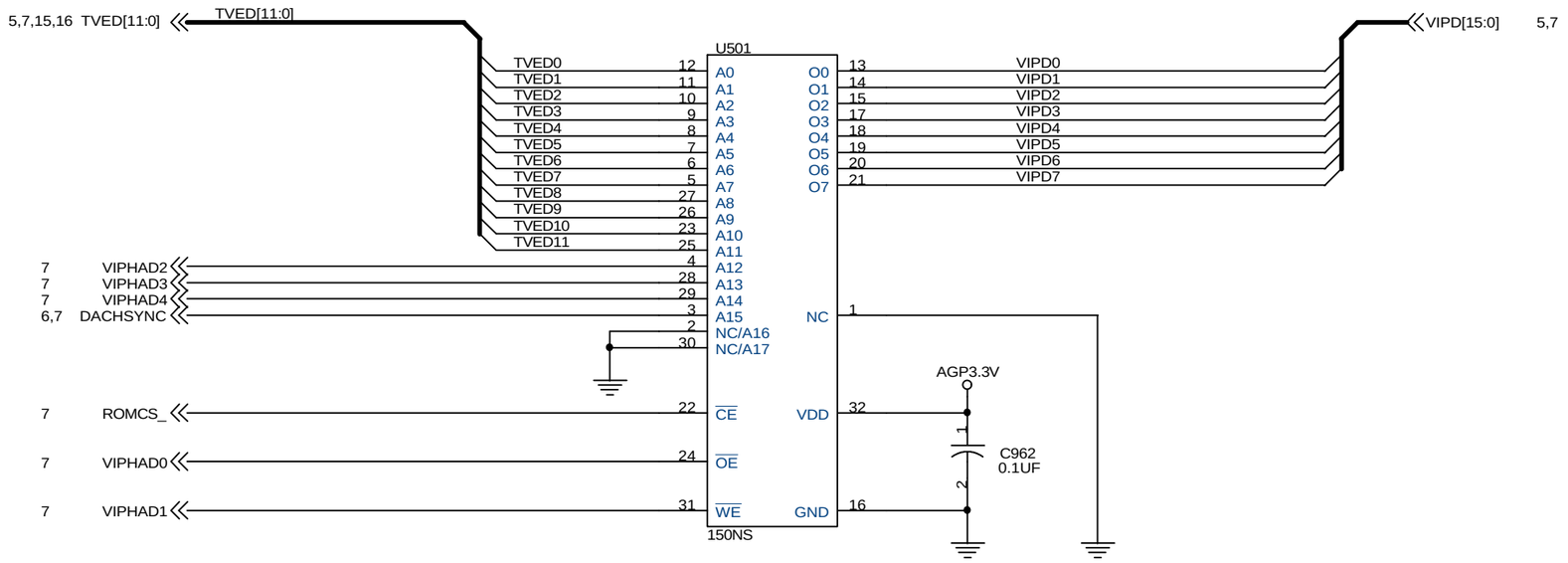
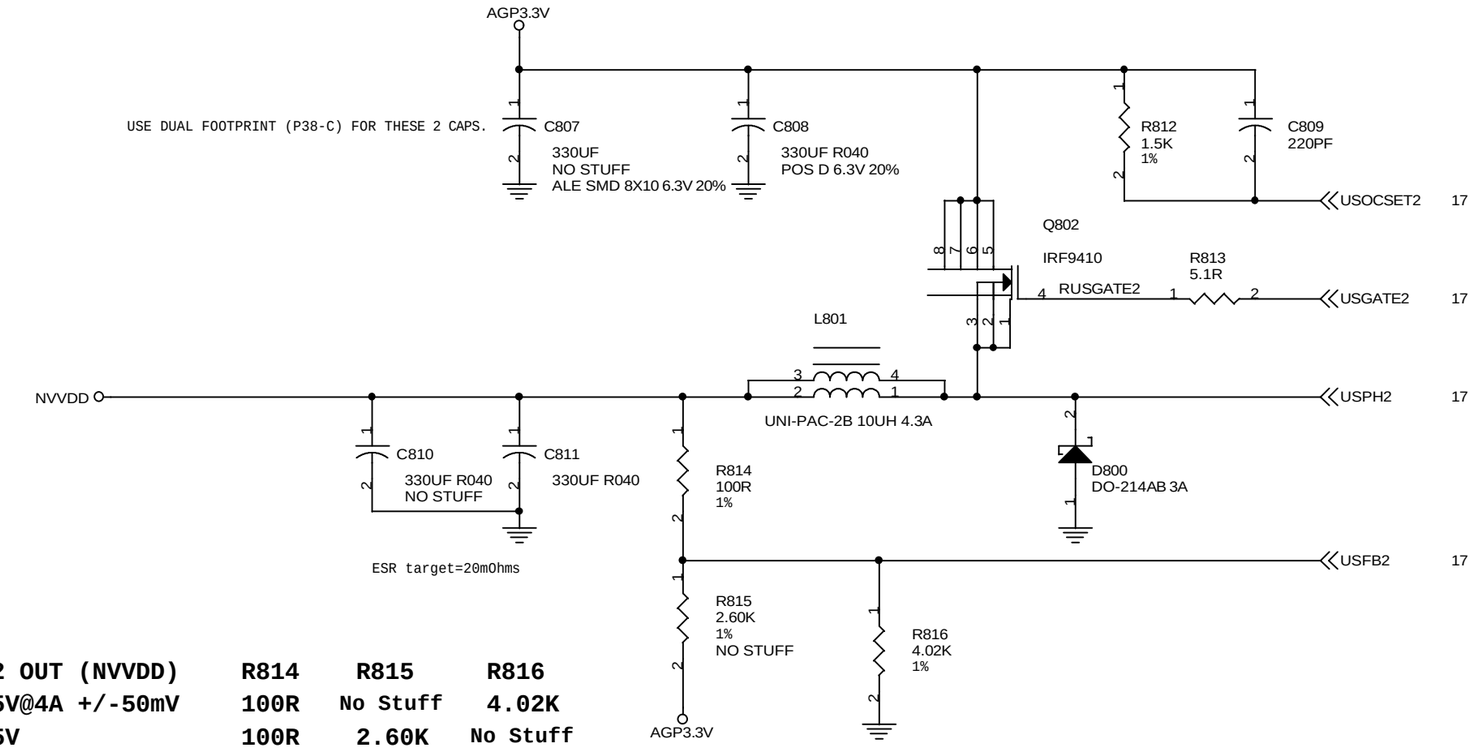


	Micro-Star International Co., LTD.	
	MS-8820	
Size B	Document Number FLASH ROM	Rev 2.0
Date: Monday, March 05, 2001	Sheet 1 of 1	



	SWR2 OUT (NVVDD)	R814	R815	R816
DEFAULT-->	2.05V@4A +/-50mV	100R	No Stuff	4.02K
	1.95V	100R	2.60K	No Stuff

R816=100/((2.05V/2)-1)

R815=130/(2-1.95v)

	Micro-Star International Co., LTD.	
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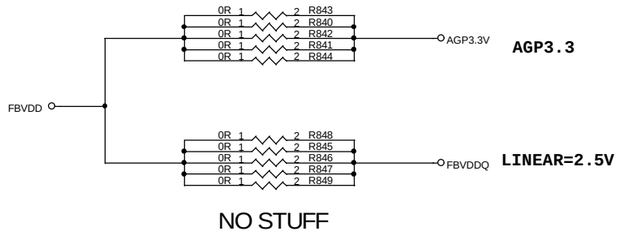
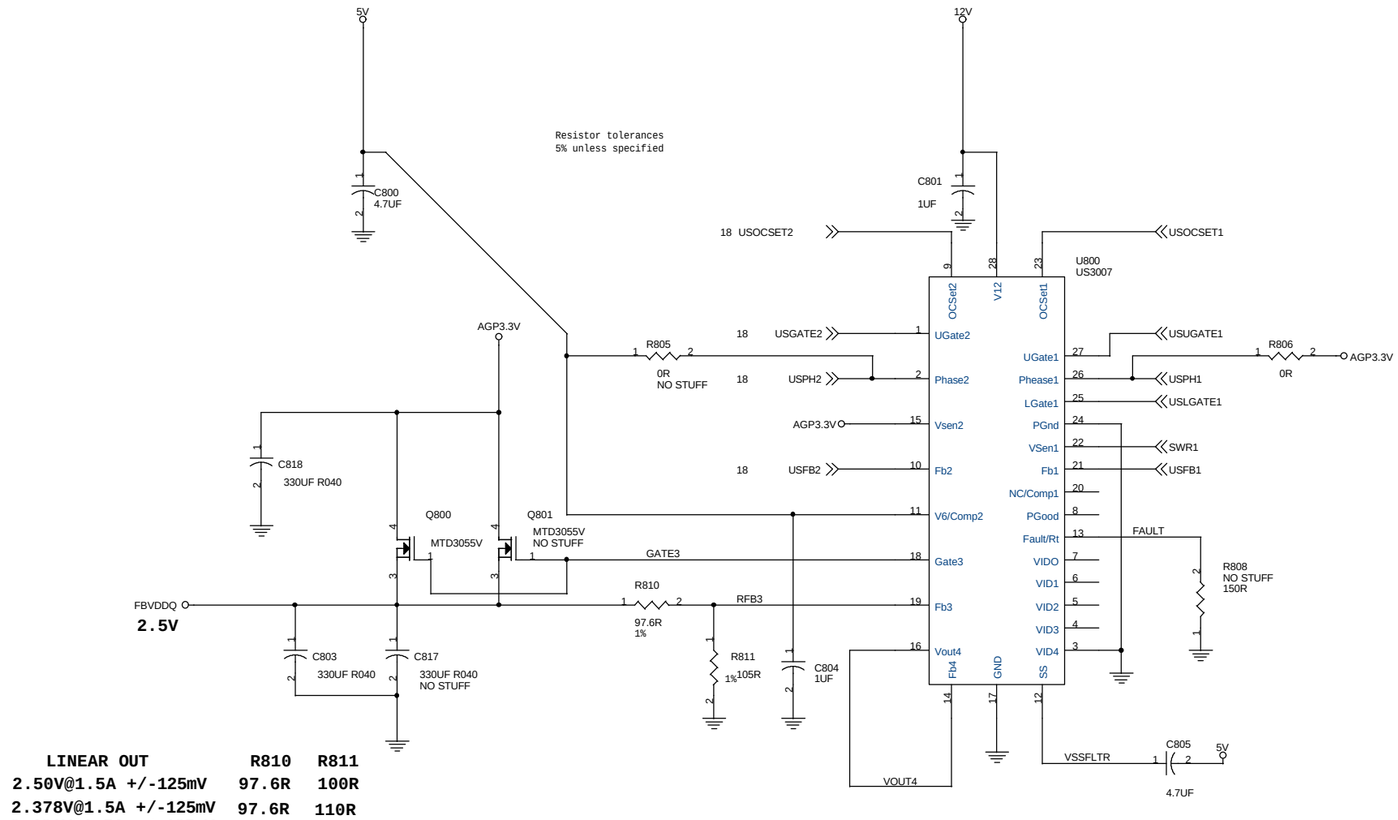
Size B	Document Number NV15 DDR POWER ADDER	Rev 2.0
Date: Monday, March 05, 2001	Sheet 1 of 1	





LINEAR OUT	R810	R811
2.50V@1.5A +/-125mV	97.6R	100R
2.378V@1.5A +/-125mV	97.6R	110R
2.431V@1.5A +/-125mV	97.6R	105R

R810=((LINEAR OUT/1.26)-1)*(R811)

Micro-Star International Co., LTD.		
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Size: C	Document Number: NV15 BASE POWER SOLUTION	Rev: 2.0
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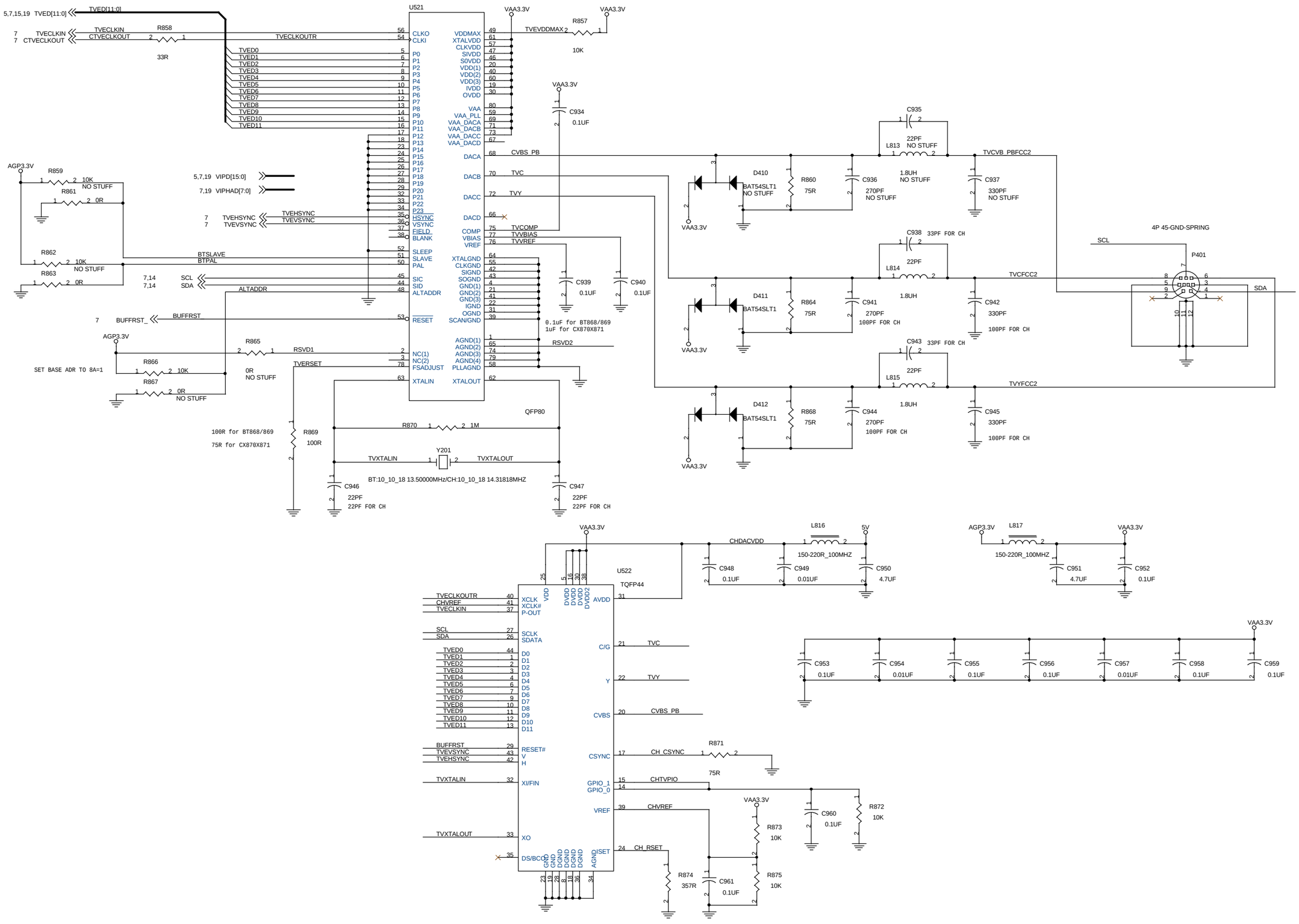

Parts for Chrontel CH7008/8A only

MSI	Micro-Star International Co., LTD.	
	MS-8820	
Size C	Document Number: TV ENCODERS	Rev 2.0
Date: Monday, March 05, 2001	Sheet 1 of 1	

MFBD67	22R	4	RP325	5		FBD67
MFBD68		3		6		FBD68
MFBD65		2		7		FBD65
MFBD64		1		8		FBD64
MFBD75	22R	5	RP327	4		FBD75
MFBD72		6		3		FBD72
MFBD73		7		2		FBD73
MFBD74		8		1		FBD74
MFBD66	22R	1	RP329	8		FBD66
MFBD70		2		7		FBD70
MFBD71		3		6		FBD71
MFBD69		4		5		FBD69
MFBD77	22R	8	RP331	1		FBD77
MFBD78		7		2		FBD78
MFBD79		6		3		FBD79
MFBD76		5		4		FBD76

MFBD95	22R	4	RP324	5		FBD95
MFBD91		3		6		FBD91
MFBD92		2		7		FBD92
MFBD94		1		8		FBD94
MFBD84	22R	5	RP326	4		FBD84
MFBD83		6		3		FBD83
MFBD85		7		2		FBD85
MFBD86		8		1		FBD86
MFBD81	22R	8	RP328	1		FBD81
MFBD82		7		2		FBD82
MFBD80		6		3		FBD80
MFBD87		5		4		FBD87
MFBD88	22R	1	RP330	8		FBD88
MFBD90		2		7		FBD90
MFBD89		3		6		FBD89
MFBD93		4		5		FBD93

MFBD[127:0] 10,11,12
MFBDQM[15:8] 12

FBD[127:0] 8,11
FBDQM[15:8] 8

MFBD97	22R	5	RP332	4		FBD97
MFBD96		6		3		FBD96
MFBD98		7		2		FBD98
MFBD100		8		1		FBD100
MFBD108	22R	5	RP334	4		FBD108
MFBD110		6		3		FBD110
MFBD109		7		2		FBD109
MFBD111		8		1		FBD111
MFBD103	22R	8	RP336	1		FBD103
MFBD101		7		2		FBD101
MFBD102		6		3		FBD102
MFBD99		5		4		FBD99
MFBD104	22R	1	RP338	8		FBD104
MFBD105		2		7		FBD105
MFBD107		3		6		FBD107
MFBD106		4		5		FBD106

MFBD115	22R	4	RP333	5		FBD115
MFBD114		3		6		FBD114
MFBD113		2		7		FBD113
MFBD112		1		8		FBD112
MFBD119	22R	4	RP335	5		FBD119
MFBD118		3		6		FBD118
MFBD117		2		7		FBD117
MFBD116		1		8		FBD116
MFBD123	22R	8	RP337	1		FBD123
MFBD122		7		2		FBD122
MFBD121		6		3		FBD121
MFBD120		5		4		FBD120
MFBD126	22R	8	RP339	1		FBD126
MFBD125		7		2		FBD125
MFBD127		6		3		FBD127
MFBD124		5		4		FBD124

MFBDQM11	R384	1		2	22R	FBDQM11
MFBDQM10	R385	1		2	22R	FBDQM10
MFBDQM9	R386	1		2	22R	FBDQM9
MFBDQM8	R387	1		2	22R	FBDQM8
MFBDQM14	R388	1		2	22R	FBDQM14
MFBDQM15	R389	1		2	22R	FBDQM15
MFBDQM12	R390	1		2	22R	FBDQM12
MFBDQM13	R391	1		2	22R	FBDQM13

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MS-8820

Size	Document Number	Rev
B	FBB DDR 2Mx32 SDRAM TERM	2.0
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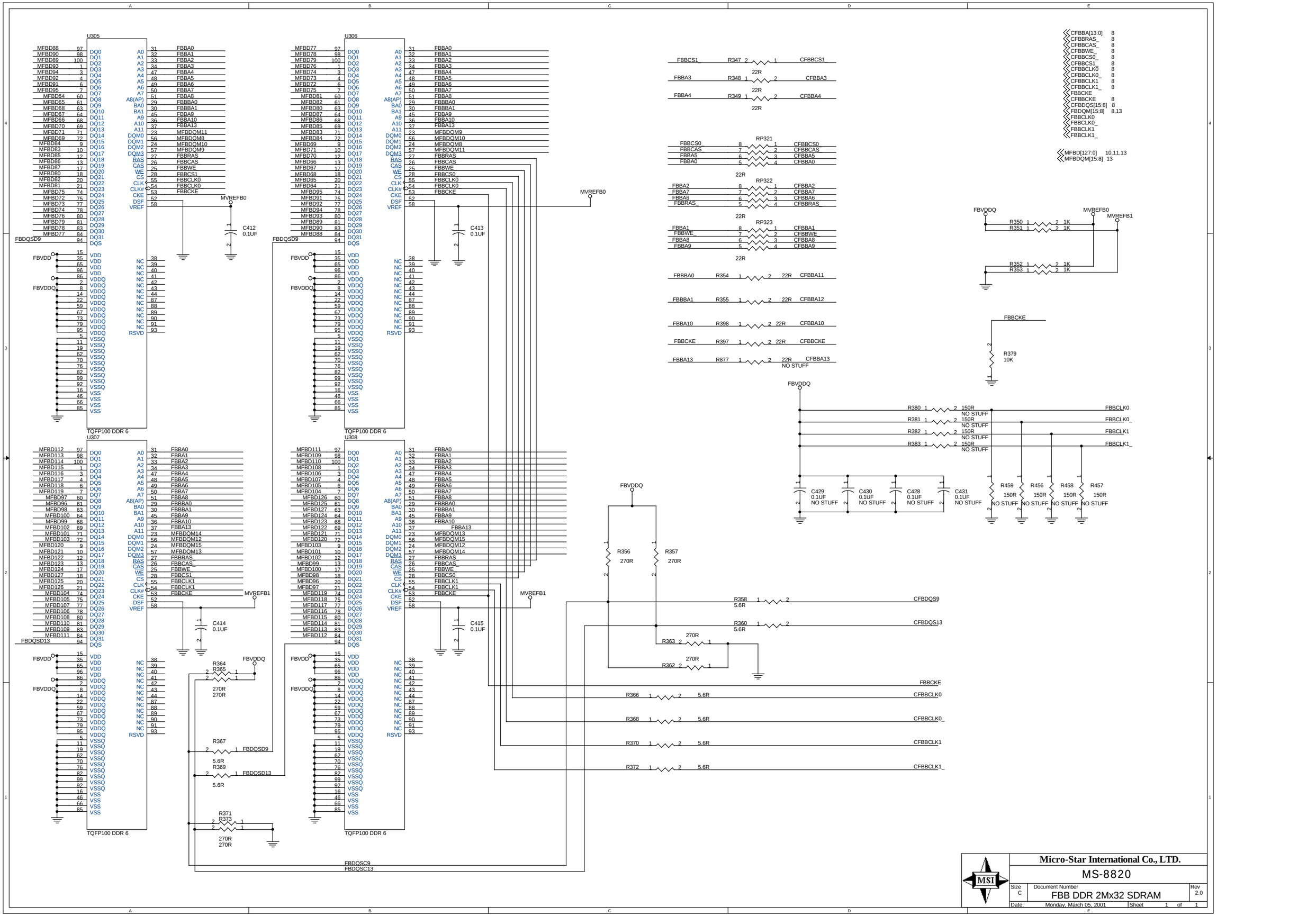
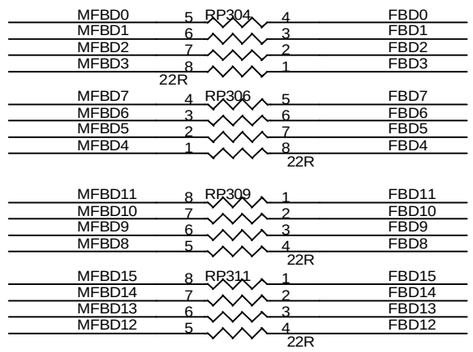
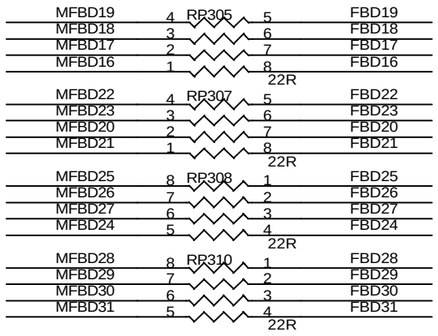


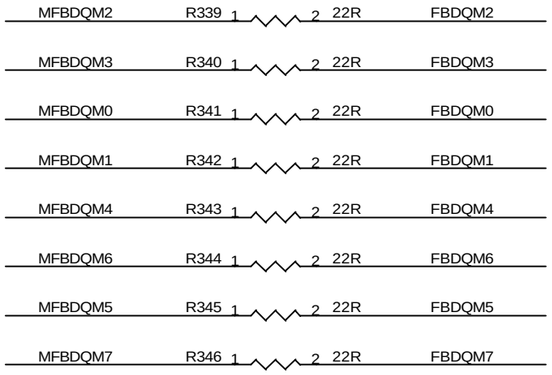
Micro-Star International Co., LTD.	
MS-8820	
Size: C	Document Number: FBB DDR 2Mx32 SDRAM
Rev: 2.0	
Date: Monday, March 05, 2001	Sheet 1 of 1





MFBD[127:0] 10,12,13
MFBDQM[7:0] 10

FBD[127:0] 8,13
FBDQM[7:0] 8



Micro-Star International Co., LTD.		
MS-8820		
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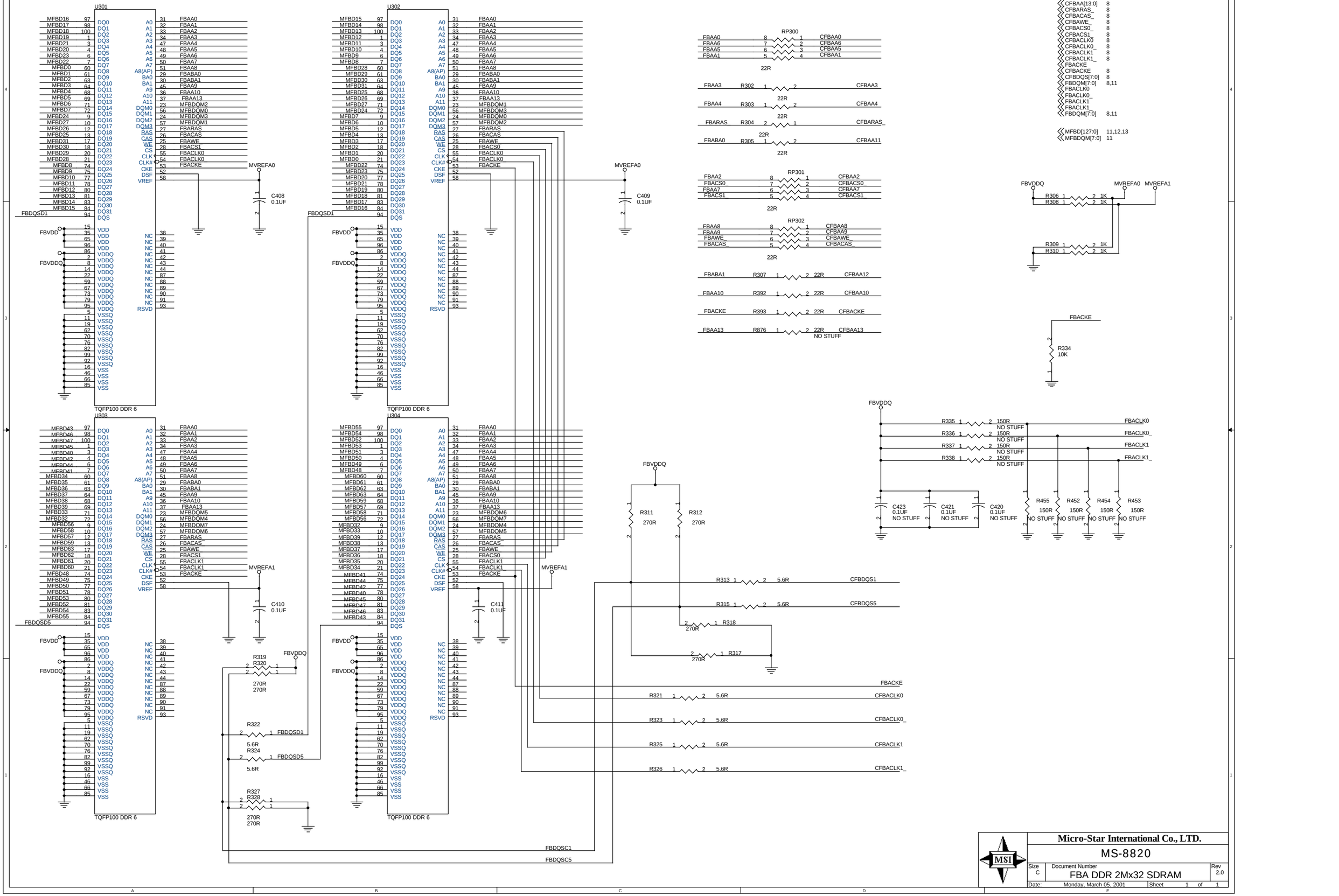
Date: Monday, March 05, 2001	Sheet 1 of 1	



CFBAA[13:0]	8
CFBARAS_	8
CFBACAS_	8
CFBAWE_	8
CFBACS0_	8
CFBACS1	8
CFBACLK0	8
CFBACLK0_	8
CFBACLK1	8
CFBACLK1_	8
FBACKE	8
CFBDQS[7:0]	8
FBDQM[7:0]	8,11
FBACLK0	
FBACLK0_	
FBACLK1	
FBACLK1_	
FBDQM[7:0]	8,11
MFBD[127:0]	11,12,13
MFBDQM[7:0]	11

Micro-Star International Co., LTD.	
MS-8820	
Size: C	Document Number: FBA DDR 2Mx32 SDRAM
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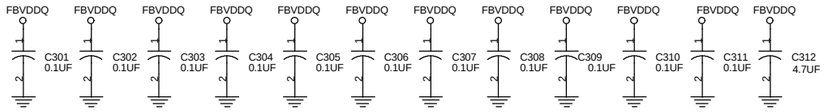
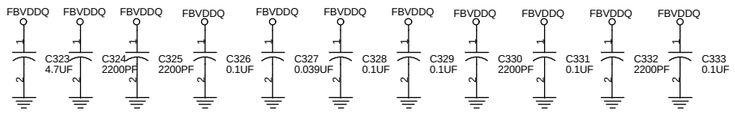
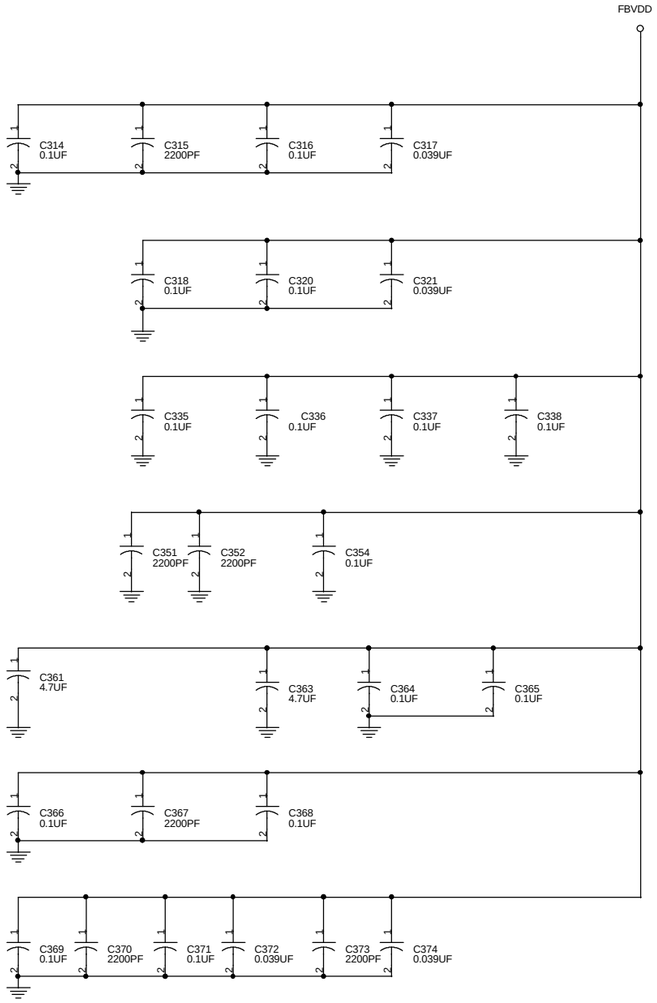
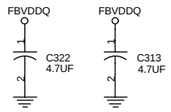
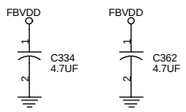
Date: Monday, March 05, 2001	Sheet 1 of 1

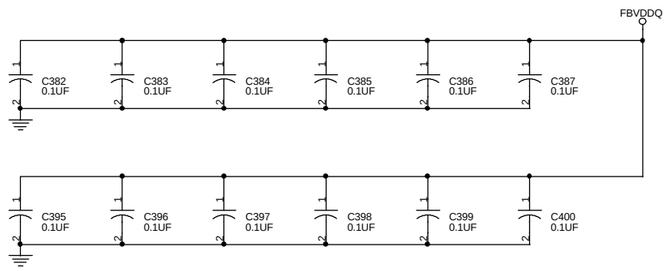












Micro-Star International Co., LTD.		
MS-8820		
Size: C	Document Number: FB DECOULPING	Rev: 2.0
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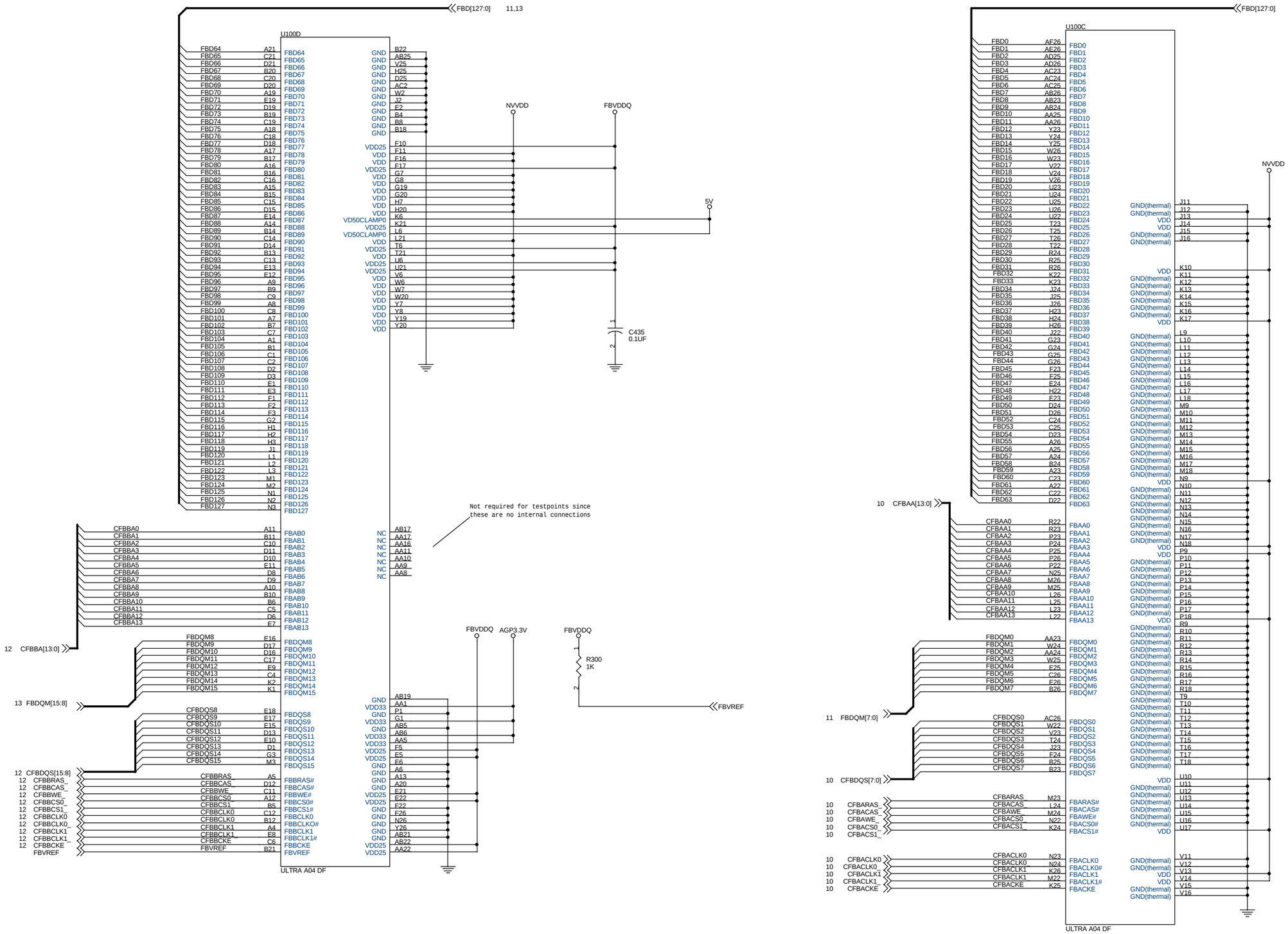

MSI	Micro-Star International Co., LTD.	
	MS-8820	
Size C	Document Number NV15 FBA/FBB	Rev 2.0
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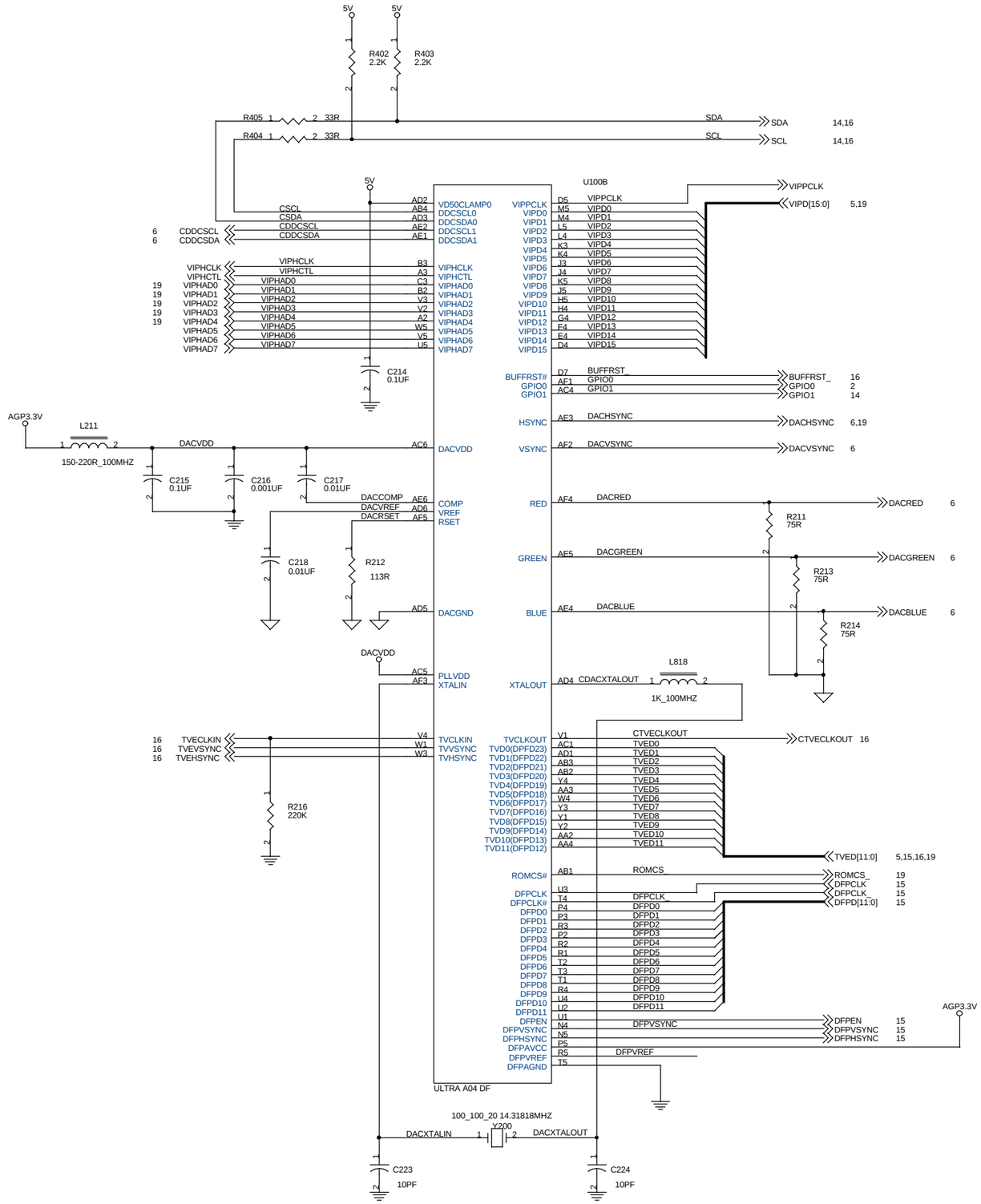
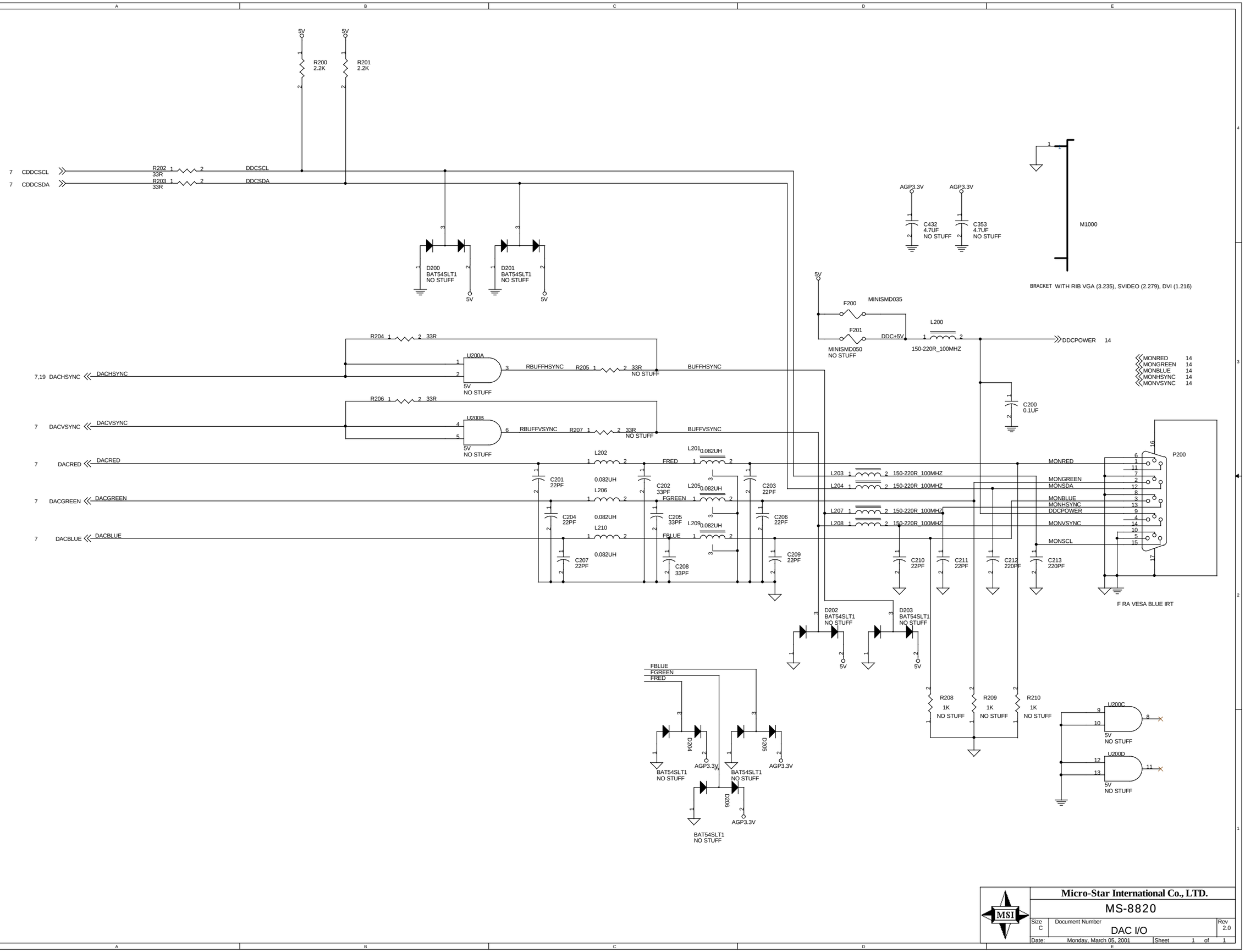
TVED[11:0] 5,15,16,19

VIPD[7:0] 5,19

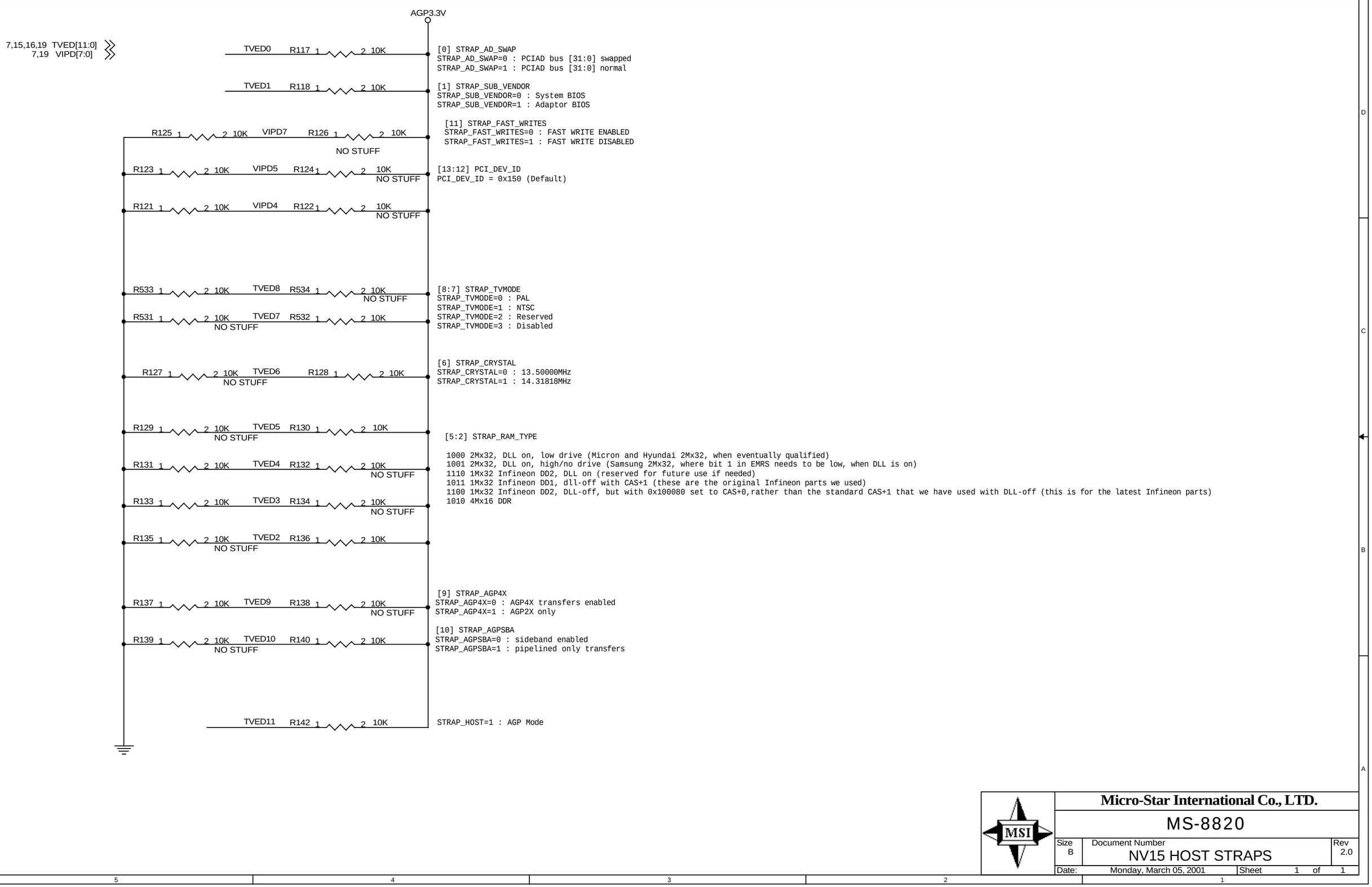


Use thick (non-impedance controlled) traces on XTALIN/OUT

Micro-Star International Co., LTD.			
MS-8820			
Size C	Document Number NV15 DAC & TV		Rev 2.0
Date: Monday, March 05, 2001		Sheet 1 of 1	



Micro-Star International Co., LTD.		
MS-8820		
Size: C	Document Number: DAC I/O	Rev: 2.0
Date: Monday, March 05, 2001	Sheet 1 of 1	



Micro-Star International Co., LTD.		
MS-8820		
Size B	Document Number NV15 HOST STRAPS	Rev 2.0
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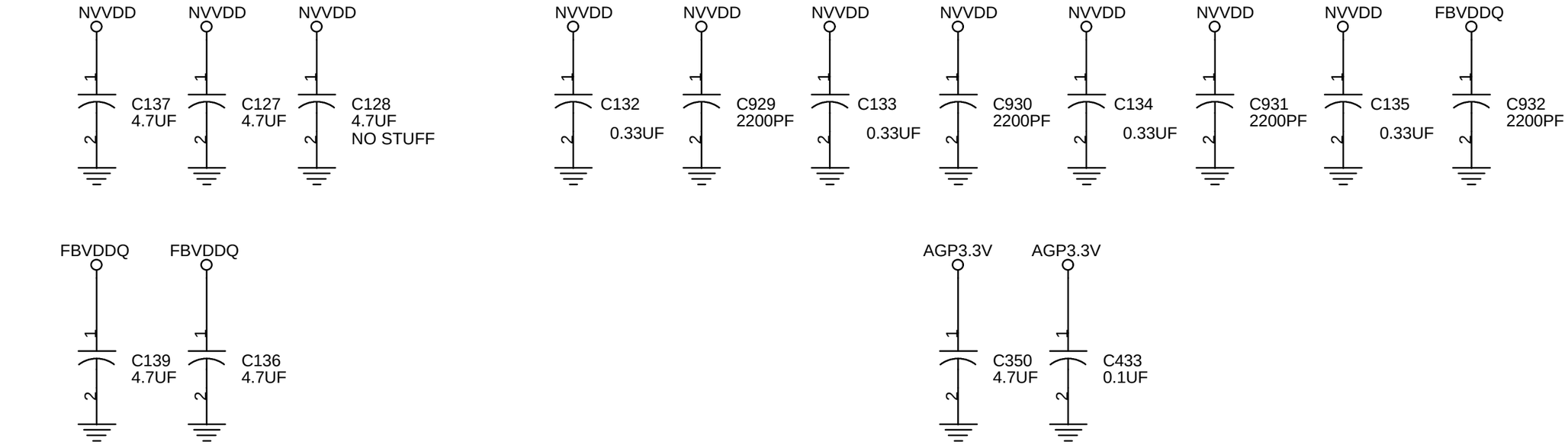
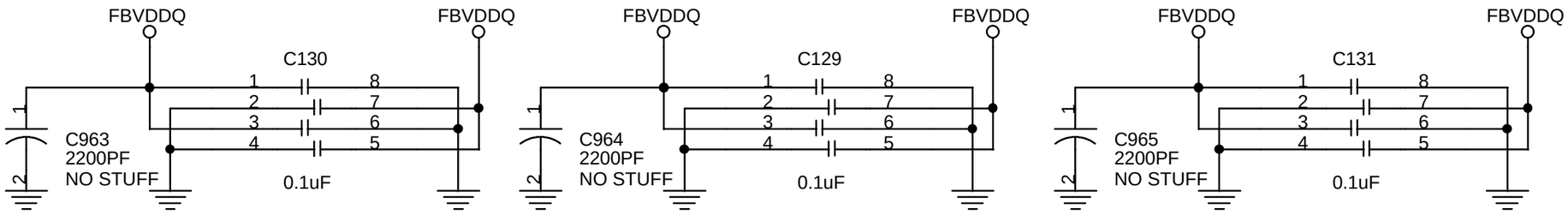
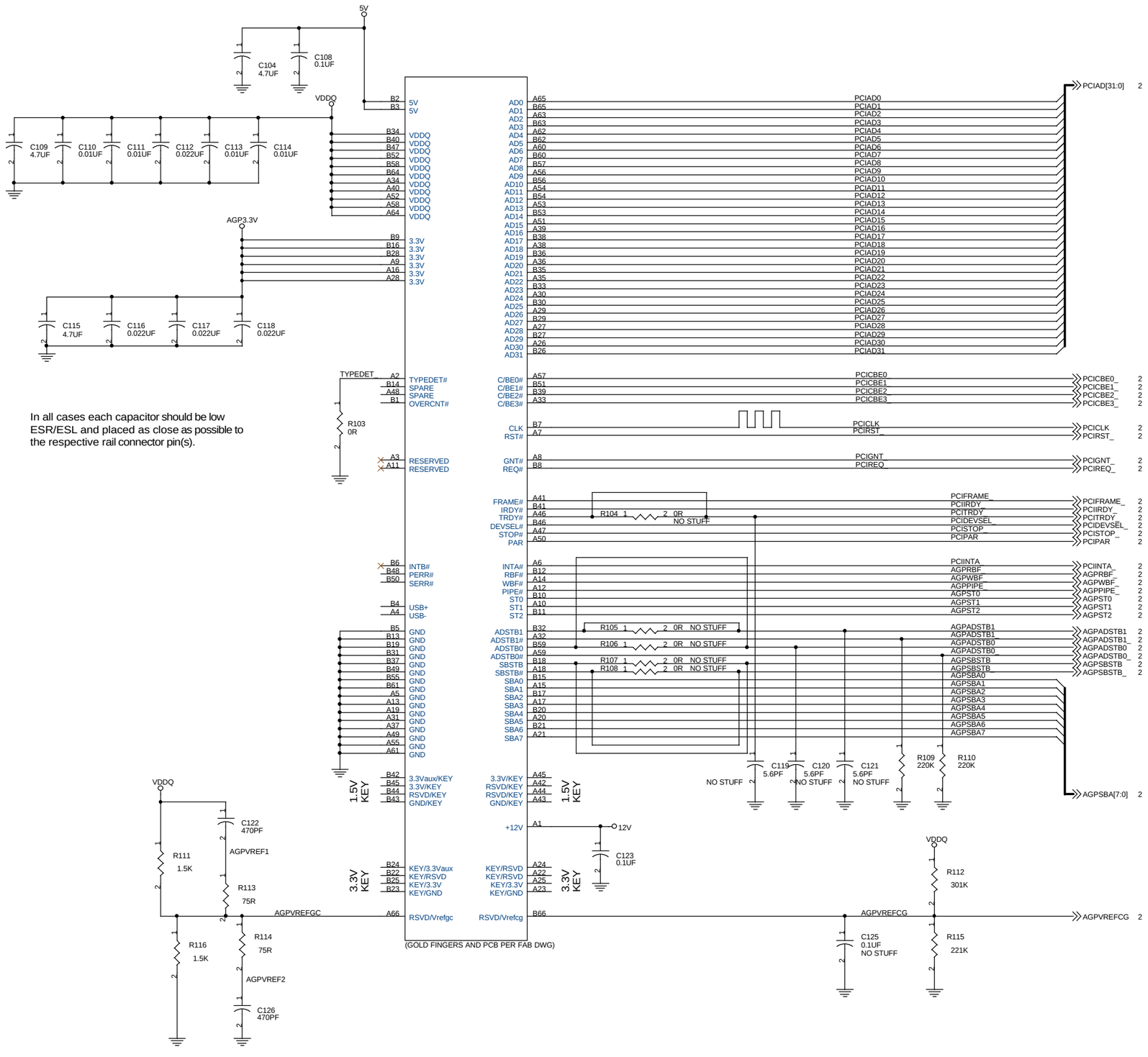
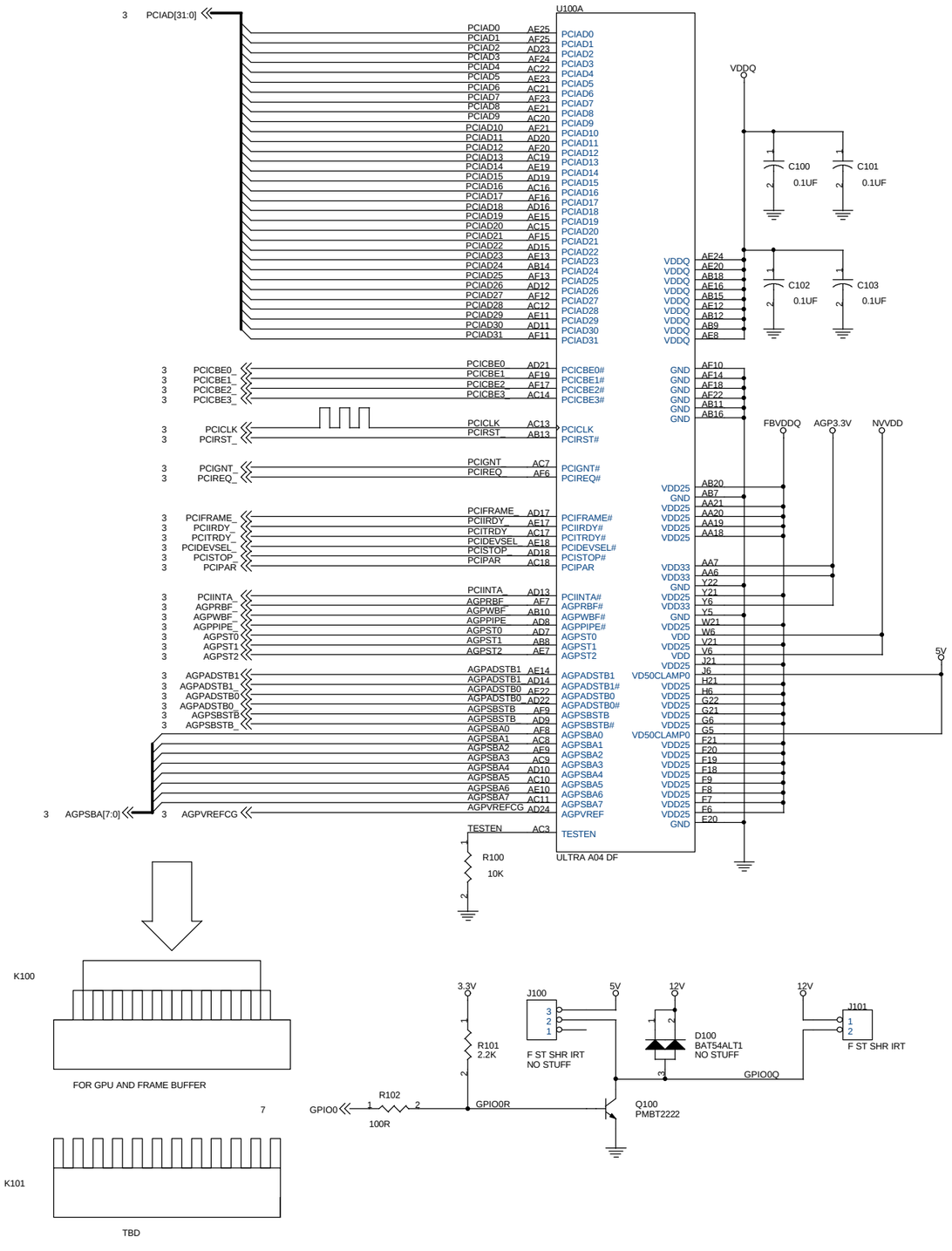




	Micro-Star International Co., LTD.	
	MS-8820	
Size A	Document Number NV15 DECOULPING	Rev 2.0
Date: Monday, March 05, 2001	Sheet 1 of 1	



Micro-Star International Co., LTD.	
MS-8820	
Size: C	Document Number: AGP I/O
Rev: 2.0	
Date: Monday, March 05, 2001	Sheet 1 of 1



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Size: C	Document Number: NV15 HOST	Rev: 2.0
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NV15, 1/2MX32 DDR, RGB, TV_OUT, VIDEO_IN, AGP4X.

PCI DEVICE ID 0X0=0X150.

Design Notes:

B00:FIXED TMDS CLKs CONNECTIONS.
B00:ADDED 4MX32 SUPPORT.
B00:Corrected memory configuration resistors.
B00:Changed C809 to 4.7UF.
B00:Changed R811 from 100R to 105R
B00:C128 changed to no stuff
B00:Removed 4mx32 function (R876, R877= NO STUFF)

	Micro-Star International Co., LTD.		
	MS-8820		
Size B	Document Number: Based on P-22-B00		Rev 2.0
Date: Monday, March 05, 2001	Sheet 1 of 1		

Title	<Title>
Size B	Document Number <Doc>
Rev	<RevCod
Date: Monday, March 05, 2001	Sheet 1 of 1