PG161-A00

TU106 6GB GDDR6, 192b, X16
DVI-D/DP + DP + HDMI

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MS-V375

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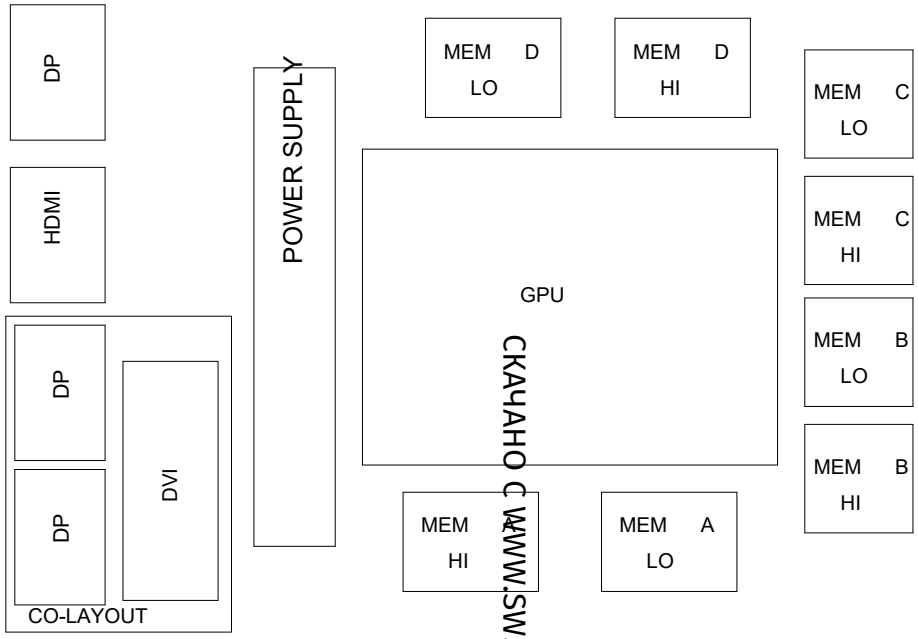

Power Supply:

- Power Supply NVVDD-PH6
- Power Supply NVVDD-PH5
- Power Supply NVVDD-PH4
- Power Supply NVVDD-PH3
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- DP_PWR

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PEX_12V Finger

3V3 Finger

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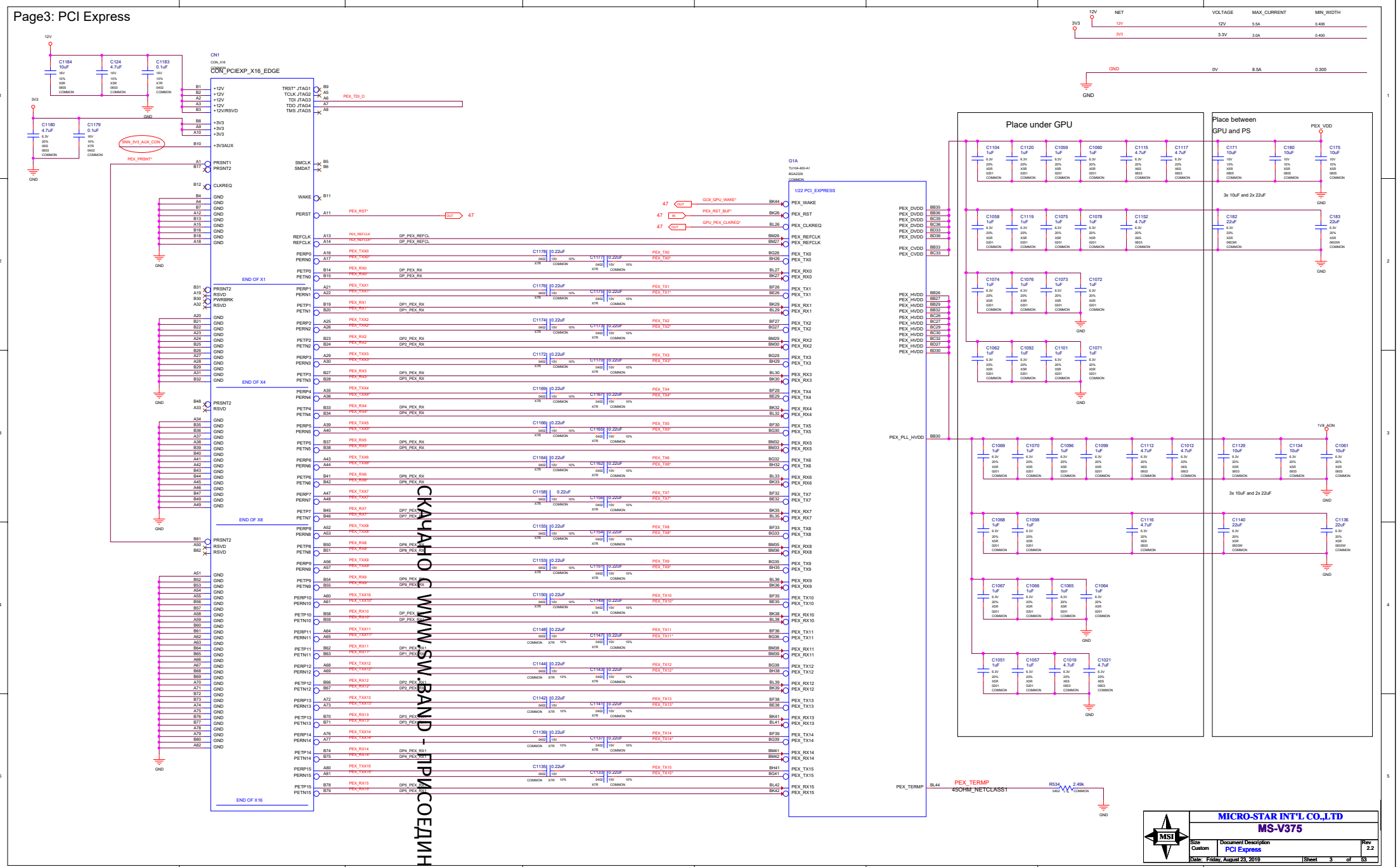

Page4: PCIE RC TERM

NO PEX GEN4 SUPPORT

DELETE RC TERMINATIONS

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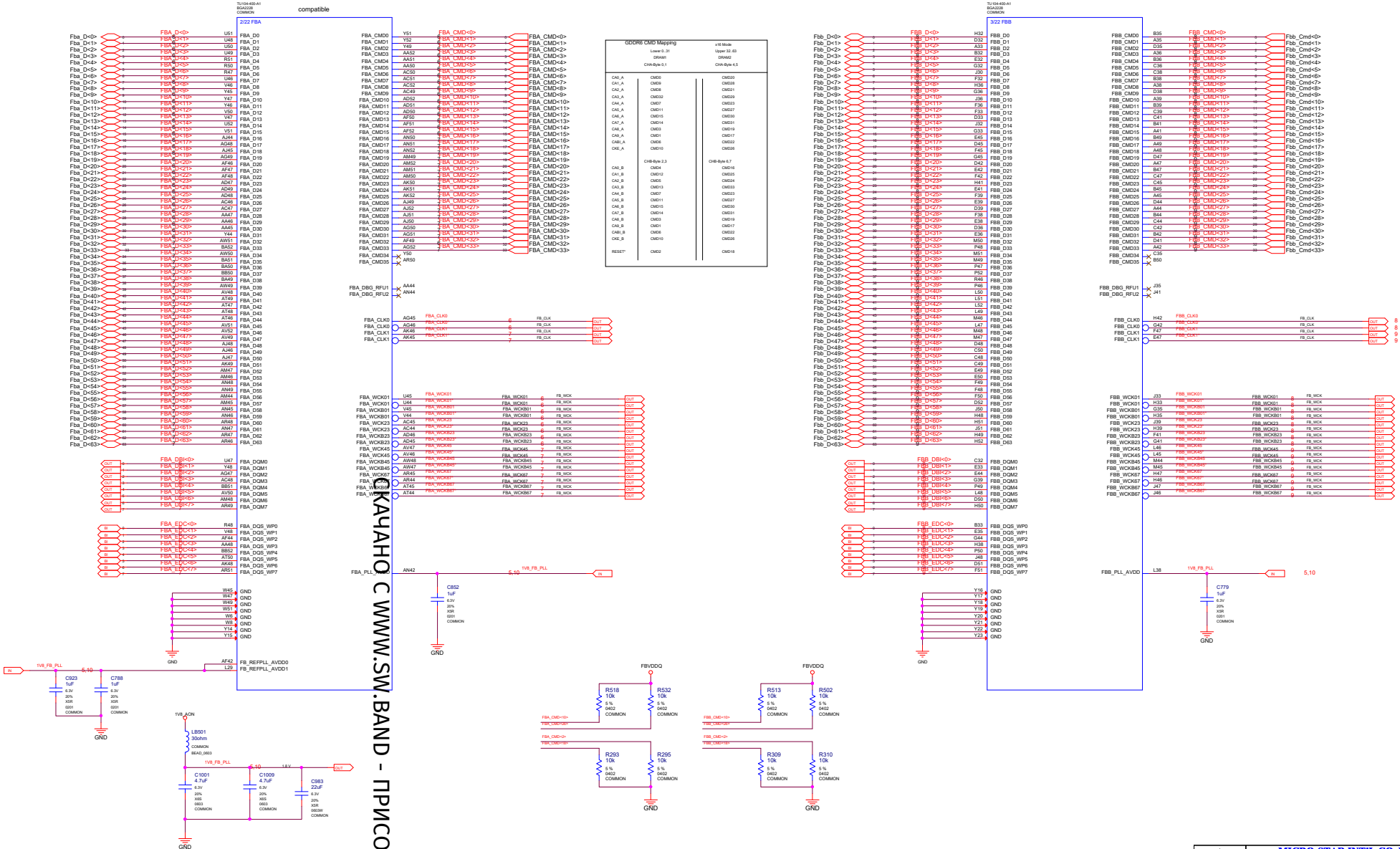

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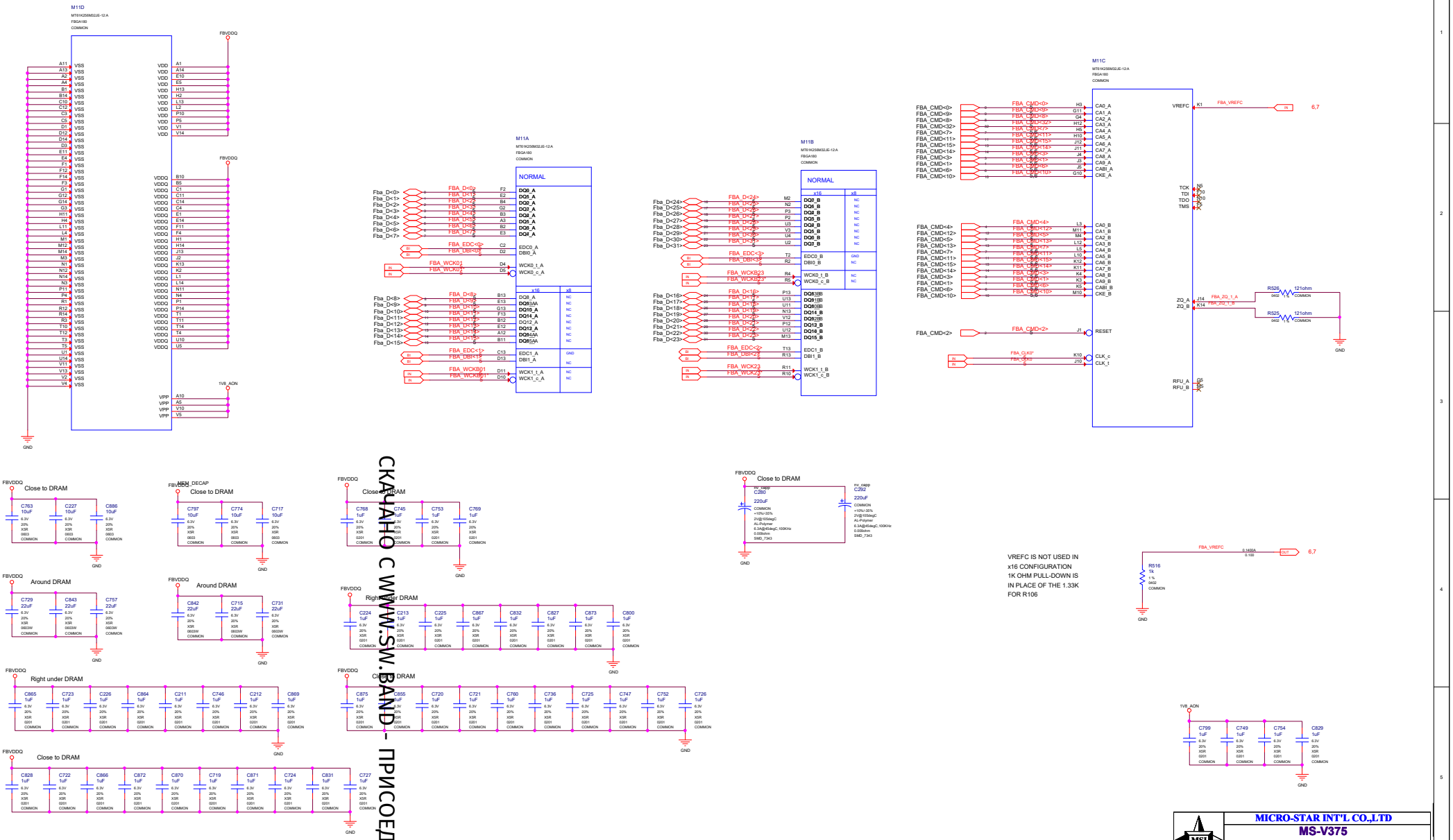

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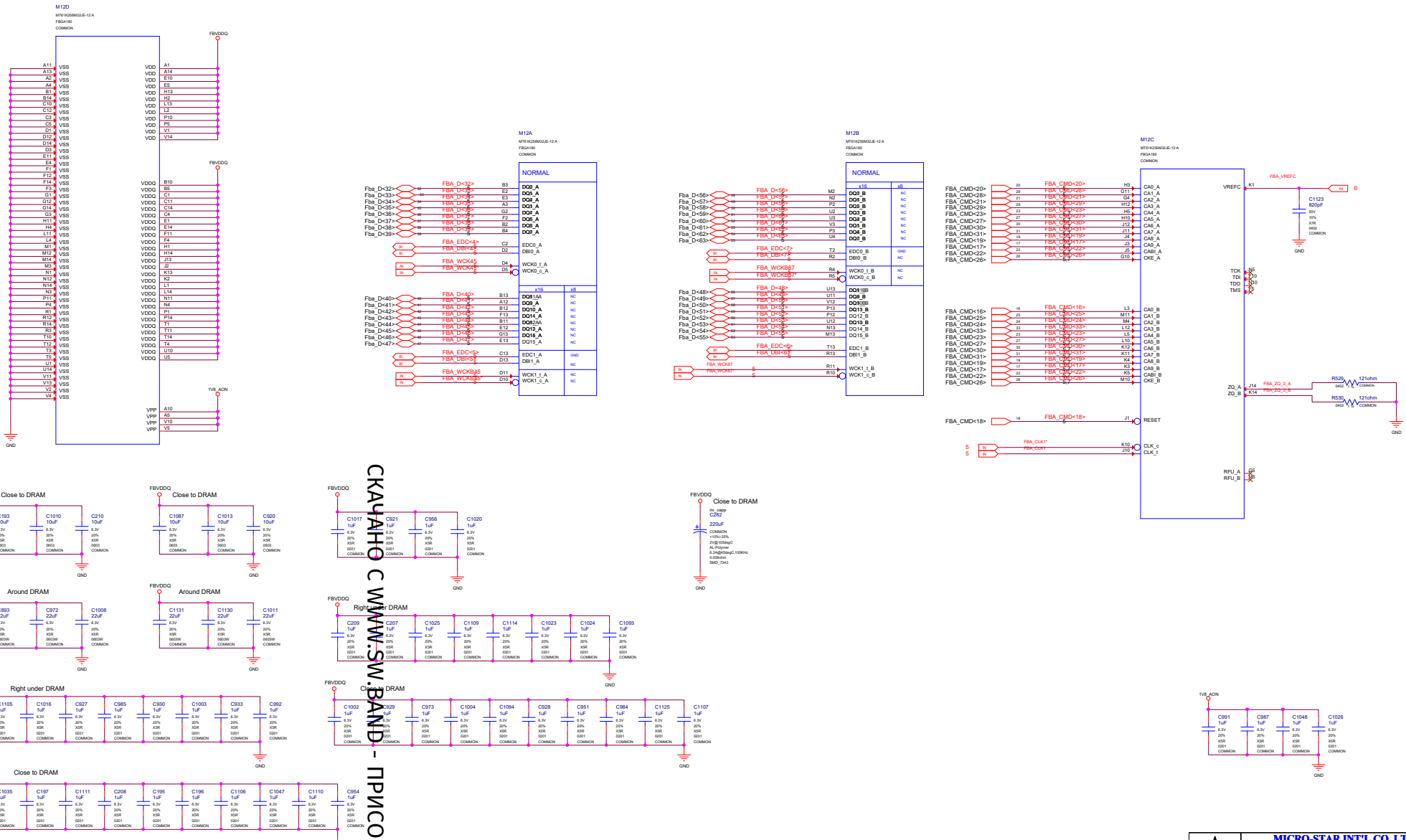

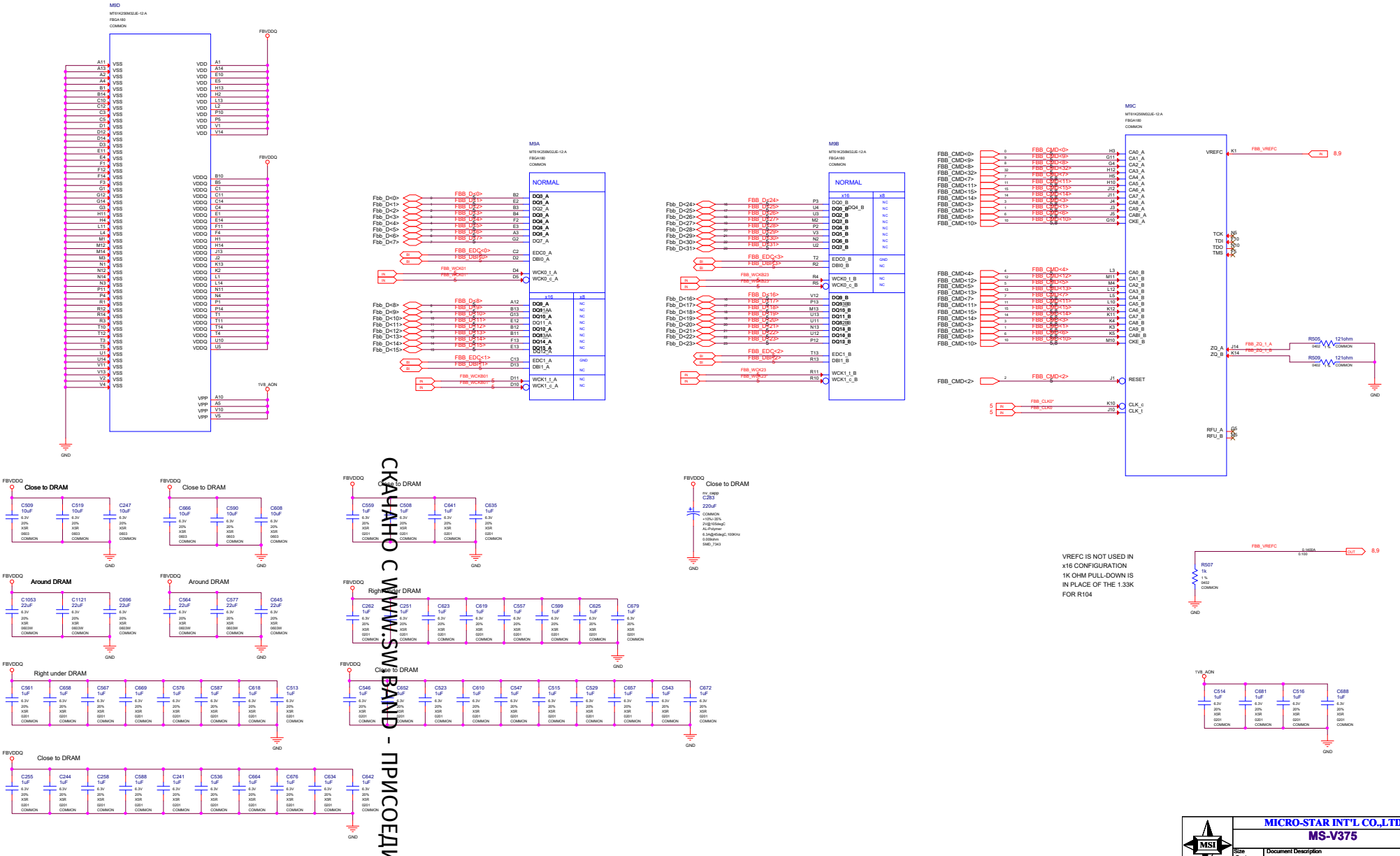

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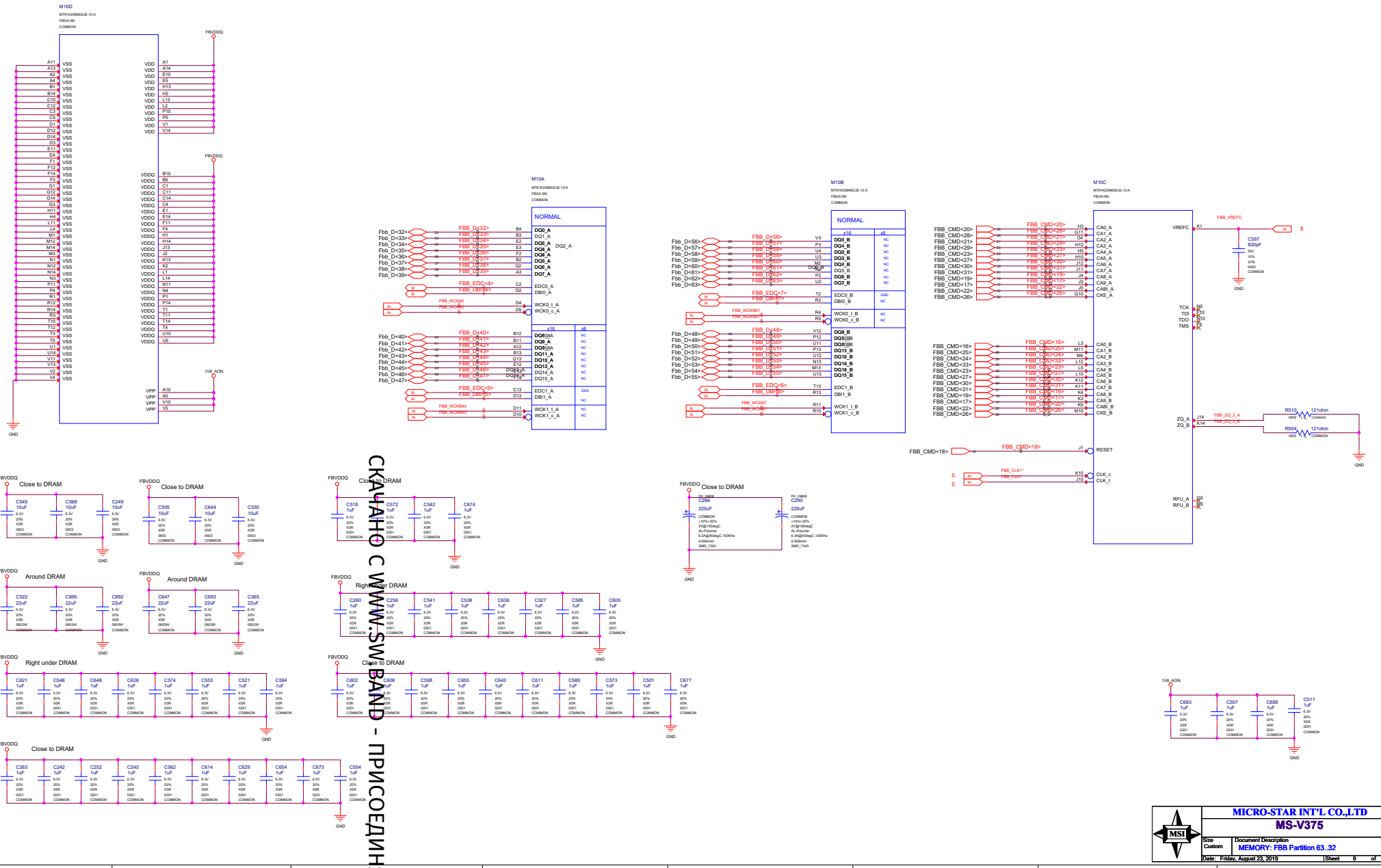

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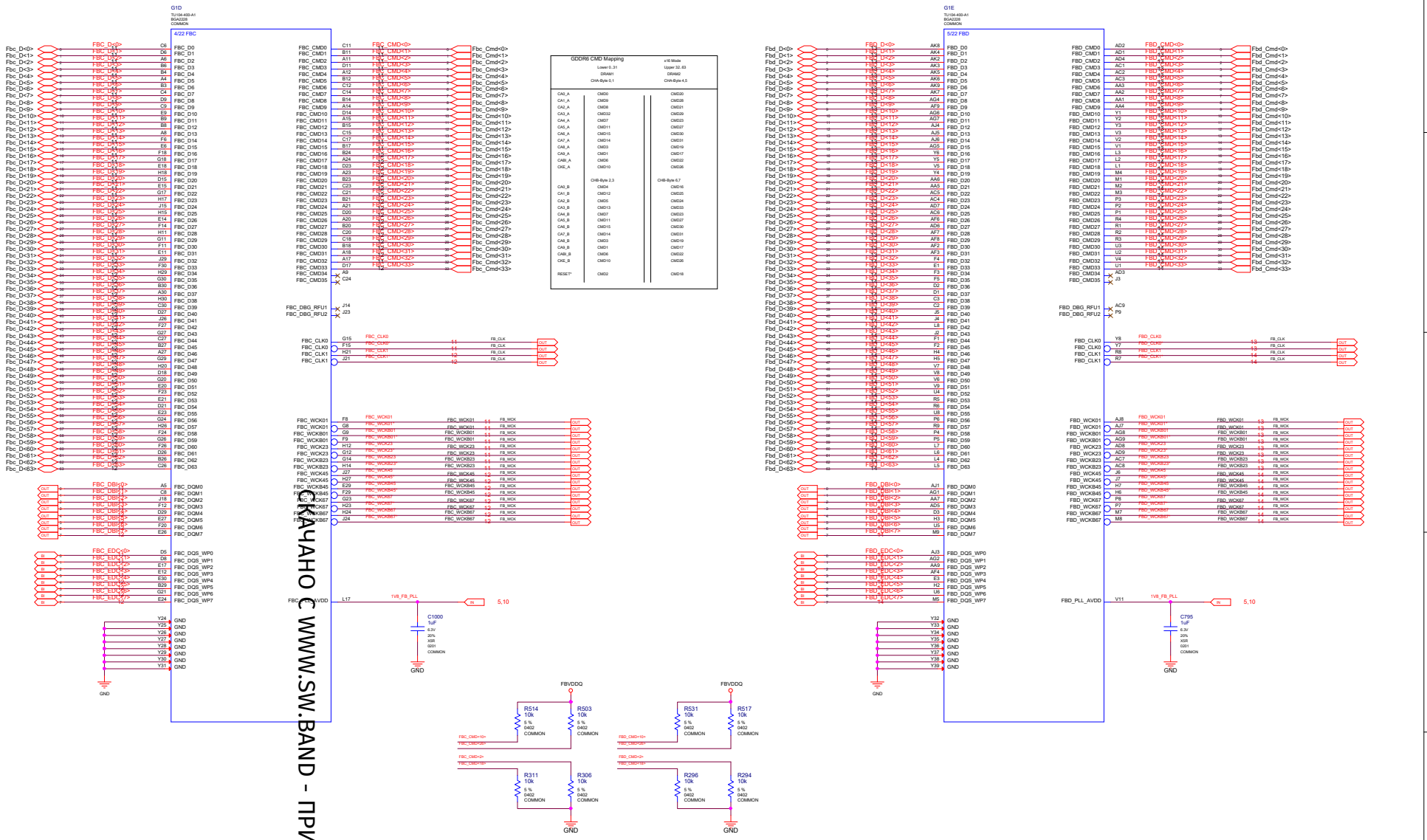

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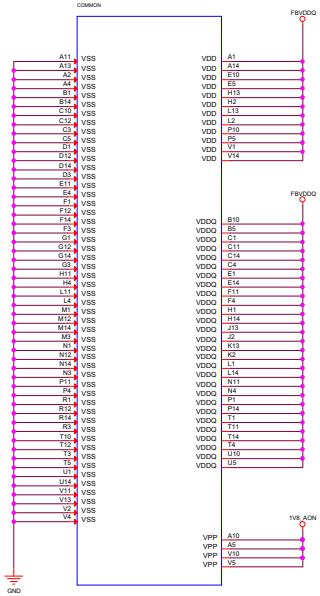
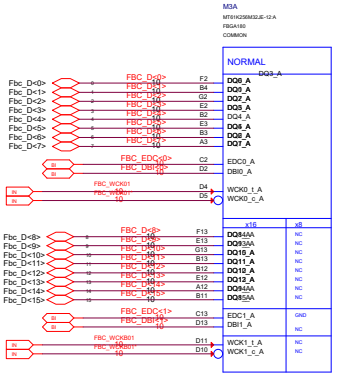
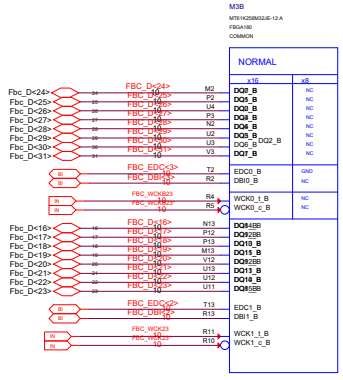
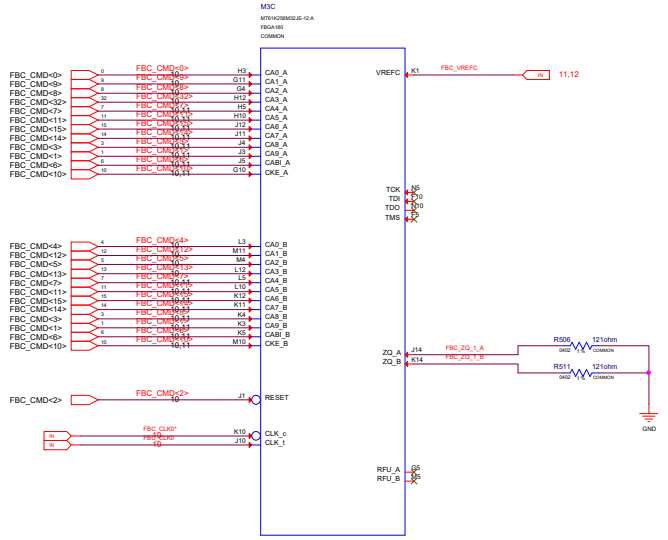
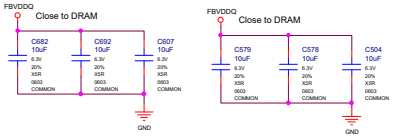
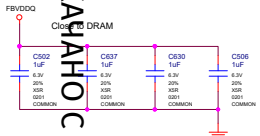


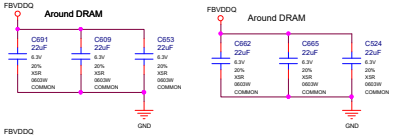


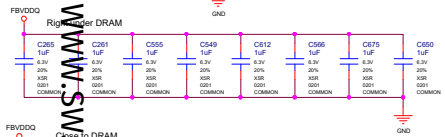


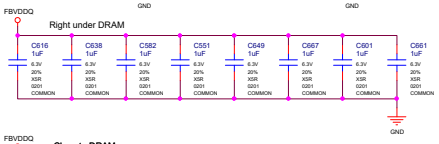


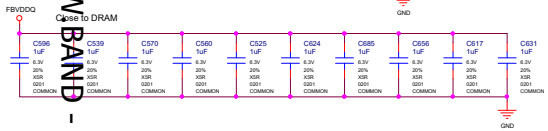


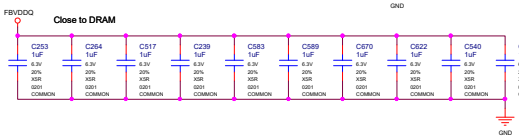




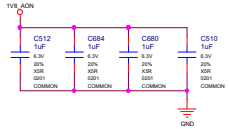








VREFC IS NOT USED IN
x16 CONFIGURATION
1K OHM PULL-DOWN IS
IN PLACE OF THE 1.33K
FOR R75



СКАЧАНО С WWW.SWBAND - ПРИСОЕДИНЯЙСЯ!

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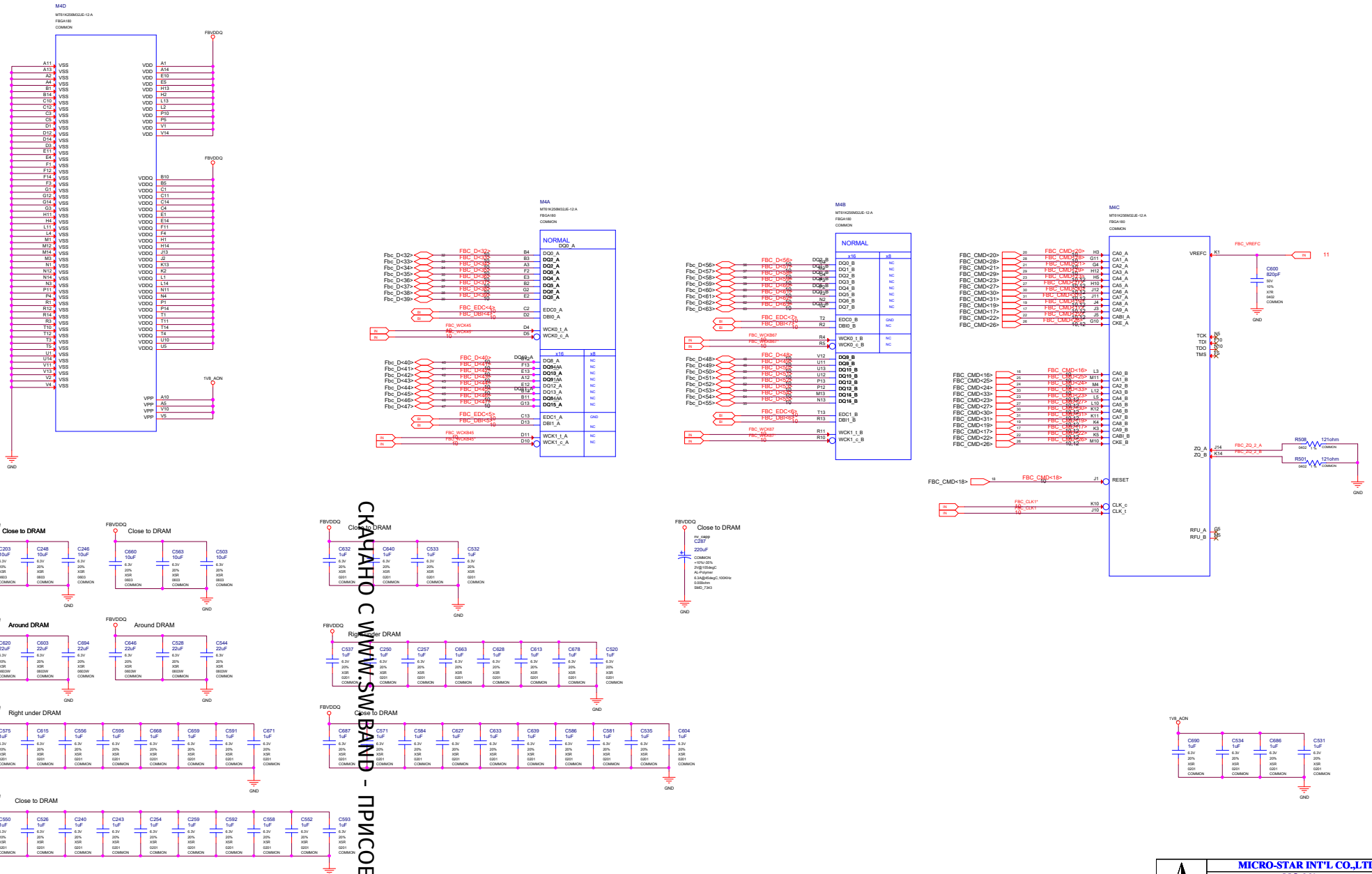

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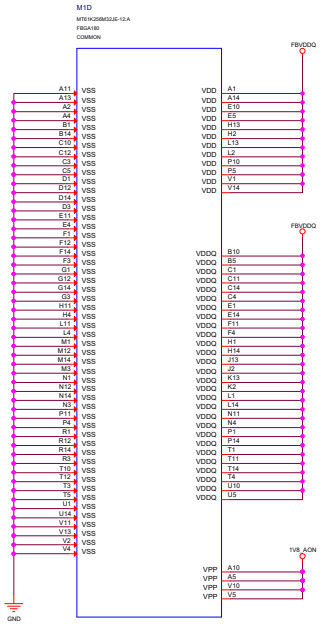
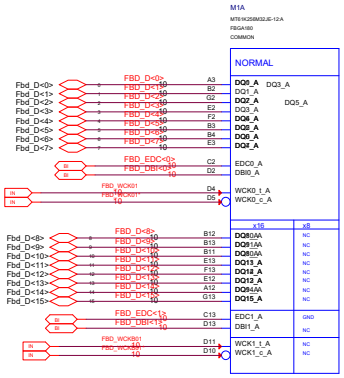
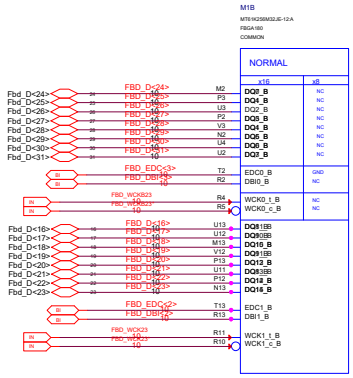
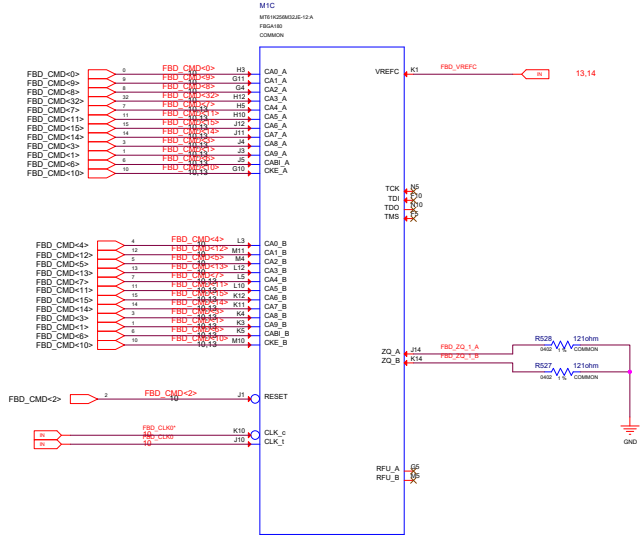
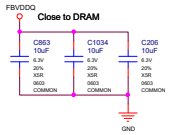
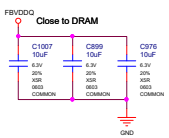


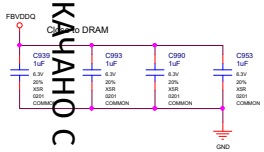


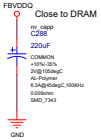


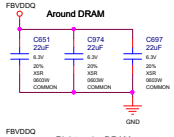


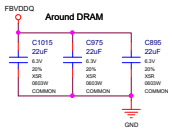


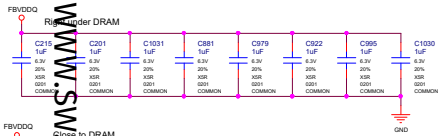


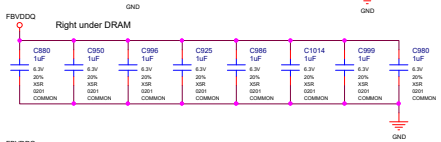


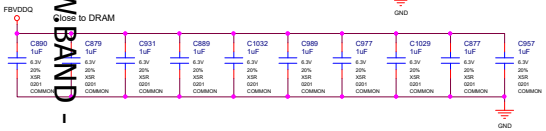


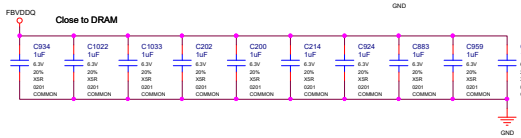




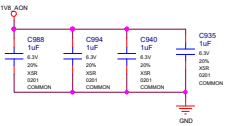








VREFC IS NOT USED IN
x16 CONFIGURATION
1K OHM PULL-DOWN IS
IN PLACE OF THE 1.33K
FOR R62



СКАЧАНО С WWW.SWBAND - ПРИСОЕДИНЯЙСЯ!

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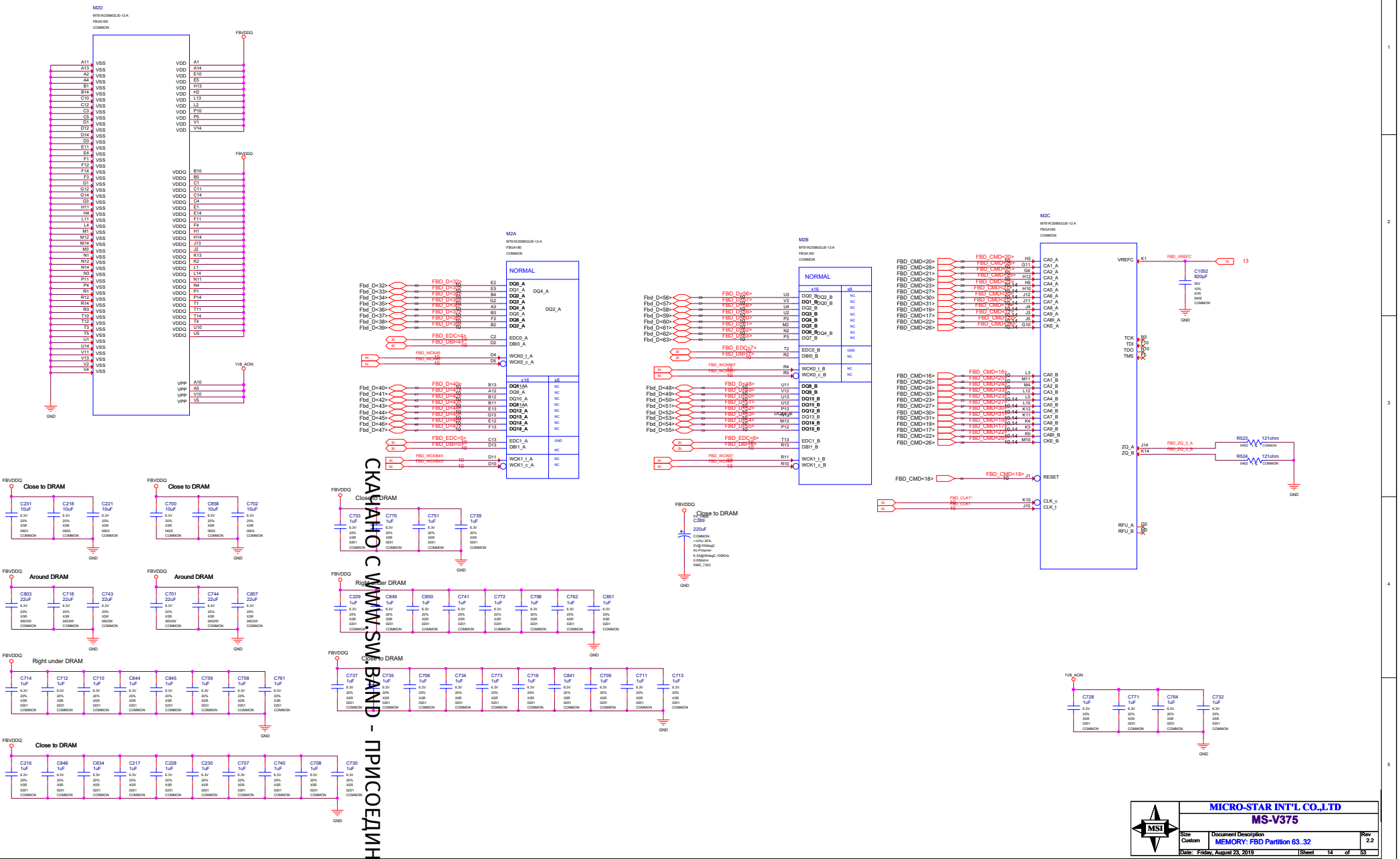

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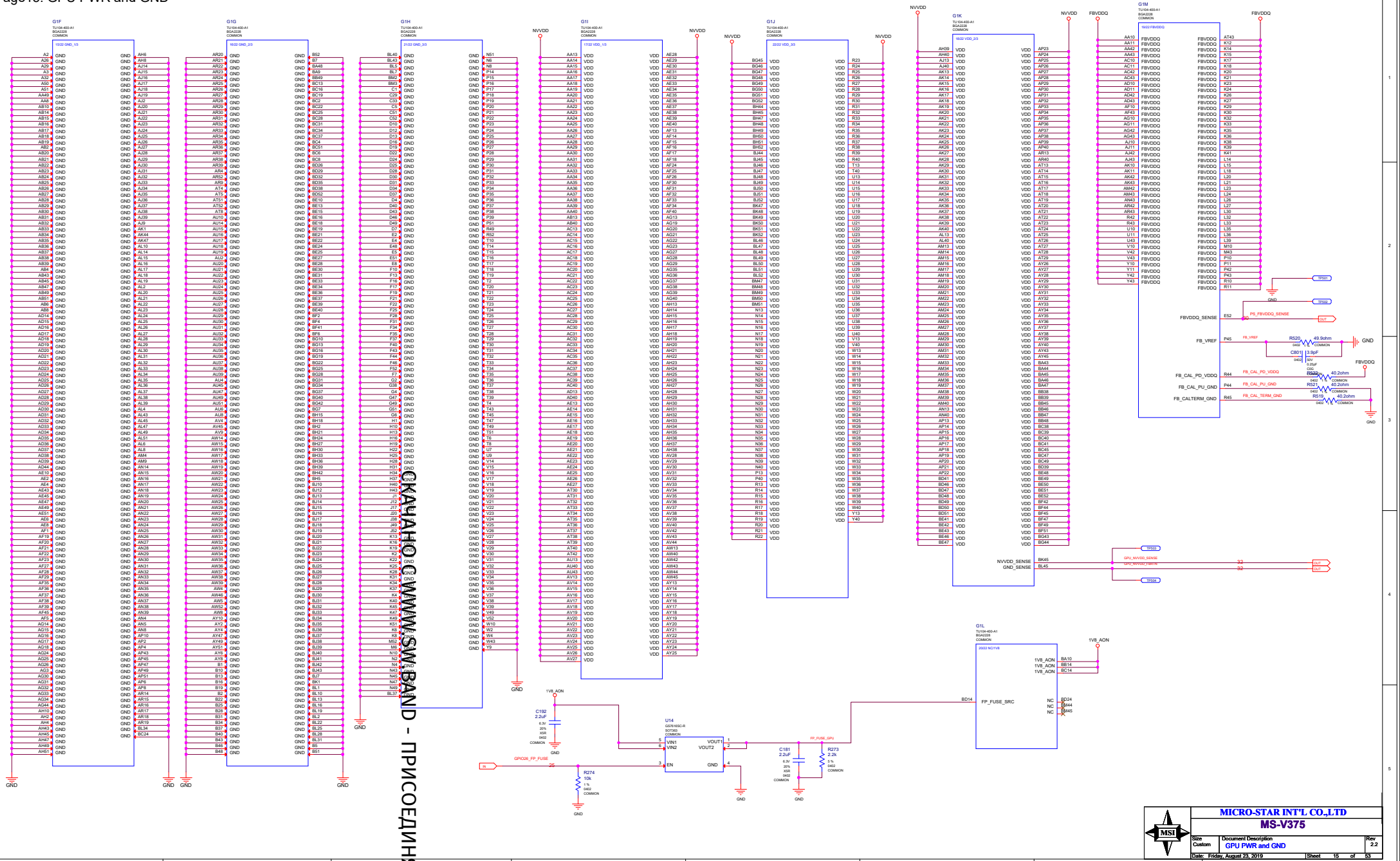
Page15: GPU PWR and GND



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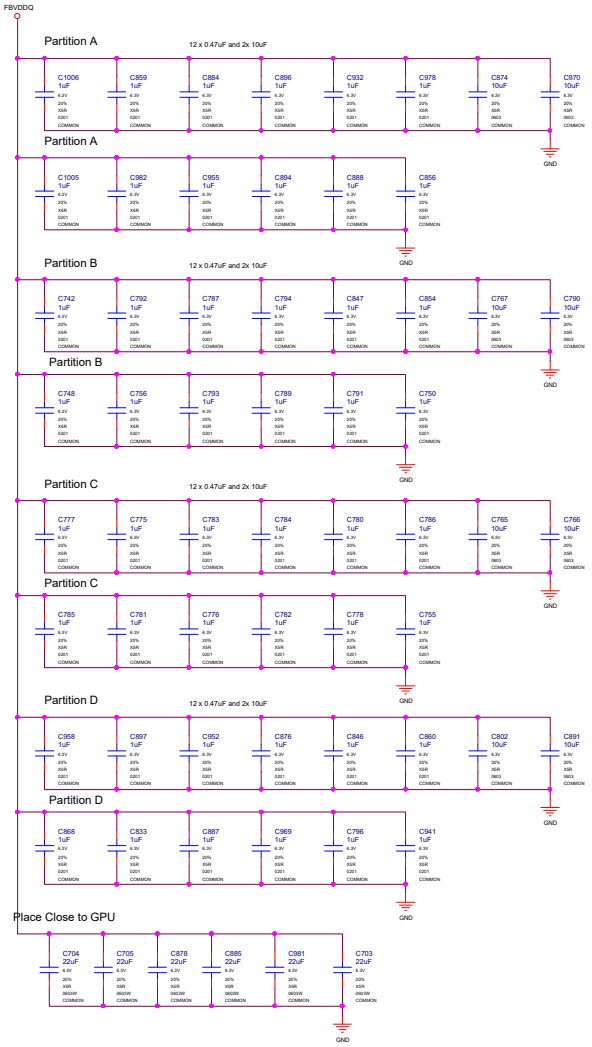
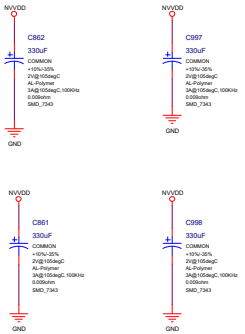
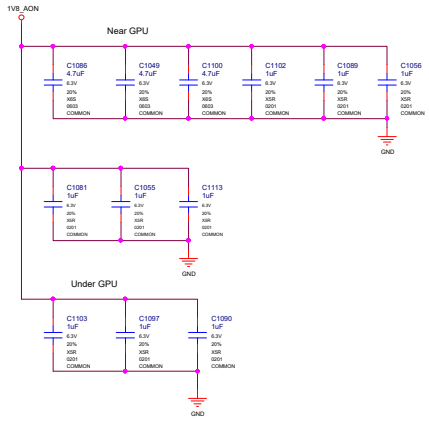
FBVDDQ



NVVDD



1V8_AON



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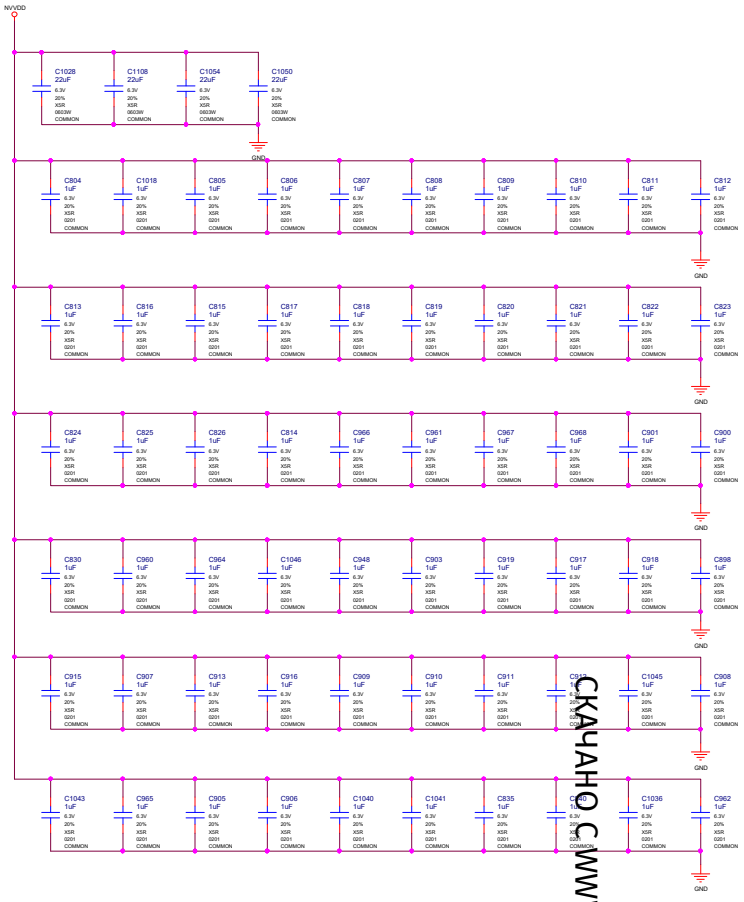
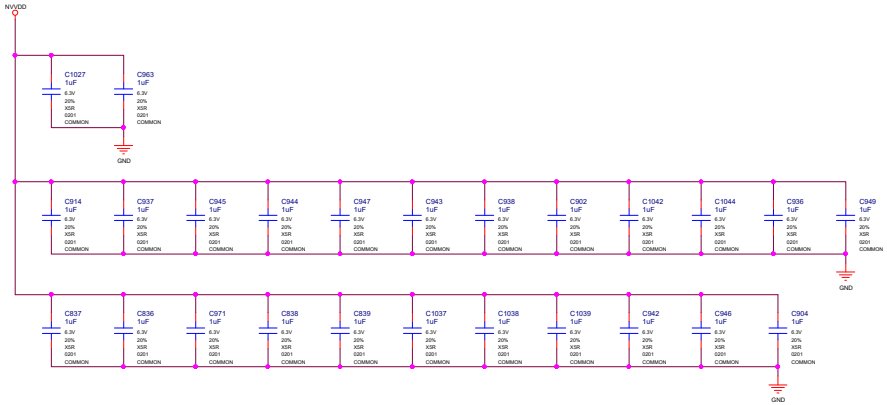
Page17: GPU Decoupling 2

NVVDD





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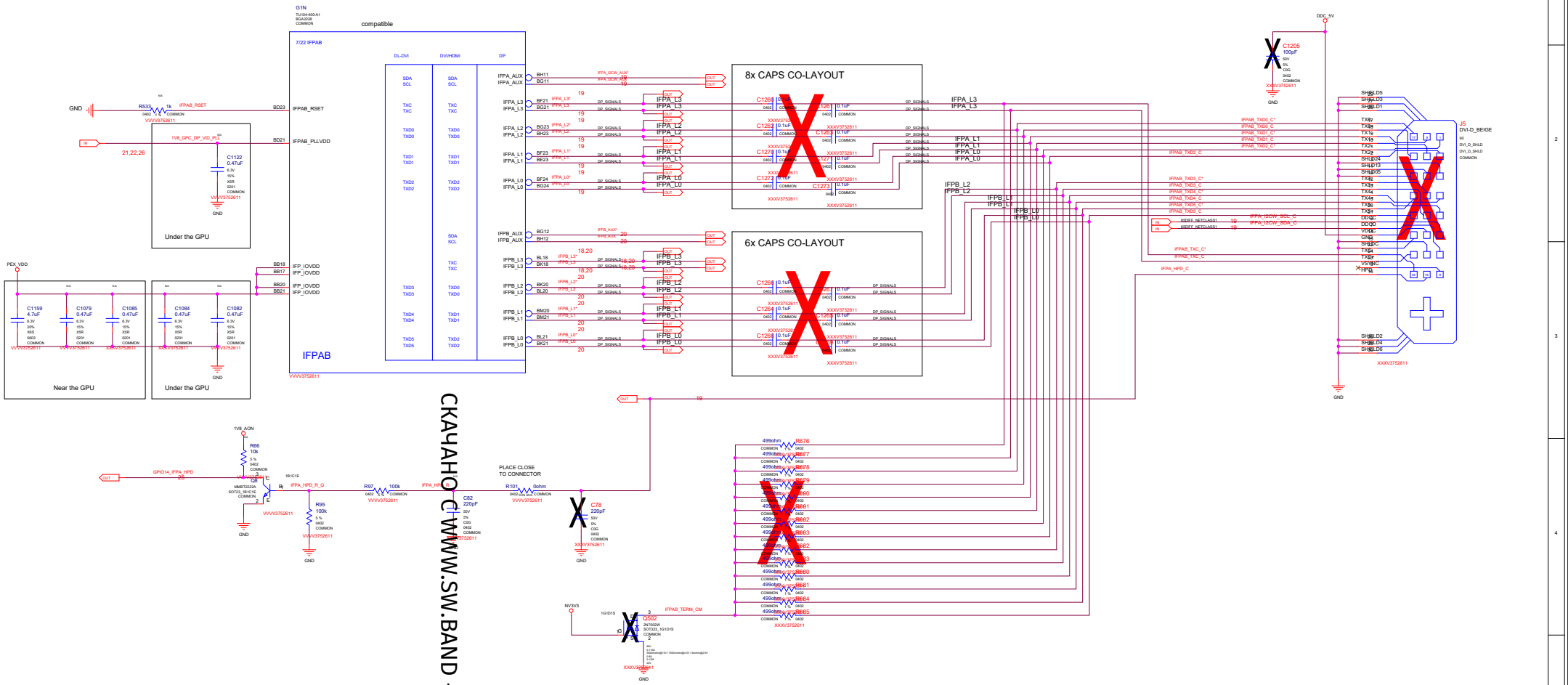
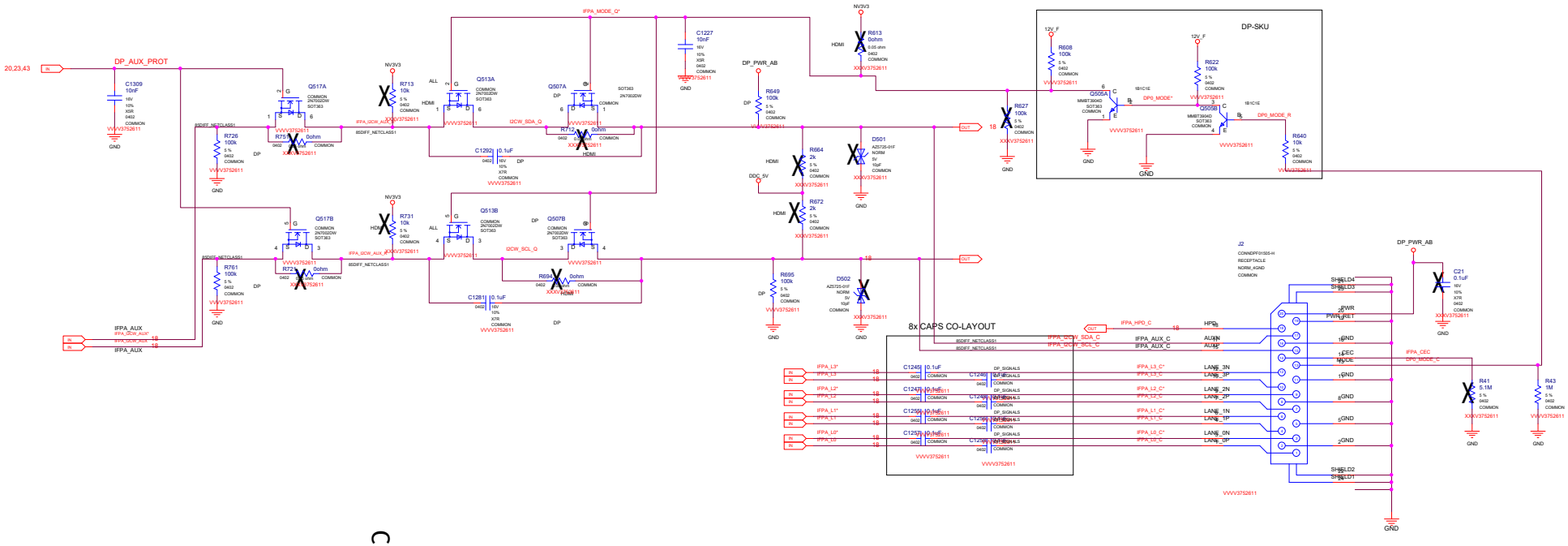
IFPAB DVI-D-DL CO-LAYOUT WITH 2x DP





IFPA DP CO-LAYOUT WITH IFPAB DVI-D-DL

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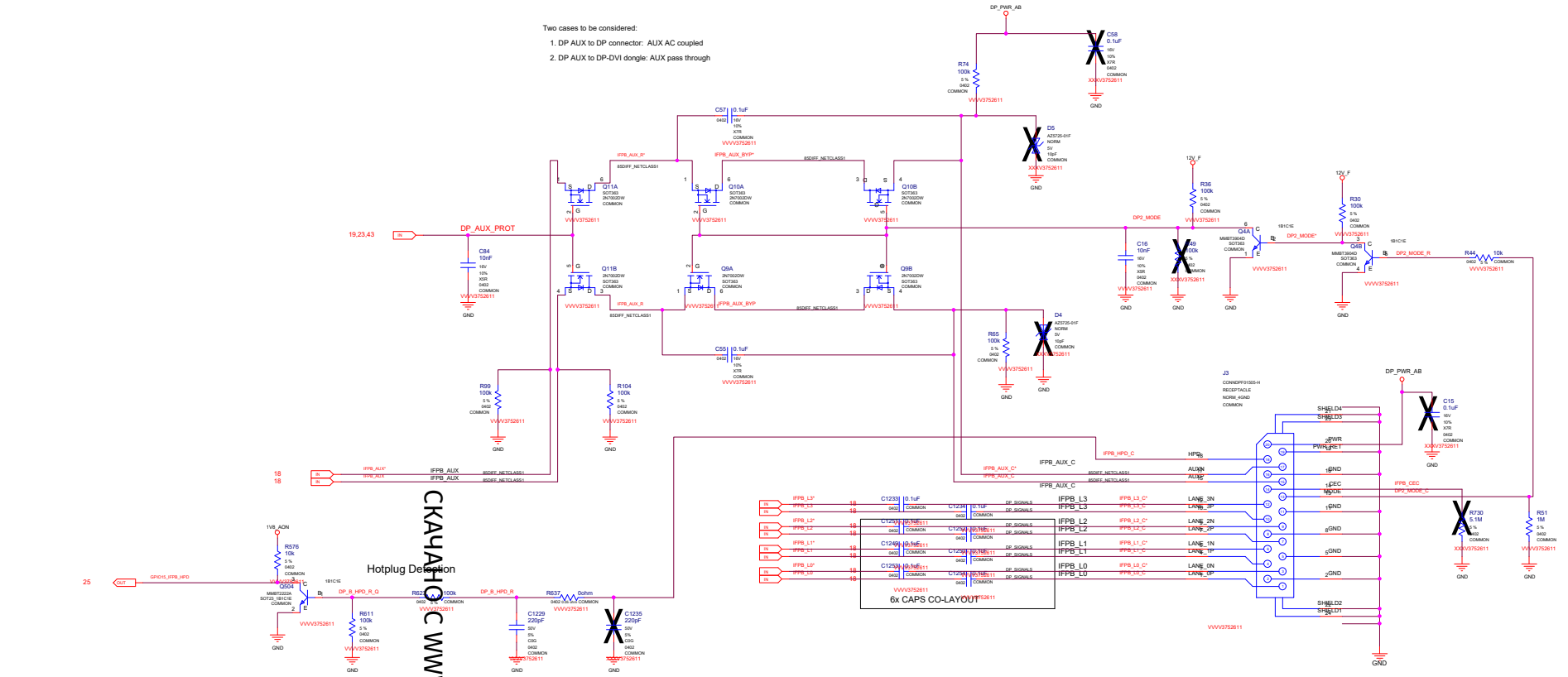
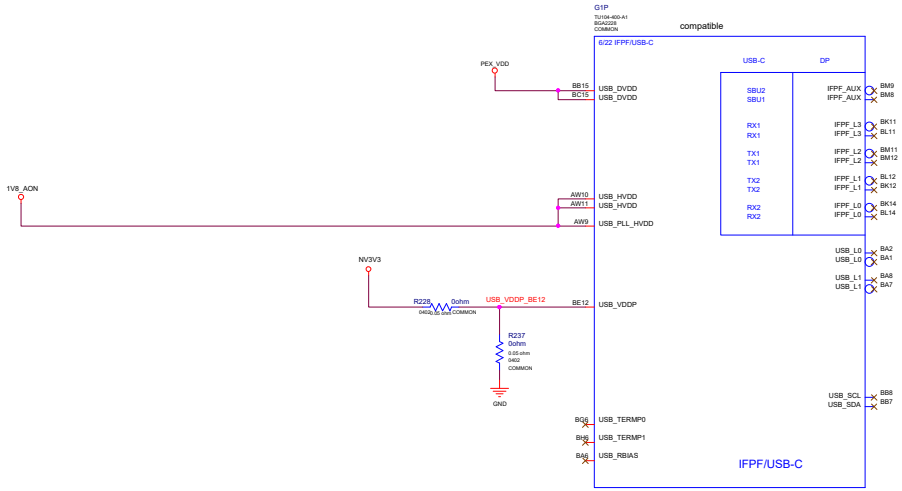
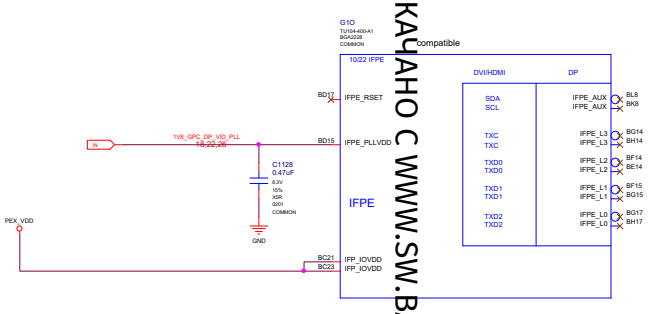
IFPB DP CO-LAYOUT WITH IFPAB DVI-D-DL



Page20: IFPE & IFPF USB-C NC



IFPF NC



IFPE NC

MICRO-STAR INT'L CO.,LTD
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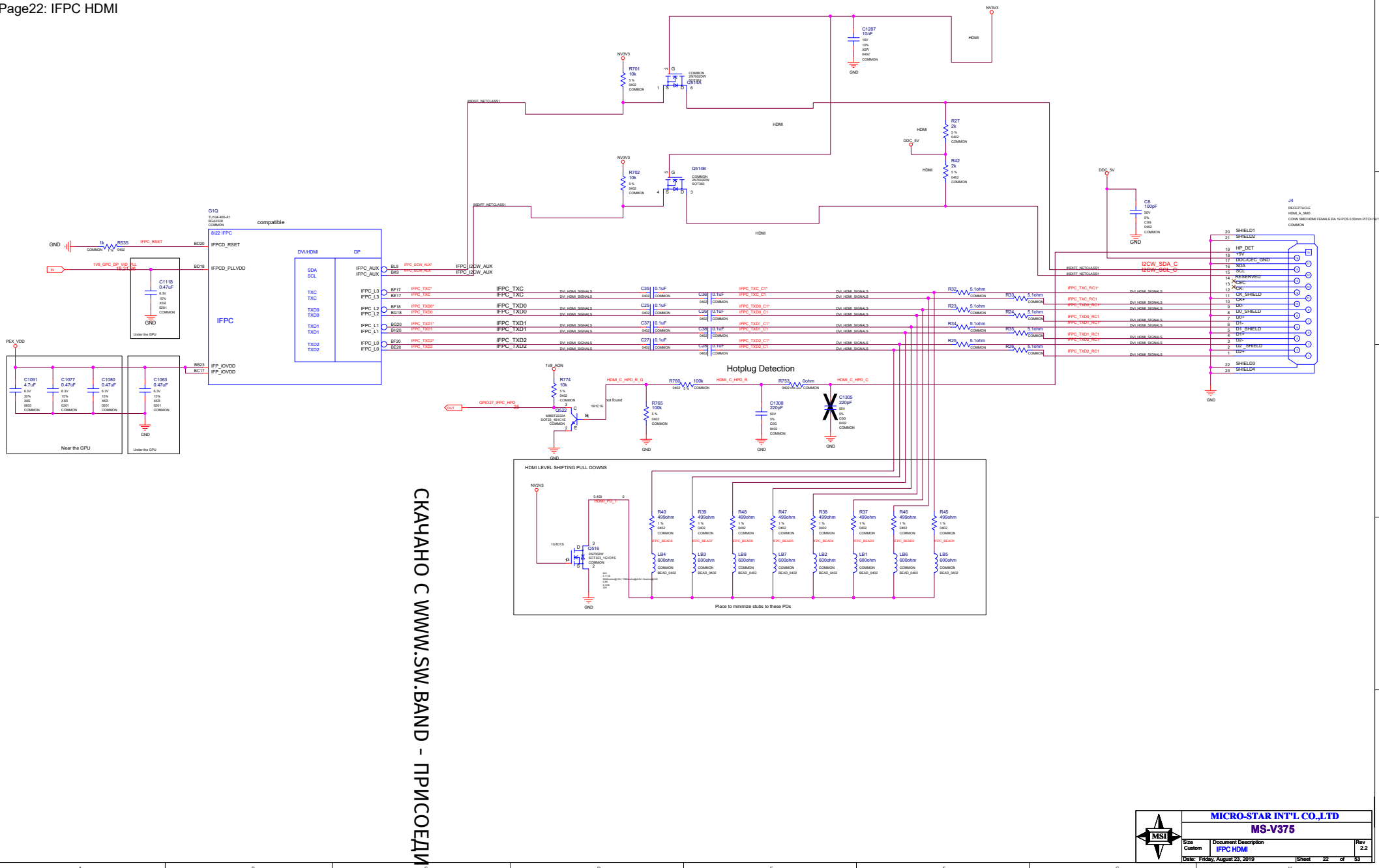
Page22: IFPC HDMI



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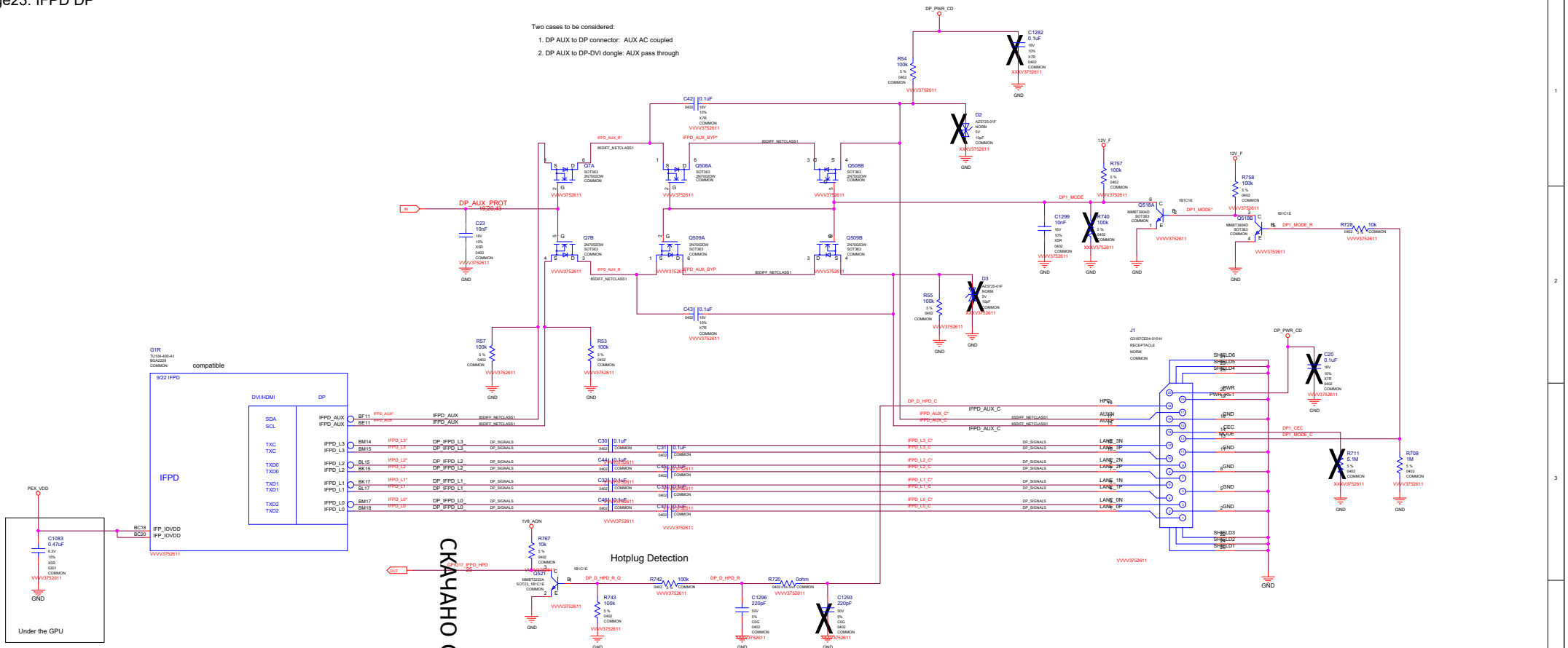
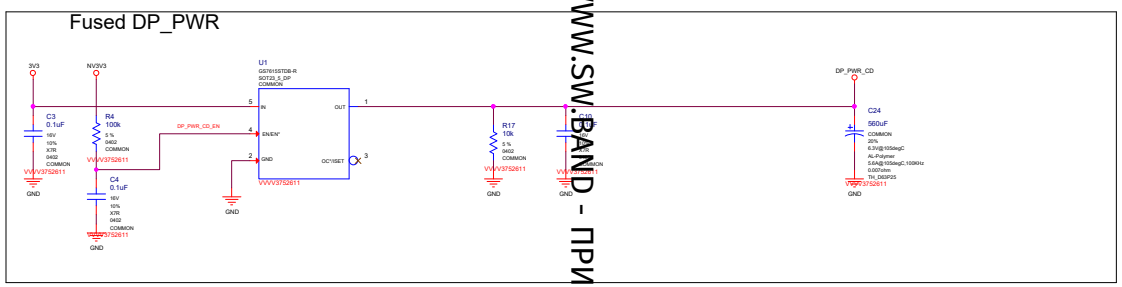
Page23: IFPD DP

Two cases to be considered:

1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through

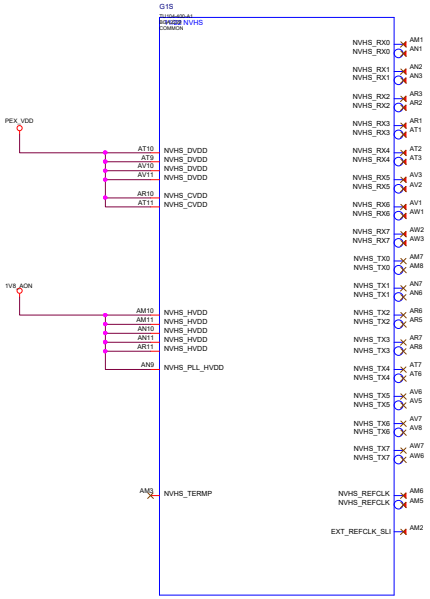


Fused DP_PWR



MICRO-STAR INT'L CO.,LTD		
MS-V375		
Size: Custom	Document Description: IFPD DP	Rev: 2.2
Date: Friday, August 23, 2019	Sheet 23 of 53	

Page24: NVHS Interface and Frame Lock



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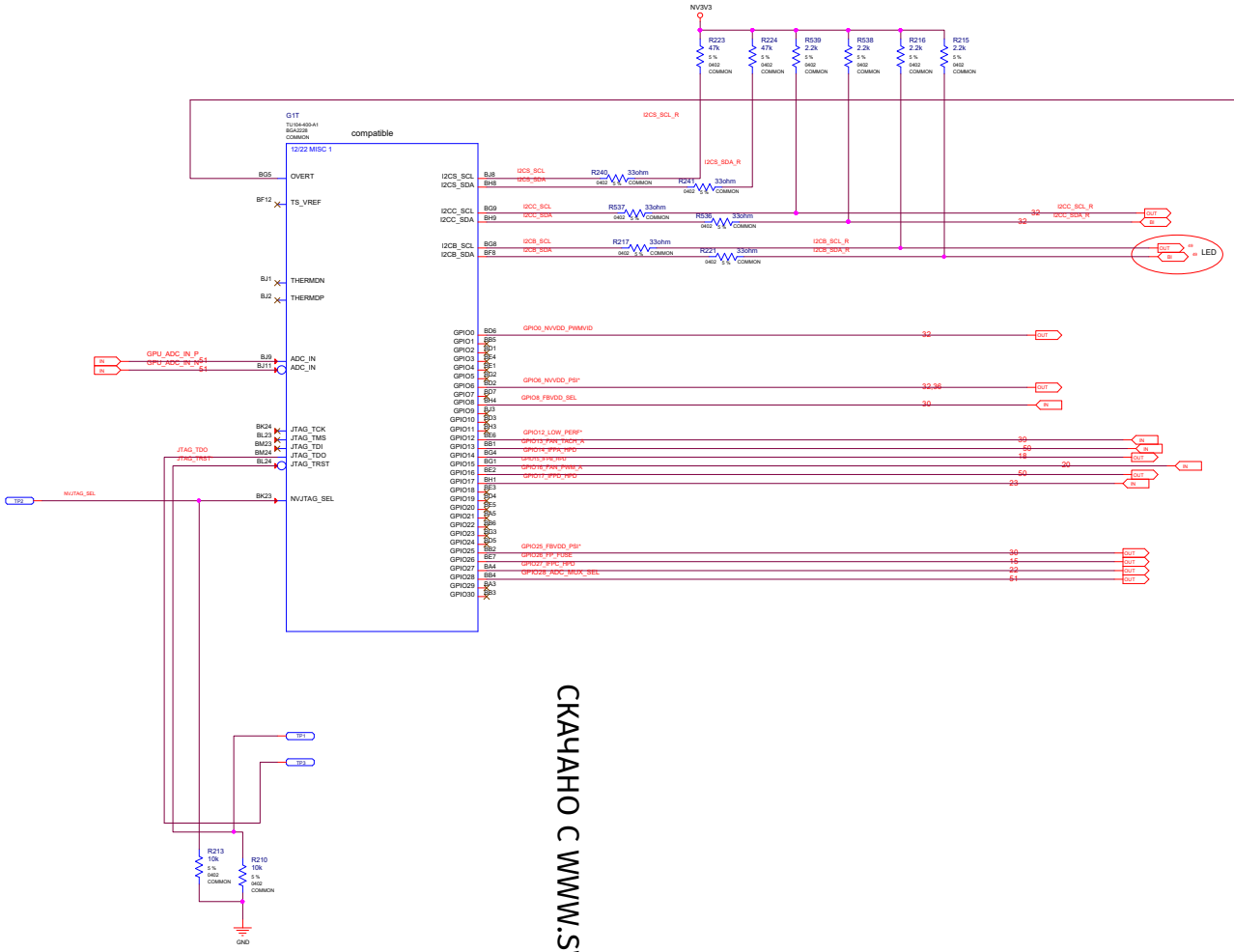
MS-V375

Size	Document Description	Rev
Custom	NVHS Interface and Frame Lock	2.2

Date: Friday, August 23, 2019 | Sheet 24 of 53

Page25: MISC1: Fan, Thermal, JTAG, GPIO



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Size	Document Description	Rev
Custom	MISC1: Fan, Thermal, JTAG, GPIO	2.2

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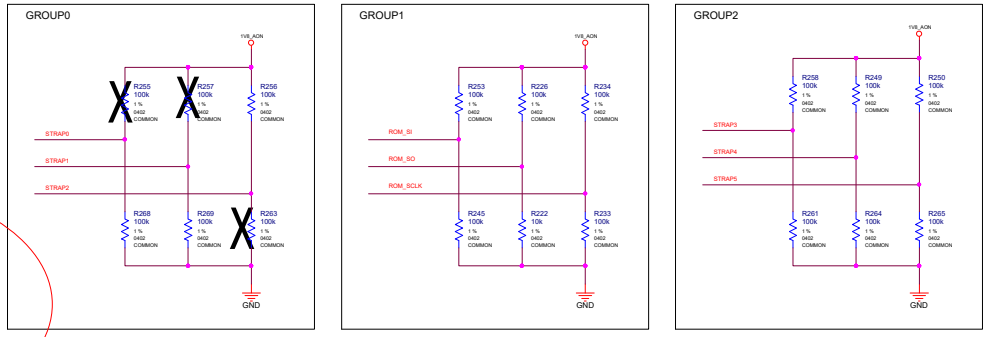
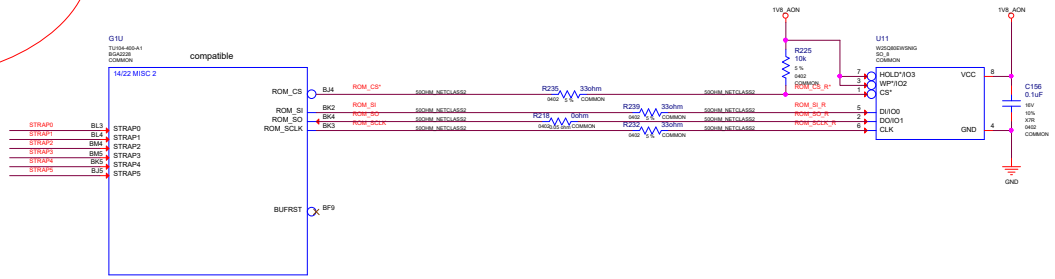
Page26: MISC2: ROM, XTAL, Straps

STRAP2	STRAP1	STRAP0	RAMCFG[4:0]
L	L	L	00000
L	L	H	00001
L	H	L	00010
L	H	H	00011
H	H	L	00110
H	H	H	00111
L	L	M	01000

RAMCFG[4:0]	DENSITY	WIDTH	VENDOR	DIE
00000	8Gb	256-bit	Samsung	C
00001	8Gb	256-bit	Micron	A
00010	8Gb	256-bit	Hynix	M
00011	8Gb	256-bit	Samsung	C
00100	8Gb	256-bit	Micron	A
00101	8Gb	256-bit	Hynix	M
00110	16Gb	256-bit	Samsung	M
00111				

注意上件的MEM Straps





ROM_SO	ROM_SI	ROM_SCLK	DUMMY[2:0],FS_OVERT	1:ENABLE 0:DISABLE	
L	L	L	XXX1	FS_OVERT ENABLE	DEFAULT
L	L	M	XXX0	FS_OVERT DISABLE	

STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE
M	H	H	1	1	1	1
M	H	L	1	1	1	0
M	L	H	1	0	1	1
M	L	L	1	0	0	0
L	H	M	1	1	1	1
L	M	H	1	1	1	0
L	M	L	1	0	1	1
L	L	M	1	0	0	0
H	H	H	0	1	1	1
H	H	L	0	1	1	0
H	L	H	0	0	1	1
H	L	L	0	0	0	0
L	H	H	0	1	1	1
L	H	L	0	1	1	0
L	L	H	0	0	1	1 DEFAULT
L	L	L	0	0	0	0

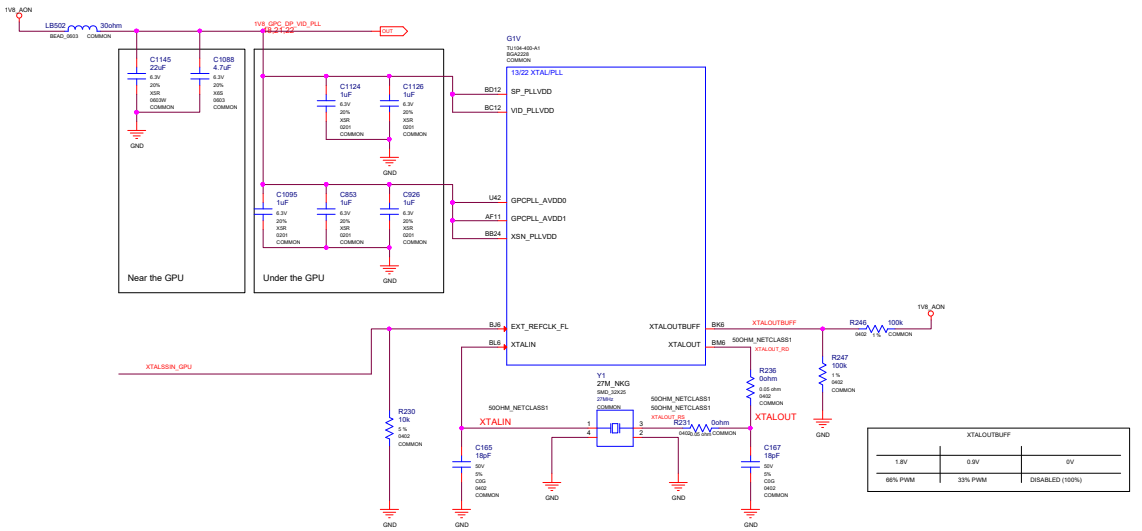
H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE

1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGNAL

1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER

1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE



MICRO-STAR INT'L CO.,LTD
MS-V375
Size: Custom | Document Description: MISC2: ROM, XTAL, Straps | Rev: 2.2
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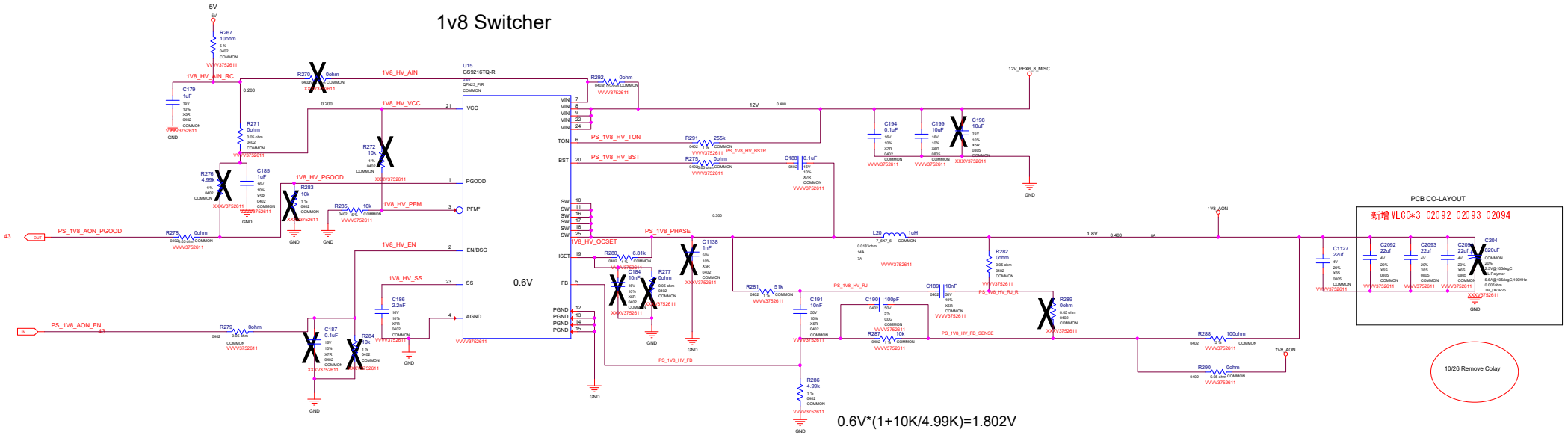
1v8 Switcher



0.6V*(1+10K/4.99K)=1.802V

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MS-V375		
Size: Custom	Document Description: PS: 1V8_AON	Rev: 2.2
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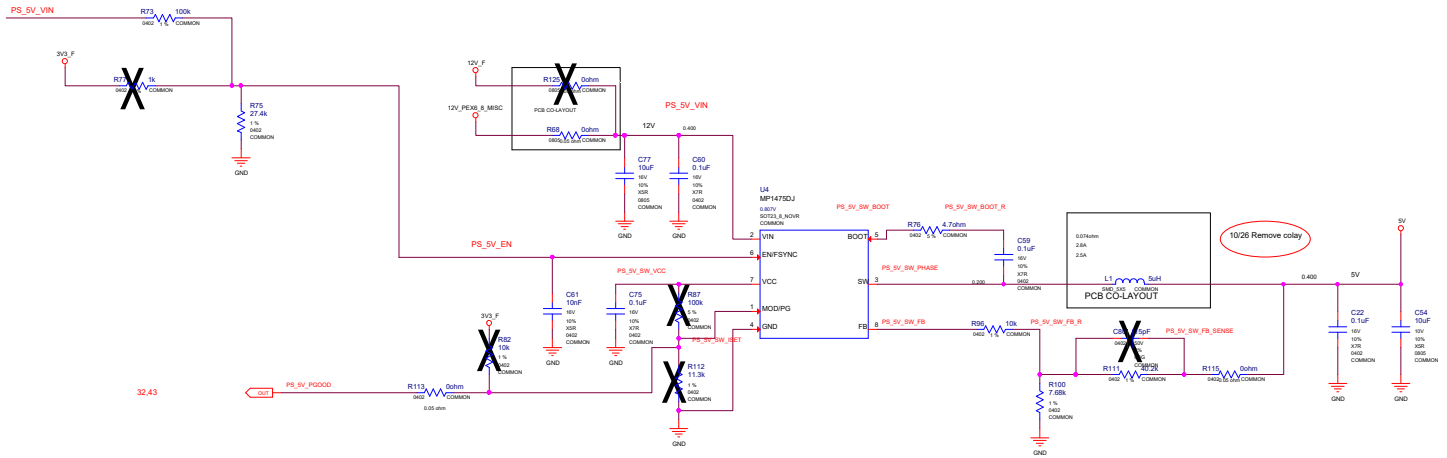

0.8V*(1+40.2K/7.68K)=4.9875V

MSI	MICRO-STAR INT'L CO.,LTD	
	MS-V375	
Size: Custom	Document Description: PS: 5V	Rev: 2.2
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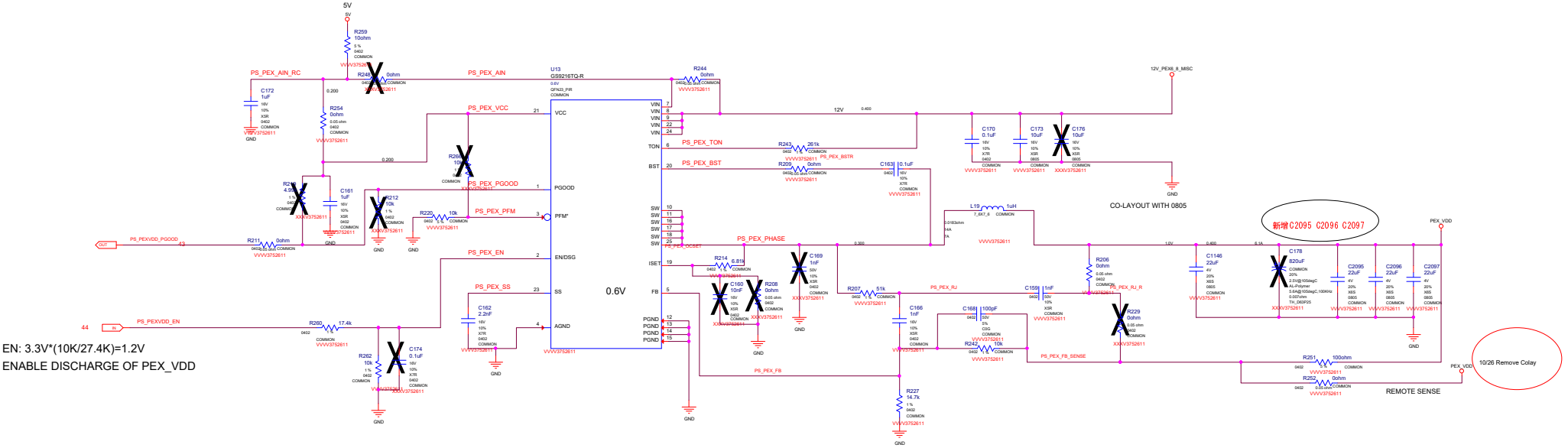
PEX Switcher



EN: 3.3V*(10K/27.4K)=1.2V

ENABLE DISCHARGE OF PEX_VDD

0.6V*(1+10K/14.7K)=1.008V

MICRO-STAR INT'L CO.,LTD		
MS-V375		
Size: Custom	Document Description: PS: PEXVDD	Rev: 2.2
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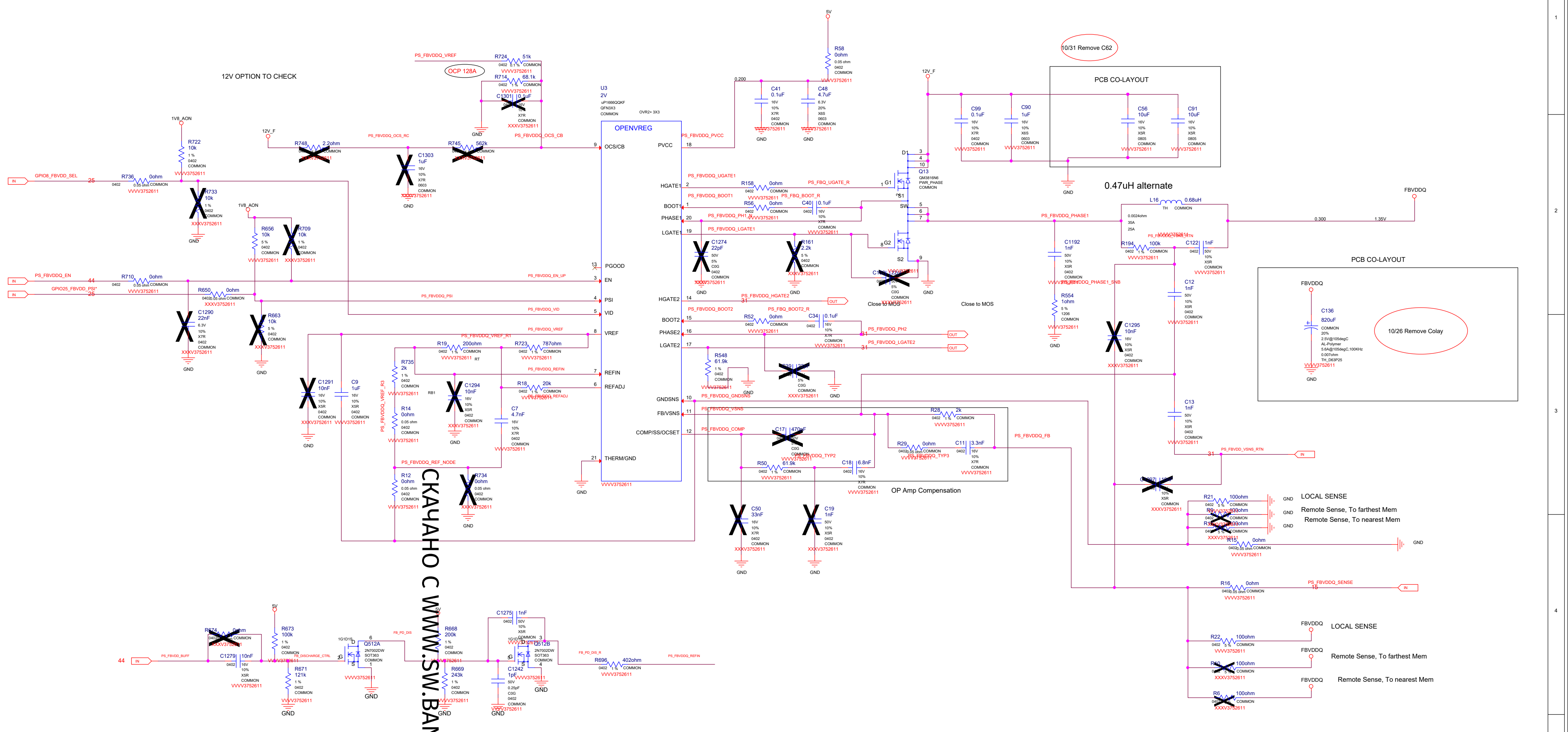
Page30: PS: FBVDDQ



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Size	Document Description	Rev
Custom	PS: FBVDDQ	2.2

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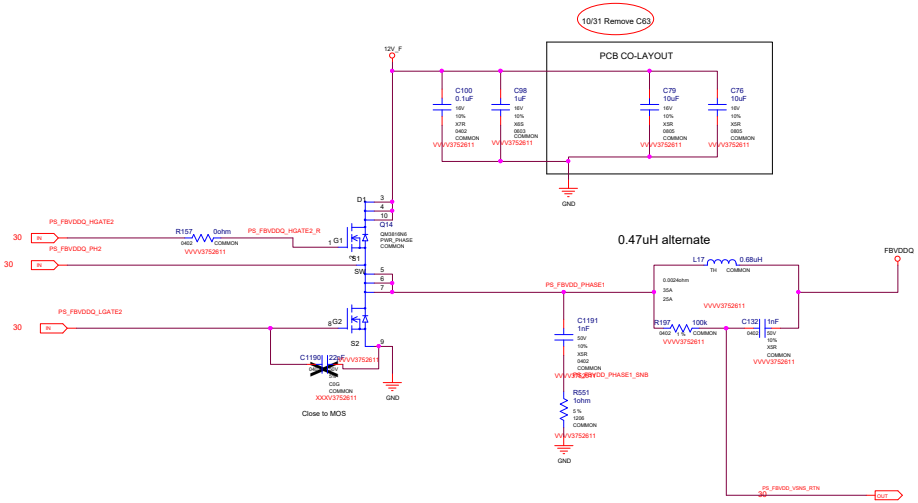

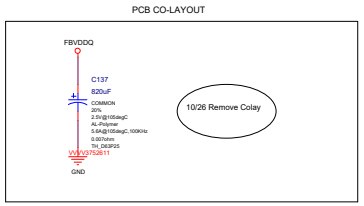

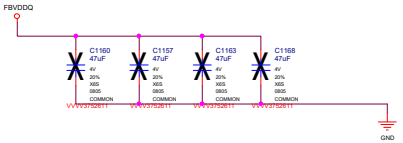

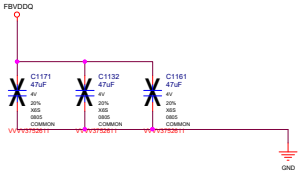

MICRO-STAR INT'L CO.,LTD		
MS-V375		
Size: Custom	Document Description: PS: FBVDDQ PH2	Rev: 2.2
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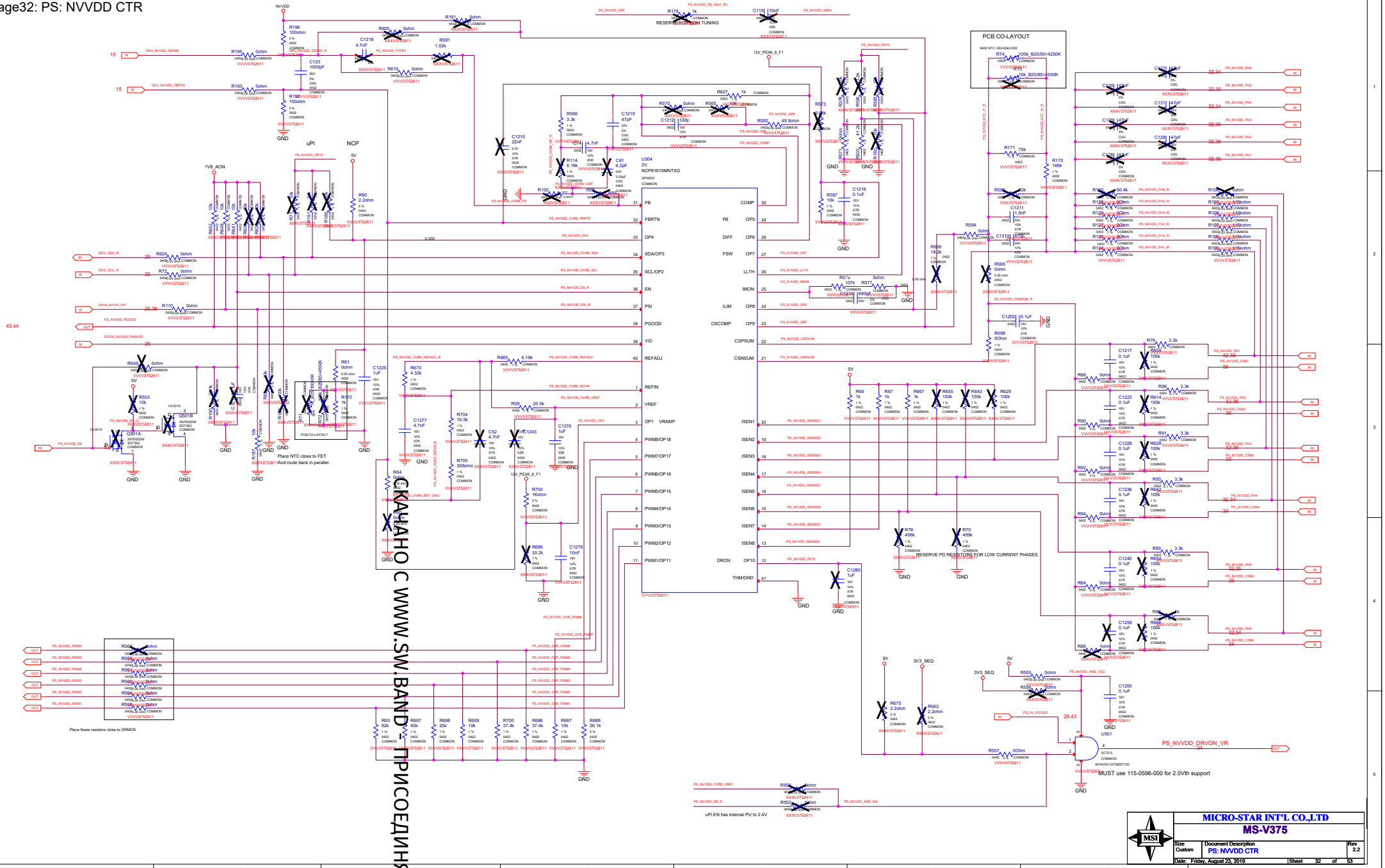

Company	MICRO-STAR INT'L CO.,LTD
Model	MS-V375
Size	Custom
Document Description	PS: NVVDD CTR
Rev	2.2
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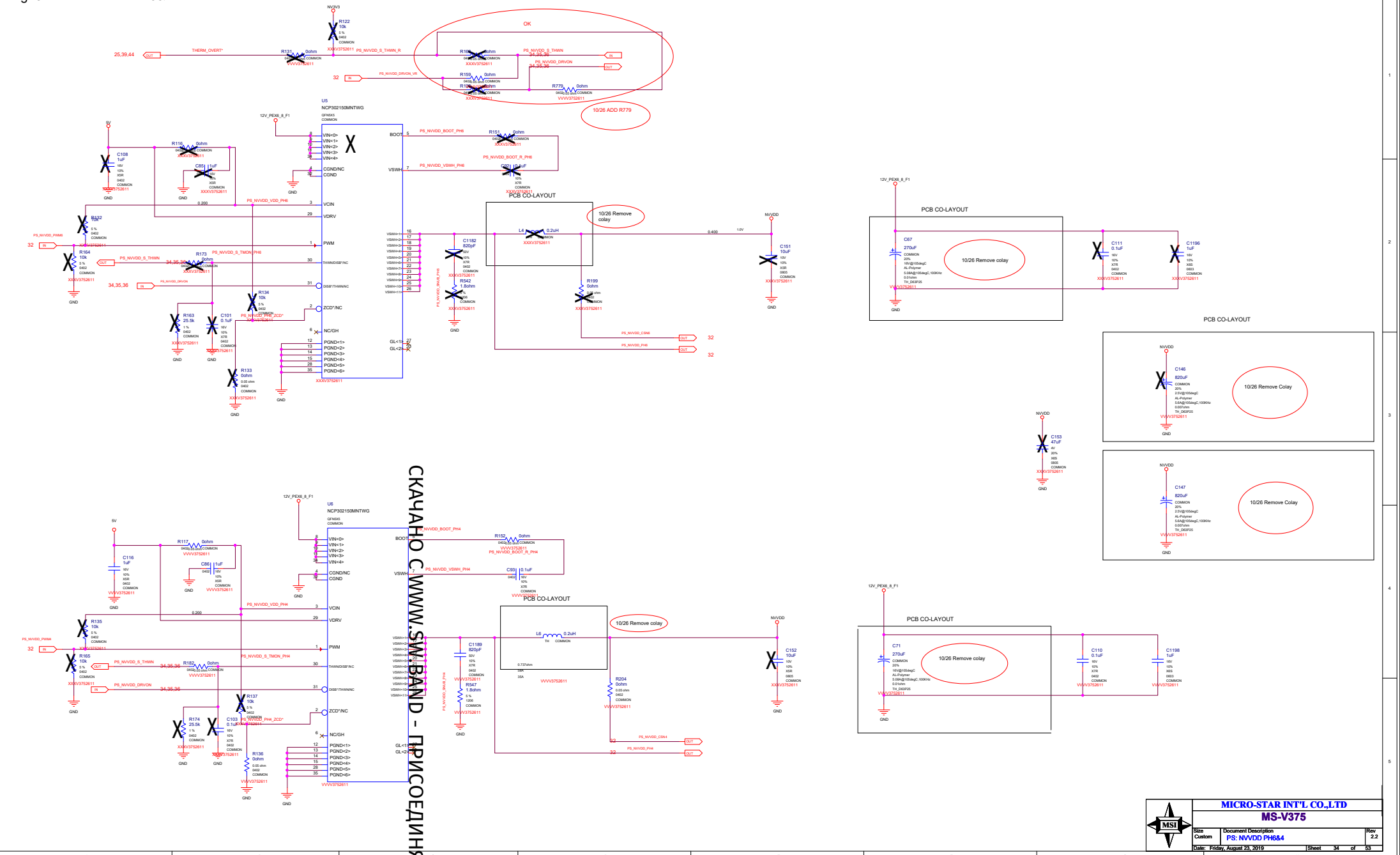
DROP OVR3i SOLUTION

Page34: PS: NVVDD PH6&4



MICRO-STAR INT'L CO.,LTD

MS-V375

Size	Document Description	Rev
Custom	PS: NVVDD PH6&4	2.2

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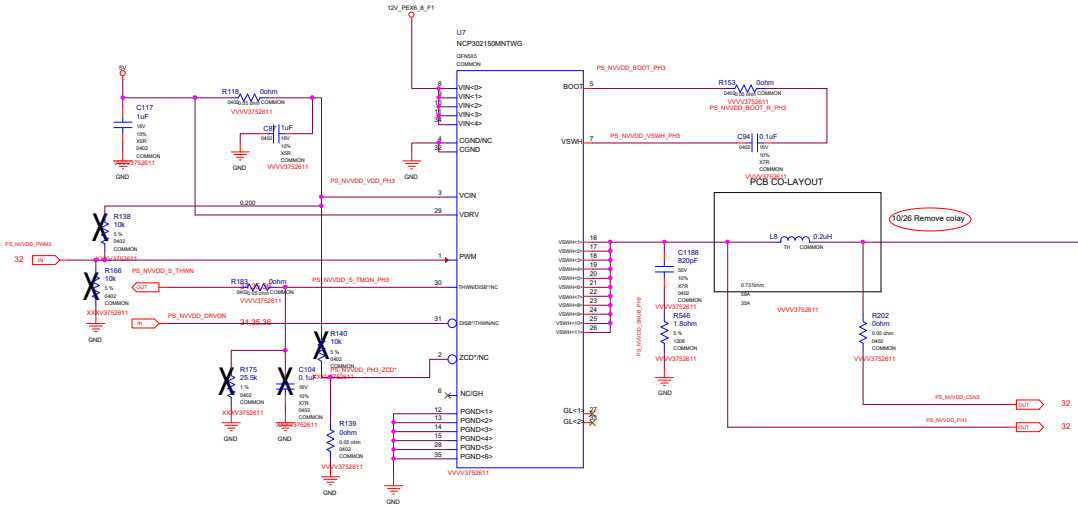
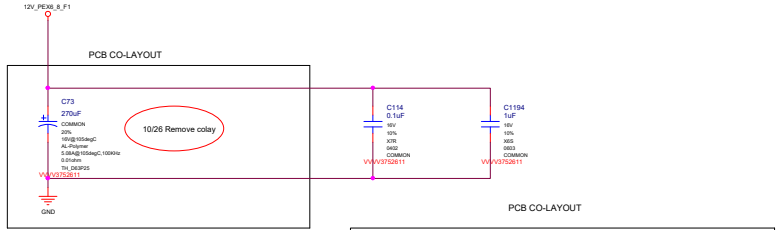
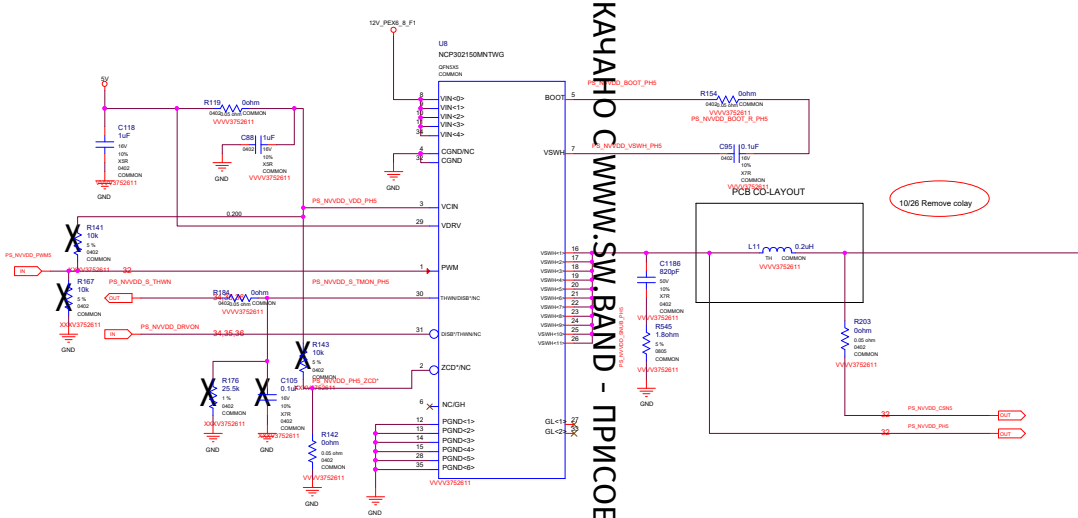
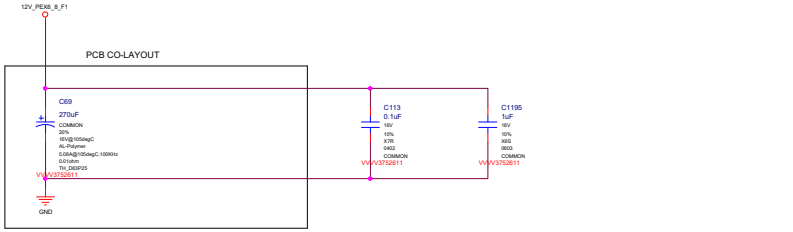
Page35: PS: NVVDD PH3&5









MICRO-STAR INT'L CO.,LTD

MS-V375

Size	Document Description	Rev
Custom	PS: NVVDD PH3&5	2.2

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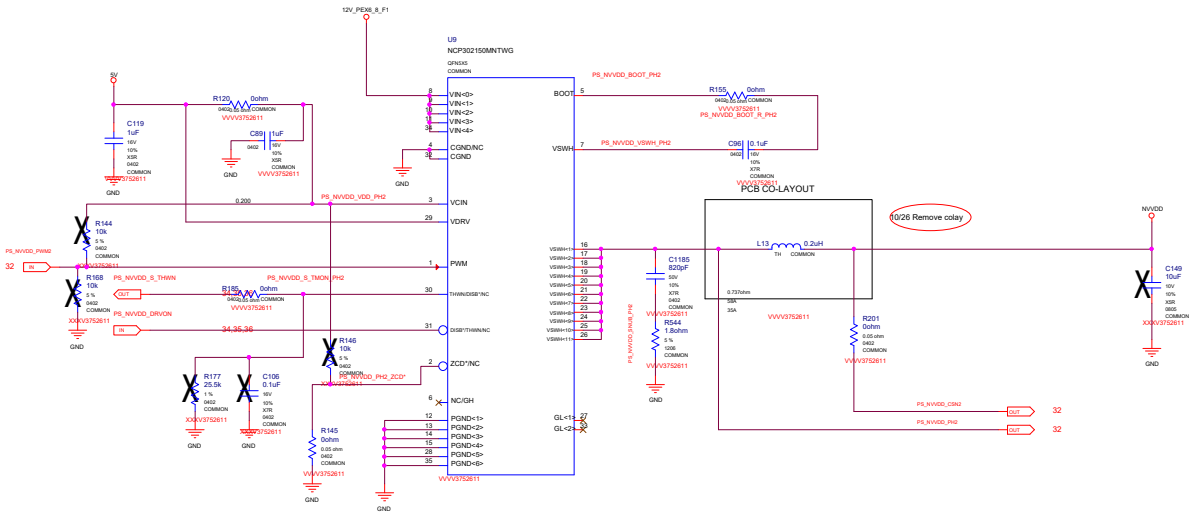
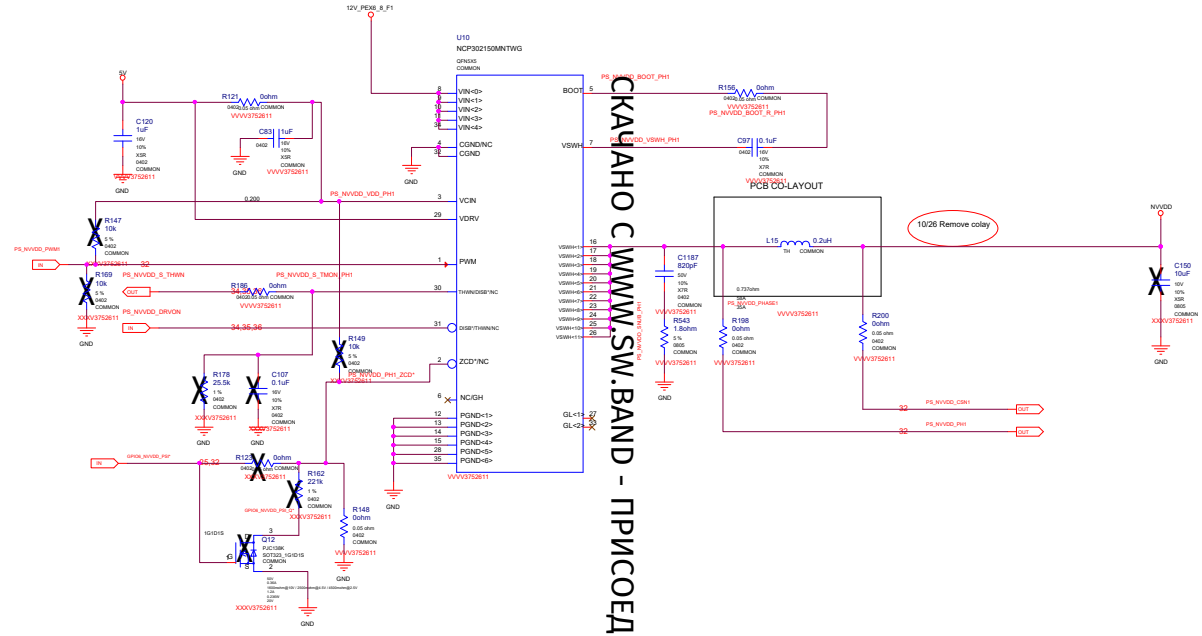
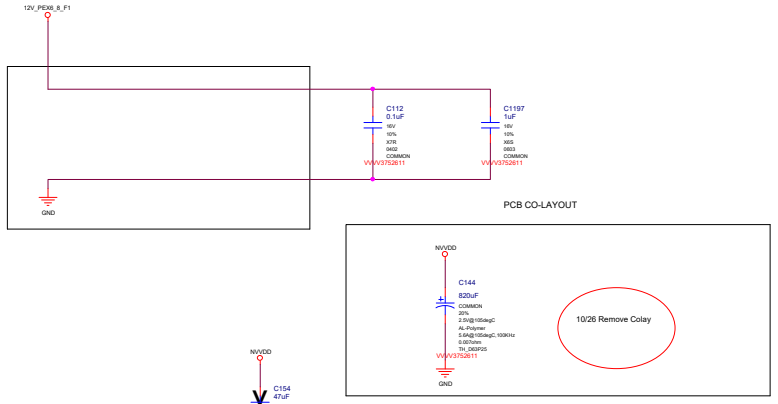
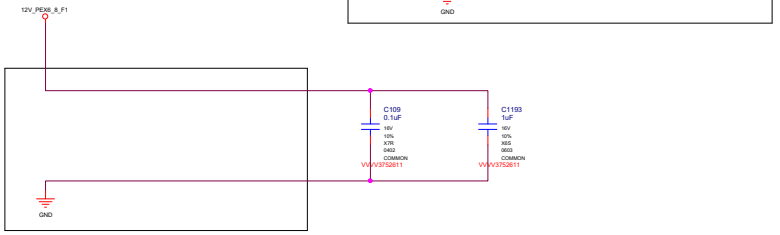
Page36: PS: NVVDD PH2&1









MICRO-STAR INT'L CO.,LTD

MS-V375

Size	Document Description	Rev
Custom	NVVDD PH2&1	2.2

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DELETE RAIL BALANCE CIRCUIT

MSI	MICRO-STAR INT'L CO.,LTD MS-V375	
Size: Custom	Document Description: Input Power Balancing Switcher	Rev: 2.2
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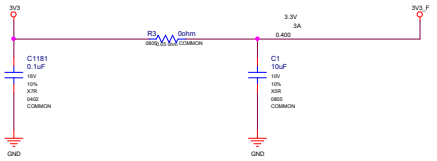
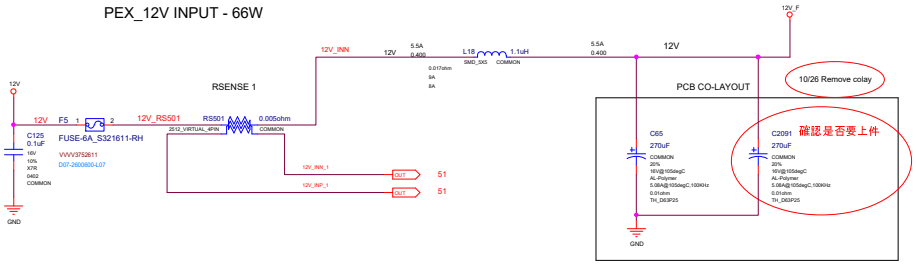
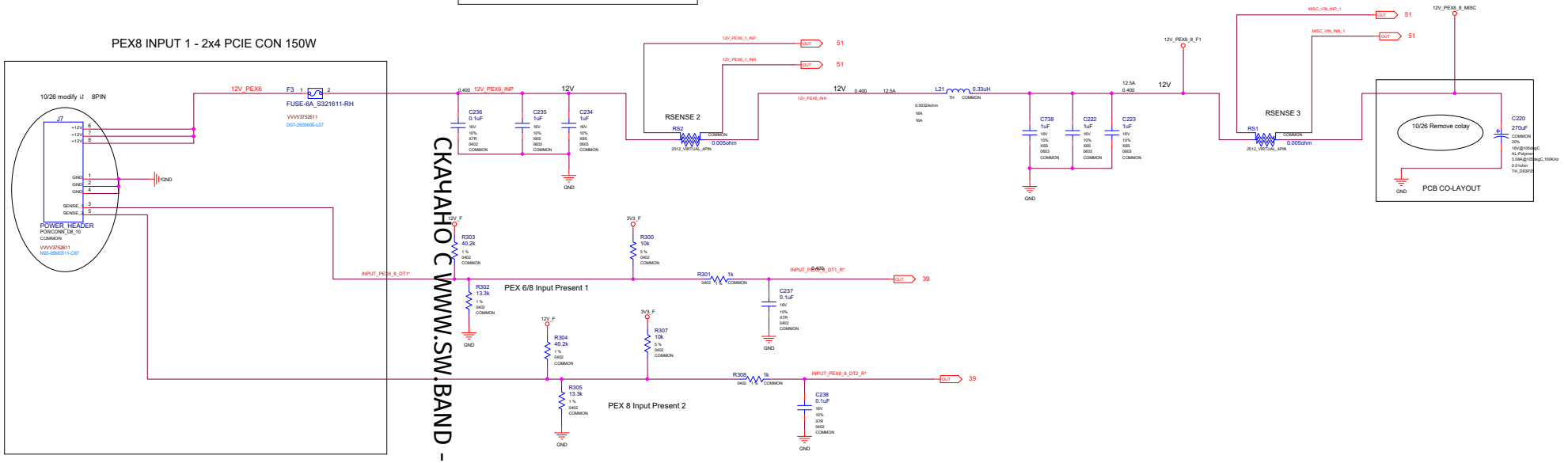
PEX 3V3 INPUT - 10W



PEX_12V INPUT - 66W



PEX8 INPUT 1 - 2x4 PCIE CON 150W



MICRO-STAR INT'L CO.,LTD		
MS-V375		
Size: Custom	Document Description: PS: Inputs, Filtering, and Monitoring	Rev: 2.2
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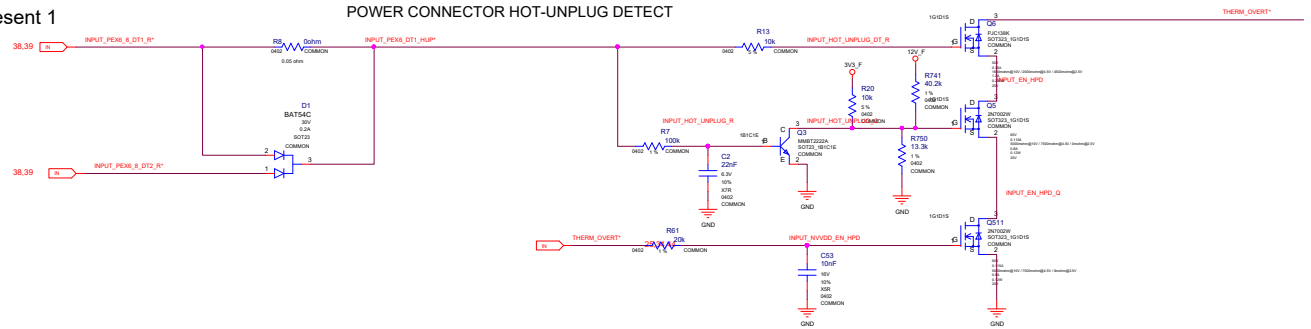
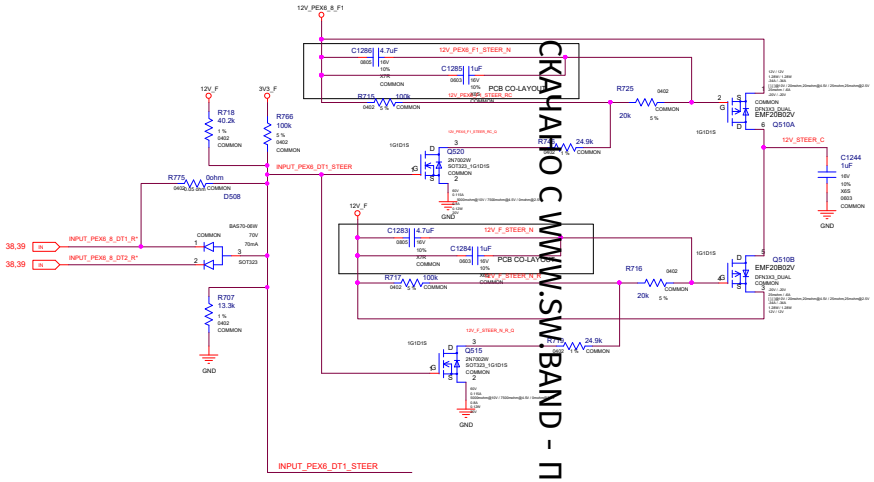
PEX Input Present 1

POWER CONNECTOR HOT-UNPLUG DETECT

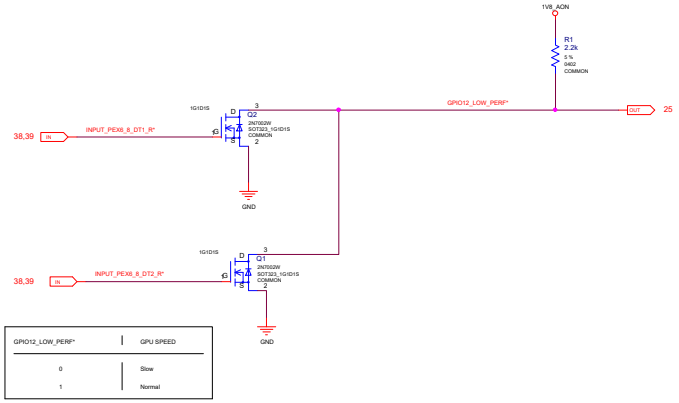


12V CURRENT STEERING (UNDER POWER BOOT):

GUIDES CURRENT FROM PEX EDGE TO PEX 6 PIN INPUT AREA



PEX Input - Power Level/PSI* Control



GPIO12_LOW_PERF*	GPU SPEED
0	Slow
1	Normal

MSI	MICRO-STAR INT'L CO.,LTD	
	MS-V375	
Size: Custom	Document Description: PS: HOT-UNPLUG, UNDER POWER BOOT	Rev: 2.2
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Page40: BUCKBOOST

MSI	MICRO-STAR INT'L CO.,LTD	
	MS-V375	
Size: Custom	Document Description: BUCKBOOST	Rev: 2.2
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Page41: PPC

MICRO-STAR INT'L CO.,LTD

MS-V375

Size	Document Description	Rev
Custom	PPC	2.2

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Page42: 12V & 3V3_A SWITCHER

MICRO-STAR INT'L CO.,LTD

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Size	Document Description	Rev
Custom	12V & 3V3_A SWITCHER	2.2

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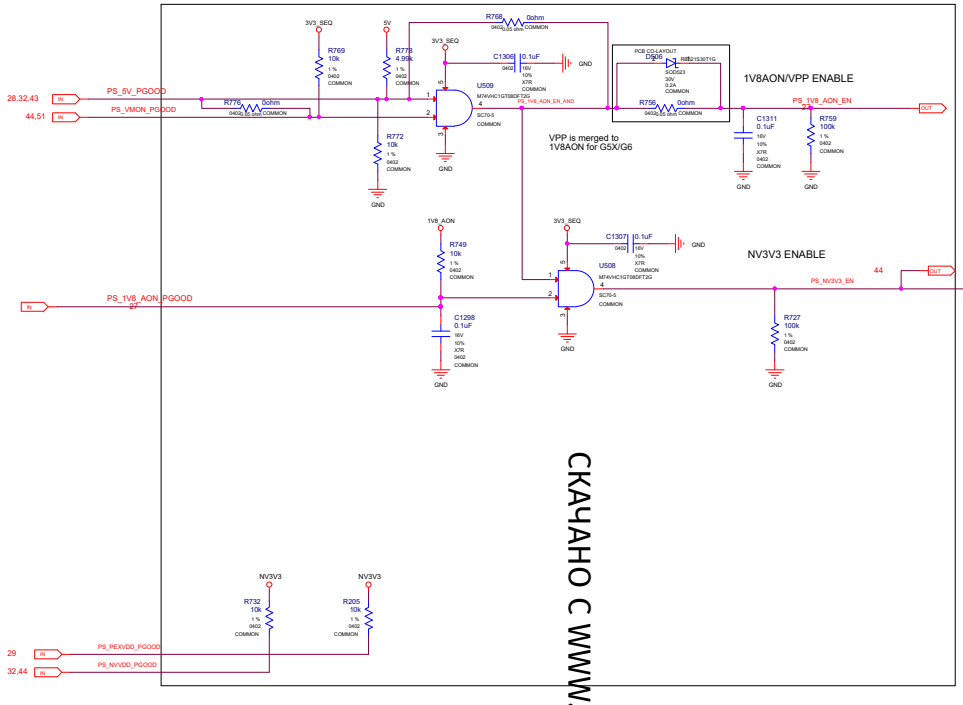
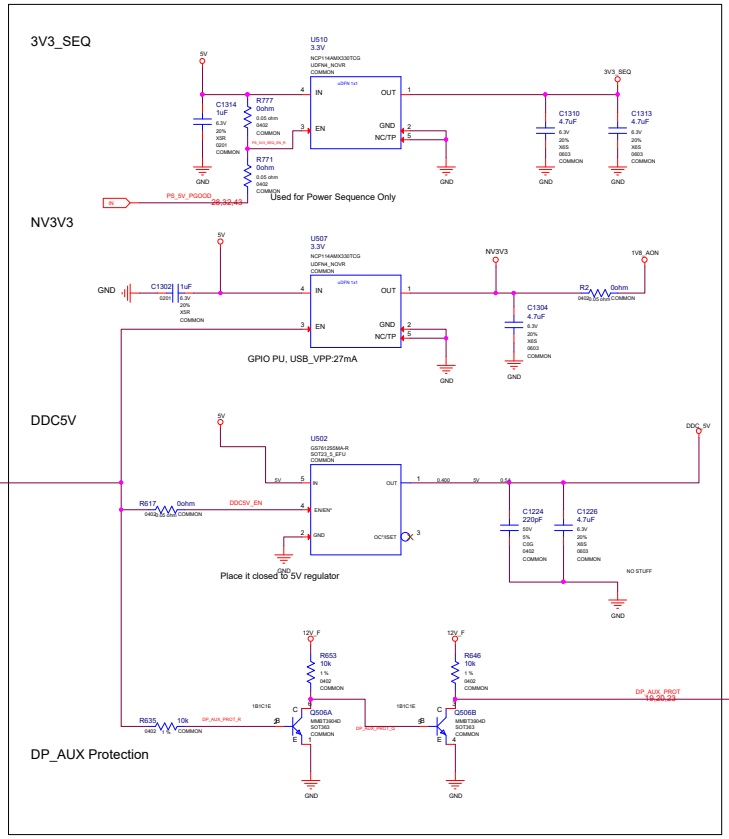
Page43: SEQ:5V,1V8,NV3V3 ENABLE





MICRO-STAR INT'L CO.,LTD
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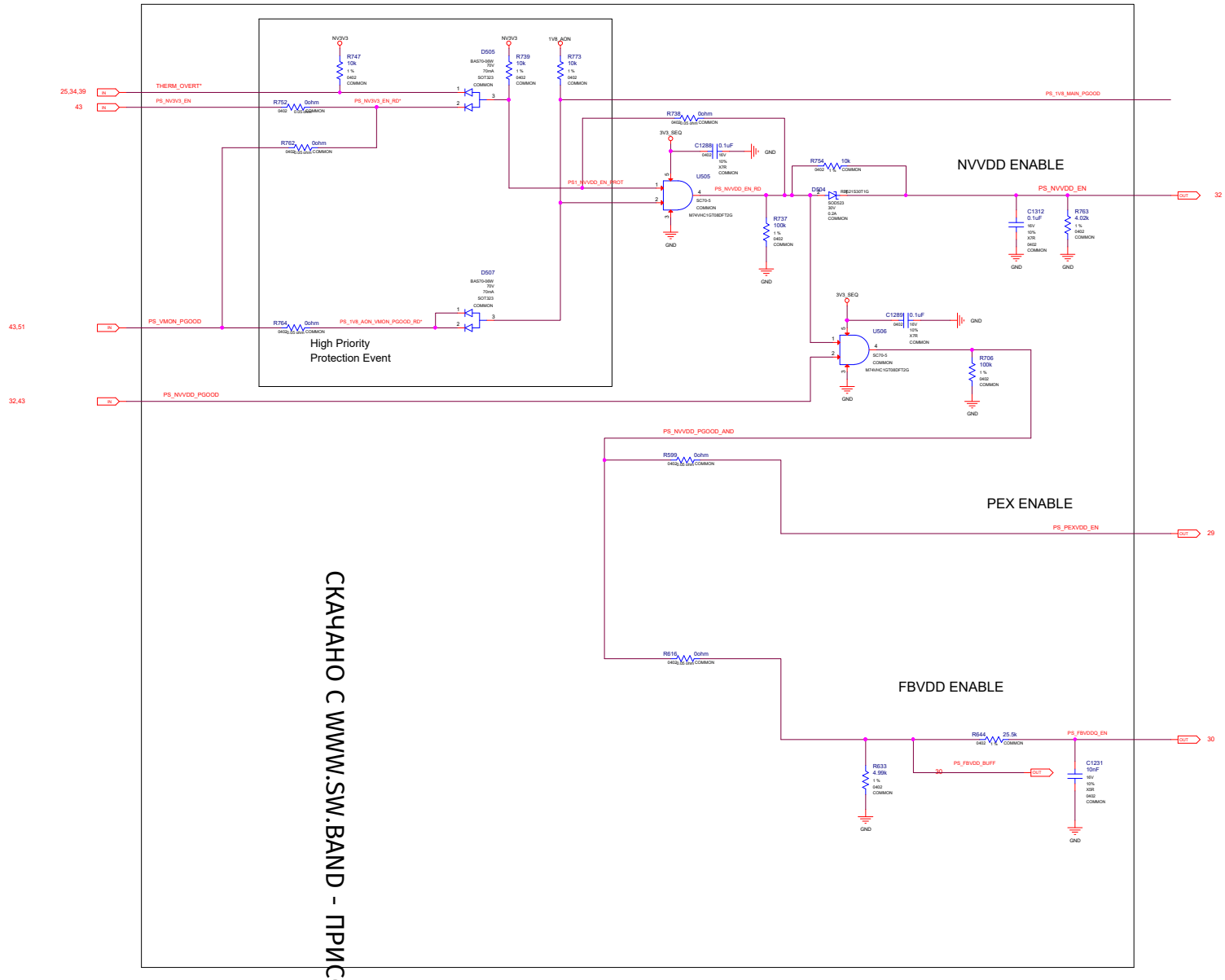
Size	Document Description	Rev
Custom	SEQ:5V,1V8,NV3V3 ENABLE	2.2

Date: Friday, August 23, 2019 | Sheet 43 of 53

Page44: SEQ:NV,PEX,FB ENABLE



MICRO-STAR INT'L CO.,LTD
MS-V375

Size	Document Description	Rev
Custom	SEQ:NV,PEX,FB ENABLE	2.2

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Page45: SEQUENCE:Voltage Monitor

MSI	MICRO-STAR INT'L CO.,LTD	
	MS-V375	
Size: Custom	Document Description: SEQUENCE:Voltage Monitor	Rev: 2.2
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Page46: SEQUENCE:Discharge

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MS-V375

Size: Custom | Document Description: SEQUENCE:Discharge | Rev: 2.2

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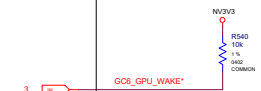
PEX_CLKREQ*

PU ON GPU SIDE

NC ON GOLD FINGER SIDE

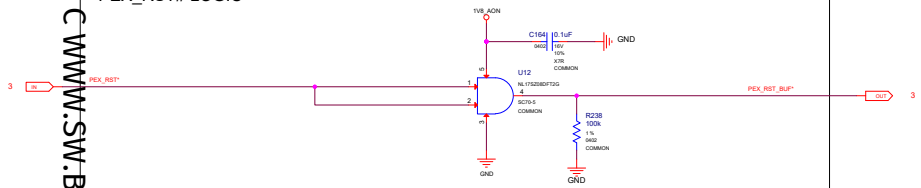
GPU_WAKE*



PU ON GPU SIDE

NC ON GOLD FINGER SIDE

PEX_RST# LOGIC



MSI	MICRO-STAR INT'L CO.,LTD	
	MS-V375	
Size: Custom	Document Description: SEQUENCE:MISC	Rev: 2.2
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Page48: LOGO LED

MICRO-STAR INT'L CO.,LTD

MS-V375

Size: Custom | Document Description: LOGO LED | Rev: 2.2

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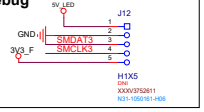
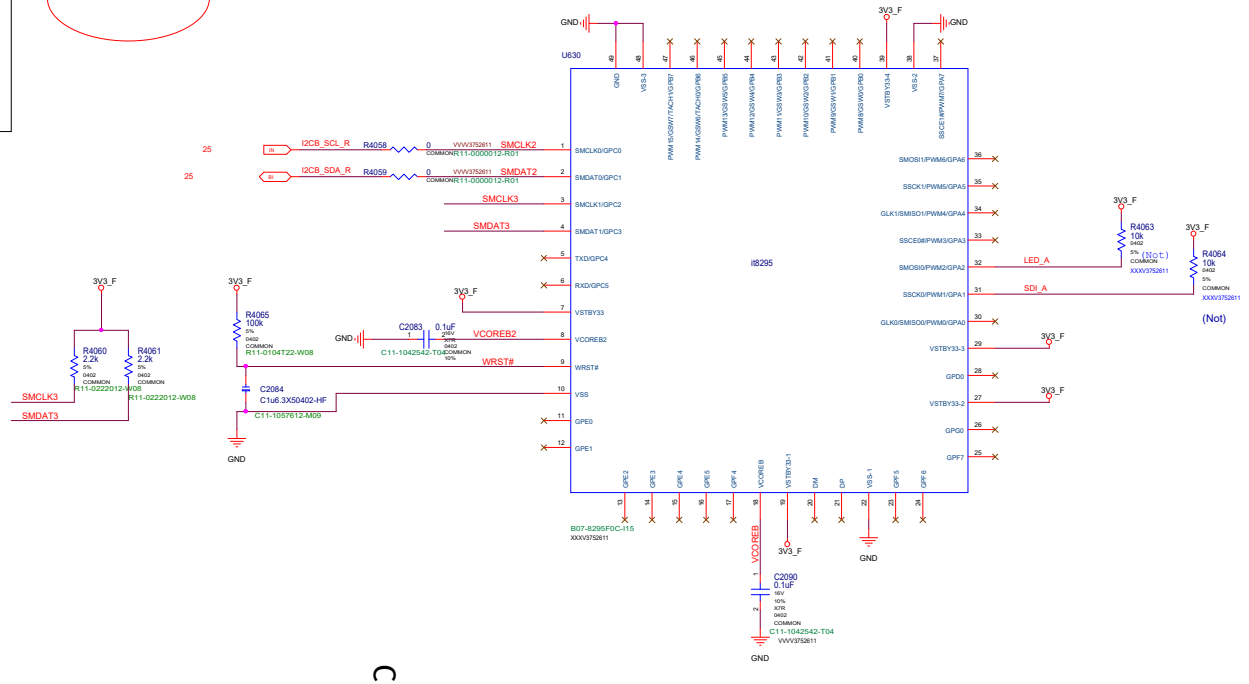
Page49: LED DRIVER & Boost

Firmware Programming

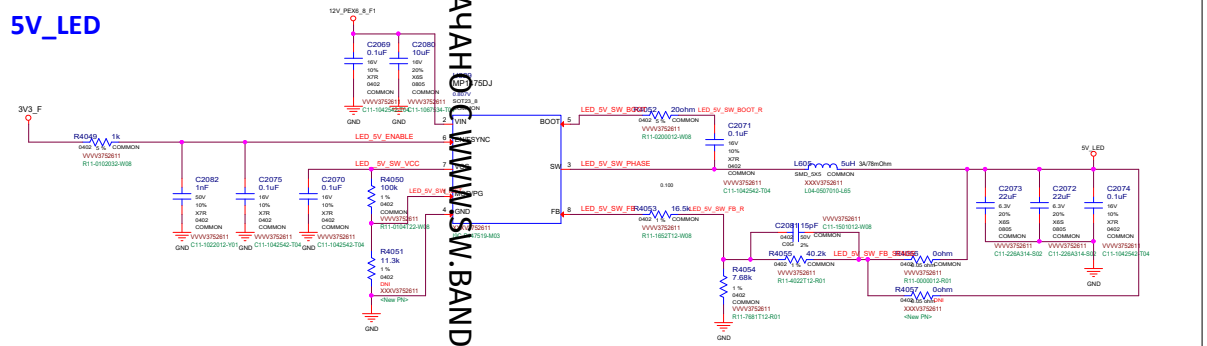
Debug



ADD LED



5V_LED



MICRO-STAR INT'L CO.,LTD		
MS-V375		
Size: Custom	Document Description: LED DRIVER & Boost	Rev: 2.2
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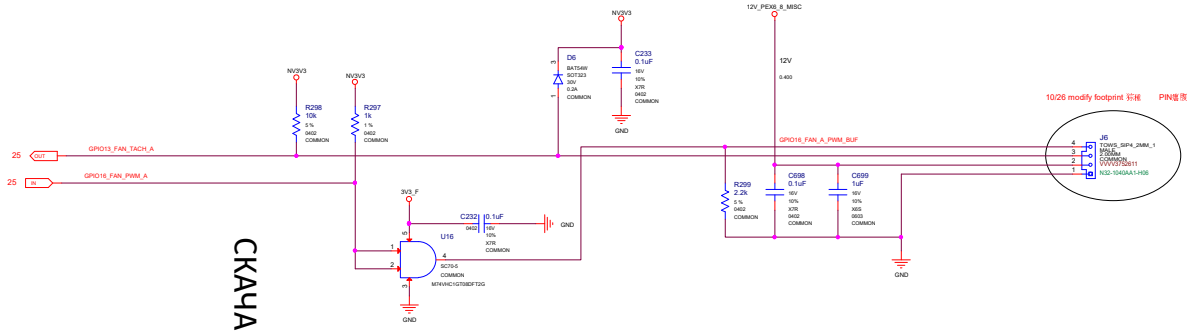
Page50: FAN



MSI	MICRO-STAR INT'L CO.,LTD	
	MS-V375	
Size: Custom	Document Description: FAN	Rev: 2.2
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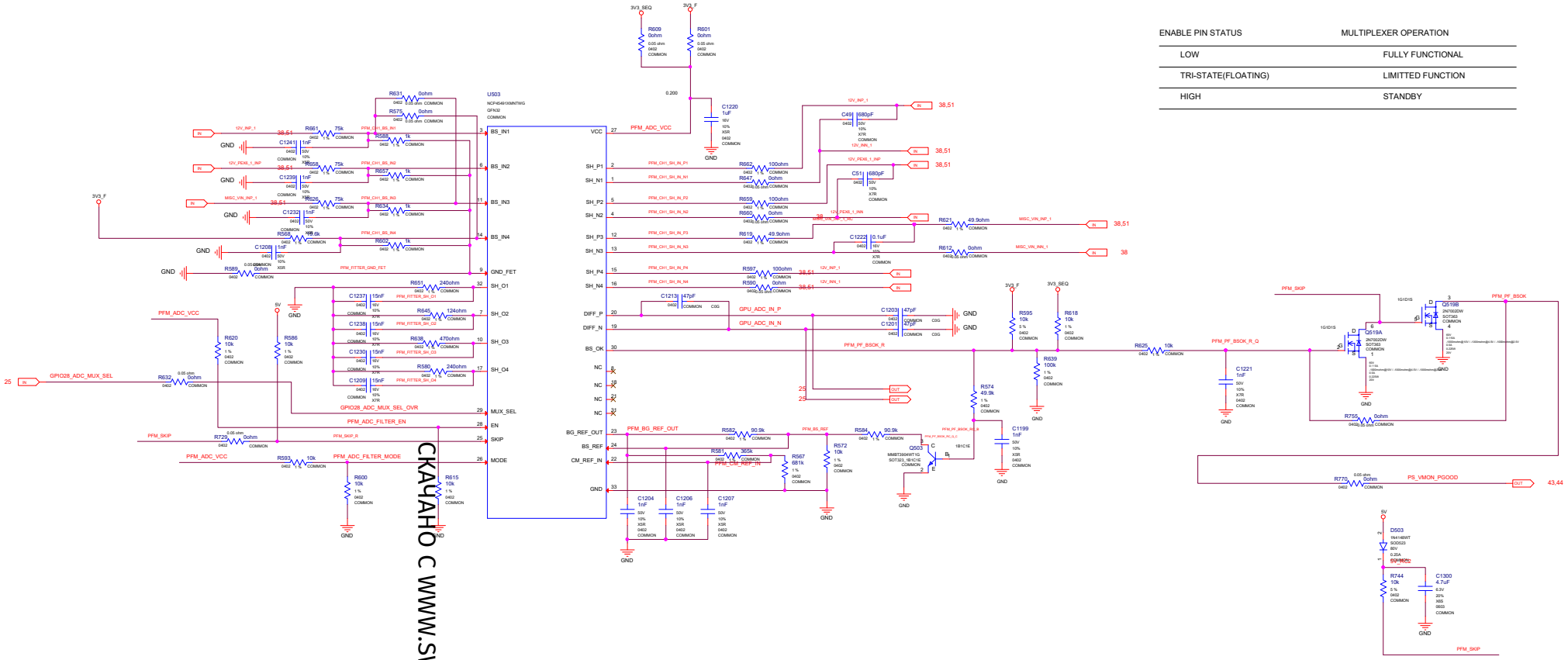
MODE PIN STATUS	MULTIPLEXER OPERATION
LOW	DEVICE A
TRI-STATE(FLOATING)	STAND-ALONE
HIGH	DEVICE B

ENABLE PIN STATUS	MULTIPLEXER OPERATION
LOW	FULLY FUNCTIONAL
TRI-STATE(FLOATING)	LIMITTED FUNCTION
HIGH	STANDBY



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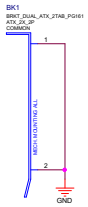
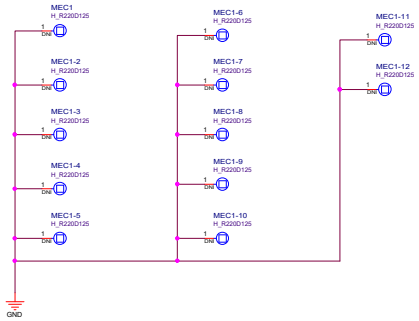
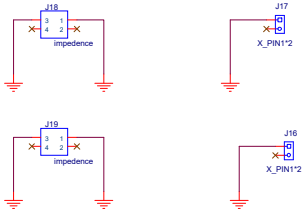
Bracket:

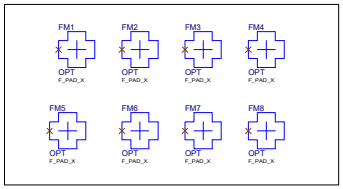


MOUNTING HOLES FOR HS:



BACK STIFFENER:





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