

P2131_A00

GK208 GDDR5 X16 64BIT

DVI-I/SlimVGA + HDMI

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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
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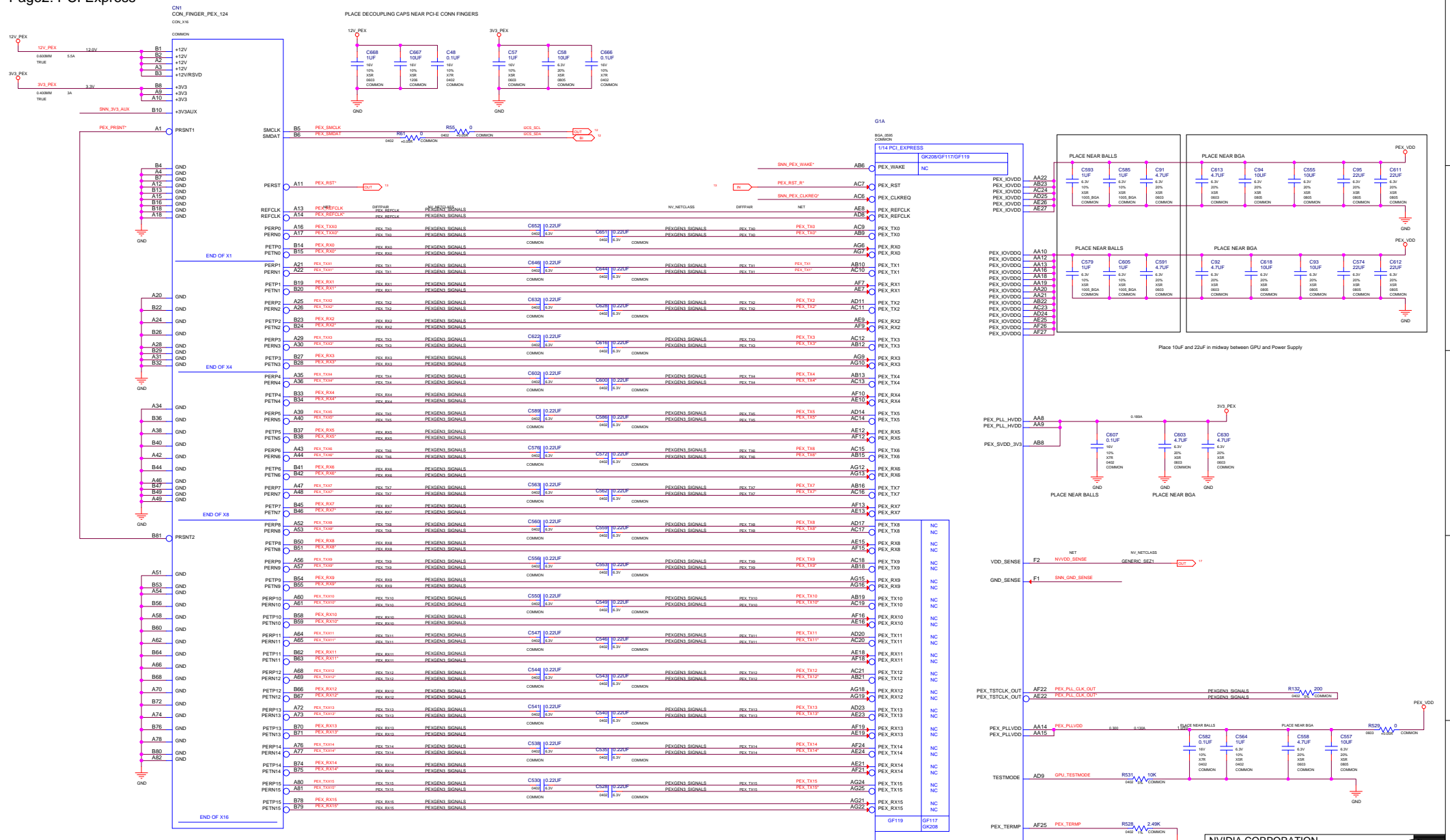
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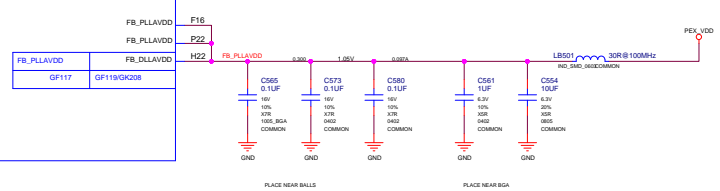
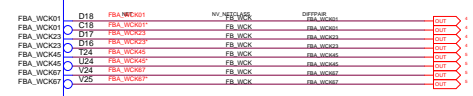
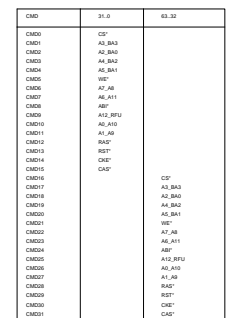
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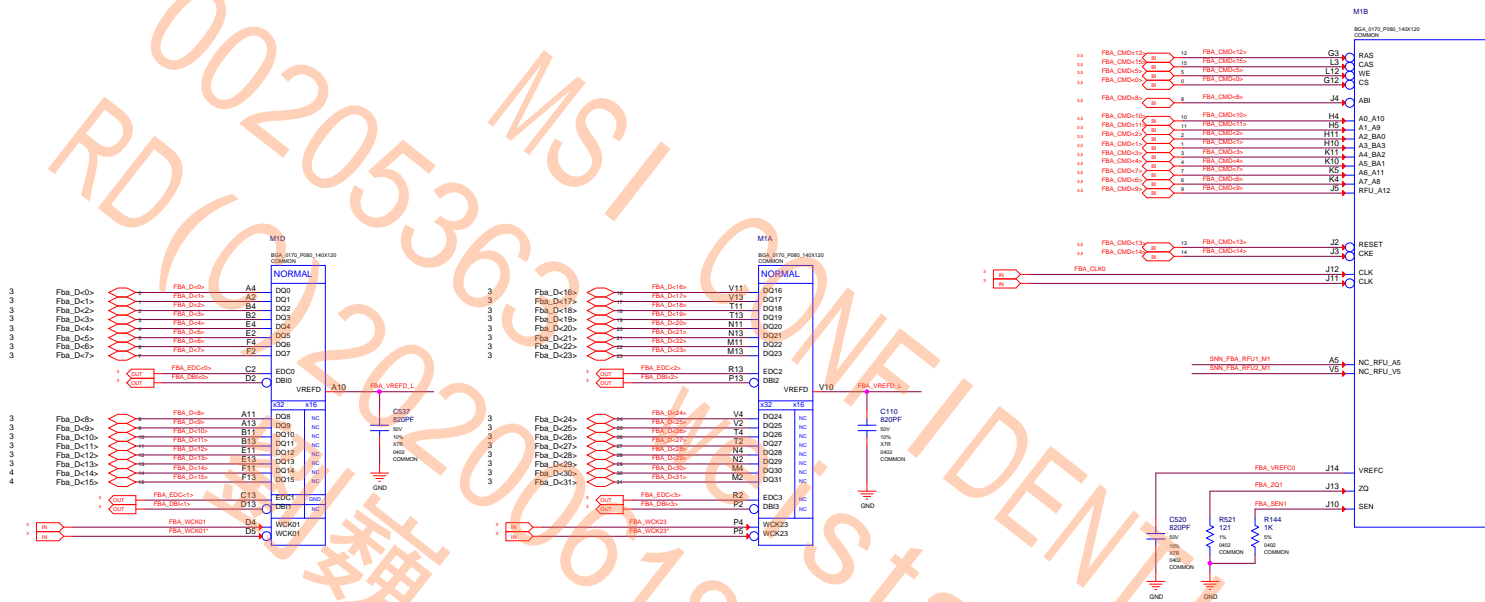
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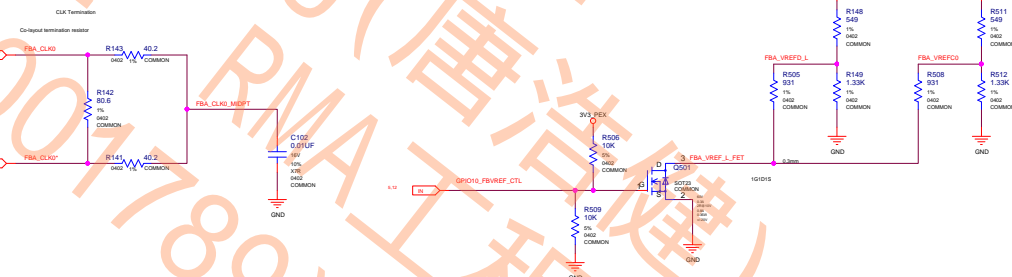
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QND	31..0	63..31
QND0	CS*	
QND1	A3, BA3	
QND2	A2, BA0	
QND3	A4, BA2	
QND4	A5, BA1	
QND5	RES*	
QND6	A7, A8	
QND7	AL, A11	
QND8	AB*	
QND9	A12, RFU	
QND10	AL, A10	
QND11	A1, A9	
QND12	RES*	
QND13	RES*	
QND14	CS*	
QND15		
QND16	CS*	
QND17	A3, BA3	
QND18	A2, BA0	
QND19	A4, BA2	
QND20	A5, BA1	
QND21	RES*	
QND22	A7, A8	
QND23	AL, A11	
QND24	AB*	
QND25	A12, RFU	
QND26	AL, A10	
QND27	A1, A9	
QND28	RES*	
QND29	RES*	
QND30	CS*	
QND31	CS*	



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ASSEMBLY
PAGE DETAIL

FB Partition A Die 31..0

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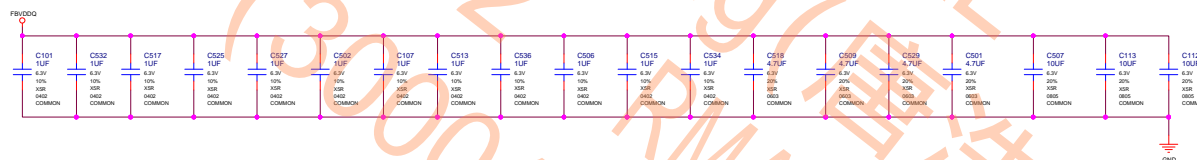
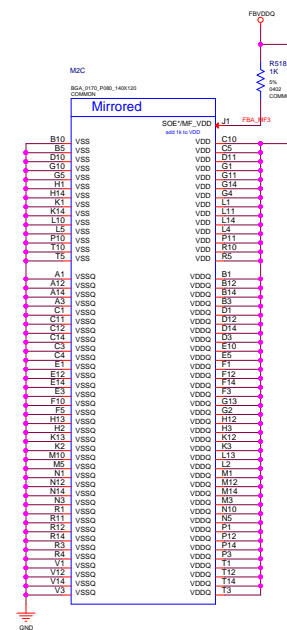
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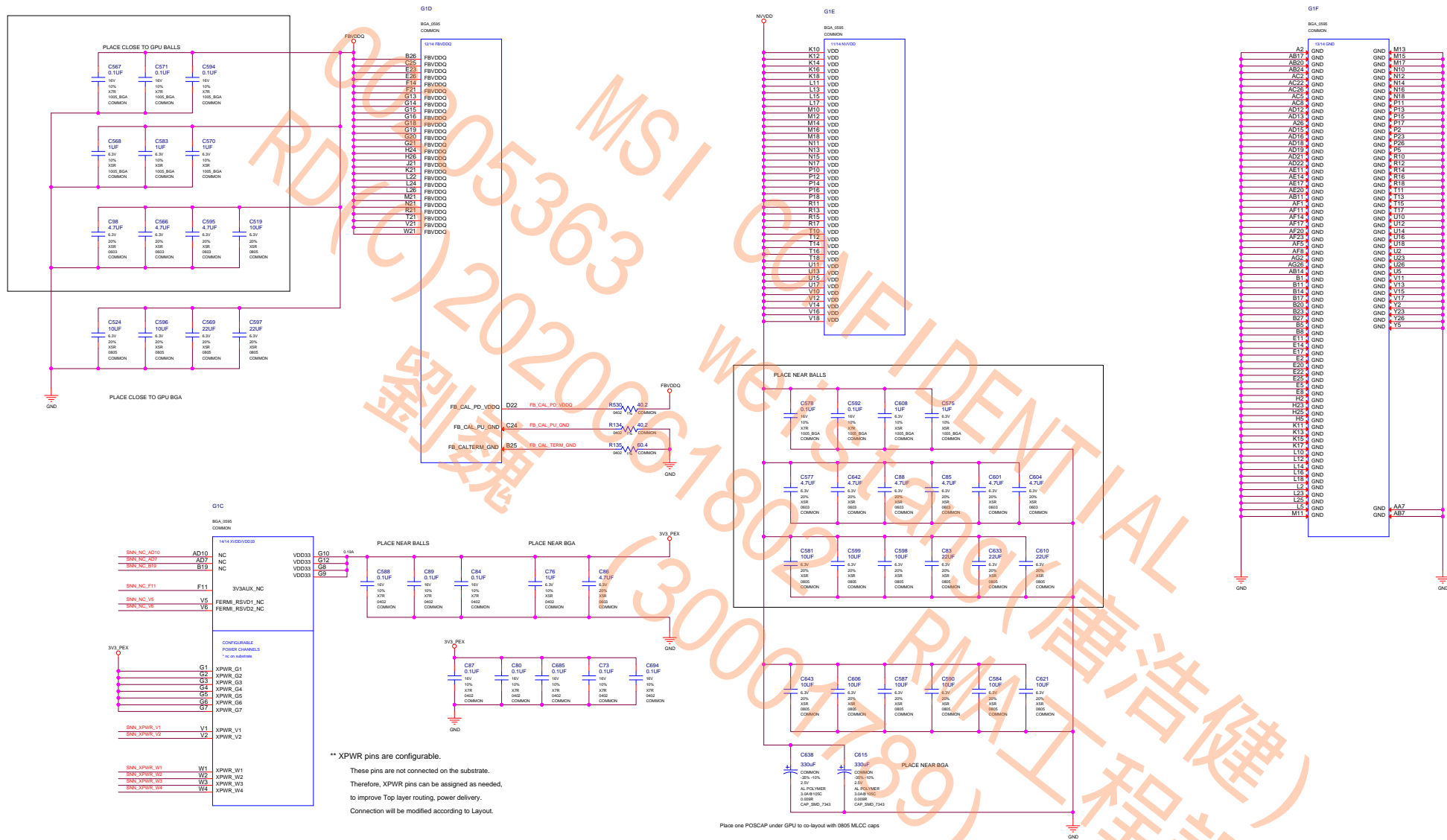
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PLACE LARGER CAPACITORS SLIGHTLY FARTHER AWAY

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** XPWR pins are configurable.
These pins are not connected on the substrate.
Therefore, XPWR pins can be assigned as needed,
to improve Top layer routing, power delivery.
Connection will be modified according to Layout.

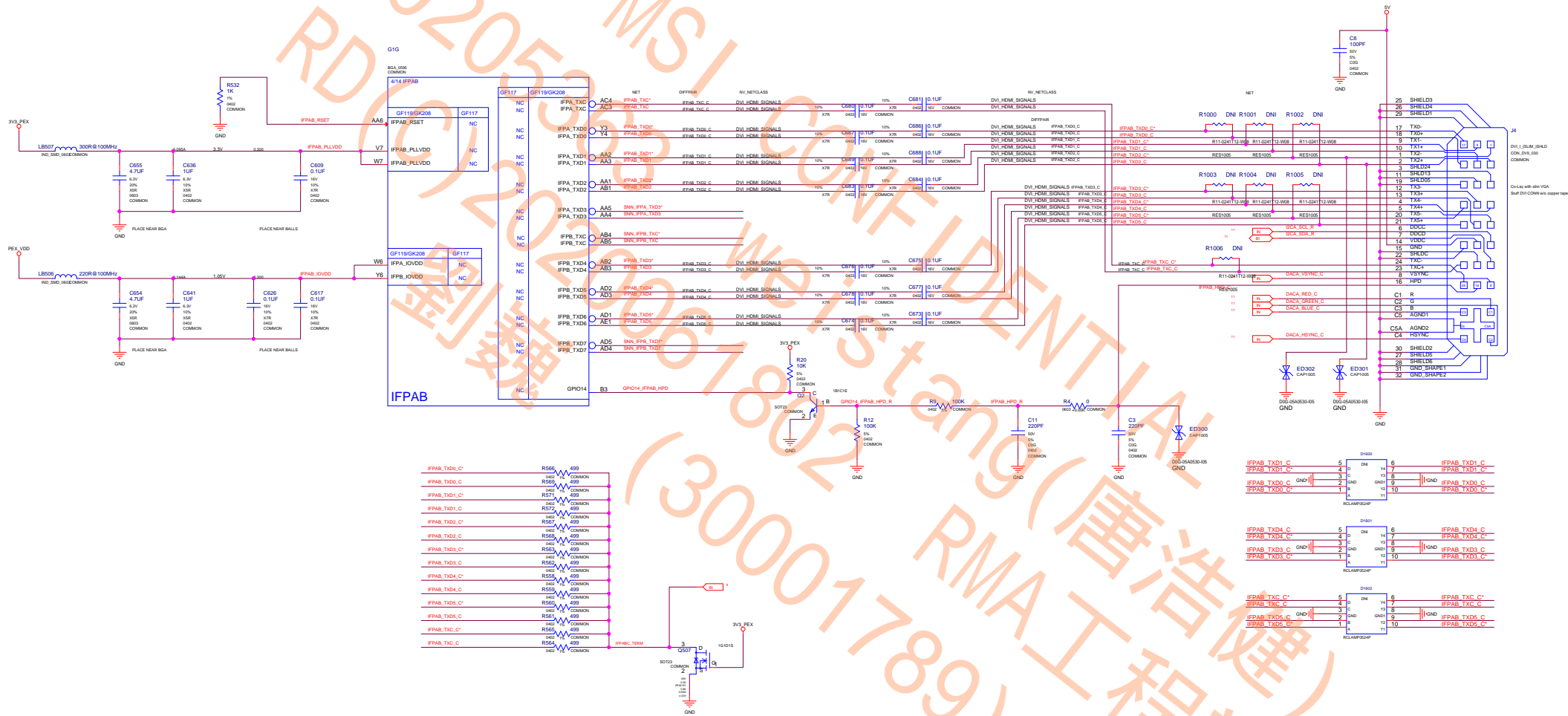
Place one POSCAP under GPU to co-layout with 0805 MLCC caps

ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
PAGE DETAIL	POWER/DECOUPLING: NVVDD, FBVDDQ, VDD33, GND

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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
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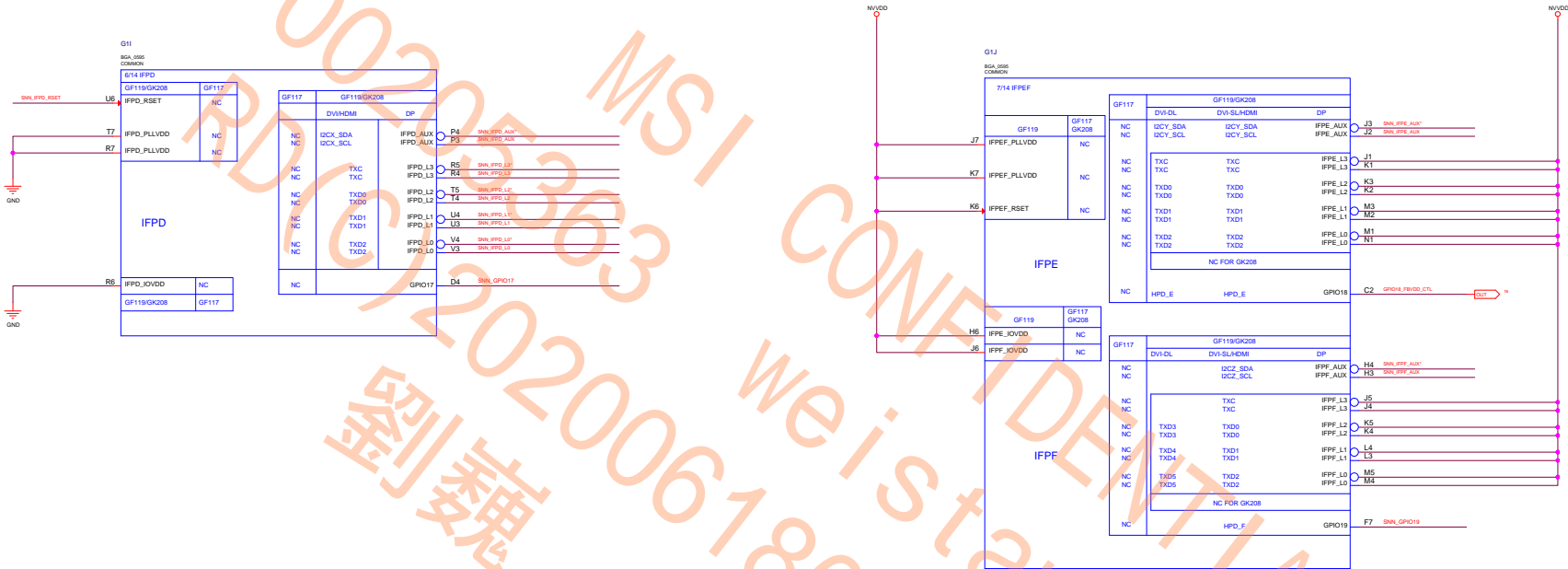
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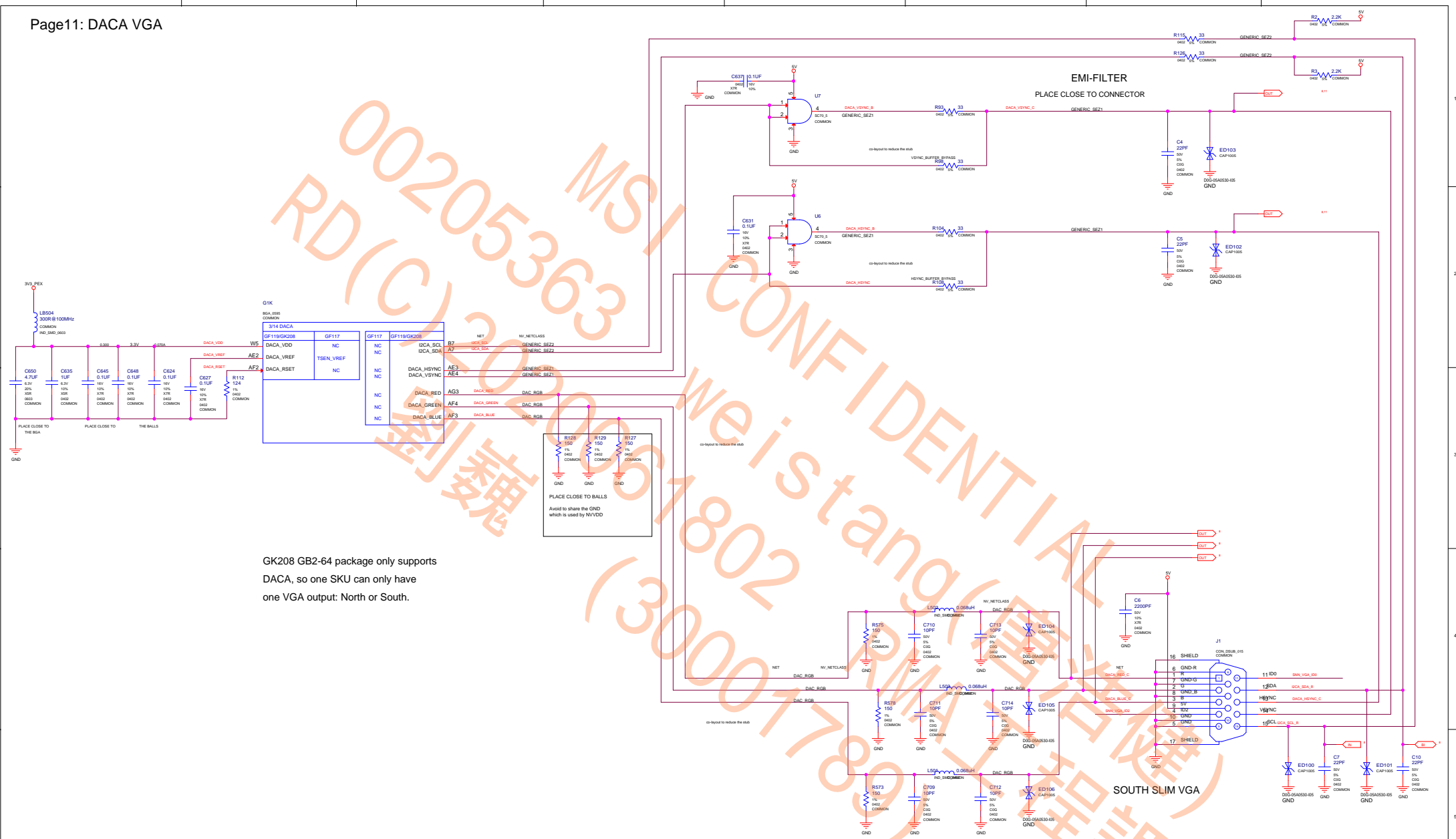




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PAGE DETAIL	UNUSED IFPD, IFPE & IFPF

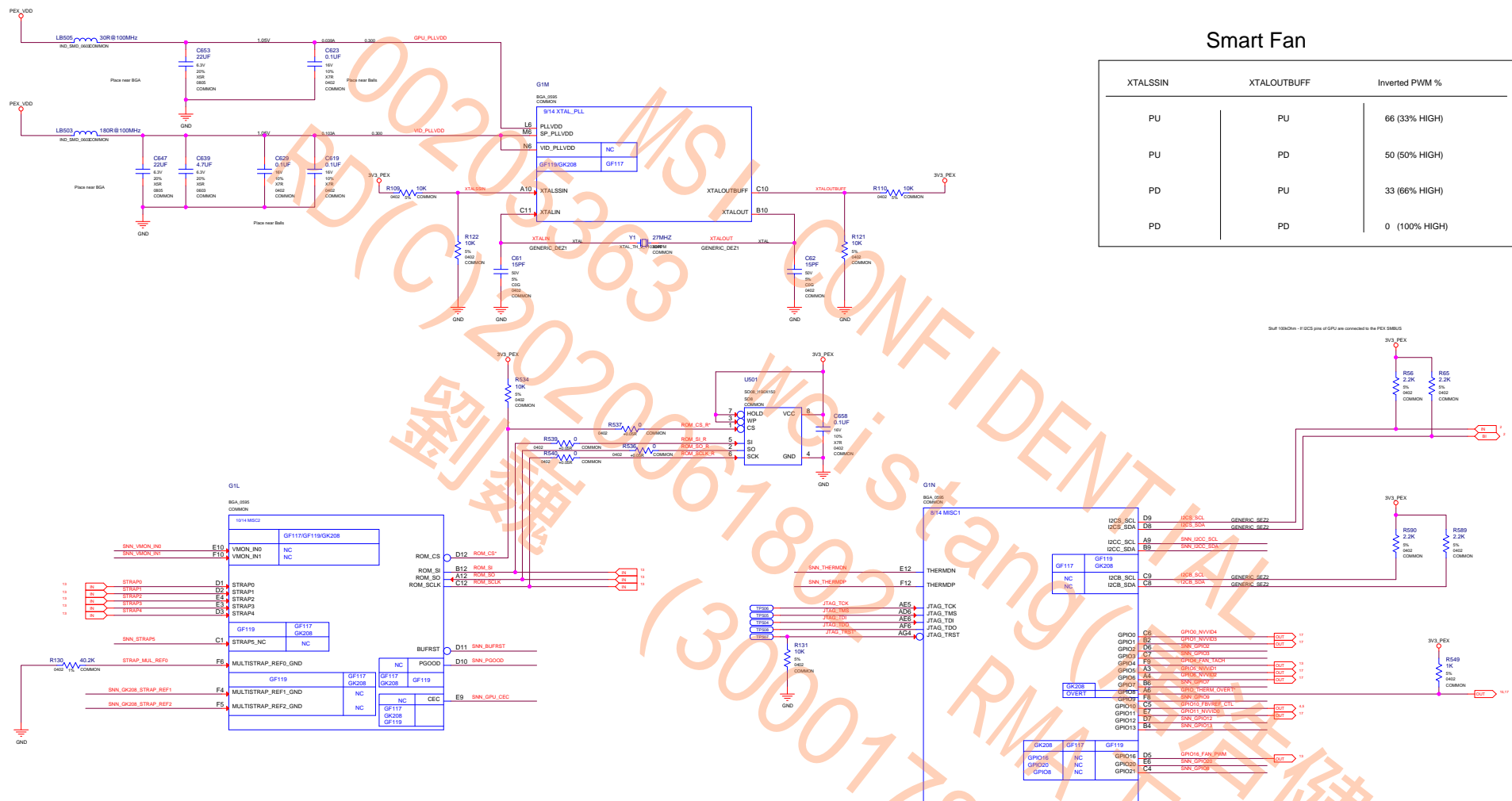
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GK208 GB2-64 package only supports
DACA, so one SKU can only have
one VGA output: North or South.

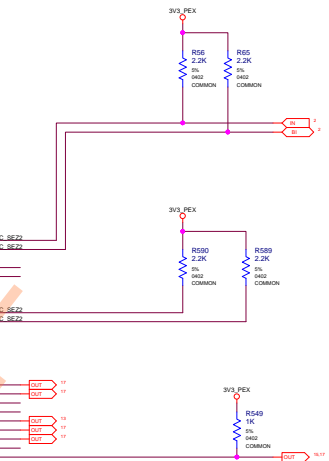
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PAGE DETAIL	DACA VGA

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XTALSSIN	XTALOUTBUFF	Inverted PWM %
PU	PU	66 (33% HIGH)
PU	PD	50 (50% HIGH)
PD	PU	33 (66% HIGH)
PD	PD	0 (100% HIGH)

Stuff 100kOhm - if ICS pins of GPU are connected to the PEX SMBUS



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Multilevel Straps

0000	5.1K to GND	1000	5.1K to VCC
0001	10K to GND	1001	10K to VCC
0010	15K to GND	1010	15K to VCC
0011	20K to GND	1011	20K to VCC
0100	24.9K to GND	1100	24.9K to VCC
0101	30.1K to GND	1101	30.1K to VCC
0110	34.8K to GND	1110	34.8K to VCC
0111	45.3K to GND	1111	45.3K to VCC

GK208 Straps

Bit Signal

Values

03	RAMCFG0	0000	Reserved		
02	RAMCFG0	0001	1GB/4K GDDR5 x16 (34bit Epoch)		
01	RAMCFG0	0010	1GB/4K GDDR5 x16 (34bit Epoch)		
00	RAMCFG0	0011	1GB/4K GDDR5 x16 (34bit Epoch)		
03	FBT0	00	1200MHz		
02	FBT0	01	1200MHz		
01	SMR_ALT_ADDR	0	DISABLED	1	ENABLED
00	VGA_DEVICE	0	DISABLED	1	ENABLED
03	PCI_DEV0_EXT	0000	0	0001	TBD
02	SUB_VENDOR	0	NO BIOS	1	BIOS
01	PCI_DEV0_EXT_BTS	0000	0	0001	TBD
00	PEX_FAL_EN_TERMINO	0	DISABLED	1	ENABLED
03	USE[RE]	0000	NOT		
02	USE[RE]				
01	USE[RE]				
00	USE[RE]				
03	3G0_PADCFG_LUT_ADDR0	0000	DISKTOP_DEFAULT	1000	DISKTOP_JTHRS
02	3G0_PADCFG_LUT_ADDR0	0001	MOBILE_DEFAULT	1001	MOBILE_JTHRS_LAMP
01	3G0_PADCFG_LUT_ADDR0	0010	MOBILE_JTHRS_LAMP	1010	MOBILE_JTHRS_LAMP
00	3G0_PADCFG_LUT_ADDR0	0011	MOBILE_JTHRS_LAMP	1011	MOBILE_JTHRS_LAMP
03	3G0_PADCFG_LUT_ADDR1	0100	MOBILE_JTHRS_LAMP	1100	MOBILE_JTHRS_LAMP
02	3G0_PADCFG_LUT_ADDR1	0101	MOBILE_JTHRS_LAMP	1101	MOBILE_JTHRS_LAMP
01	3G0_PADCFG_LUT_ADDR1	0110	MOBILE_JTHRS_LAMP	1110	MOBILE_JTHRS_LAMP
00	3G0_PADCFG_LUT_ADDR1	0111	MOBILE_JTHRS_LAMP	1111	MOBILE_JTHRS_LAMP
03	PCI_DEV00	0000	0010		
02	PCI_DEV00				
01	PCI_DEV00				
00	PCI_DEV00				
03	SC0L_EXP0SD	0	DISABLED	1	ENABLED
02	SC0L_EXP0SD	0	DISABLED	1	ENABLED
01	SC0L_EXP0SD	0	DISABLED	1	ENABLED
00	SC0L_EXP0SD	0	DISABLED	1	ENABLED
03	PCI_SPEED_CHANGE_GEN0	0	DISABLED	1	ENABLED
02	PCI_SPEED_CHANGE_GEN0	0	GEN1	1	GEN2
01	DP_PUL_VDD_3V3	0	USE V6	1	USE V3V3

ROM_SI

ROM_SO

ROM_SCLK

Strap0

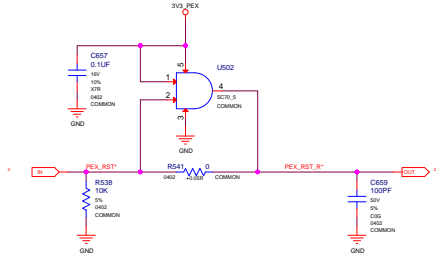
Strap1

Strap2

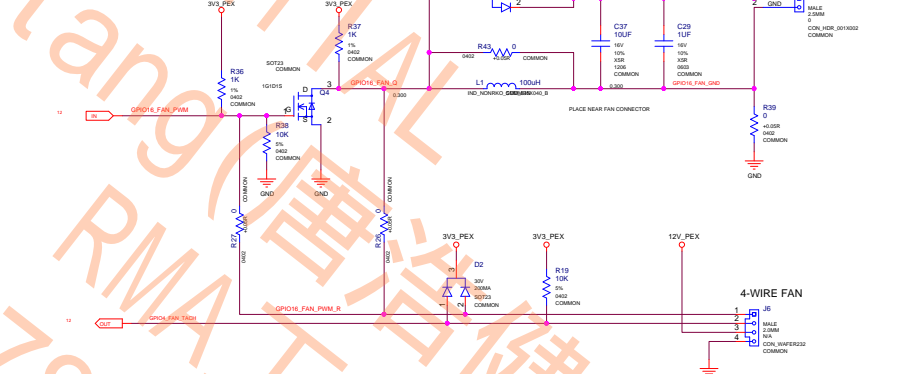
Strap3

Strap4

PCI-E Reset

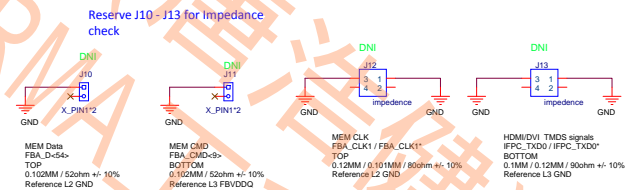
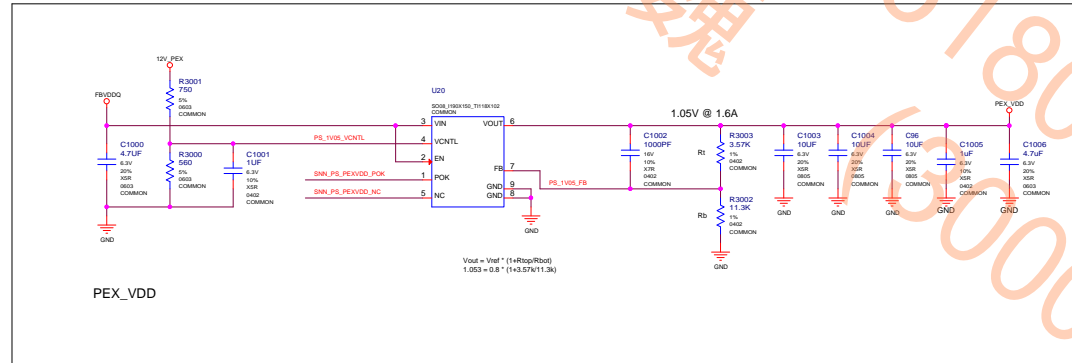
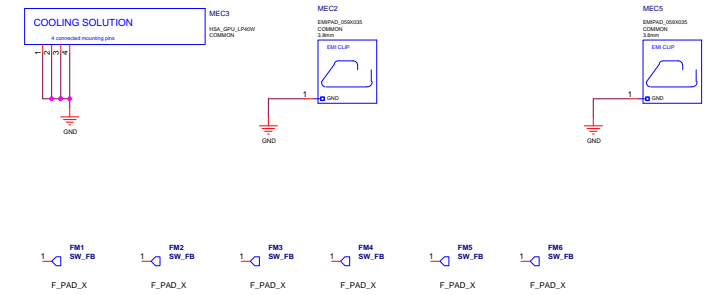
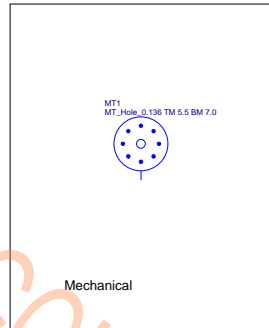
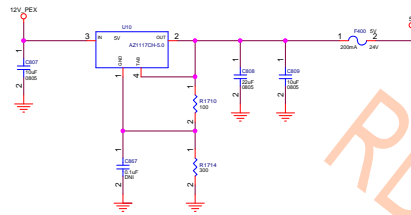


FAN CIRCUIT




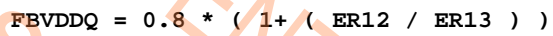
5V Power

STUFF FOR DVI/HDMI/VGA DISPLAY SKU



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PAGE DETAIL	PS: 5V, PEXVDD

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BOM REV	A	DATE	22-AUG-2012



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	IJ	JK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TT	TU	TV	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	ZL	ZM	ZN	ZO	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW	ZX	ZY	ZZ	AA	AB	AC	AD</
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