

PRIMARY ** VGA1 DAC_A ** I2C1. SECONDARY ** VGA2 DAC B ** I2CO

VIDCAP ** VIP 7114 I2C2.

P73-A00-X19

D73-A00-Y22-

P73-A01-X01

and COUT.

P73-A01-X02

C616---NS---47nF

R614---NS---8.06K C618---33nF---70nF

P611---16 2K---6 658 C619---33nF----1.8nF

P73-A01-X03-Final Netlist

P73-A01-X04-For X-Rel

C619 33pF, R616 0R Snubber values are R626 2.2R, C617 2200PF

P73-A01-X05-EC04193

Added X Components C831 to C832 to FBVDDQ R610, R612 for FRVDDO re-fixed to have <5K for Rfb

Clean-up for Agile upload Memory de-coupling values modified as per layout.

Corrected NV17-S sku in the table in this page

Corrected by swapping CVBS_YOUT and COUT at DIN

AGPSTOP to 3.3V R616 -47R inseries to 12V for ISL6529 is too high, changed to 4.7R

R624 - Added 2.2R inseries to 5V for ISL6529. ISL6529 Compensation Res to be Type 2 with

Snubber coponents stuffed. Values under test

The Type 2 Compensation works better than Type 3 Compensation

R614 No Stuff, R614 Nostuff, C618 3300pf, R611 16.2K,

R616 -4.7R inseries to 12V for ISL6529 is changed to 0R

P73-A00-X20- X-Rel Candidate

Q600 Should be FET istead of BJT

The RED and GREEN signal to TV filter interchanged. Corrected by swapping CVBS_YOUT

P73-A00-X21- ECO-3893

Created SCH from P78-X16 for I/O Netlist only

P73-A00-X02

CREATED NX16 MEMORY, DECOUPLING FROM P78

P73-A00-X03

ADDED MEM & CORE FROM P70 PS FOR ISL6529

SAA7114 DECAPS ADDED AND CHANGED TO 0402

P73-A00-X04

PCB Footprint for RAM added

P73-A00-X05

C620, C621 Removed Extra Mem Decaps removed

P73-A00-X06

PCB Footprint for Inductor, Stacked DB15, ISL6529 added PCB Footprint for L305, L307, L308, L316-L324 changed to 0603 from 0805. Added X-Comp R750, R751.

P73-A00-X07

P73-A00-X08

U700-Parallel ROM and C700 decap Removed for space

0603 to 0402 Package Changes for 49 components

P73-A00-X10

Design Review Updates

0603 to 0402 Package Changes for 33 components

0805 to 0603 Package Changes for 17 components

0402 to 0603 Package Changes for 10 components Removed 25 components

P73-A00-X11 Swaps in Memory termination RN201, RN203, RN205, RN207

P73-A00-X12

C606, C615 TH replacements, Removed for want of space. P73-A00-X13

Memory bus swaps on 1/11/02-Swap 2

P73-A00-X14 Memory bus swaps on 1/12/02-Swap 3

Memory bus byte swaps as per NV17-Ball arrangement

Memory bus byte and bit swaps as per layout TV Filter moved to VGA2 page with more routing notes

P73-A00-X17

The C397, C311, C318 changed to 0603 from 0402 for two trace routing near GPU break out. P300-2 Mounting pins removed from CGND

P73-A00-X18

Added X Components C824 to C830 to FBVDDQ

PAGE OVERVIEW

- 1 top (this) page
- 2 1. AGP interface, core decoupling
- 3 2.a NV17 Frame Buffer
- 4 3.a Dual DAC, 1st VGA
- 5 3.b Dual DAC, 2nd VGA
- 6. 3.c TMDS NV17
- 7 4.a Frame Buffer 0..31
- 8 4.b Frame Buffer 32...63
- 9 5. TV-out, video capture, stereo
- 10 6. Power supply
- 11 7. BIOS, Strapping

P73, NV17, 4/8Mx16 DDR, 32/64MB, Dual RGB, TV-out, Video Capture, AGP4X

PCI DEVICE ID = 0X172 FOR GF4-MX420-XX.



Stuff Option	Meaning
COMMON	Common to all assemblies and 1st VGA comps
NO STUFF	Not present in any assembly
VIDCAP	Video In or Video Capture
VGA2	2nd VGA Components and Conenctor
DSUB	Standard single VGA Connector
TV	Second DAC channel goes to Svideo connector as TV Out
TVO	4pin DIN for TV Only
1117	Fixed 1117 linear regulator for A3.3V
1117_ADJ	Adjustable 1117 linear regulator for A3.3V
NO_1117	Connect A3.3V to 3.3V. No 1117 regulator.
CLAMP1	VGA1 Sync/I2C Clamping diodes
RGB PROT	RGB Protection diodes on primary DAC outputs
CLAMP2	VGA2 Sync/I2C Clamping diodes
RGB2_PROT	RGB Protection diodes on secondary DAC outputs
CLAMP3	VIDCAP I2C/Video In Clamping diodes
TVCLAMP	TV Red/Green Clamping diodes
GPU	GPU ONLY
NV17-S	IDSTRAP OPTION-172H
MEMORY	Memory only
M2-8V	Memory PS output 2.8V

Memory PS output 2.5V

MS-8878 BASE ON P73 MODIFY

The Type 3 Compensation works better than Type 2 Compensation

in the new layout with new values tried at Intersi C616-47nF. R614-10R, C618 1000pf, R611-10K, C619 1500pF.

Page 1. Add CE1 and RE1 for EMI solution.

Add compability with M/B.

rename , C22 to C144,R4 to R111,R5 to R112,R6 to R113,U1 to U101

change NET name, U100.AH17 to BUF_PCIRST_ also at the R112 and C144.

Page 4. U300.9, U300.10, U300.1, U300.2 and U300.7 pin connect to GND.

Page 5. remove VGA2 function.

Page 9. Remove SAA7114H function and ADD AV-OUT & S_OUT conector.

remove L500, C500, C505, C506, C538, C539, C507, C508

Page 10. C613,C604,C605,C614,L600 and L601 change to DIP type,ADD C620 , Q1 change to AOS4800

Page 11. R704~R719,R726~R733,R745,R746 PAD size change to 0603 type and Add R747 10k ohm. Add parallel bios function.

R746,R747 stuff (00)

Page 6 . Add Fan power function.

MS-8878 VER:310 MODIFY

Page 2. Add 74XCT74 buffer for PCI_RST function

Page 5. Add 75ohm and bypass Cap. for TV-OUT function

Page 9. Swap S-OUT.3 and S-OUT.4 net name.

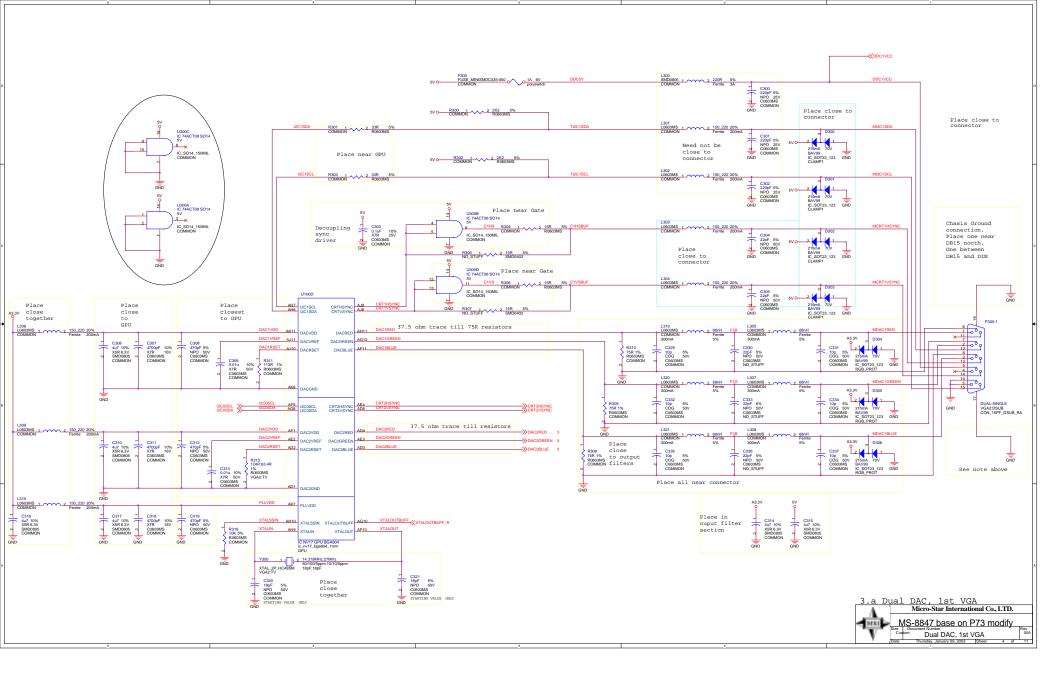
Page 10. Change DIP type CAP. footprint.

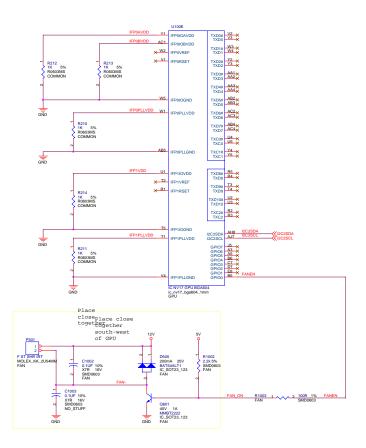
Page 11. Change U1000.22 net name

140-10073-0000-A01 602-10073-0000-A01



M2-5V





3.c TMDS NV17

Micro-Star International Co., LTD.

MIS-8847 base on P73 modify

Size | Document Number
Culculum TMDS NV17

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