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REV	VARIANT	NVPN	ASSEMBLY
B	BASE	600-11025-BASE-SCH	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	SKU0000	602-11025-0000-300	DT, GF100-050, 659/2000, 1024MB - 32Mx32 GDDR5, DVI-I + DVI-I + mHDMI
2	SKU0001	602-11025-0001-300	DT, GF100-050, 659/2000, 1024MB - 32Mx32 GDDR5, DVI-I + DVI-I + mHDMI
3	SKU0002	602-11025-0002-300	DT, GF100-030, 659/2000, 1280MB - 32Mx32 GDDR5, DVI-I + DP + mHDMI
4	SKU0003	602-11025-0003-300	DT, GF100-030, 659/2000, 1280MB - 32Mx32 GDDR5, DVI-I + DP + mHDMI
5	SKU0004	602-11025-0004-300	DT, GF100-300, 659/2000, 1280MB - 32Mx32 GDDR5, DVI-I + DVI-I + mHDMI
6	SKU0005	602-11025-0005-300	DT, GF100-050, 659/2000, 1024MB - 32Mx32 GDDR5, DVI-I + DVI-I + VENT
7	SKU0006	602-11025-0006-300	DT, GF100-030, 659/2000, 1280MB - 32Mx32 GDDR5, DVI-I + DVI-I + mHDMI
8	SKU0007	602-11025-0007-300	DT, GF100-030, 659/2000, 1280MB - 32Mx32 GDDR5, DVI-I + DVI-I + mHDMI
9	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
10	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
11	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
12	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
13	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
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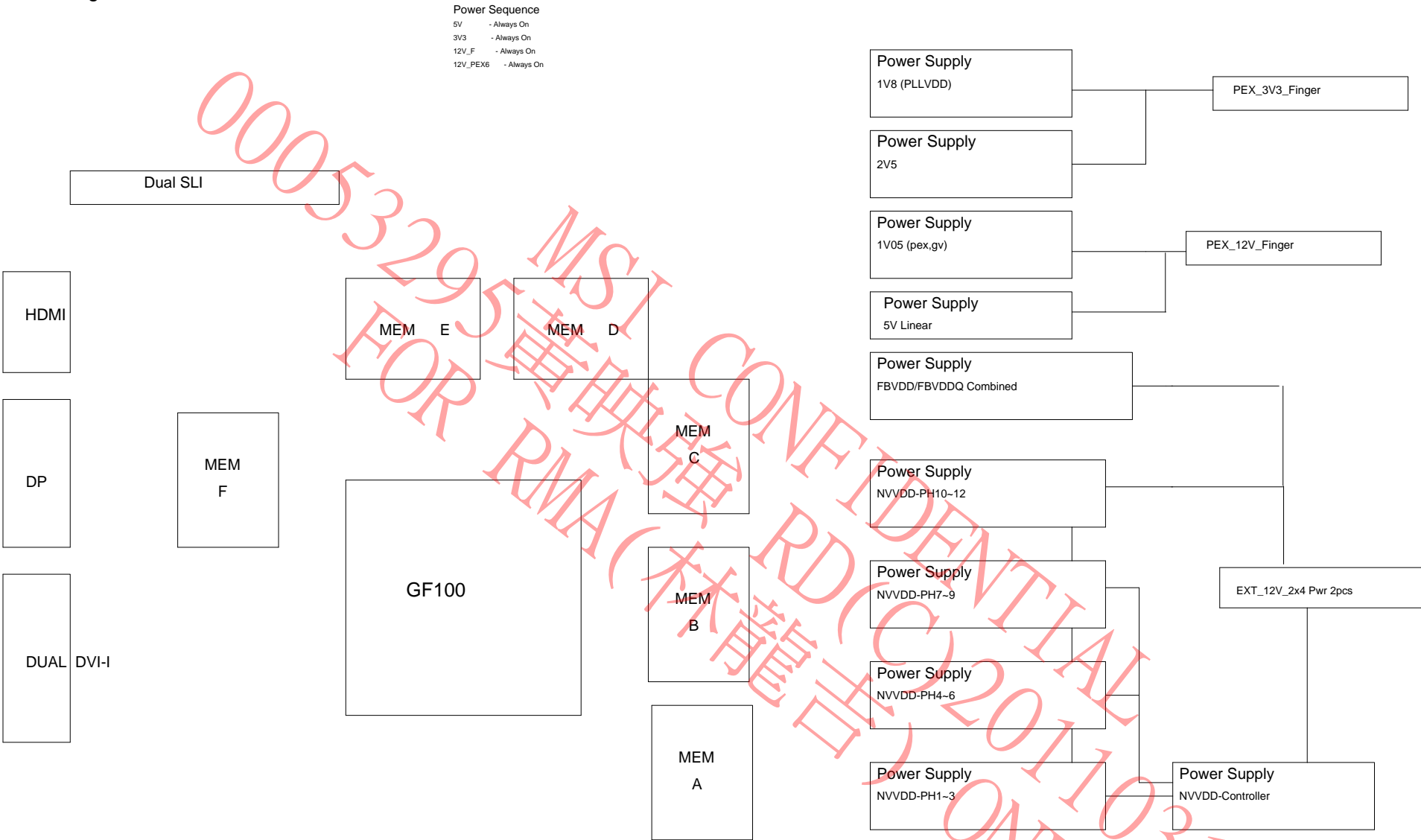
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Block Diagram



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ASSEMBLY PAGE DETAIL BASE LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO. STUFF ASSEMBLY NOTES AND BOARD NOT FINAL Block Diagram

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PCI Express

6/10:remove R910,R940,R928,R927,R908



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Framebuffer A,B: GPU Section

G1B

BGA_1801_FBB_P100_455V42S

COMMON

327 FBA

FBA D-00 AY40 FBA D0

FBA D-01 AY41 FBA D1

FBA D-02 AY42 FBA D2

FBA D-03 AY43 FBA D3

FBA D-04 AY44 FBA D4

FBA D-05 AY45 FBA D5

FBA D-06 AY46 FBA D6

FBA D-07 AY47 FBA D7

FBA D-08 AY48 FBA D8

FBA D-09 AY49 FBA D9

FBA D-10 AY50 FBA D10

FBA D-11 AY51 FBA D11

FBA D-12 AY52 FBA D12

FBA D-13 AY53 FBA D13

FBA D-14 AY54 FBA D14

FBA D-15 AY55 FBA D15

FBA D-16 AY56 FBA D16

FBA D-17 AY57 FBA D17

FBA D-18 AY58 FBA D18

FBA D-19 AY59 FBA D19

FBA D-20 AY60 FBA D20

FBA D-21 AY61 FBA D21

FBA D-22 AY62 FBA D22

FBA D-23 AY63 FBA D23

FBA D-24 AY64 FBA D24

FBA D-25 AY65 FBA D25

FBA D-26 AY66 FBA D26

FBA D-27 AY67 FBA D27

FBA D-28 AY68 FBA D28

FBA D-29 AY69 FBA D29

FBA D-30 AY70 FBA D30

FBA D-31 AY71 FBA D31

FBA D-32 AY72 FBA D32

FBA D-33 AY73 FBA D33

FBA D-34 AY74 FBA D34

FBA D-35 AY75 FBA D35

FBA D-36 AY76 FBA D36

FBA D-37 AY77 FBA D37

FBA D-38 AY78 FBA D38

FBA D-39 AY79 FBA D39

FBA D-40 AY80 FBA D40

FBA D-41 AY81 FBA D41

FBA D-42 AY82 FBA D42

FBA D-43 AY83 FBA D43

FBA D-44 AY84 FBA D44

FBA D-45 AY85 FBA D45

FBA D-46 AY86 FBA D46

FBA D-47 AY87 FBA D47

FBA D-48 AY88 FBA D48

FBA D-49 AY89 FBA D49

FBA D-50 AY90 FBA D50

FBA D-51 AY91 FBA D51

FBA D-52 AY92 FBA D52

FBA D-53 AY93 FBA D53

FBA D-54 AY94 FBA D54

FBA D-55 AY95 FBA D55

FBA D-56 AY96 FBA D56

FBA D-57 AY97 FBA D57

FBA D-58 AY98 FBA D58

FBA D-59 AY99 FBA D59

FBA D-60 AY00 FBA D60

FBA D-61 AY01 FBA D61

FBA D-62 AY02 FBA D62

FBA D-63 AY03 FBA D63

FBA D-64 AY04 FBA D64

FBA D-65 AY05 FBA D65

FBA D-66 AY06 FBA D66

FBA D-67 AY07 FBA D67

FBA D-68 AY08 FBA D68

FBA D-69 AY09 FBA D69

FBA D-70 AY10 FBA D70

FBA D-71 AY11 FBA D71

FBA D-72 AY12 FBA D72

FBA D-73 AY13 FBA D73

FBA D-74 AY14 FBA D74

FBA D-75 AY15 FBA D75

FBA D-76 AY16 FBA D76

FBA D-77 AY17 FBA D77

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FBA D-79 AY19 FBA D79

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FBA D-88 AY28 FBA D88

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FBA D-92 AY32 FBA D92

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FBA D-96 AY36 FBA D96

FBA D-97 AY37 FBA D97

FBA D-98 AY38 FBA D98

FBA D-99 AY39 FBA D99

FBA D-100 AY40 FBA D100

FBA D-101 AY41 FBA D101

FBA D-102 AY42 FBA D102

FBA D-103 AY43 FBA D103

FBA D-104 AY44 FBA D104

FBA D-105 AY45 FBA D105

FBA D-106 AY46 FBA D106

FBA D-107 AY47 FBA D107

FBA D-108 AY48 FBA D108

FBA D-109 AY49 FBA D109

FBA D-110 AY50 FBA D110

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FBA D-136 AY76 FBA D136

FBA D-137 AY77 FBA D137

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FBA D-167 AY07 FBA D167

FBA D-168 AY08 FBA D168

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FBA D-186 AY26 FBA D186

FBA D-187 AY27 FBA D187

FBA D-188 AY28 FBA D188

FBA D-189 AY29 FBA D189

FBA D-190 AY30 FBA D190

FBA D-191 AY31 FBA D191

FBA D-192 AY32 FBA D192

FBA D-193 AY33 FBA D193

FBA D-194 AY34 FBA D194

FBA D-195 AY35 FBA D195

FBA D-196 AY36 FBA D196

FBA D-197 AY37 FBA D197

FBA D-198 AY38 FBA D198

FBA D-199 AY39 FBA D199

FBA D-200 AY40 FBA D200

FBA D-201 AY41 FBA D201

FBA D-202 AY42 FBA D202

FBA D-203 AY43 FBA D203

FBA D-204 AY44 FBA D204

FBA D-205 AY45 FBA D205

FBA D-206 AY46 FBA D206

FBA D-207 AY47 FBA D207

FBA D-208 AY48 FBA D208

FBA D-209 AY49 FBA D209

FBA D-210 AY50 FBA D210

FBA D-211 AY51 FBA D211

FBA D-212 AY52 FBA D212

FBA D-213 AY53 FBA D213

FBA D-214 AY54 FBA D214

FBA D-215 AY55 FBA D215

FBA D-216 AY56 FBA D216

FBA D-217 AY57 FBA D217

FBA D-218 AY58 FBA D218

FBA D-219 AY59 FBA D219

FBA D-220 AY60 FBA D220

FBA D-221 AY61 FBA D221

FBA D-222 AY62 FBA D222

FBA D-223 AY63 FBA D223

FBA D-224 AY64 FBA D224

FBA D-225 AY65 FBA D225

FBA D-226 AY66 FBA D226

FBA D-227 AY67 FBA D227

FBA D-228 AY68 FBA D228

FBA D-229 AY69 FBA D229

FBA D-230 AY70 FBA D230

FBA D-231 AY71 FBA D231

Framebuffer C,D: GPU Section

G1D

BGA_1001_F000_P100_455425

COMMON

4227 FBC

10	Fbc-D-0<	Fbc-D-0<-common	D40	FBC_D0
10	Fbc-D-1<	Fbc-D-1<-common	D38	FBC_D1
10	Fbc-D-2<	Fbc-D-2<-common	D38	FBC_D2
10	Fbc-D-3<	Fbc-D-3<-common	D38	FBC_D3
10	Fbc-D-4<	Fbc-D-4<-common	H36	FBC_D4
10	Fbc-D-5<	Fbc-D-5<-common	F37	FBC_D5
10	Fbc-D-6<	Fbc-D-6<-common	H38	FBC_D6
10	Fbc-D-7<	Fbc-D-7<-common	F36	FBC_D7
10	Fbc-D-8<	Fbc-D-8<-common	F40	FBC_D8
10	Fbc-D-9<	Fbc-D-9<-common	E45	FBC_D9
10	Fbc-D-10<	Fbc-D-10<-common	F40	FBC_D10
10	Fbc-D-11<	Fbc-D-11<-common	C48	FBC_D11
10	Fbc-D-12<	Fbc-D-12<-common	D45	FBC_D12
10	Fbc-D-13<	Fbc-D-13<-common	D47	FBC_D13
10	Fbc-D-14<	Fbc-D-14<-common	D44	FBC_D14
10	Fbc-D-15<	Fbc-D-15<-common	E44	FBC_D15
10	Fbc-D-16<	Fbc-D-16<-common	G41	FBC_D16
10	Fbc-D-17<	Fbc-D-17<-common	F41	FBC_D17
10	Fbc-D-18<	Fbc-D-18<-common	H42	FBC_D18
10	Fbc-D-19<	Fbc-D-19<-common	K41	FBC_D19
10	Fbc-D-20<	Fbc-D-20<-common	G44	FBC_D20
10	Fbc-D-21<	Fbc-D-21<-common	J39	FBC_D21
10	Fbc-D-22<	Fbc-D-22<-common	F43	FBC_D22
10	Fbc-D-23<	Fbc-D-23<-common	K41	FBC_D23
10	Fbc-D-24<	Fbc-D-24<-common	E42	FBC_D24
10	Fbc-D-25<	Fbc-D-25<-common	G39	FBC_D25
10	Fbc-D-26<	Fbc-D-26<-common	D43	FBC_D26
10	Fbc-D-27<	Fbc-D-27<-common	D41	FBC_D27
10	Fbc-D-28<	Fbc-D-28<-common	D42	FBC_D28
10	Fbc-D-29<	Fbc-D-29<-common	E39	FBC_D29
10	Fbc-D-30<	Fbc-D-30<-common	C42	FBC_D30
10	Fbc-D-31<	Fbc-D-31<-common	F41	FBC_D31
10	Fbc-D-32<	Fbc-D-32<-common	P48	FBC_D32
10	Fbc-D-33<	Fbc-D-33<-common	R47	FBC_D33
10	Fbc-D-34<	Fbc-D-34<-common	H46	FBC_D34
10	Fbc-D-35<	Fbc-D-35<-common	R48	FBC_D35
10	Fbc-D-36<	Fbc-D-36<-common	L45	FBC_D36
10	Fbc-D-37<	Fbc-D-37<-common	T47	FBC_D37
10	Fbc-D-38<	Fbc-D-38<-common	F40	FBC_D38
10	Fbc-D-39<	Fbc-D-39<-common	R49	FBC_D39
10	Fbc-D-40<	Fbc-D-40<-common	G48	FBC_D40
10	Fbc-D-41<	Fbc-D-41<-common	H48	FBC_D41
10	Fbc-D-42<	Fbc-D-42<-common	J50	FBC_D42
10	Fbc-D-43<	Fbc-D-43<-common	E50	FBC_D43
10	Fbc-D-44<	Fbc-D-44<-common	H49	FBC_D44
10	Fbc-D-45<	Fbc-D-45<-common	F49	FBC_D45
10	Fbc-D-46<	Fbc-D-46<-common	J49	FBC_D46
10	Fbc-D-47<	Fbc-D-47<-common	J48	FBC_D47
10	Fbc-D-48<	Fbc-D-48<-common	M46	FBC_D48
10	Fbc-D-49<	Fbc-D-49<-common	P43	FBC_D49
10	Fbc-D-50<	Fbc-D-50<-common	L45	FBC_D50
10	Fbc-D-51<	Fbc-D-51<-common	M43	FBC_D51
10	Fbc-D-52<	Fbc-D-52<-common	F46	FBC_D52
10	Fbc-D-53<	Fbc-D-53<-common	P44	FBC_D53
10	Fbc-D-54<	Fbc-D-54<-common	K47	FBC_D54
10	Fbc-D-55<	Fbc-D-55<-common	M44	FBC_D55
10	Fbc-D-56<	Fbc-D-56<-common	L48	FBC_D56
10	Fbc-D-57<	Fbc-D-57<-common	P46	FBC_D57
10	Fbc-D-58<	Fbc-D-58<-common	K49	FBC_D58
10	Fbc-D-59<	Fbc-D-59<-common	M49	FBC_D59
10	Fbc-D-60<	Fbc-D-60<-common	L49	FBC_D60
10	Fbc-D-61<	Fbc-D-61<-common	N49	FBC_D61
10	Fbc-D-62<	Fbc-D-62<-common	L50	FBC_D62
10	Fbc-D-63<	Fbc-D-63<-common	M48	FBC_D63

CON	FBC DBI<0>	-common	G38	FBC_D0M0
CON	FBC DBI<1>	-common	G45	FBC_D0M1
CON	FBC DBI<2>	-common	H39	FBC_D0M2
CON	FBC DBI<3>	-common	F41	FBC_D0M3
CON	FBC DBI<4>	-common	L46	FBC_D0M4
CON	FBC DBI<5>	-common	F40	FBC_D0M5
CON	FBC DBI<6>	-common	P45	FBC_D0M6
CON	FBC DBI<7>	-common	M47	FBC_D0M7

CON	FBC DCS<0>	-common	C38	FBC_D0S_WP0
CON	FBC DCS<1>	-common	C47	FBC_D0S_WP1
CON	FBC DCS<2>	-common	H41	FBC_D0S_WP2
CON	FBC DCS<3>	-common	F40	FBC_D0S_WP3
CON	FBC DCS<4>	-common	F50	FBC_D0S_WP4
CON	FBC DCS<5>	-common	F50	FBC_D0S_WP5
CON	FBC DCS<6>	-common	M45	FBC_D0S_WP6
CON	FBC DCS<7>	-common	N47	FBC_D0S_WP7

CON	FBC DCS_RN0			
CON	FBC DCS_RN1			
CON	FBC DCS_RN2			
CON	FBC DCS_RN3			
CON	FBC DCS_RN4			
CON	FBC DCS_RN5			
CON	FBC DCS_RN6			
CON	FBC DCS_RN7			

FBC_DBG0 FBC_DBG1

CON	FBC_CLK0	FBC_CLK0	MODE	I	OUT
CON	FBC_CLK1	FBC_CLK1	MODE	I	OUT
CON	FBC_CLK2	FBC_CLK2	MODE	I	OUT
CON	FBC_CLK3	FBC_CLK3	MODE	I	OUT
CON	FBC_CLK4	FBC_CLK4	MODE	I	OUT
CON	FBC_CLK5	FBC_CLK5	MODE	I	OUT
CON	FBC_CLK6	FBC_CLK6	MODE	I	OUT
CON	FBC_CLK7	FBC_CLK7	MODE	I	OUT

CON	FBC_WCK0	FBC_WCK0	MODE	I	OUT
CON	FBC_WCK1	FBC_WCK1	MODE	I	OUT
CON	FBC_WCK2	FBC_WCK2	MODE	I	OUT
CON	FBC_WCK3	FBC_WCK3	MODE	I	OUT
CON	FBC_WCK4	FBC_WCK4	MODE	I	OUT
CON	FBC_WCK5	FBC_WCK5	MODE	I	OUT
CON	FBC_WCK6	FBC_WCK6	MODE	I	OUT
CON	FBC_WCK7	FBC_WCK7	MODE	I	OUT

FBC_PLL_AVDD FBC_PLL_AVDD



G1E

BGA_1001_F000_P100_455425

COMMON

527 FBD

11	Fbd-D-0<	Fbd-D-0<-common	J21	FBD_D0
11	Fbd-D-1<	Fbd-D-1<-common	E20	FBD_D1
11	Fbd-D-2<	Fbd-D-2<-common	G21	FBD_D2
11	Fbd-D-3<	Fbd-D-3<-common	E20	FBD_D3
11	Fbd-D-4<	Fbd-D-4<-common	G20	FBD_D4
11	Fbd-D-5<	Fbd-D-5<-common	E21	FBD_D5
11	Fbd-D-6<	Fbd-D-6<-common	G20	FBD_D6
11	Fbd-D-7<	Fbd-D-7<-common	E24	FBD_D7
11	Fbd-D-8<	Fbd-D-8<-common	E24	FBD_D8
11	Fbd-D-9<	Fbd-D-9<-common	E24	FBD_D9
11	Fbd-D-10<	Fbd-D-10<-common	E25	FBD_D10
11	Fbd-D-11<	Fbd-D-11<-common	E26	FBD_D11
11	Fbd-D-12<	Fbd-D-12<-common	E26	FBD_D12
11	Fbd-D-13<	Fbd-D-13<-common	E26	FBD_D13
11	Fbd-D-14<	Fbd-D-14<-common	E26	FBD_D14
11	Fbd-D-15<	Fbd-D-15<-common	E26	FBD_D15
11	Fbd-D-16<	Fbd-D-16<-common	E26	FBD_D16
11	Fbd-D-17<	Fbd-D-17<-common	E26	FBD_D17
11	Fbd-D-18<	Fbd-D-18<-common	E26	FBD_D18
11	Fbd-D-19<	Fbd-D-19<-common	E26	FBD_D19
11	Fbd-D-20<	Fbd-D-20<-common	E26	FBD_D20
11	Fbd-D-21<	Fbd-D-21<-common	E26	FBD_D21
11	Fbd-D-22<	Fbd-D-22<-common	E26	FBD_D22
11	Fbd-D-23<	Fbd-D-23<-common	E26	FBD_D23
11	Fbd-D-24<	Fbd-D-24<-common	E26	FBD_D24
11	Fbd-D-25<	Fbd-D-25<-common	E26	FBD_D25
11	Fbd-D-26<	Fbd-D-26<-common	E26	FBD_D26
11	Fbd-D-27<	Fbd-D-27<-common	E26	FBD_D27
11	Fbd-D-28<	Fbd-D-28<-common	E26	FBD_D28
11	Fbd-D-29<	Fbd-D-29<-common	E26	FBD_D29
11	Fbd-D-30<	Fbd-D-30<-common	E26	FBD_D30
11	Fbd-D-31<	Fbd-D-31<-common	E26	FBD_D31
11	Fbd-D-32<	Fbd-D-32<-common	E26	FBD_D32
11	Fbd-D-33<	Fbd-D-33<-common	E26	FBD_D33
11	Fbd-D-34<	Fbd-D-34<-common	E26	FBD_D34
11	Fbd-D-35<	Fbd-D-35<-common	E26	FBD_D35
11	Fbd-D-36<	Fbd-D-36<-common	E26	FBD_D36
11	Fbd-D-37<	Fbd-D-37<-common	E26	FBD_D37
11	Fbd-D-38<	Fbd-D-38<-common	E26	FBD_D38
11	Fbd-D-39<	Fbd-D-39<-common	E26	FBD_D39
11	Fbd-D-40<	Fbd-D-40<-common	E26	FBD_D40
11	Fbd-D-41<	Fbd-D-41<-common	E26	FBD_D41
11	Fbd-D-42<	Fbd-D-42<-common	E26	FBD_D42
11	Fbd-D-43<	Fbd-D-43<-common	E26	FBD_D43
11	Fbd-D-44<	Fbd-D-44<-common	E26	FBD_D44
11	Fbd-D-45<	Fbd-D-45<-common	E26	FBD_D45
11	Fbd-D-46<	Fbd-D-46<-common	E26	FBD_D46
11	Fbd-D-47<	Fbd-D-47<-common	E26	FBD_D47
11	Fbd-D-48<	Fbd-D-48<-common	E26	FBD_D48
11	Fbd-D-49<	Fbd-D-49<-common	E26	FBD_D49
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11	Fbd-D-52<	Fbd-D-52<-common	E26	FBD_D52
11	Fbd-D-53<	Fbd-D-53<-common	E26	FBD_D53
11	Fbd-D-54<	Fbd-D-54<-common	E26	FBD_D54
11	Fbd-D-55<	Fbd-D-55<-common	E26	FBD_D55
11	Fbd-D-56<	Fbd-D-56<-common	E26	FBD_D56
11	Fbd-D-57<	Fbd-D-57<-common	E26	FBD_D57
11	Fbd-D-58<	Fbd-D-58<-common	E26	FBD_D58
11	Fbd-D-59<	Fbd-D-59<-common	E26	FBD_D59
11	Fbd-D-60<	Fbd-D-60<-common	E26	FBD_D60
11	Fbd-D-61<	Fbd-D-61<-common	E26	FBD_D61
11	Fbd-D-62<	Fbd-D-62<-common	E26	FBD_D62
11	Fbd-D-63<	Fbd-D-63<-common	E26	FBD_D63

CON	FBD DBI<0>	-common	G20	FBD_D0M0
CON	FBD DBI<1>	-common	E20	FBD_D0M1
CON	FBD DBI<2>	-common	G20	FBD_D0M2
CON	FBD DBI<3>	-common	G20	FBD_D0M3
CON	FBD DBI<4>	-common	G20	FBD_D0M4
CON	FBD DBI<5>	-common	G20	FBD_D0M5
CON	FBD DBI<6>	-common	G20	FBD_D0M6
CON	FBD DBI<7>	-common	G20	FBD_D0M7

CON	FBD DCS<0>	-common	D19	FBD_D0S_WP0
CON	FBD DCS<1>	-common	D25	FBD_D0S_WP1
CON	FBD DCS<2>	-common	D25	FBD_D0S_WP2
CON	FBD DCS<3>	-common	D25	FBD_D0S_WP3
CON	FBD DCS<4>	-common	D25	FBD_D0S_WP4
CON	FBD DCS<5>	-common	D25	FBD_D0S_WP5
CON	FBD DCS<6>	-common	D25	FBD_D0S_WP6
CON	FBD DCS<7>	-common	D25	FBD_D0S_WP7

CON	FBD DCS_RN0			
CON	FBD DCS_RN1			
CON	FBD DCS_RN2			
CON	FBD DCS_RN3			
CON	FBD DCS_RN4			
CON	FBD DCS_RN5			
CON	FBD DCS_RN6			
CON	FBD DCS_RN7			

FBD_DBG0 FBD_DBG1



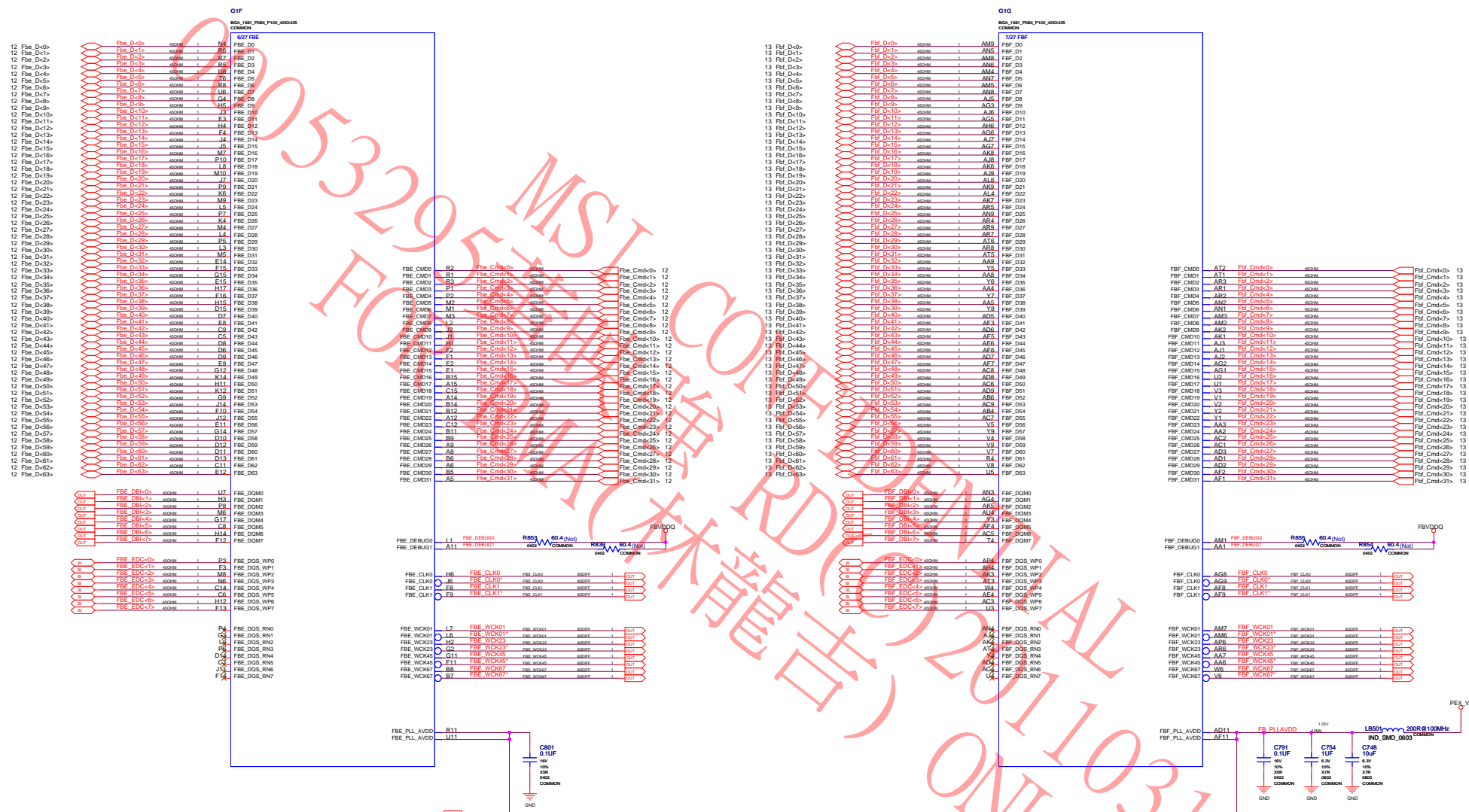
FBD_CMD0 FBD_CMD1

CON	FBD_CMD0	FBD_CMD0	MODE	I	OUT
CON	FBD_CMD1	FBD_CMD1	MODE	I	OUT
CON	FBD_CMD2	FBD_CMD2	MODE	I	OUT
CON	FBD_CMD3	FBD_CMD3	MODE	I	OUT
CON	FBD_CMD4	FBD_CMD4	MODE	I	OUT
CON	FBD_CMD5	FBD_CMD5	MODE	I	OUT
CON	FBD_CMD6	FBD_CMD6	MODE	I	OUT
CON	FBD_CMD7	FBD_CMD7	MODE	I	OUT
CON	FBD_CMD8	FBD_CMD8	MODE	I	OUT
CON	FBD_CMD9	FBD_CMD9	MODE	I	OUT
CON	FBD_CMD10	FBD_CMD10	MODE	I	OUT
CON	FBD_CMD11	FBD_CMD11	MODE	I	OUT
CON	FBD_CMD12	FBD_CMD12	MODE	I	OUT
CON	FBD_CMD13	FBD_CMD13	MODE	I	OUT
CON	FBD_CMD14	FBD_CMD14	MODE	I	OUT
CON	FBD_CMD15	FBD_CMD15	MODE	I	OUT
CON	FBD_CMD16	FBD_CMD16	MODE	I	OUT
CON	FBD_CMD17	FBD_CMD17	MODE	I	OUT
CON	FBD_CMD18	FBD_CMD18	MODE	I	OUT
CON	FBD_CMD19	FBD_CMD19	MODE	I	OUT
CON	FBD_CMD20	FBD_CMD20	MODE	I	OUT
CON	FBD_CMD21	FBD_CMD21	MODE	I	OUT
CON	FBD_CMD22	FBD_CMD22	MODE	I	OUT
CON	FBD_CMD23	FBD_CMD23	MODE	I	OUT
CON	FBD_CMD24	FBD_CMD24	MODE	I	OUT
CON	FBD_CMD25	FBD_CMD25	MODE	I	OUT
CON	FBD_CMD26	FBD_CMD26	MODE	I	OUT
CON	FBD_CMD27	FBD_CMD27	MODE	I	OUT
CON	FBD_CMD28	FBD_CMD28	MODE	I	OUT
CON	FBD_CMD29	FBD_CMD29	MODE	I	OUT
CON	FBD_CMD30	FBD_CMD30	MODE	I	OUT
CON	FBD_CMD31	FBD_CMD31	MODE	I	OUT

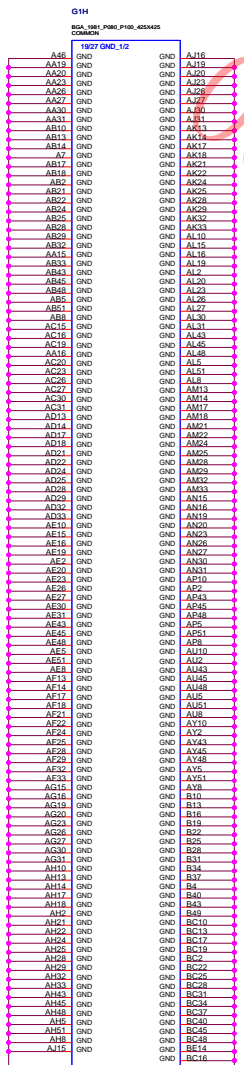
FBD_DBG0 FBD_DBG1

CON	FBD_CLK0	FBD_CLK0	MODE	I	OUT
CON	FBD_CLK1	FBD_CLK1	MODE	I	OUT
CON	FBD_CLK2	FBD_CLK2	MODE	I	OUT
CON	FBD_CLK3	FBD_CLK3	MODE	I	OUT
CON	FBD_CLK4	FBD_CLK4	MODE	I	OUT
CON	FBD_CLK5	FBD_CLK5	MODE	I	OUT
CON	FBD_CLK6	FBD_CLK6	MODE	I	OUT
CON	FBD_CLK7	FBD_CLK7	MODE	I	OUT

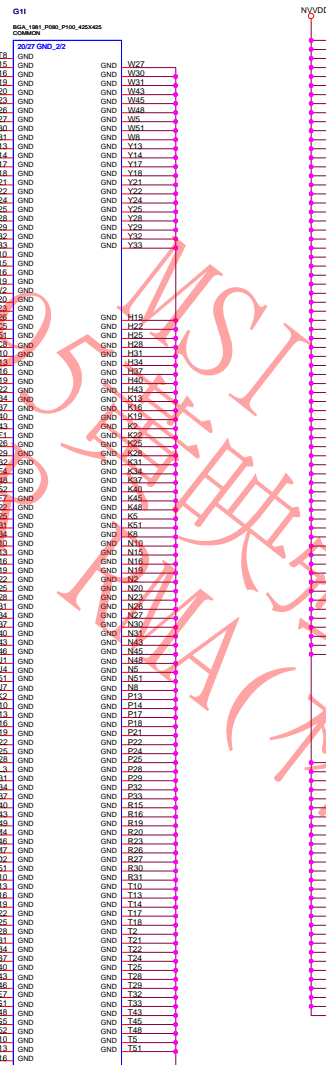
Framebuffer E,F: GPU Section



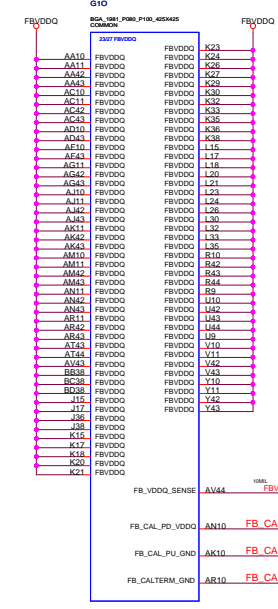
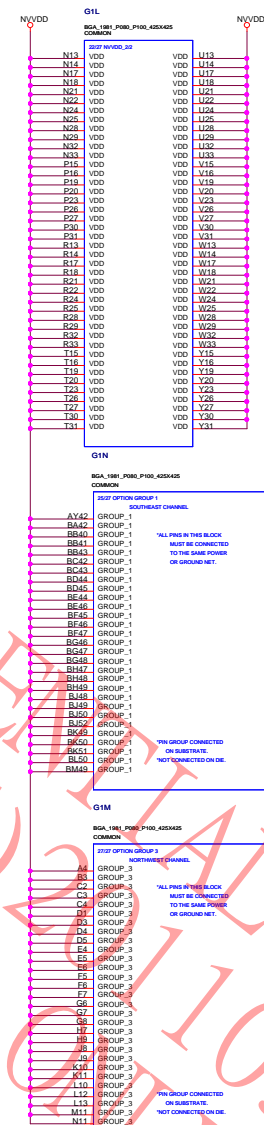
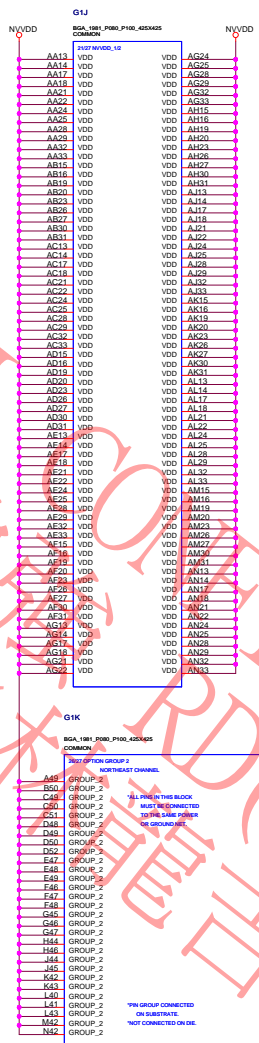
GPU Power and GND



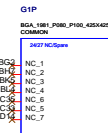
5/12:AY43/AY45/AY48/AY51/BC40/BC45/BC48
接GND



5/12:BC51/BE43/BF48/BF52/BH40/BH46/BJ51/BL40/BL43/BL49 接GND

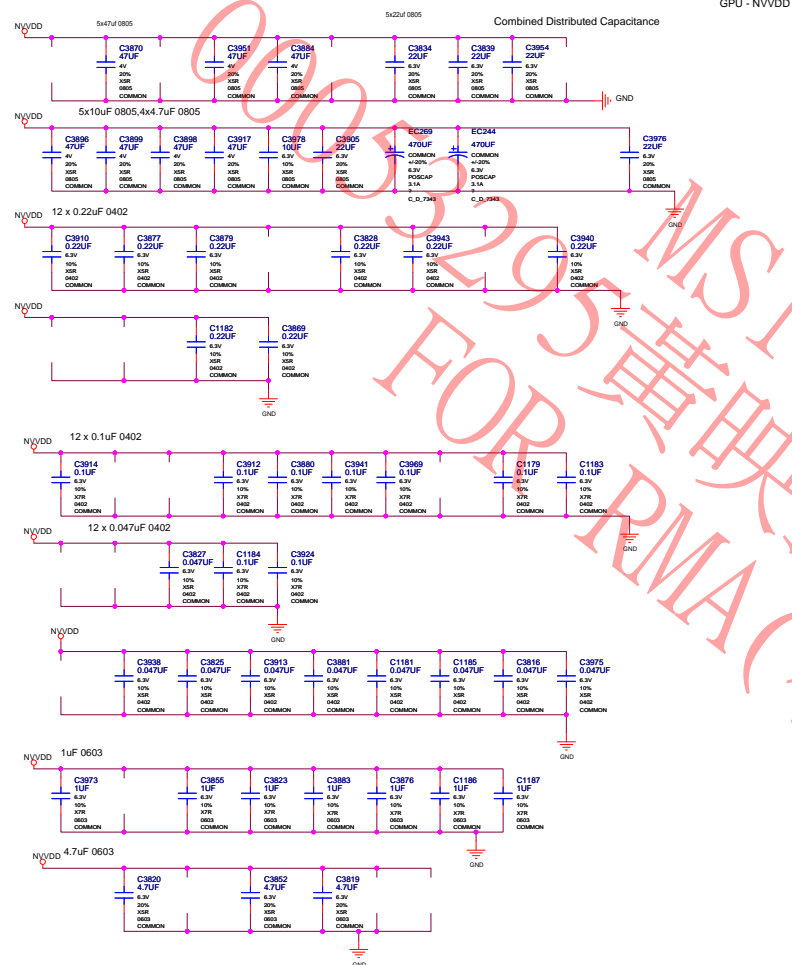


5/12 FOR 480 GPU:BB38/BC38/BD38 接FBVDDQ

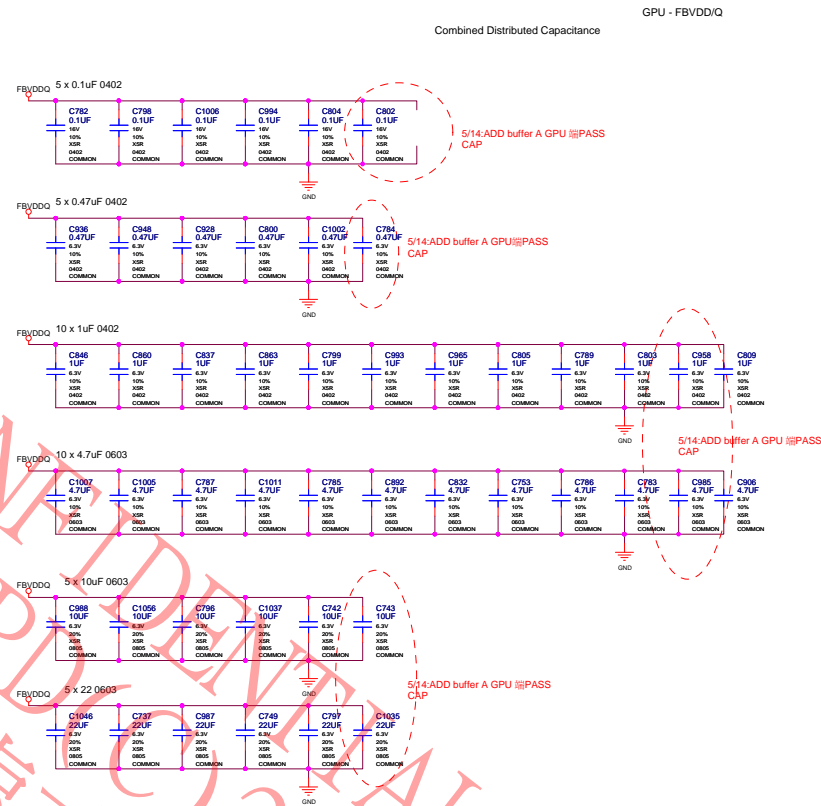


Decoupling: GPU (NVVDD, FBVDDQ)

Decoupling for NVVDD (under GPU)



Decoupling for FBVDDQ (under GPU)



ASSEMBLY PAGE DETAIL	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL Decoupling: GPU (NVVDD, FBVDDQ)
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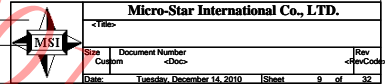
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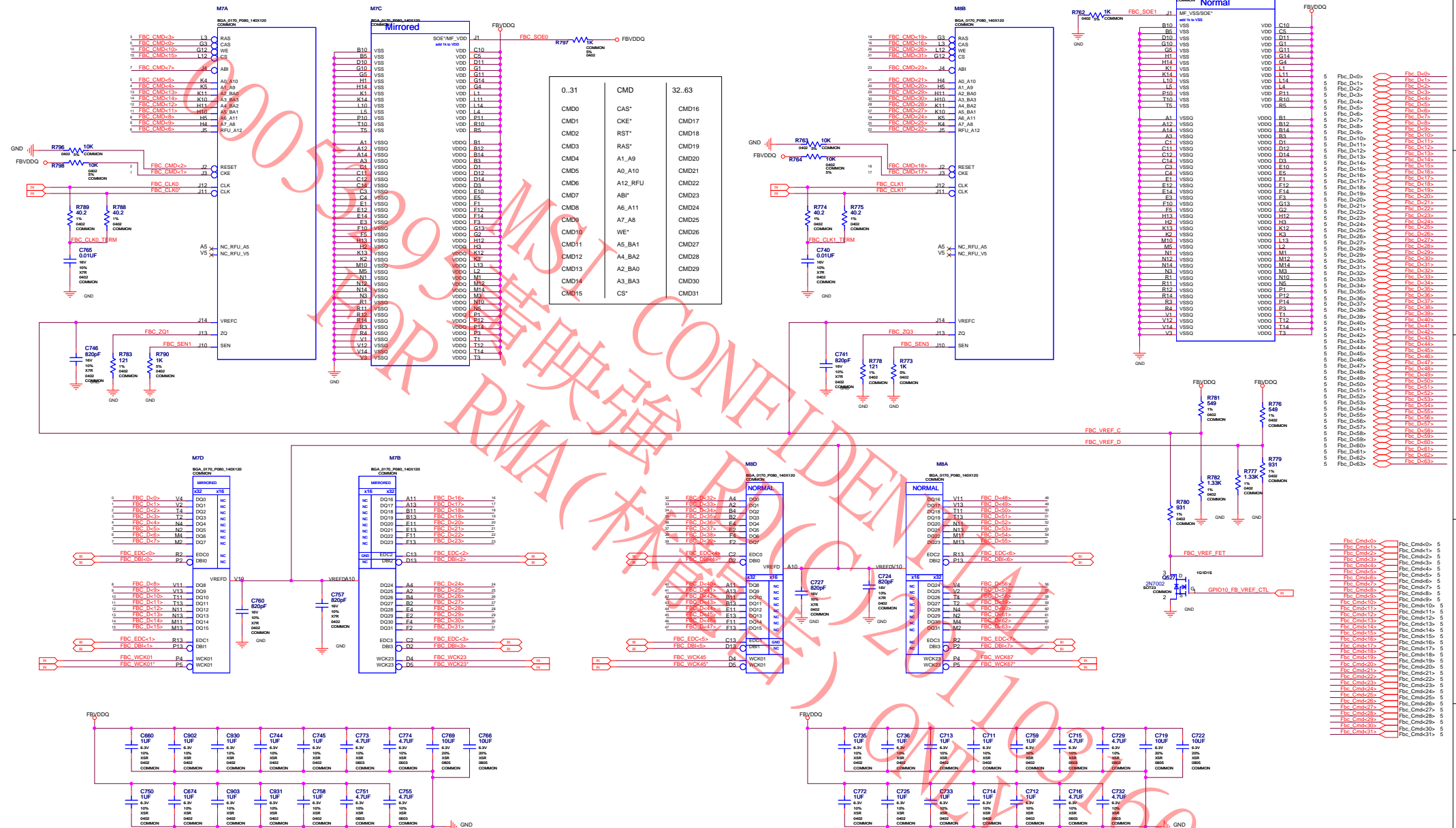
Hynix 32MX32 2000MHZ: 161-0063-100
SAMSUNG 32MX32 2000MHZ: 161-0051-600



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Framebuffer C: Memory Section

Hynix 32MX32 2000MHZ: 161-0063-100
SAMSUNG 32MX32 2000MHZ: 161-0051-600



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PAGE DETAIL	Framebuffer C: Memory Section

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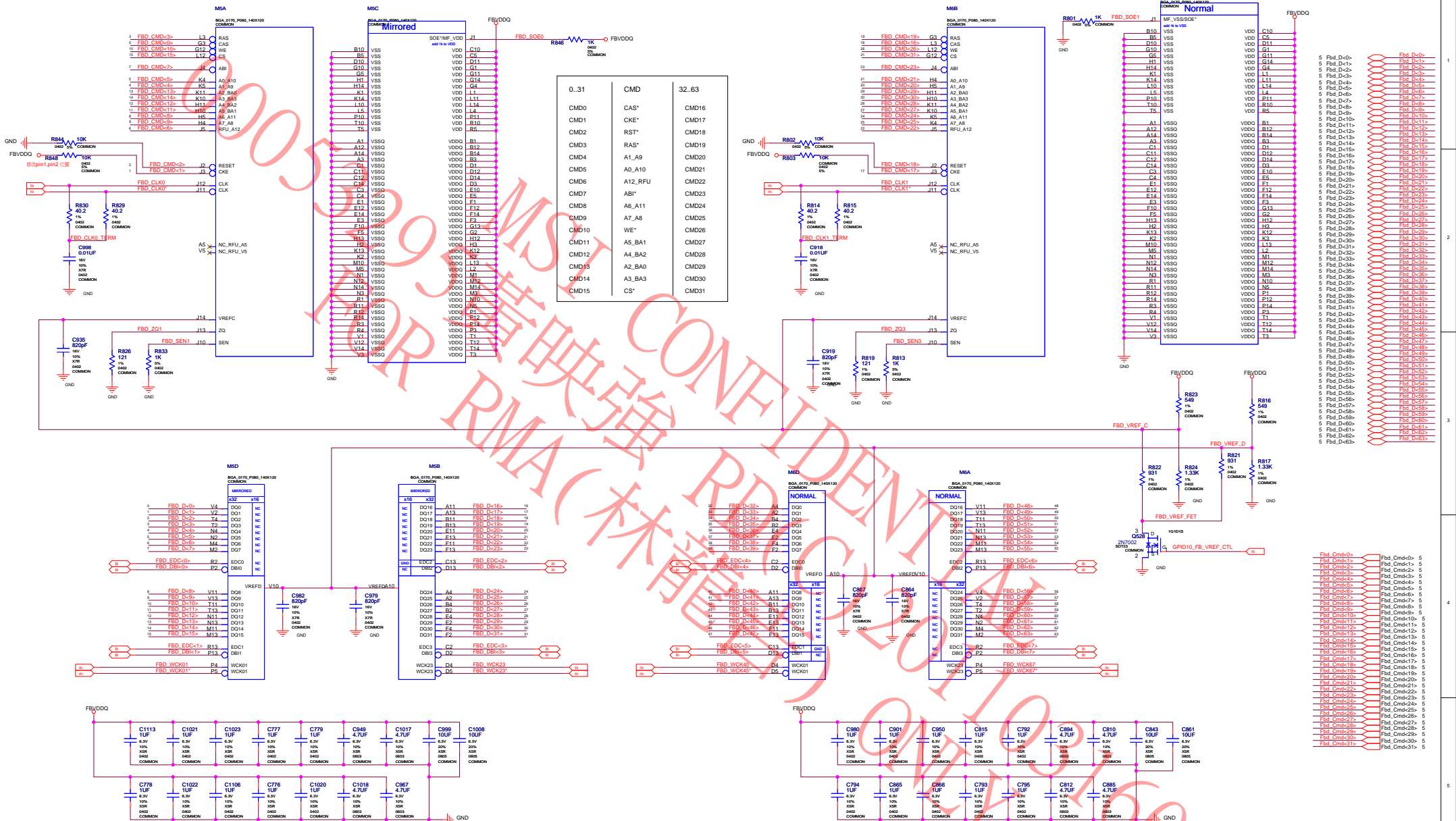
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Framebuffer D: Memory Section

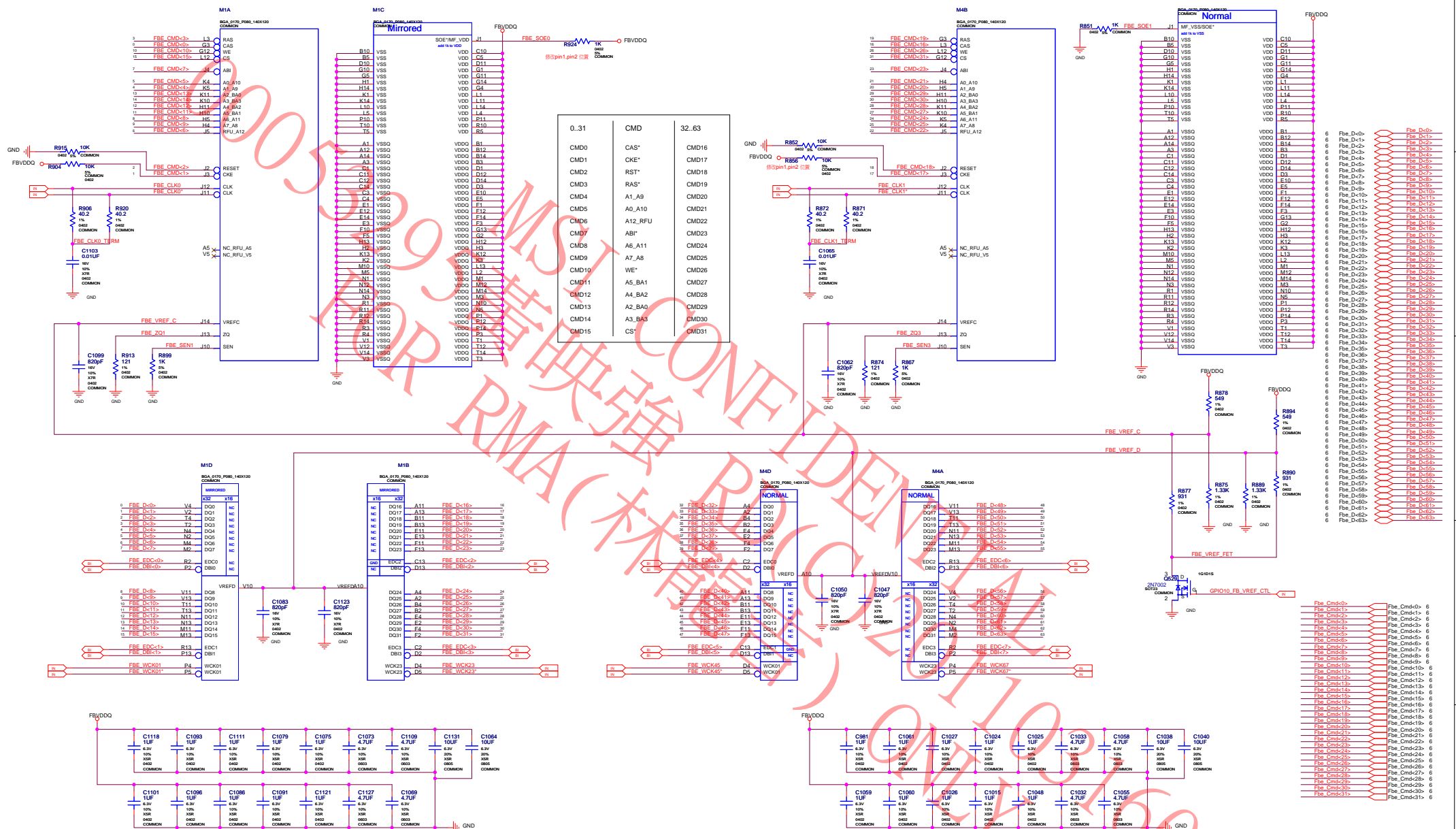
Hynix 32MX32 2000MHZ: 161-0063-100
SAMSUNG 32MX32 2000MHZ: 161-0051-600



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Framebuffer D: Memory Section

Framebuffer E: Memory Section

Hynix 32MX32 2000MHZ: 161-0063-100
SAMSUNG 32MX32 2000MHZ: 161-0051-600



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PAGE DETAIL	Framebuffer E: Memory Section

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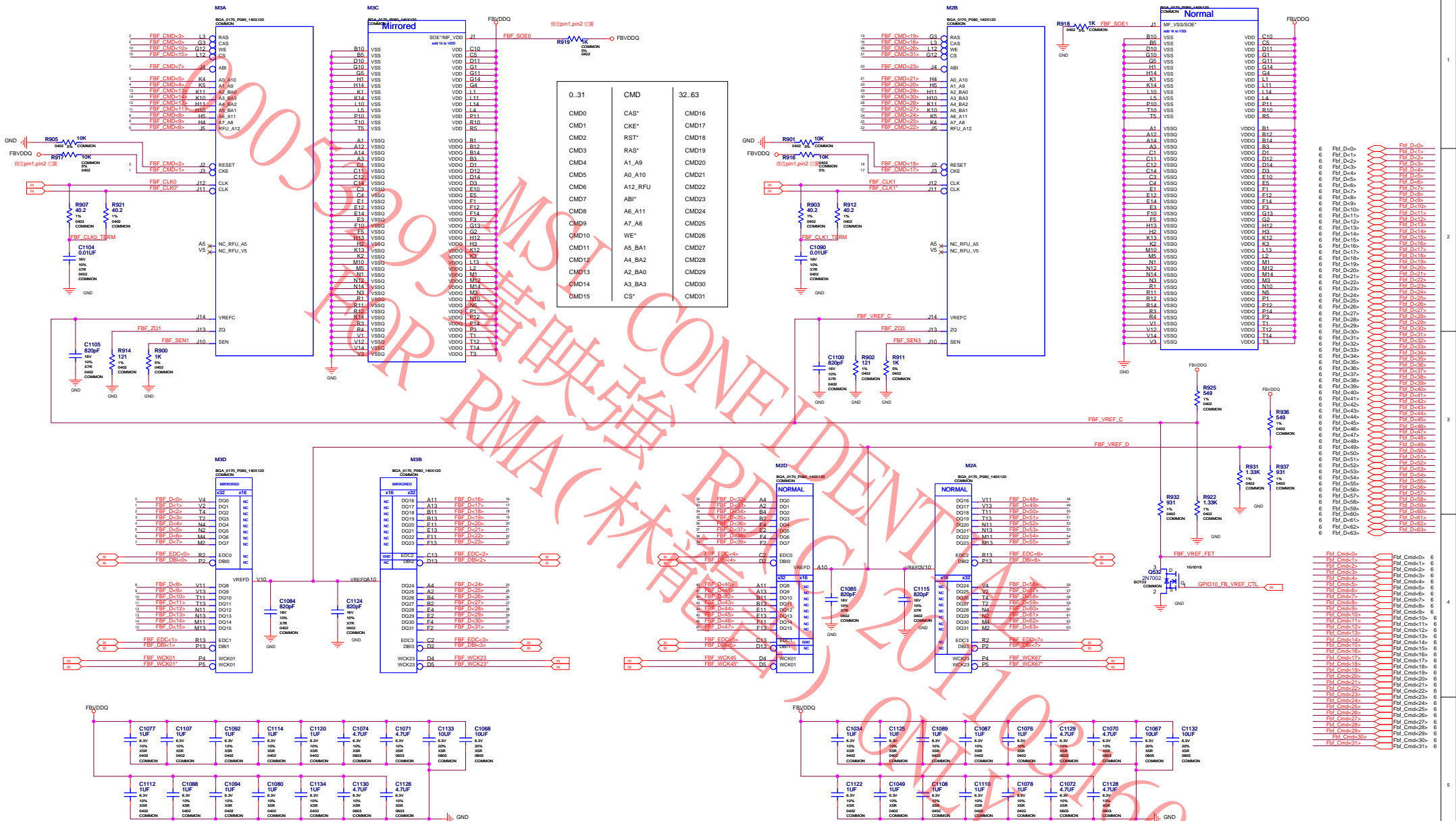
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Framebuffer F: Memory Section

Hynix 32MX32 2000MHZ: 161-0063-100
SAMSUNG 32MX32 2000MHZ: 161-0051-600



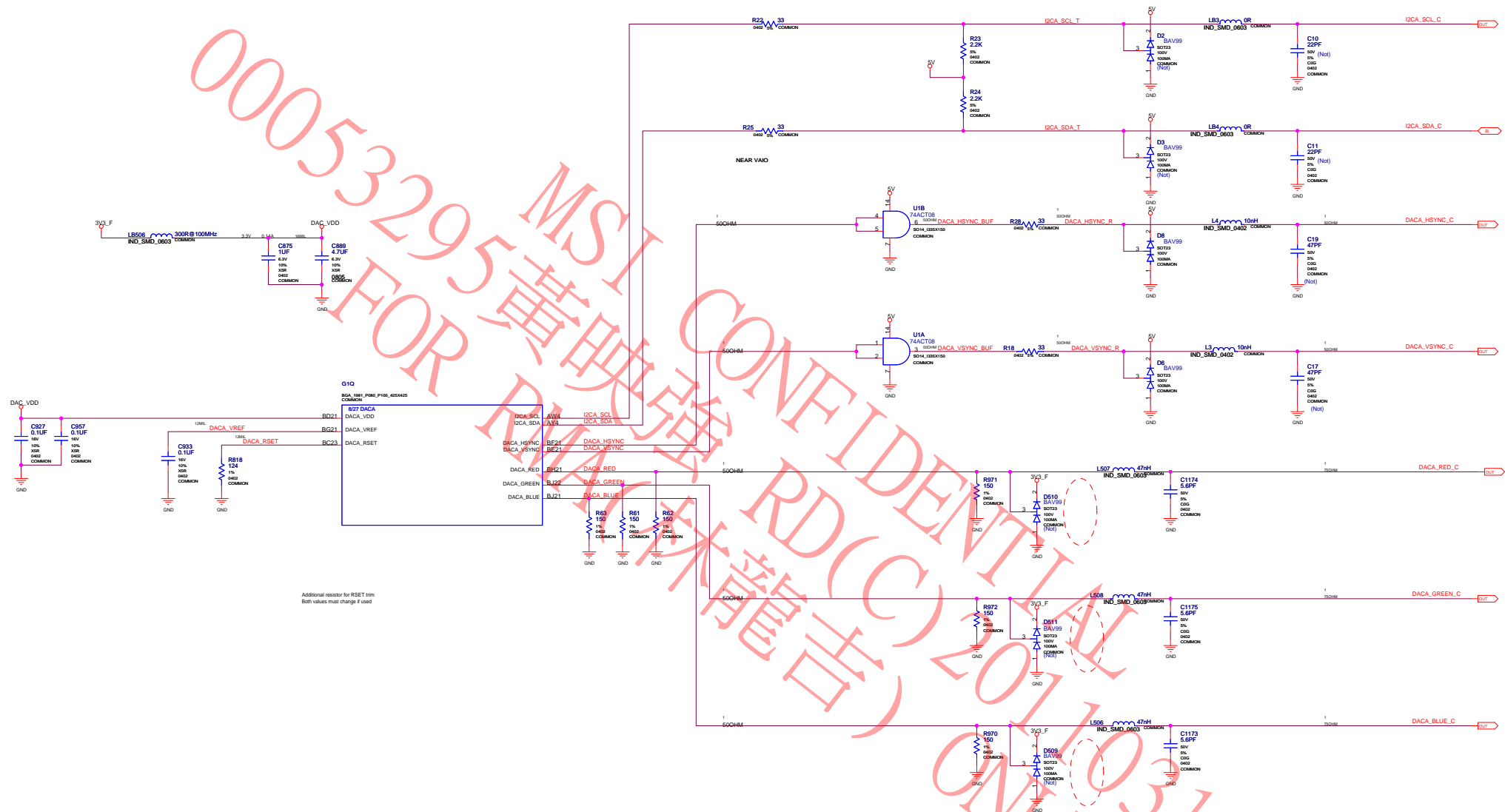
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Framebuffer F: Memory Section

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Rev: Custom Document Number: <Doc> Date: Tuesday, December 14, 2010 Sheet: 13 of 32

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Display: DACA (South DVI-I)

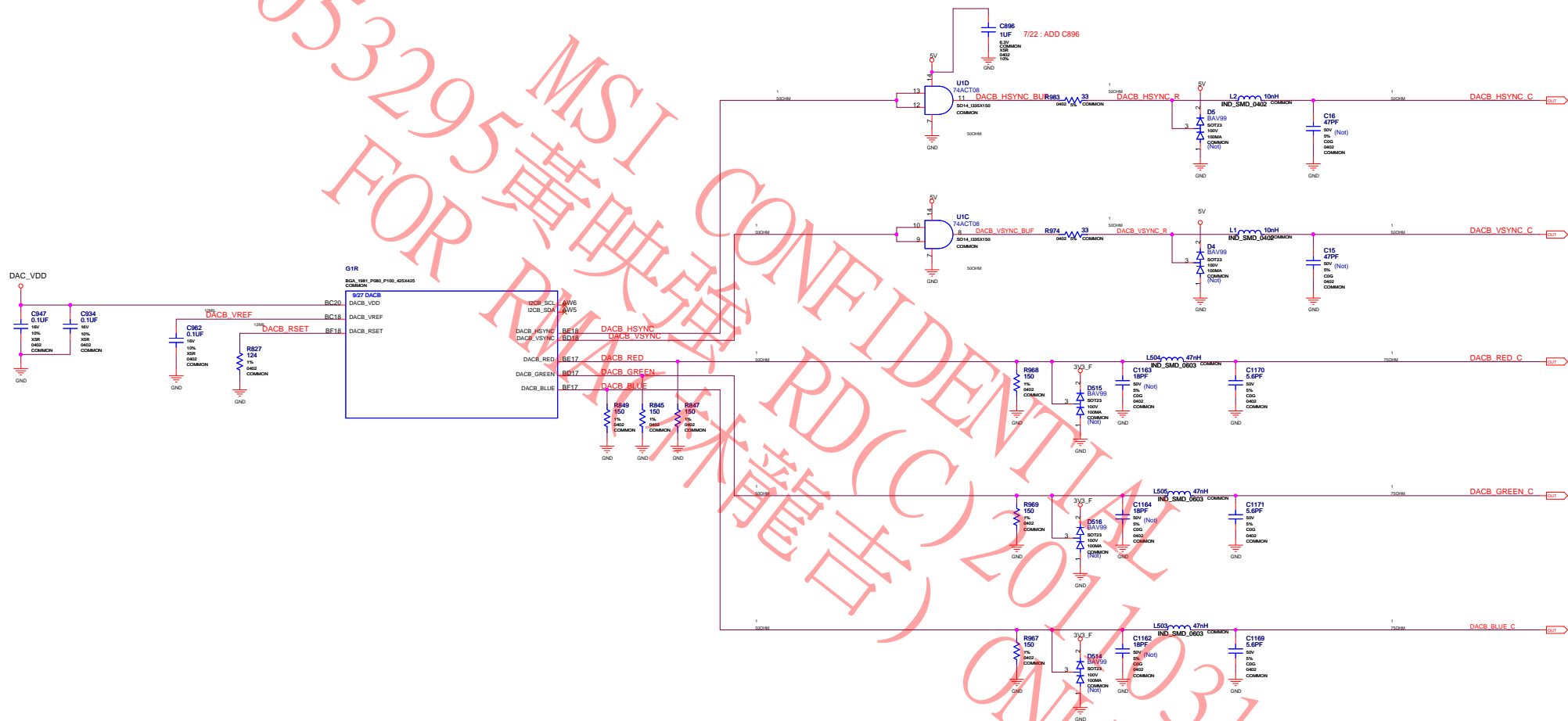


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PAGE DETAIL	Display: DACA (South DVI-I)

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Display: DACB (Middle DVI-I)



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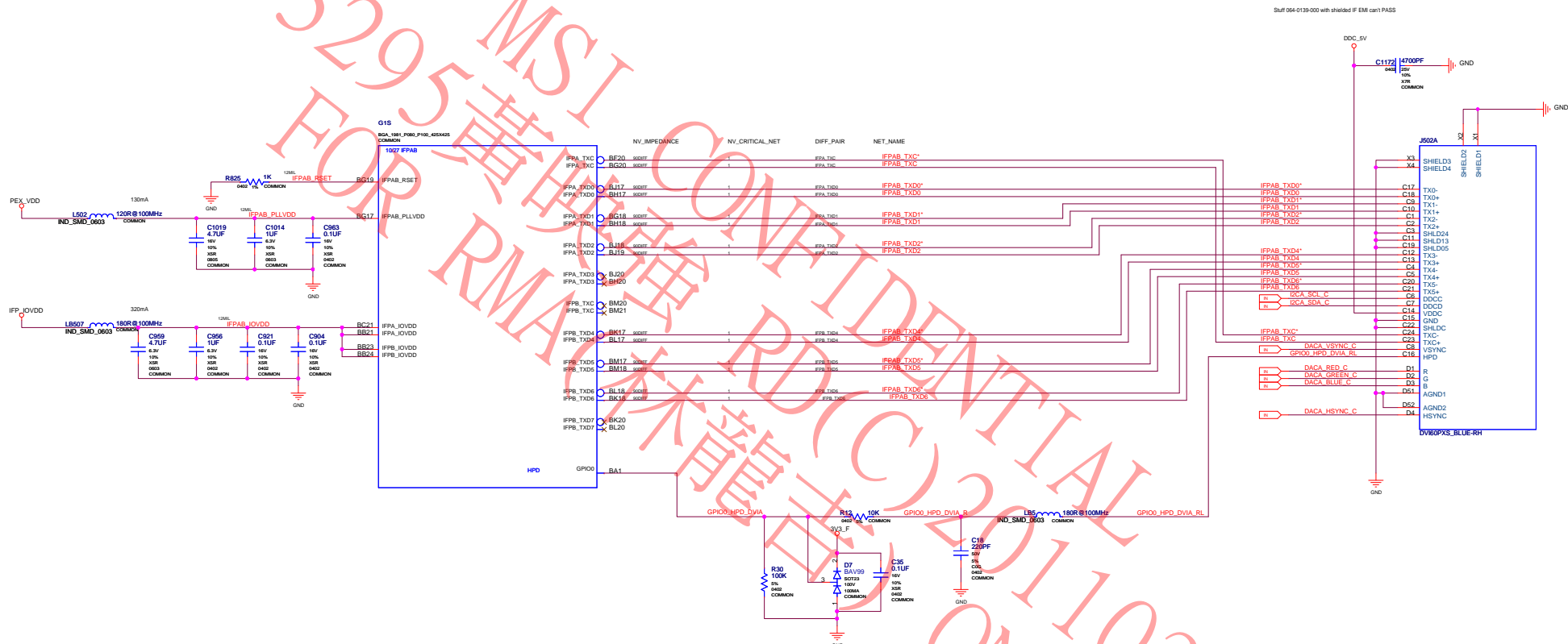
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Date:	Tuesday, December 14, 2010	Sheet	15 of	32

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IFPAB for South DVI-I (with DACA)

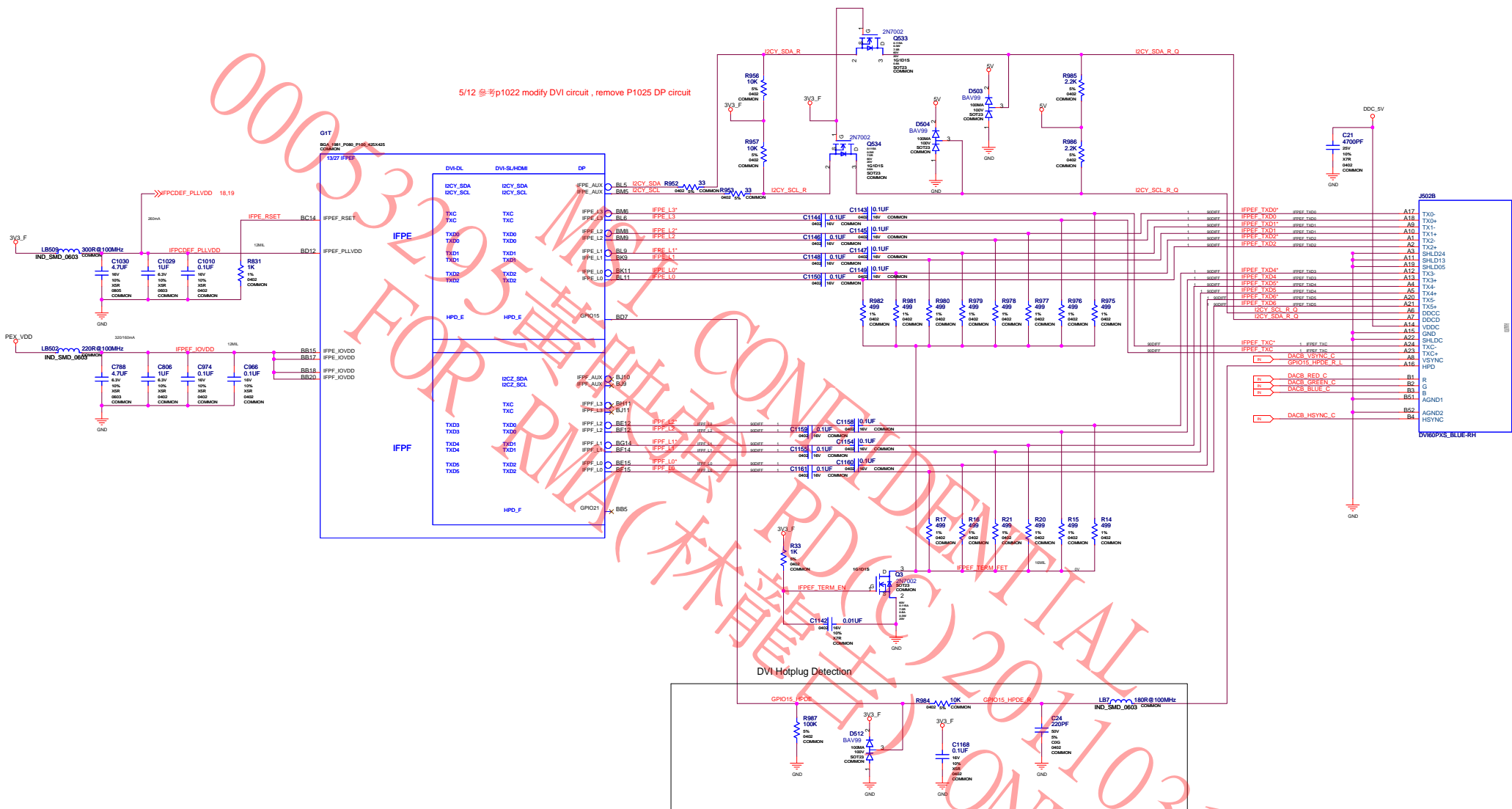


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PAGE DETAIL	IFPAB for South DVI-I (with DACA)

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IFPEF for Middle DVI-I or DP



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	IFPEF for Middle DVI-I or DP

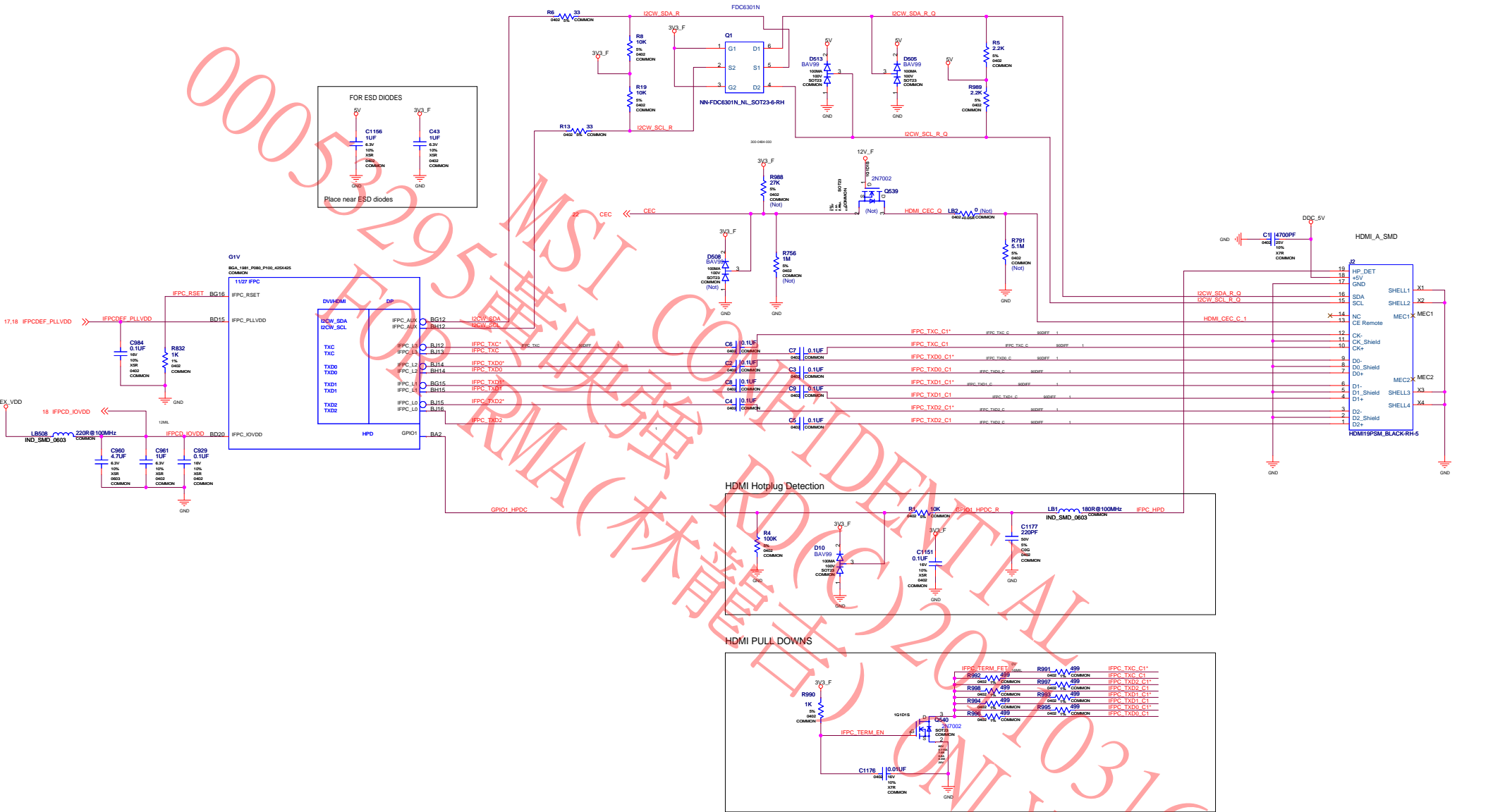
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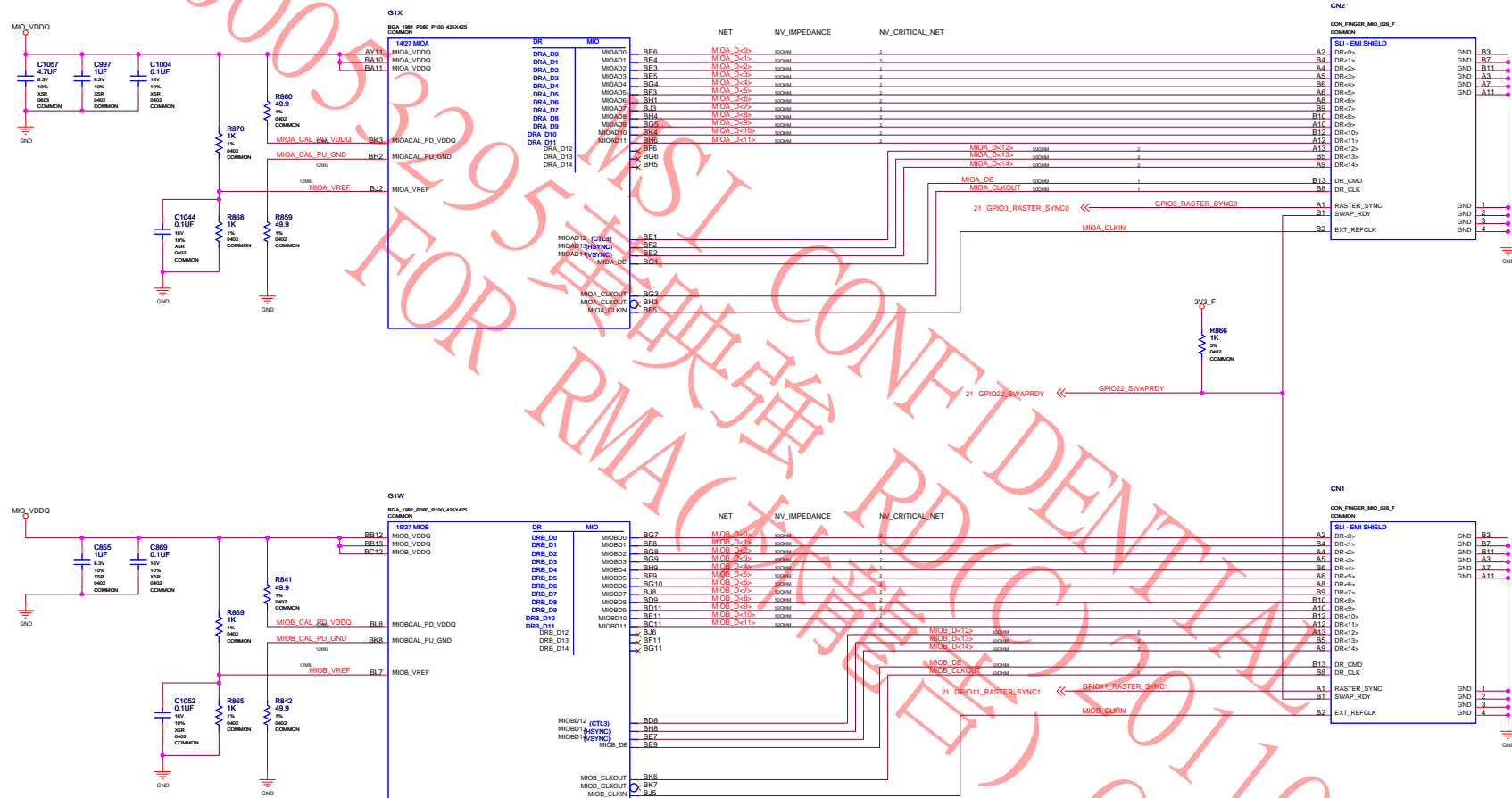
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IFP_C: miniHDMI (NORTH)



Connectors: DR Interface (Dual SLI)



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Connectors: DR Interface (Dual SLI)

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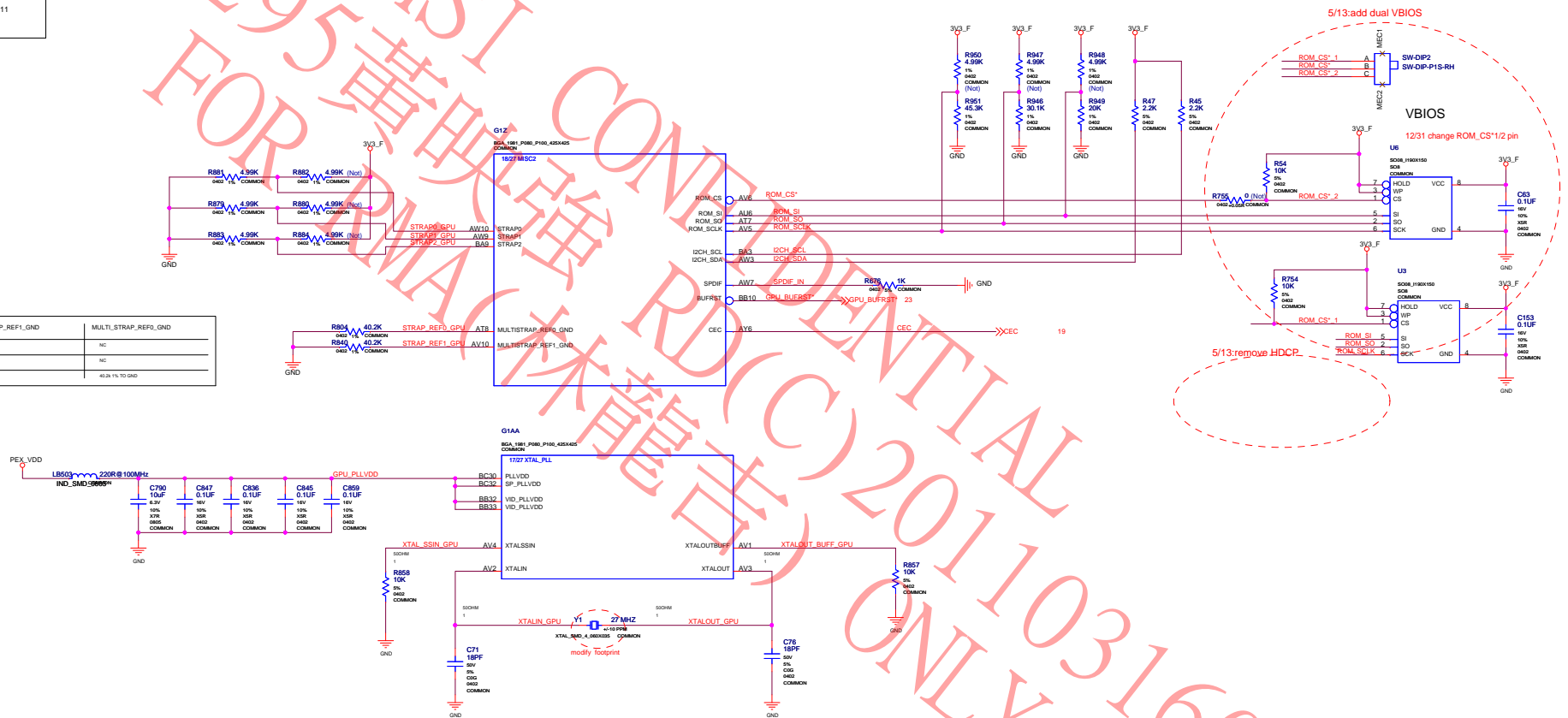
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BIOS ROM, HDCP ROM, STRAPPING OPTIONS


STRAP0	USER_BIT [3..0]	0000 => 5K PD	
STRAP1	3GIO_PADCFG_LUT_ADR	0000 => 5K PD	0000 Desktop
STRAP2	PCI_DEVID [3:0]	0000 => 5K PD	For 0x06C0

	GND	3V3
5k	0000	1000
10k	0001	1001
15k	0010	1010
20k	0011	1011
25k	0100	1100
30k	0101	1101
35k	0110	1110
45k	0111	1111

	MULTI_STRAP_REF1_GND	MULTI_STRAP_REF0_GND
BINARY PRODUCTION	40.2k 1% TO GND	NC
BINARY BRINGUP	NC	NC
MULTILEVEL	40.2k 1% TO GND	40.2k 1% TO GND



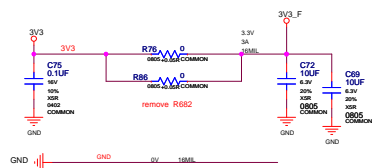
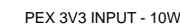
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PAGE DETAIL	BIOS ROM, HDCP ROM, STRAPPING OPTIONS

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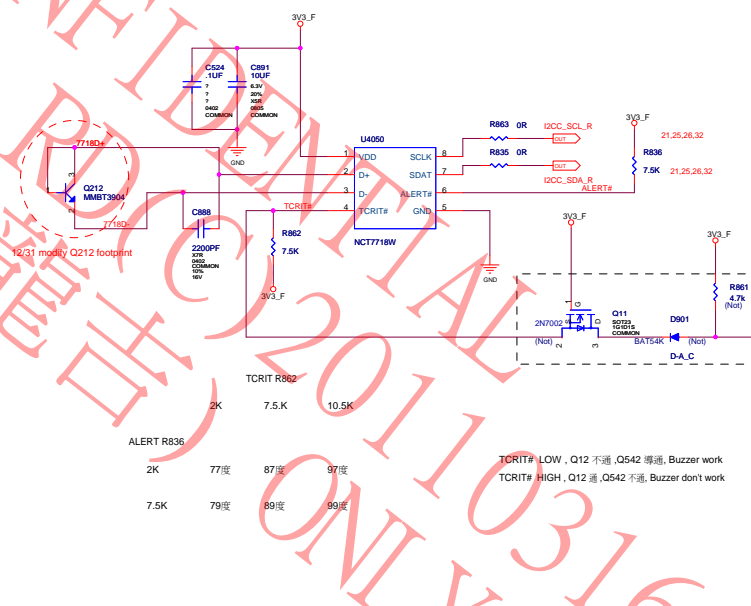
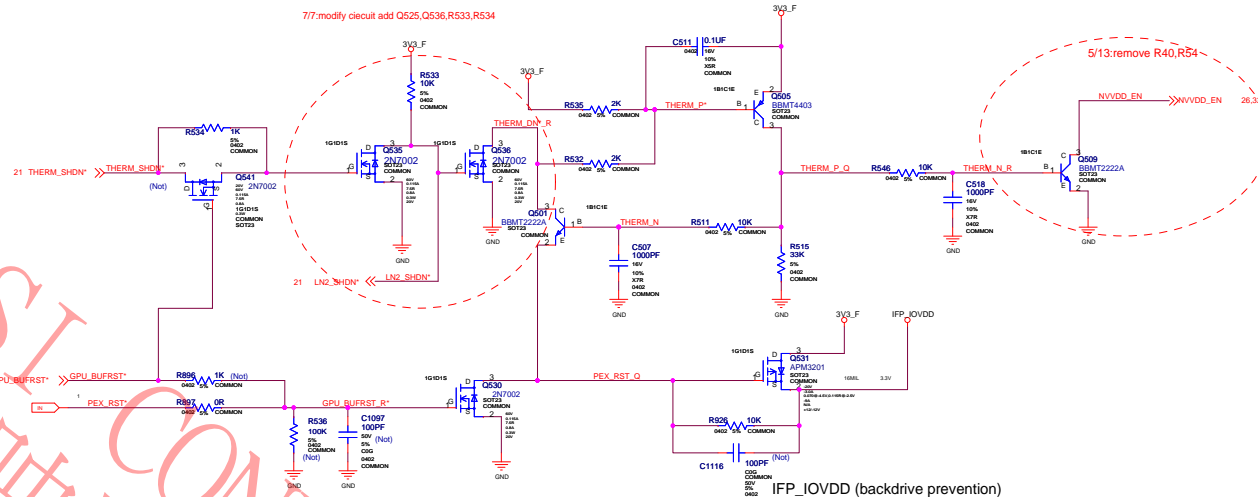
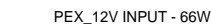
Power Supply: PEX PS INPUT,DETECTION LOGIC,THERM SHUTDOWN LATCH / IFP_IOVDD

Connector Power State Table

2x3 Connector	Power	STATE
Connected	150W	Full Perf
Not Connected	75W	Board Off

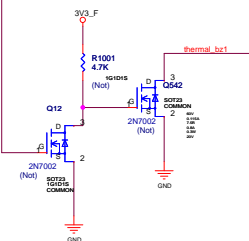


MUST BE ATTACHED AND POWERED TO START BOARD

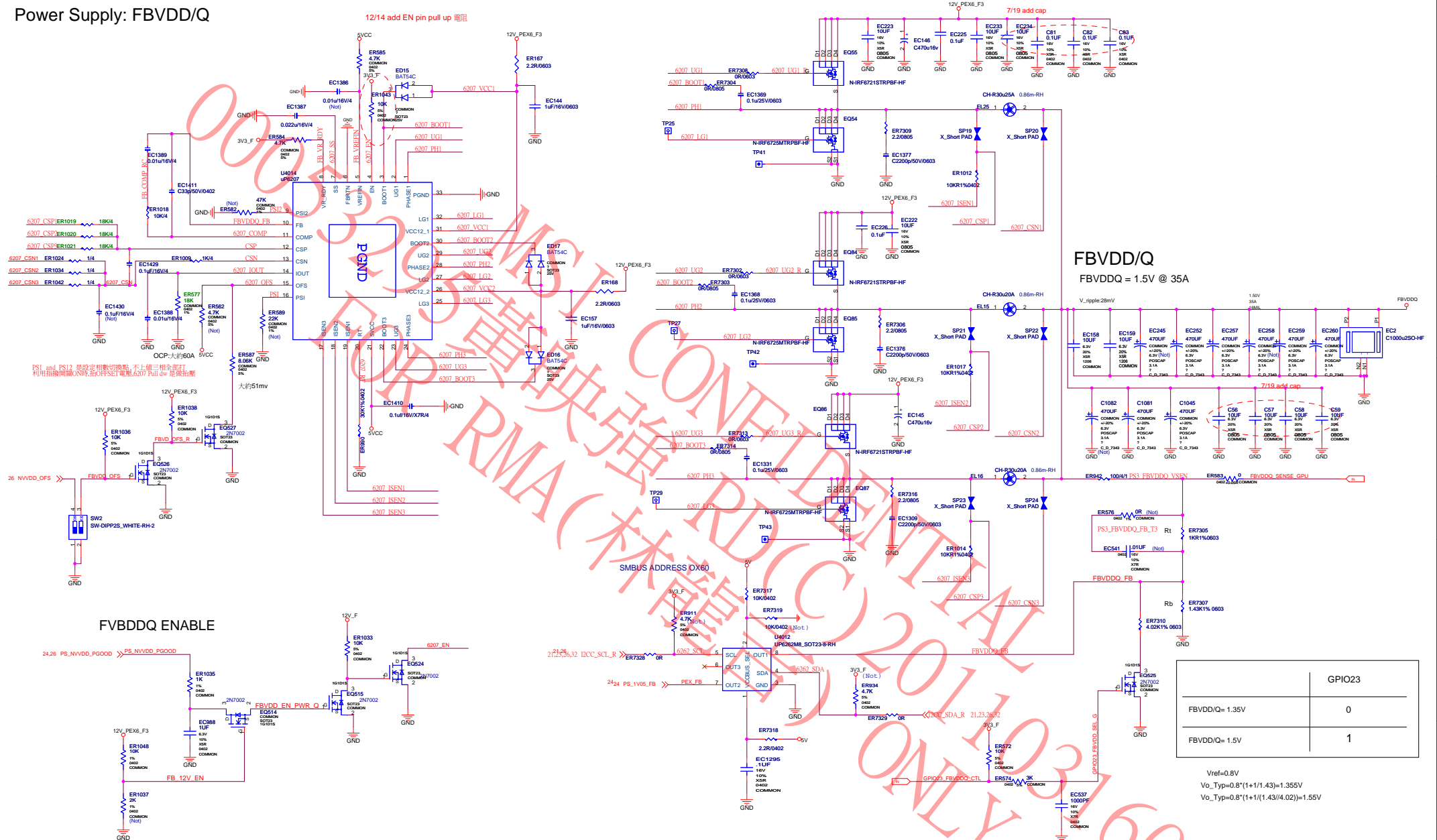


2K	77度	87度	97度
7.5K	79度	89度	99度

TCRIT# LOW , Q12 不通 ,Q542 導通, Buzzer work
TCRIT# HIGH , Q12 通 ,Q542 不通, Buzzer don't work



Power Supply: FBVDD/Q



	GPIO23
FBVDD/Q= 1.35V	0
FBVDD/Q= 1.5V	1

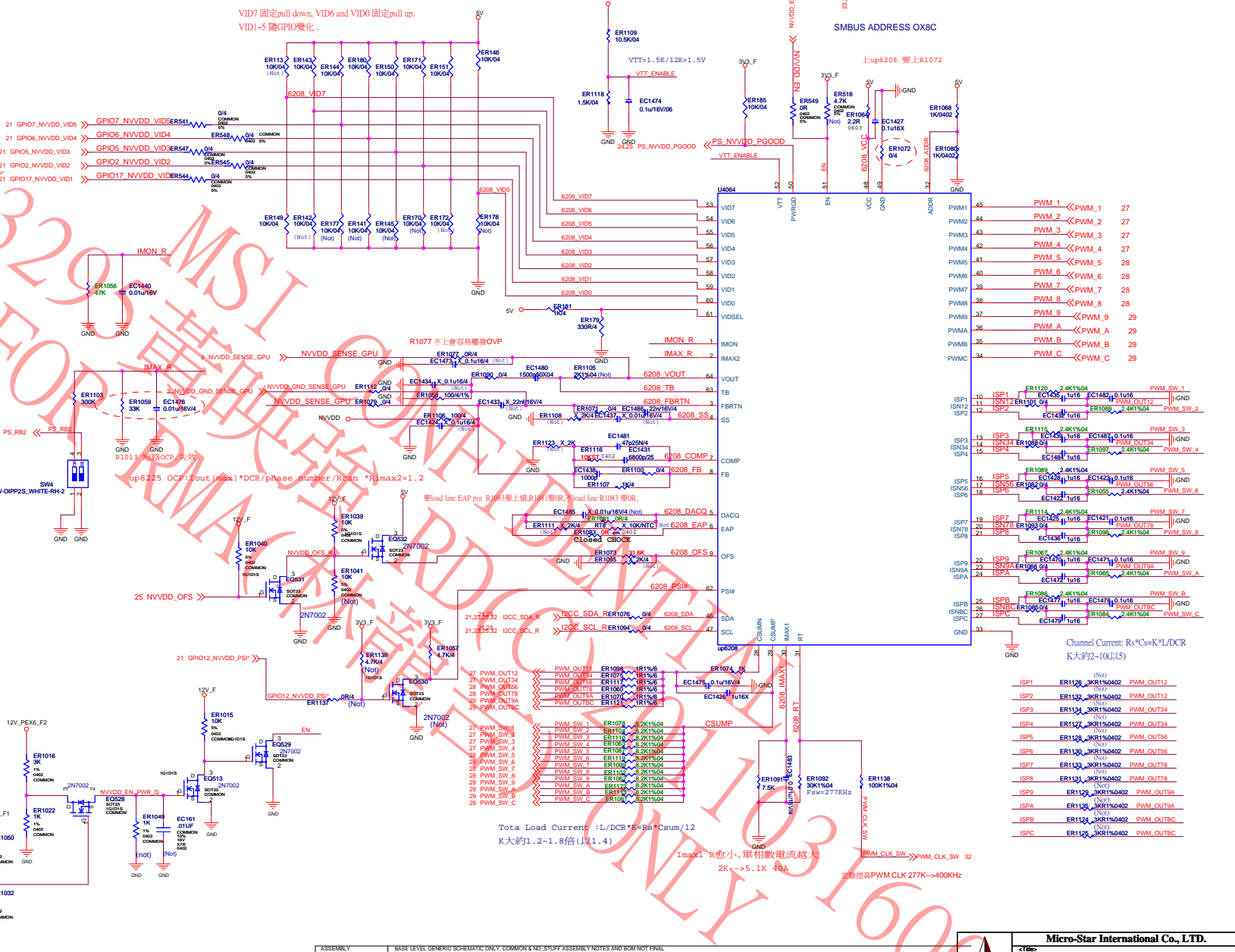
Vref=0.8V

$$V_{o_Typ} = 0.8 \cdot (1 + 1/1.43) = 1.355V$$
$$V_{o_Typ} = 0.8 \cdot (1 + 1 / (1.43 / 4.02)) = 1.55V$$


Power Supply: NVVDD Regulator

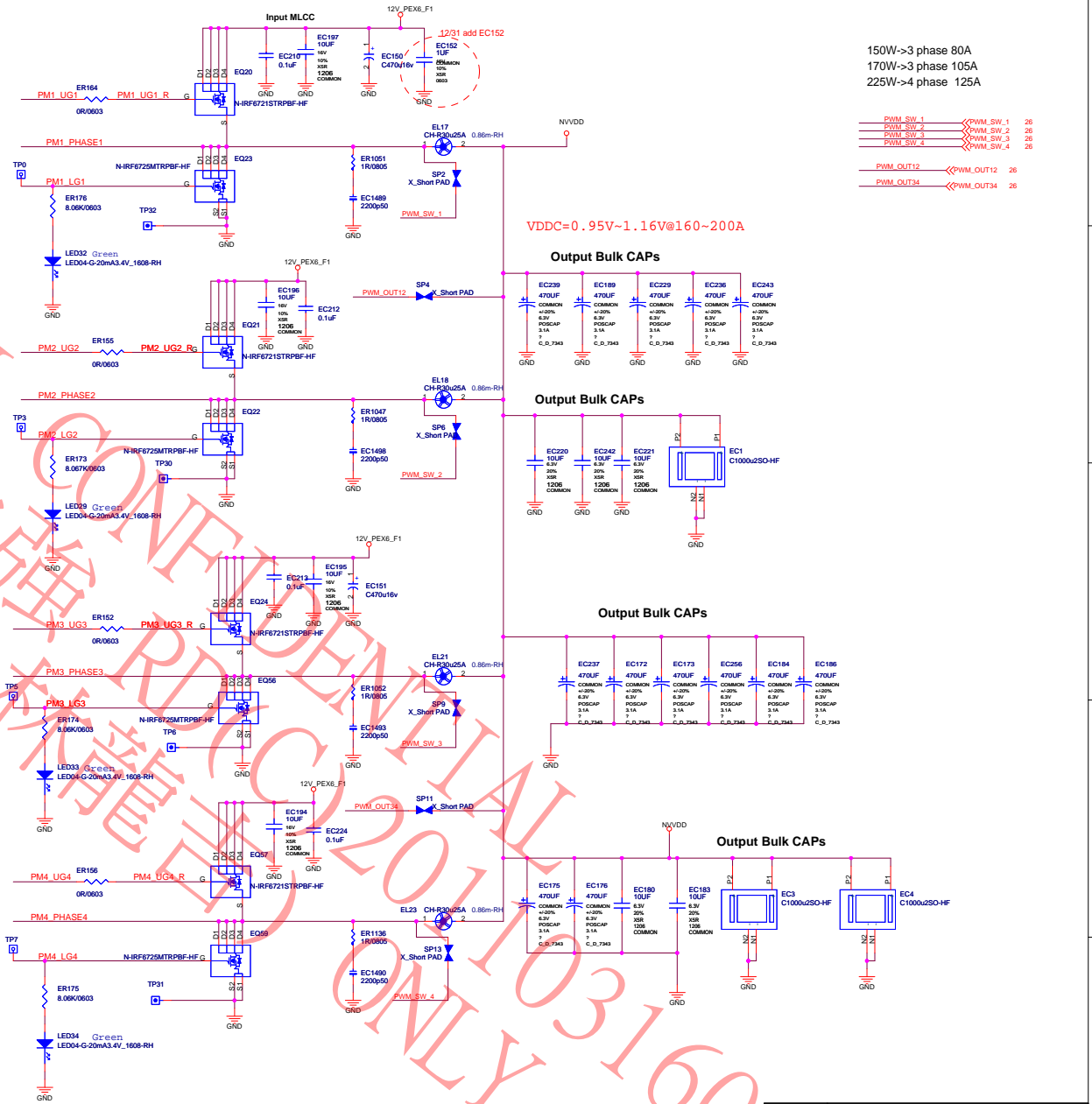
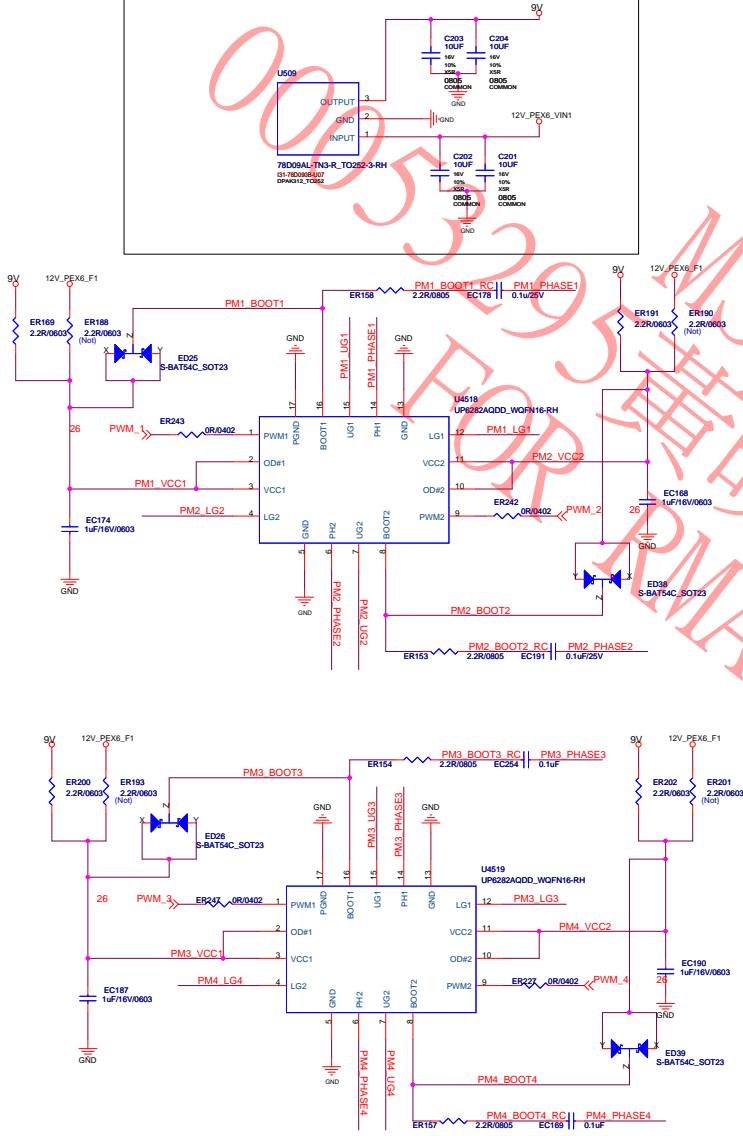
VID Table

GPIO7	GPIO6	GPIO5	GPIO2	GPIO17	VOUT
VID_5	VID_4	VID_3	VID_2	VID_1	
0	0	0	0	0	1.21250V
0	0	0	0	1	1.2000V
0	0	0	1	0	1.18750V
0	0	0	1	1	1.17500V
0	0	1	0	0	1.16250V
0	0	1	0	1	1.15000V
0	0	1	1	0	1.13750V
0	0	1	1	1	1.12500V
0	1	0	0	0	1.11250V
0	1	0	0	1	1.10000V
0	1	0	1	0	1.08750V
0	1	0	1	1	1.07500V
0	1	1	0	0	1.06250V
0	1	1	0	1	1.05000V
0	1	1	1	0	1.03750V
0	1	1	1	1	1.02500V
1	0	0	0	0	1.01250V
1	0	0	0	1	1.00000V
1	0	0	1	0	0.98750V
1	0	0	1	1	0.97500V
1	0	1	0	0	0.96250V
1	0	1	0	1	0.95000V
1	0	1	1	0	0.93750V
1	0	1	1	1	0.92500V
1	1	0	0	0	0.91250V
1	1	0	0	1	0.90000V
1	1	0	1	0	0.88750V
1	1	0	1	1	0.87500V
1	1	1	0	0	0.86250V
1	1	1	0	1	0.85000V
1	1	1	1	0	0.83750V
1	1	1	1	1	0.82500V



Power Supply: NVVDD PHASE 1,~4

9V POWER SUPPLY FOR DRIVER

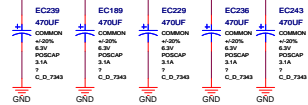


150W->3 phase 80A
170W->3 phase 105A
225W->4 phase 125A

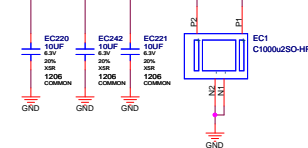
PWM_SW_1 <-> PWM_SW_1 26
PWM_SW_2 <-> PWM_SW_2 26
PWM_SW_3 <-> PWM_SW_3 26
PWM_SW_4 <-> PWM_SW_4 26
PWM_OUT12 <-> PWM_OUT12 26
PWM_OUT34 <-> PWM_OUT34 26

VDDC=0.95V~1.16V@160~200A

Output Bulk CAPs



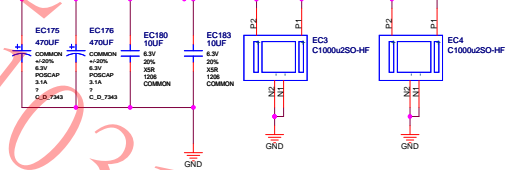
Output Bulk CAPs



Output Bulk CAPs



Output Bulk CAPs

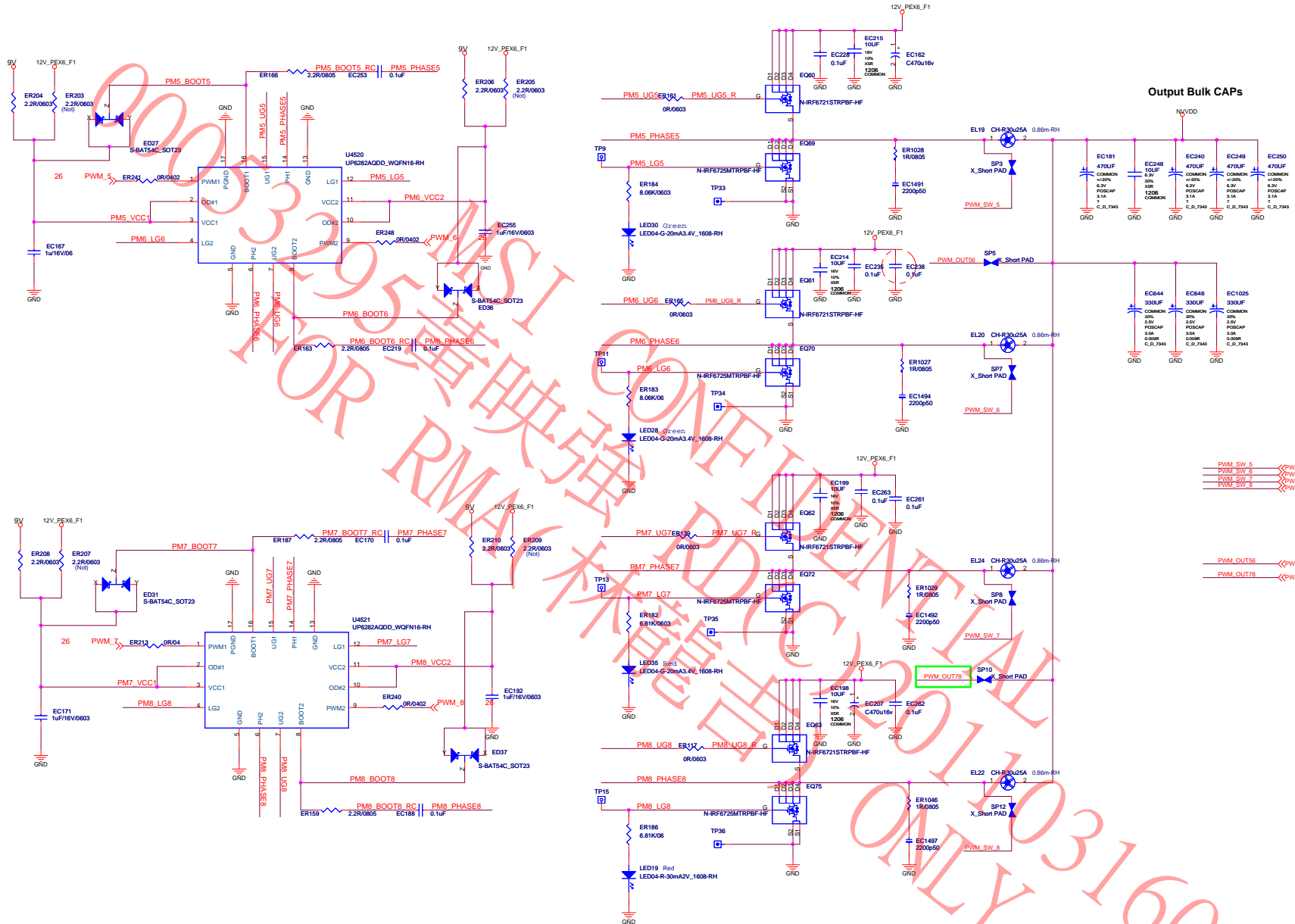


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Power Supply: NVVDD PHASE 1, 2

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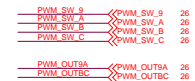
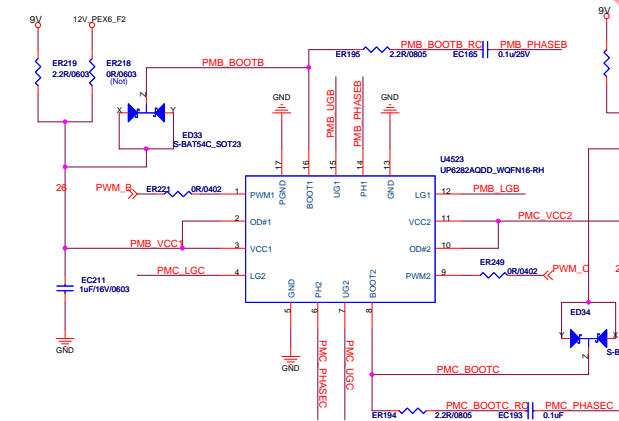
Power Supply: NVVDD PHASE 5-8

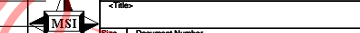


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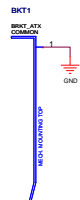


Thermal/Mechanical/ID

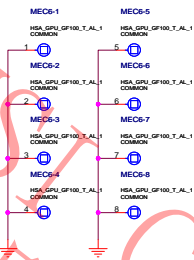
Manual BOM Change

Bracket and Assembly

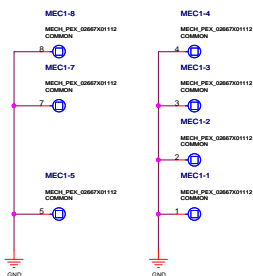
Bracket with DVI, DP, MiniDVI 151-10001-0001-000
Bracket with DVI, DP, MiniDVI 151-10001-0002-000



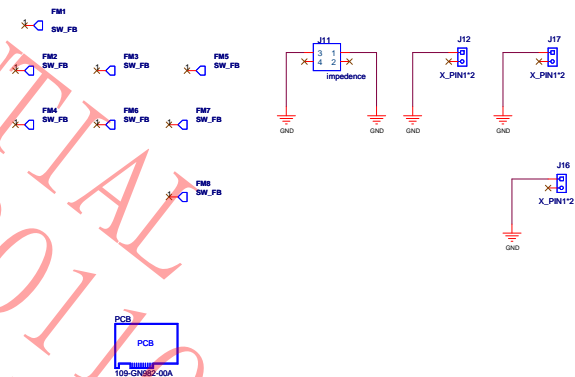
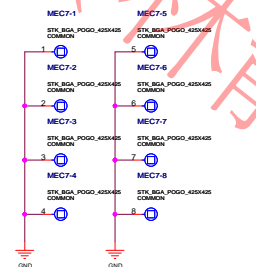
GPU Stiffener



THERMAL/MECHANICAL HOLES

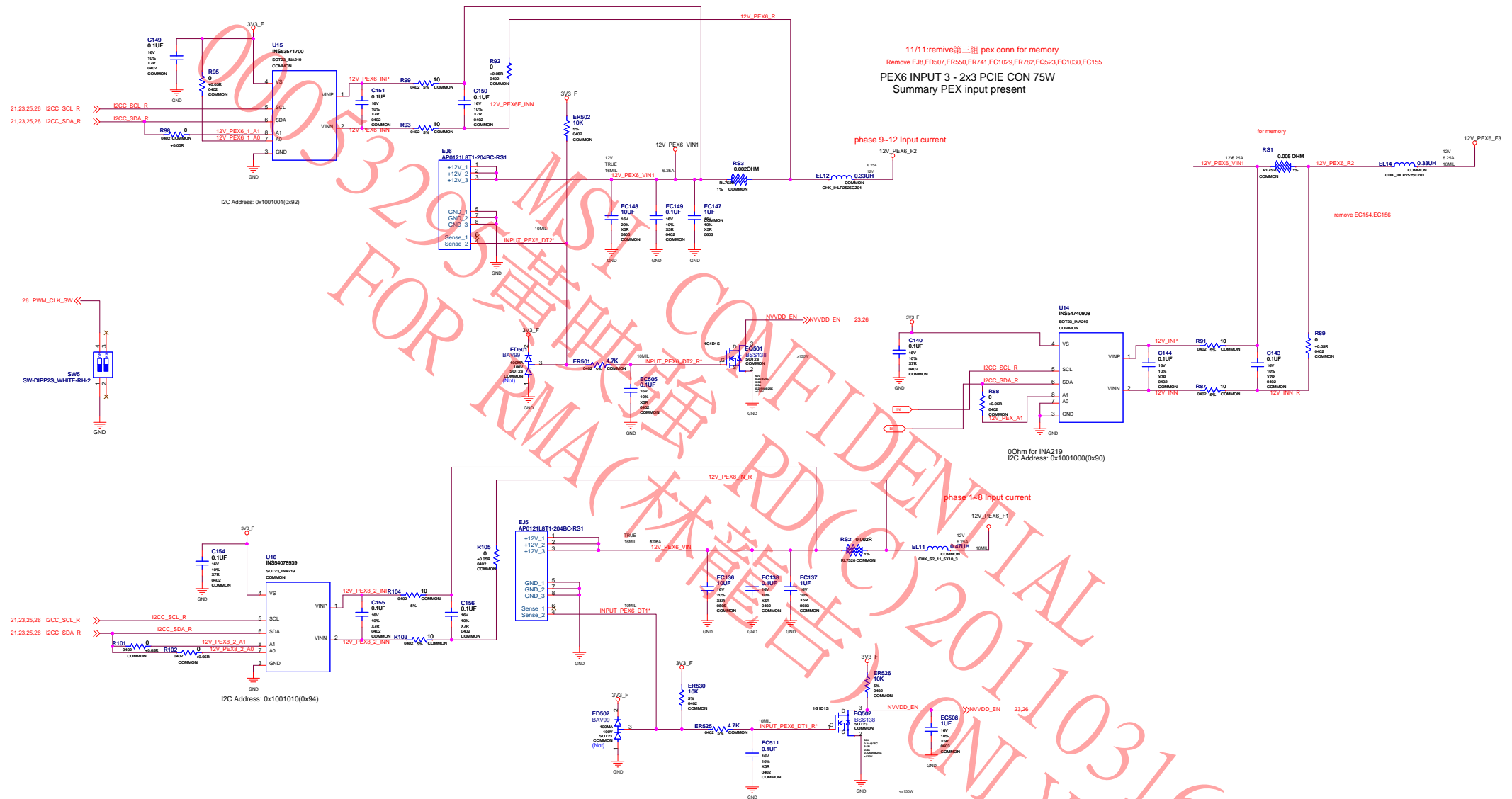


BOARD STIFFENER



ASSEMBLY
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Power Input



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PAGE DETAIL	Thermal/Mechanical/ID

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