# **MS-V027 VER 0A**

## NV-6600, NV43 256MB, BGA 16MX16 DDRII,PCIE,DVI-I,D-SUB(Fly Cable),TV-OUT(HT-10)

# P229-B02 Sku4: NV43, DDRII MEMORY \* 8 pcs

Page1: P229 Overview Page2: PCIE Interface Page3: FB BANK A Page4: FB BANK C

Page5: MEMORY 1st bank 0..31 Page6: MEMORY 1st bank 32..63 Page7: GND,DACA,DACB,DACC

Page8: VGA DACA

Page9: VGA/TV Out/HDTV DACB/C

Page10: INTERNAL TMDS
Page11: STRAPS, MIOA/MIOB
Page12: XTAL, GPIO, ROM
Page13:Power Supply (RT9218)
Page14:Others Power Supply (Linear)

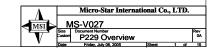
Page15:G3 VIP/MIOB

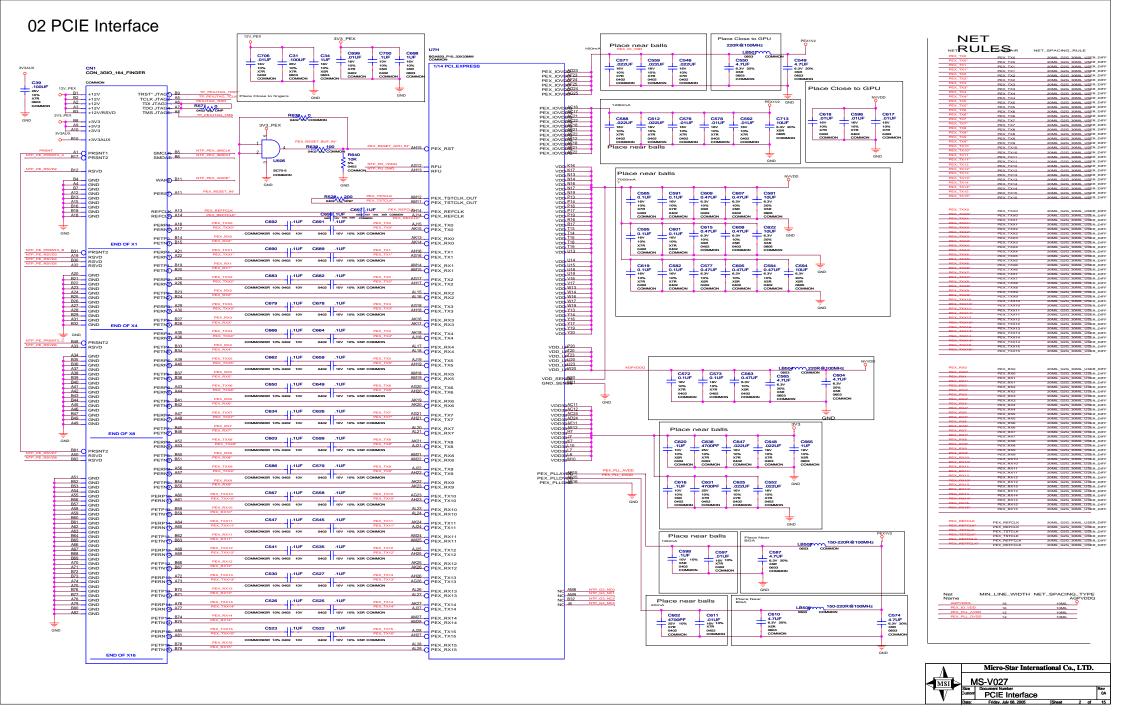
REVISION	HISTORY:
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### - 5/24/2005:

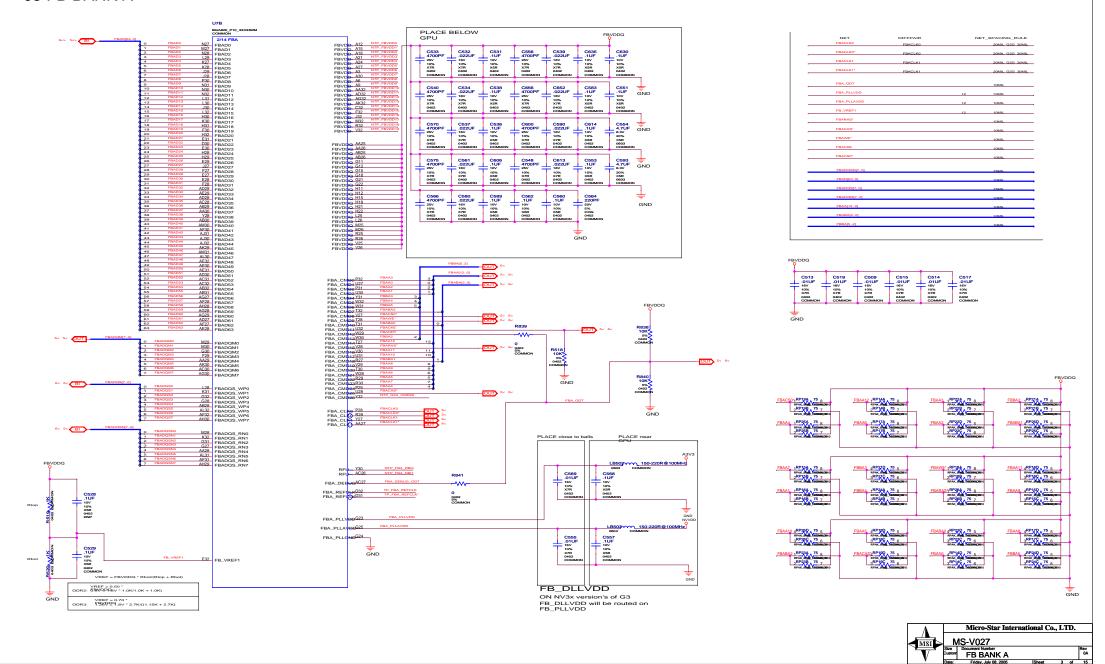
- 1.Changed DDRI Memory type to DDRII (16Mx16bit)-3 256MB
- 2.changed Power solution,use RT9218 for NVVDD & FBVDDQ
- 3.changed Power solution,use OP-AMP convert 5V
- 4.Bom add HDCP Function

- 1	аки	VARIANT	NVPN	ASSEMBLY		
Г	в	BASE	602-10229-BASE-SCH	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL		
	1	nv43dvivgatv128m16x	602-10229-0002-101	P229-B02 NV43 GEN DVI-I/VGA/HDTV 128MB 16Mx16 TSOP		
	2	nv43dvivgatv128m8x	602-10229-0003-101	P229-B02 NV43 GEN DVI-I/VGA/HDTV 128MB 8Mx16 TSOP		
	3	43gldvivgatv128m8x	602-50229-0001-101	P229-B02 NV43-GL GEN DVI-I/VGA/HDTV 128MB 8Mx16 TSOP		
	4	nv43dvivgatv256m16x	602-10229-0004-101	P229-B02 NV43 GEN DVI-I/VGA/HDTV 256MB 16Mx16 TSOP		
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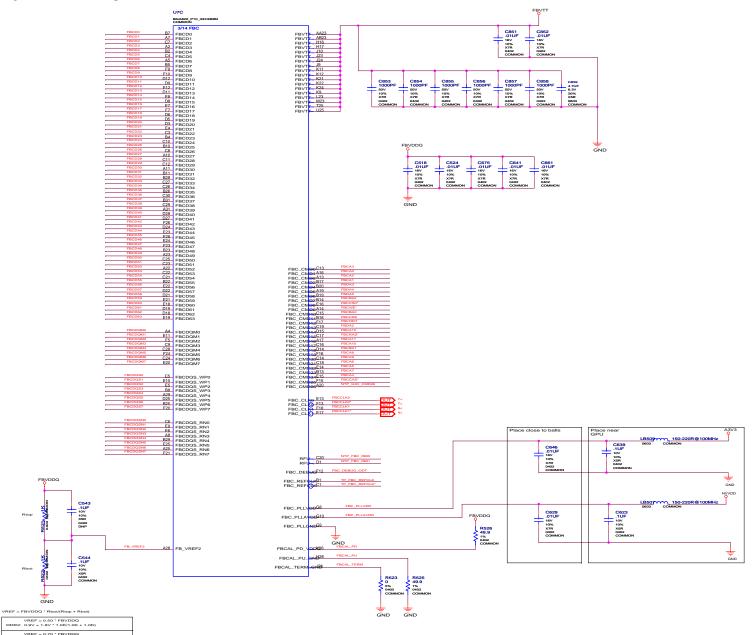




## 03 FB BANK A



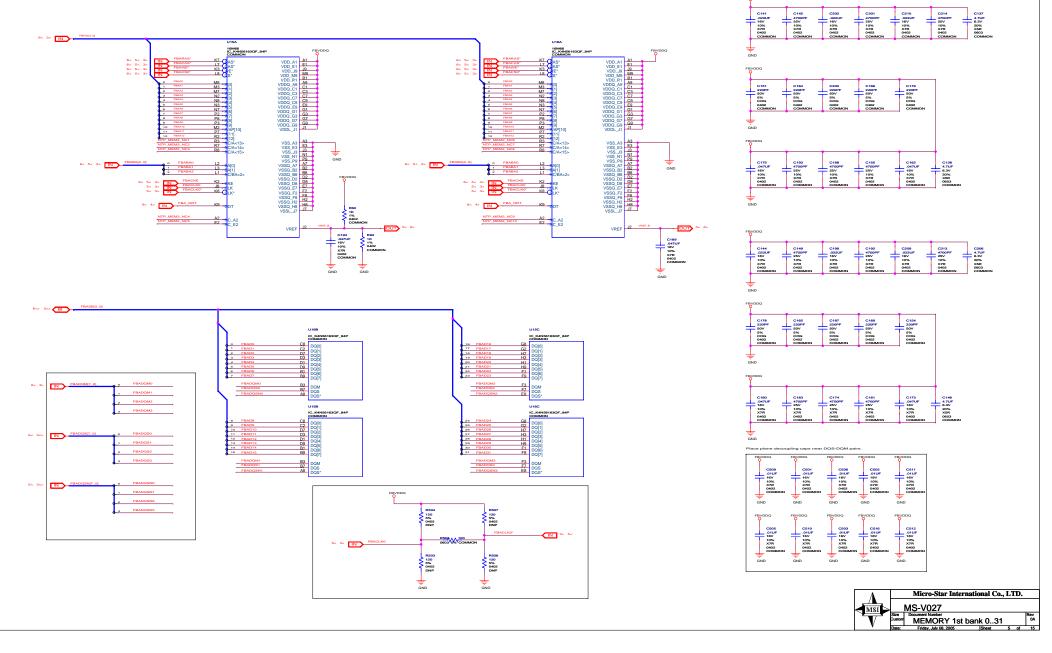
## 04 FB BANK C



	NET	DIFFPAIR		NET_SPACING_RULE
_	FBCCLK0	FBCCLKO		20MIL G2G 30MIL
	FBCCLK0*	FBCCLKO		20MIL G2G 30MIL
	FBCCLK1	FBCCLK1		20MIL G2G 30MIL
	FBCCLK1*	FBCCLK1		20MIL G2G 30MIL
	FBC PLLVDD			
_	FBC PLLAVDD		12	10MIL
_	FBC_VREF2		12	10MIL
_	FBCRAS*		12	10MIL
_	FBCCAS*			10MIL
_	FBGWE*			10MIL 10MIL
_	FBCCKE			10ML
	FBCC50*			10MIL
_				TOMIL
_	FBCDQSN[70]			15MIL
_	FBCD[630]			10MIL
_	FBCDQS[7.0]			15MIL
_	FBCDQM[70]			10MIL
_	FBCA[120]			10MIL
_	FBCBA[20]			10MIL
_	FBDA[52]			10MIL
_	FBCAL_PD			10MIL
_	FBCAL_PU			10MIL
_	FBCAL_TERM			10MIL

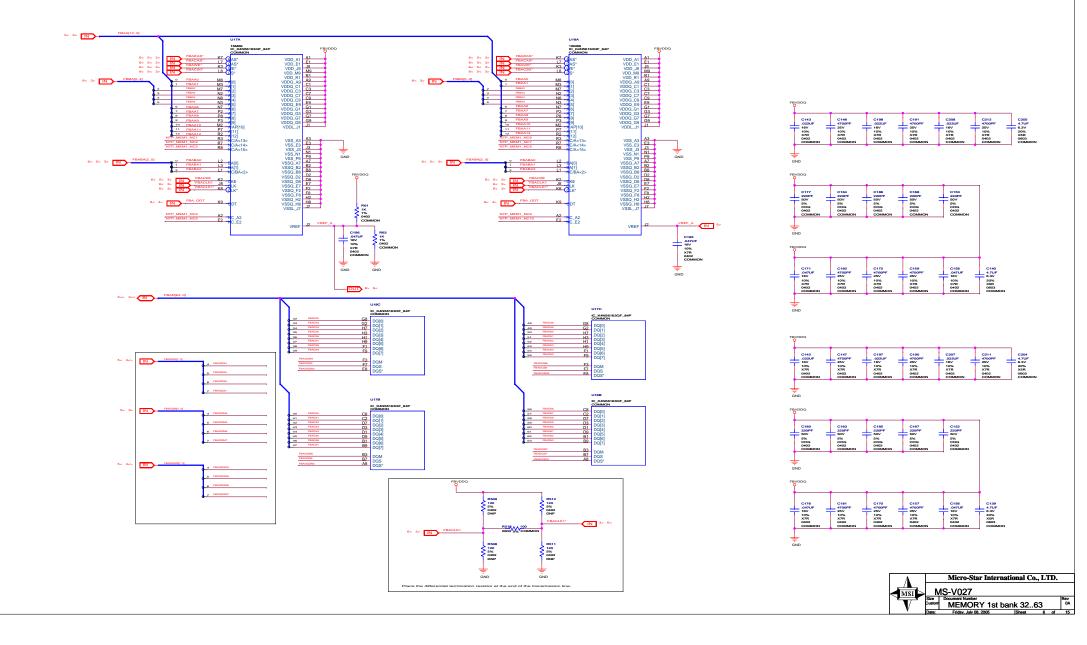


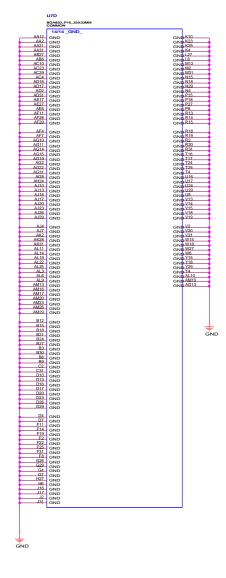
## PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY

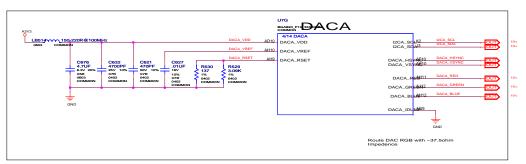


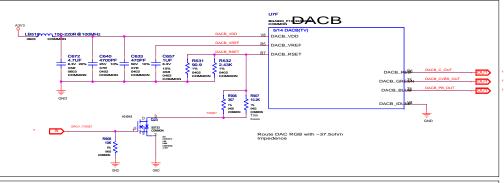
## PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY

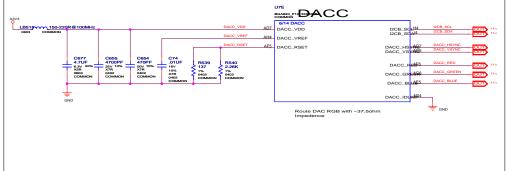


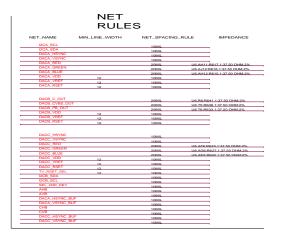




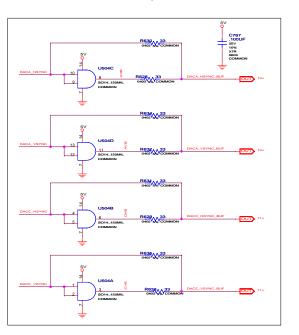




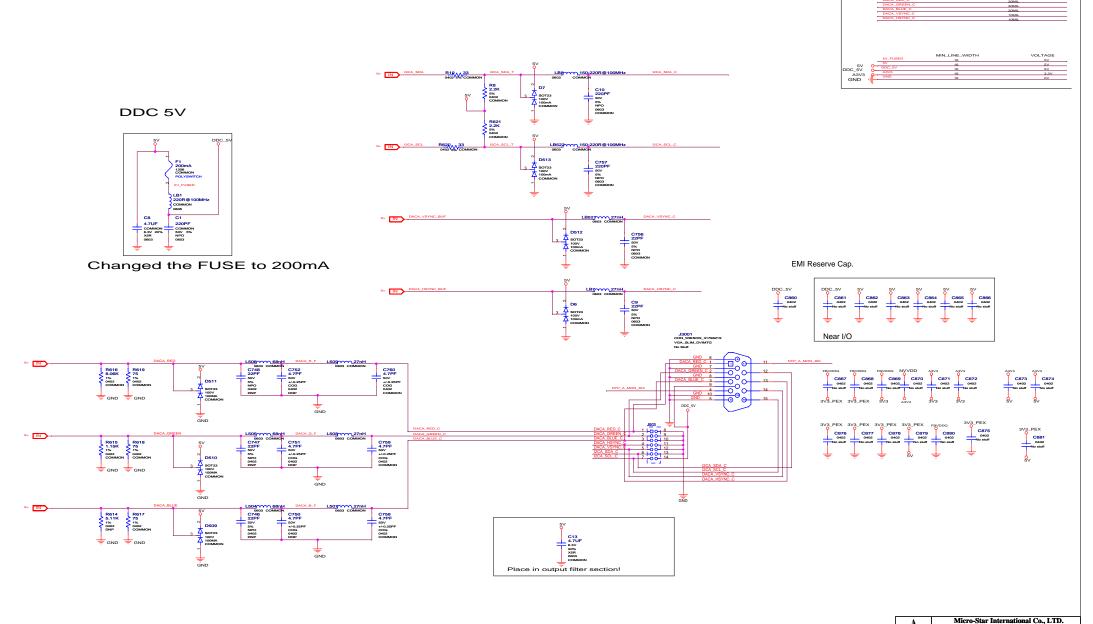




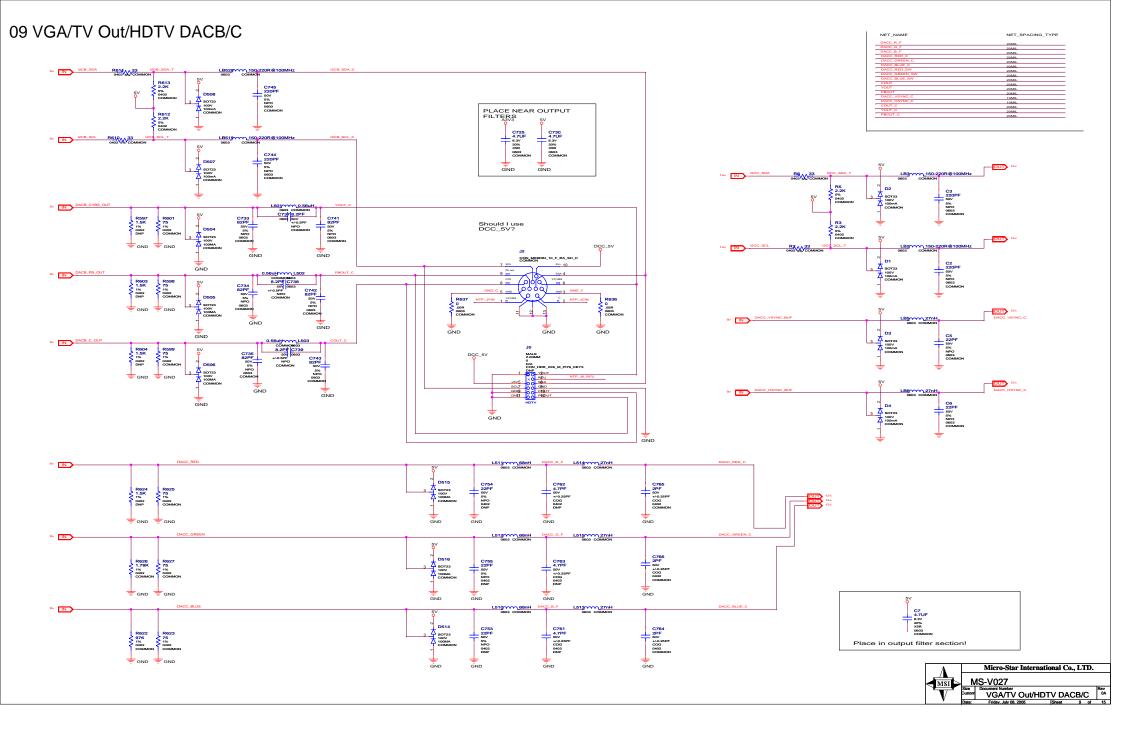
## DACA & DACC Sync Buffers

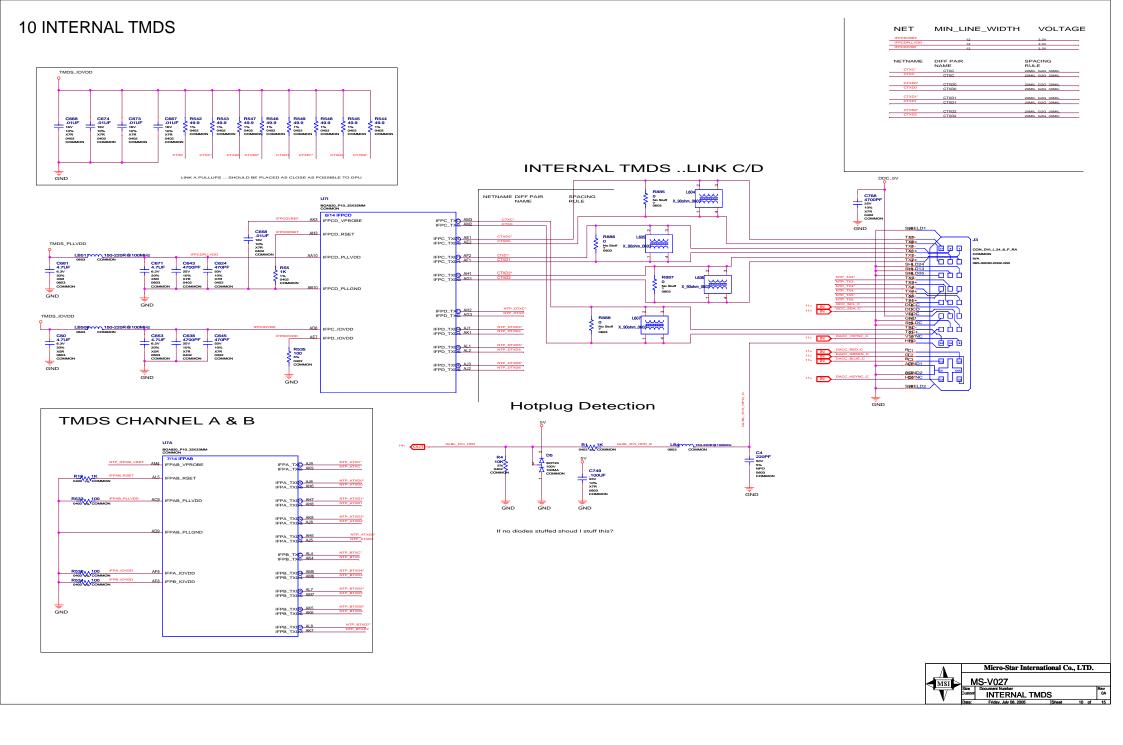




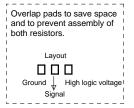


VGA DACA

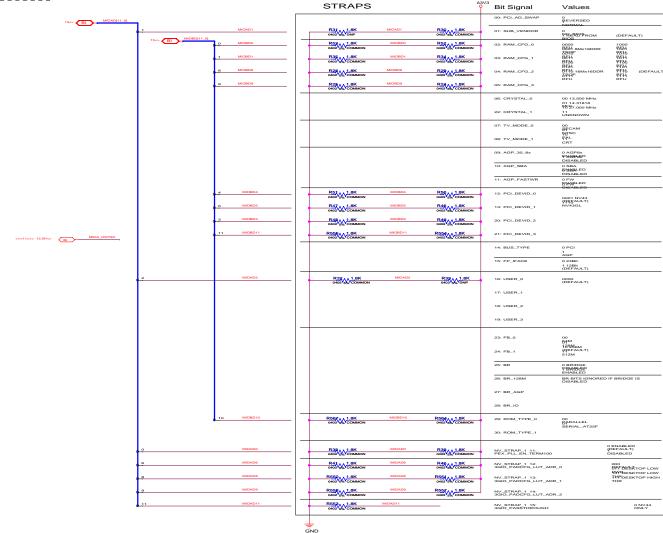


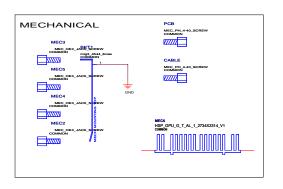


# 11 STRAPS, MECHANICAL



# **STRAPS**





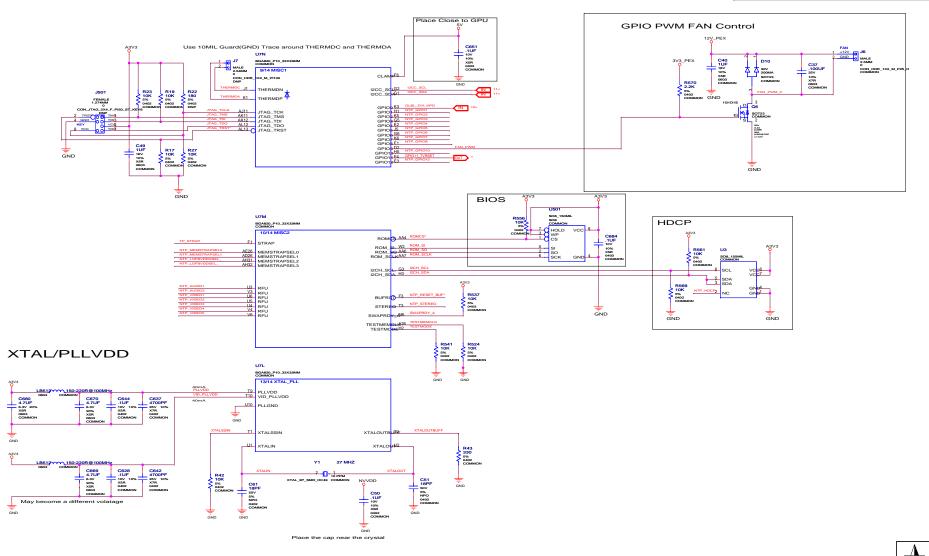


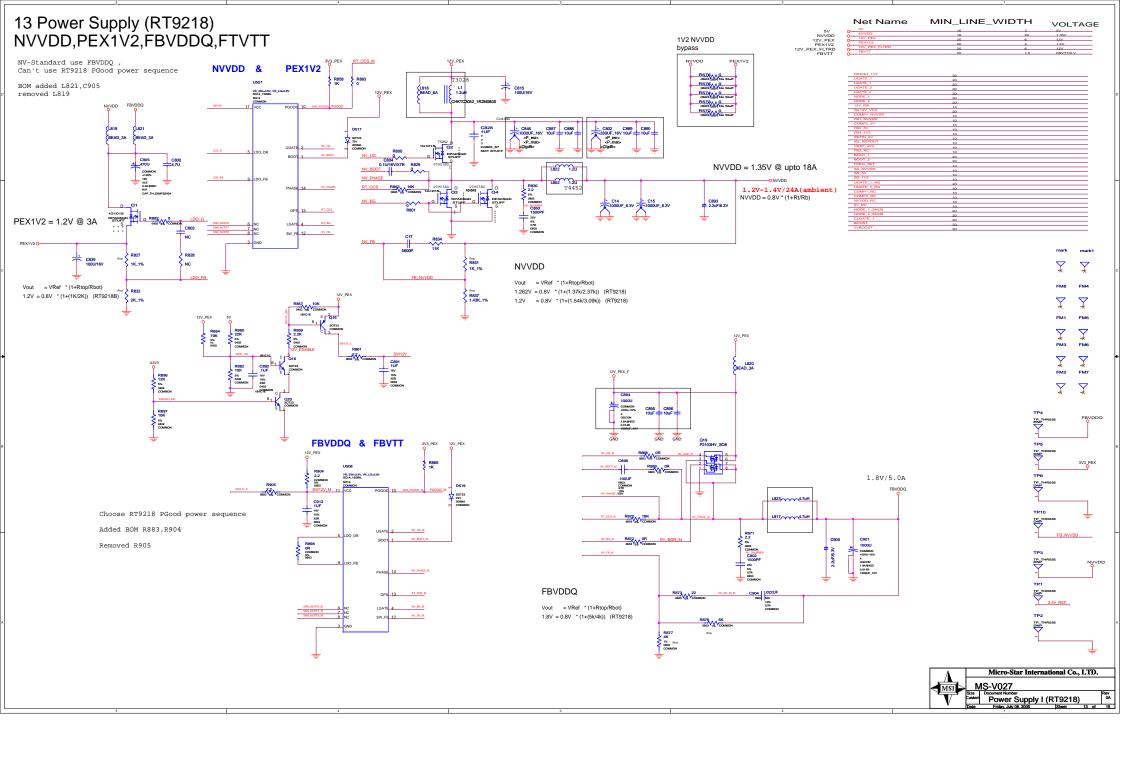


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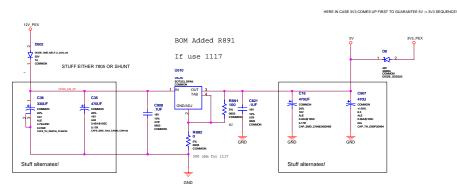
XTAL, GPIO, ROM

MS-V027



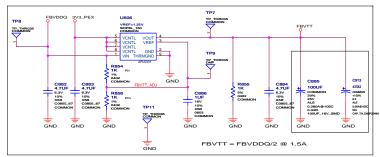


# 14 Others Power Supply (Linears) 5V,FBVDDQ,A3V3,3V3,TMDS\_PLLVDD,TMDS\_IOVDD,FBVTT

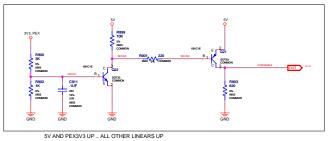


# **5V LOW COST REGULATOR**

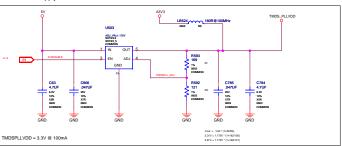
### FBVTT TERMINATION



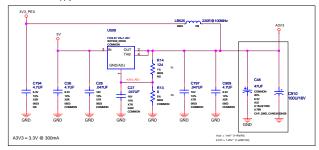
#### Power Sequencing



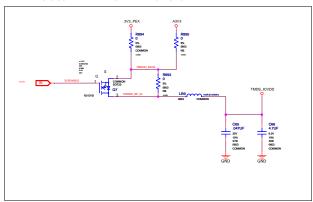
#### TMDS PLL Supply



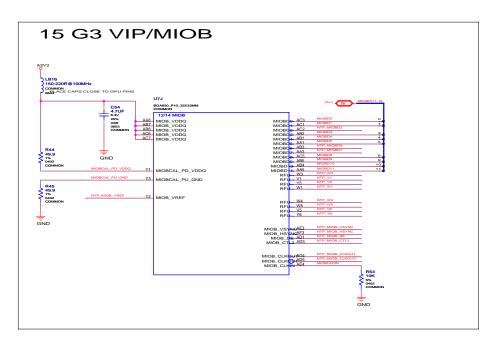
#### A3V3 Power Supply

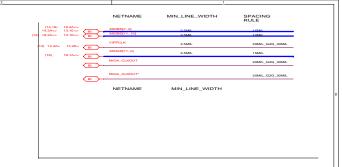


#### TMDS IO SUPPLY WITH BACKDRIVE PROTECTION









Micro-Star International Co., LTD.

G3 VIP/MIOB Friday, July 08, 2005

