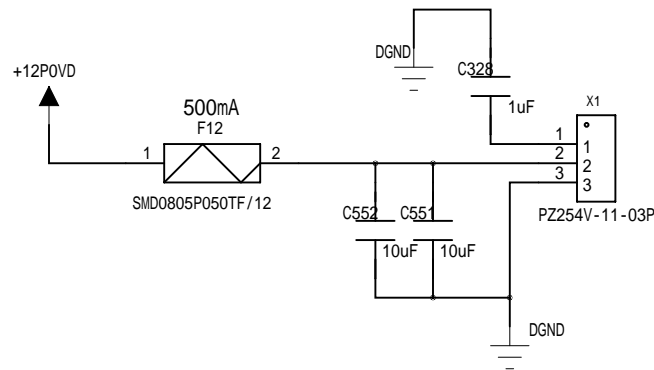
A

D

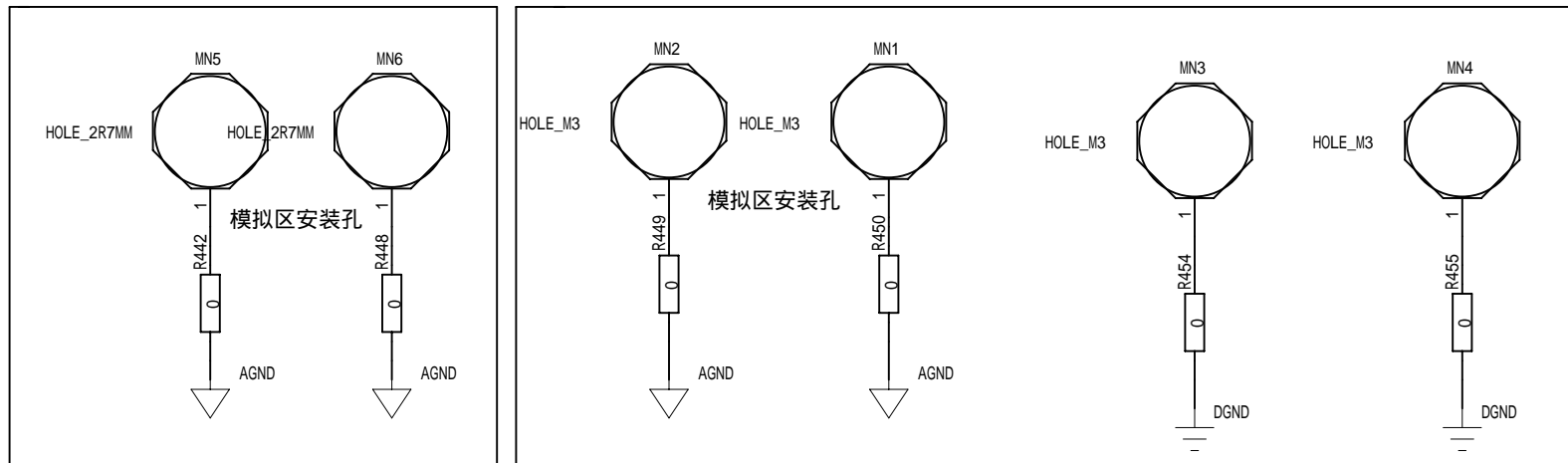
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B

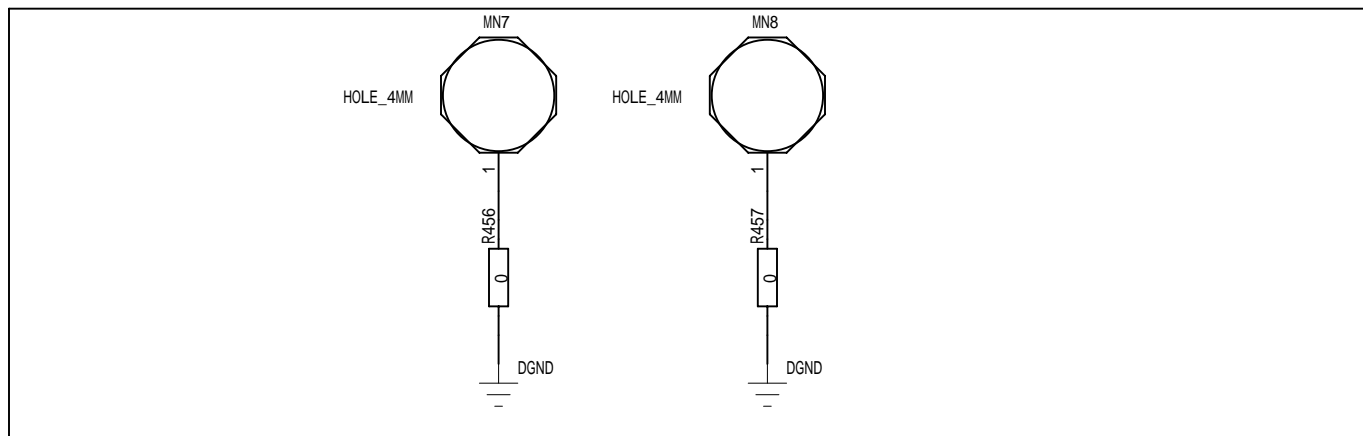
A



风扇电源

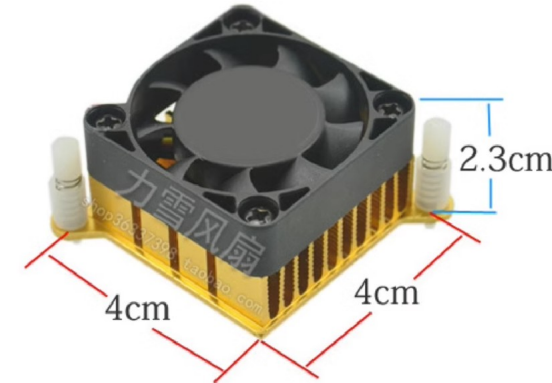


固定安装孔



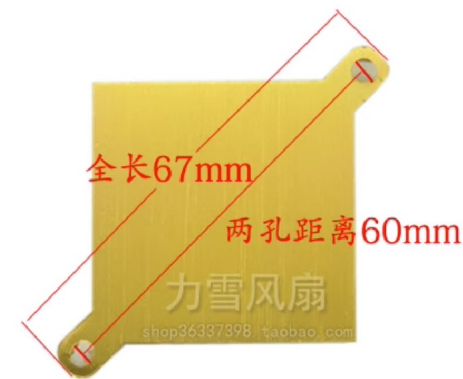
散热板安装孔, 直径4mm

FPGA 31mmx31mm

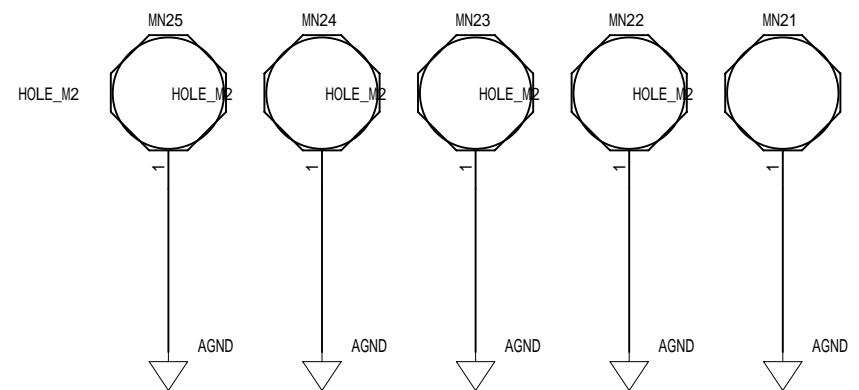


产品尺寸

长: 4cm
宽: 4cm
高: 2.3cm
风扇厚1cm
铝块厚1.3cm
风扇线长: 22cm



两孔距离60mm
对角全长67mm



IIIS

K7DDS

DRAWN:

WangBo

DATED:

2023.11.03

SHEET:

40F

40