MSI CONFIDENTIAL

KABINI 7833-0E

(170mmX220mm)

APU:

FT3

OnBoard Chipset:

AZALIA Codec: Realtek ALC662
LAN: RTL8111GN Colay RTL8111F
SIO: IT8775E-CX
Flash ROM: 4MB

Main Memory:

DDRIII (1066/1333/1600/1866MHz) * 2 (SINGLE Channel)

Expansion Slots:

PCI Express (X16) Slot * 1
PCI Express (X1) Slot * 1

PWM:

Controller: ISL62771
Controller: NCP1589L

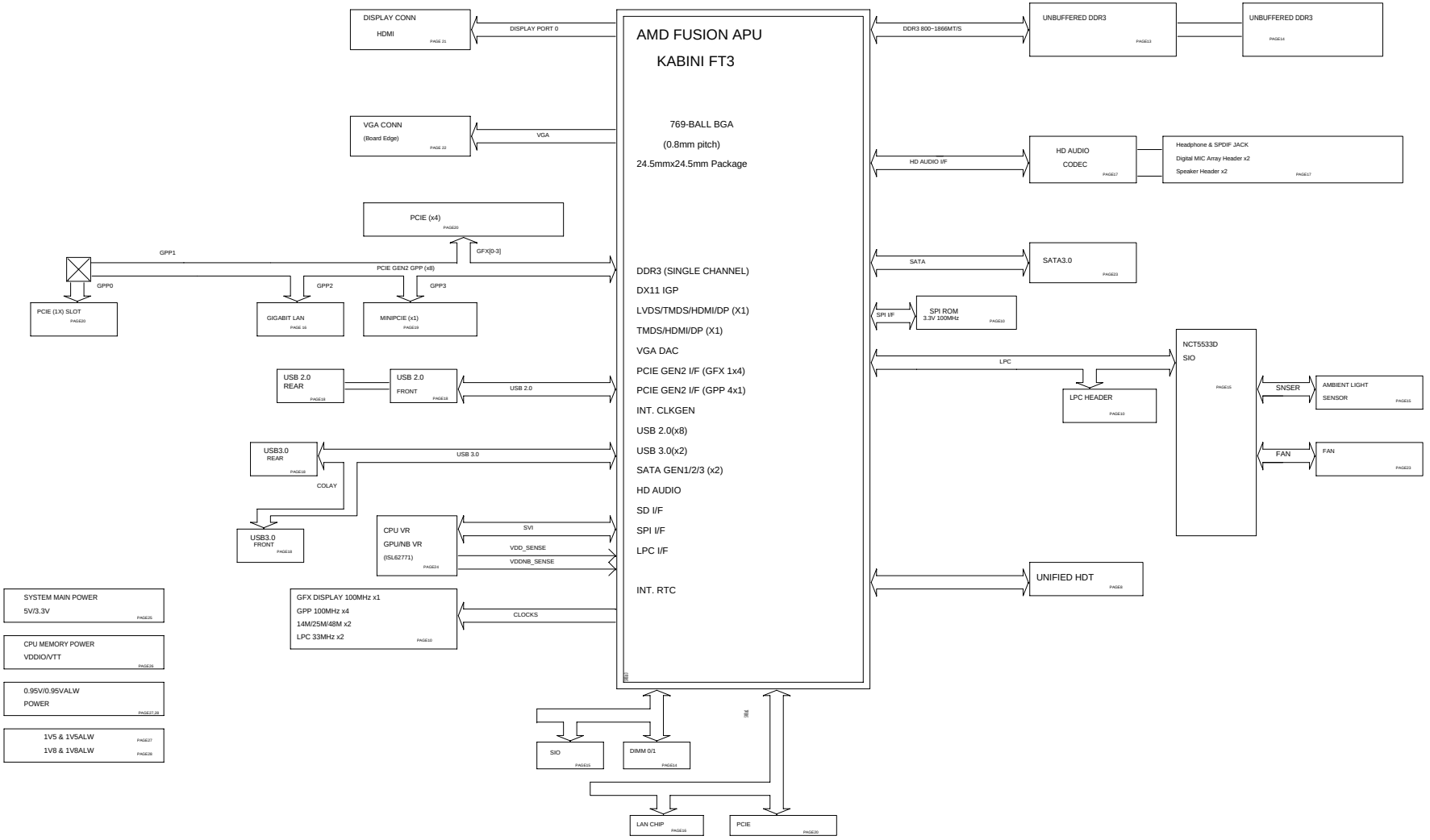
Other:

SATAIII *2
USB2.0 *6(1 have charge fuction)
USB3.0*2
VGA CONN
HDMI CONN

MSI Link to the Future MICRO-START INT'L CO.,LTD.

Title: Cover Sheet		
Size	Document Number: MS-7833	Rev: 0E
Date: Tuesday, November 26, 2013	Sheet 1 of 35	

LARNE FT3 BLOCK DIAGRAM



MSI	MICRO-START INT'L CO.,LTD.	
Title	Block Diagram	
Size	Document Number: MS-7833	Rev: 0E
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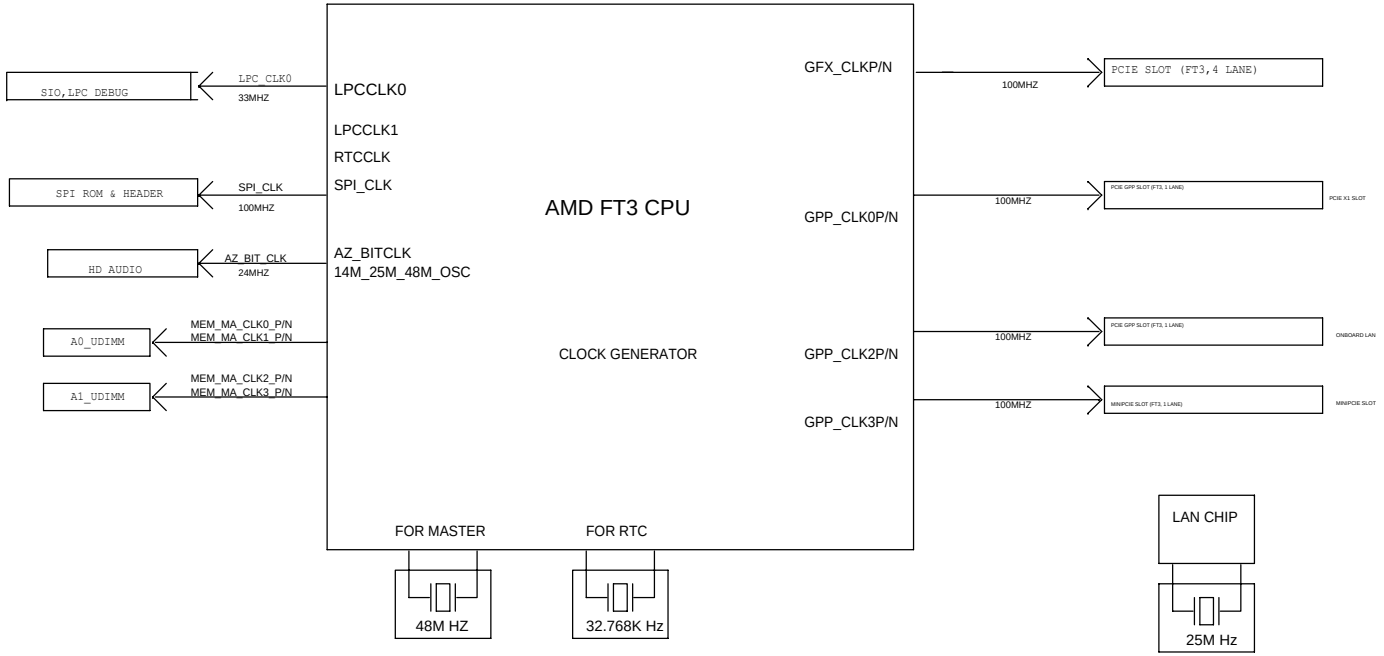

MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title	***Clock Distribution***	
Size	Document Number **MS-7833**	Rev **0E**
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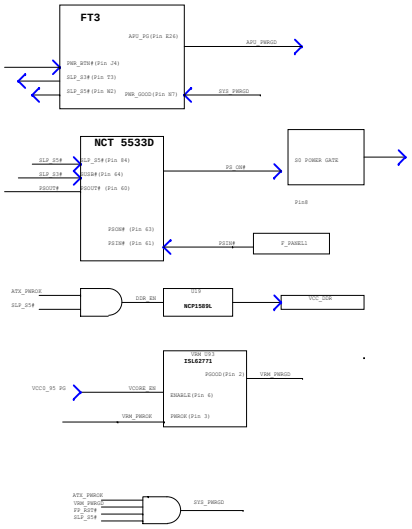
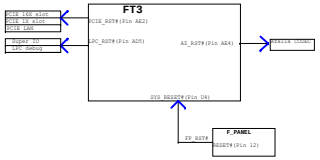
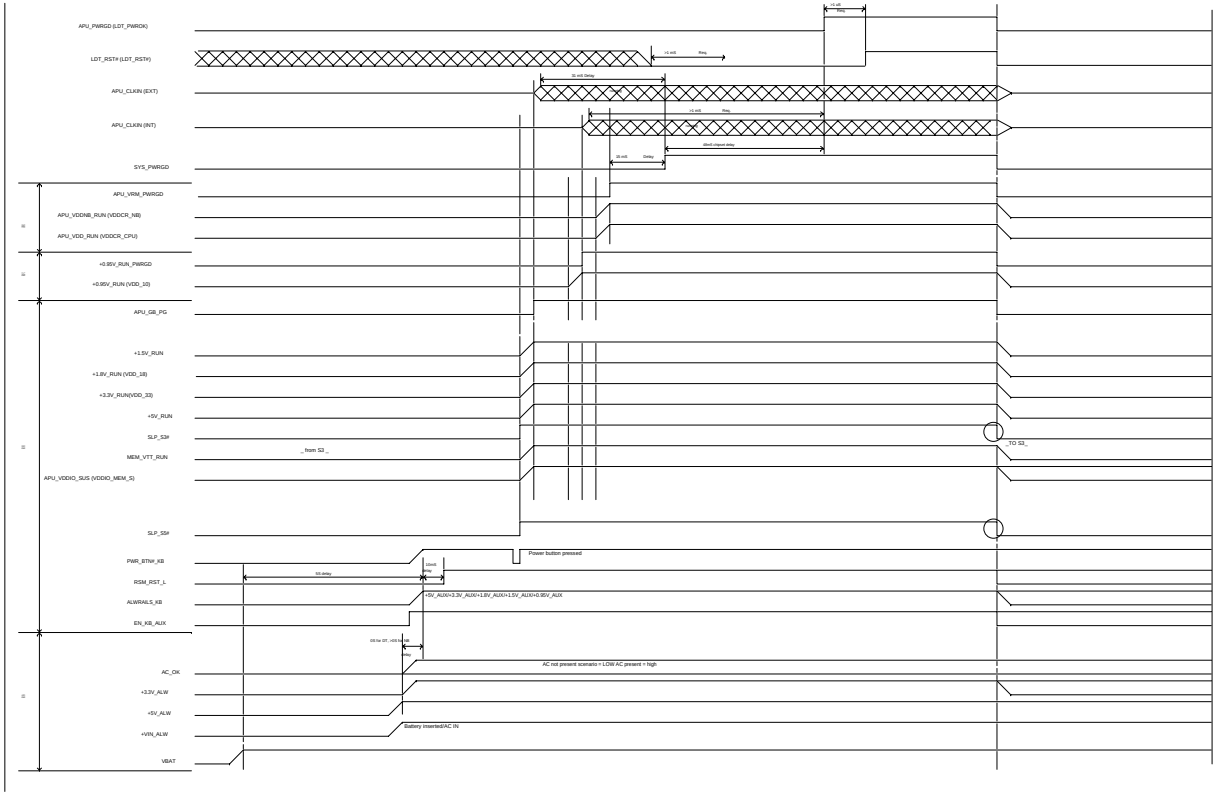
PWRGD MAP



RESET MAP



Power-up Sequencing for the KABINI Platform from Mechanical Off



MSI	MICRO-START INTL CO.,LTD.	
Title	POWER SEQUENCE&MAP CHART	
Size	Document Number: MS-7833	Rev: 0E
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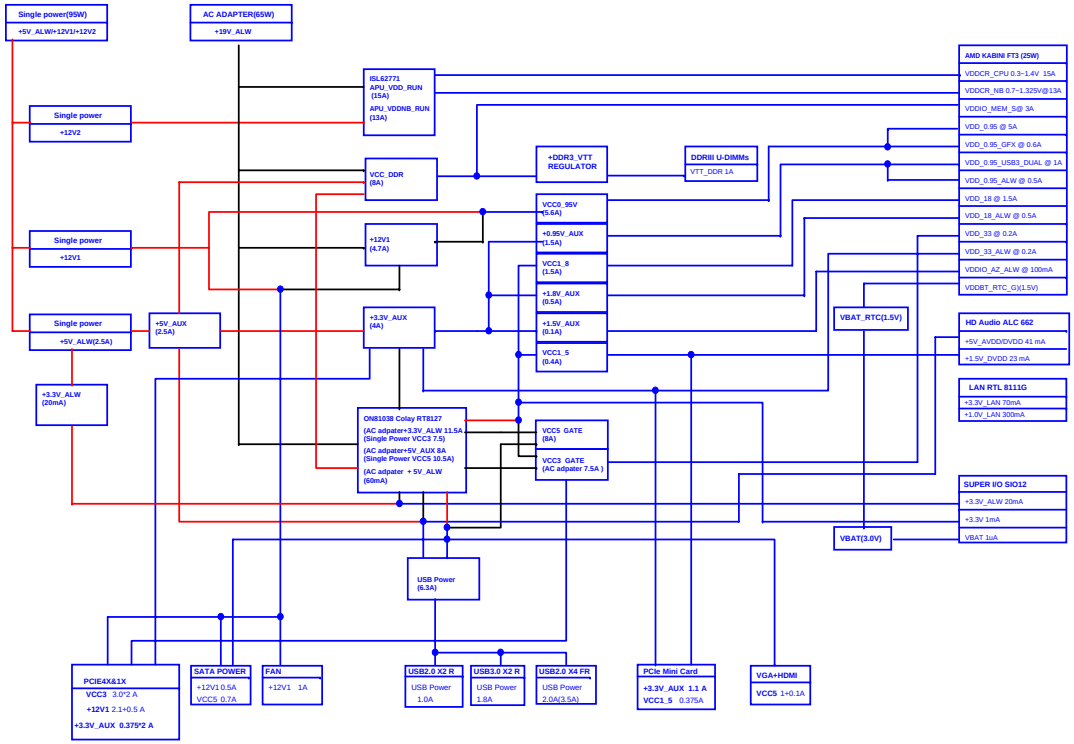
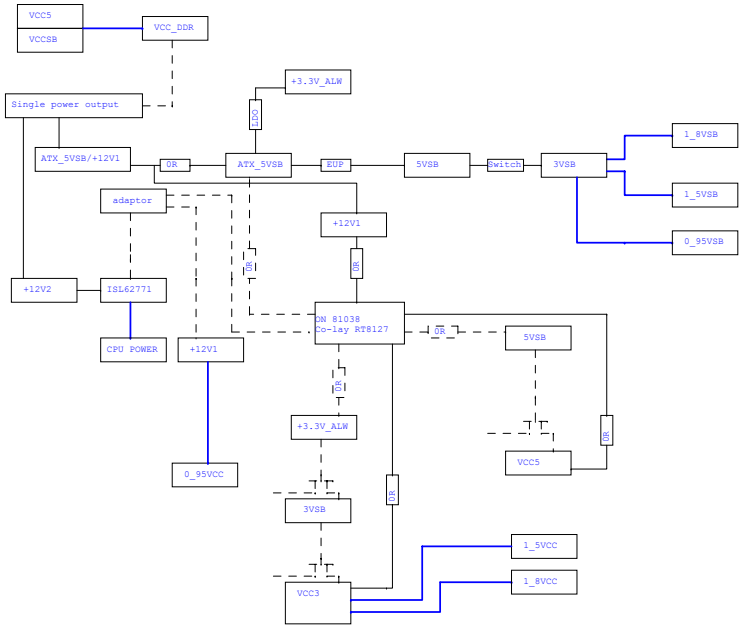
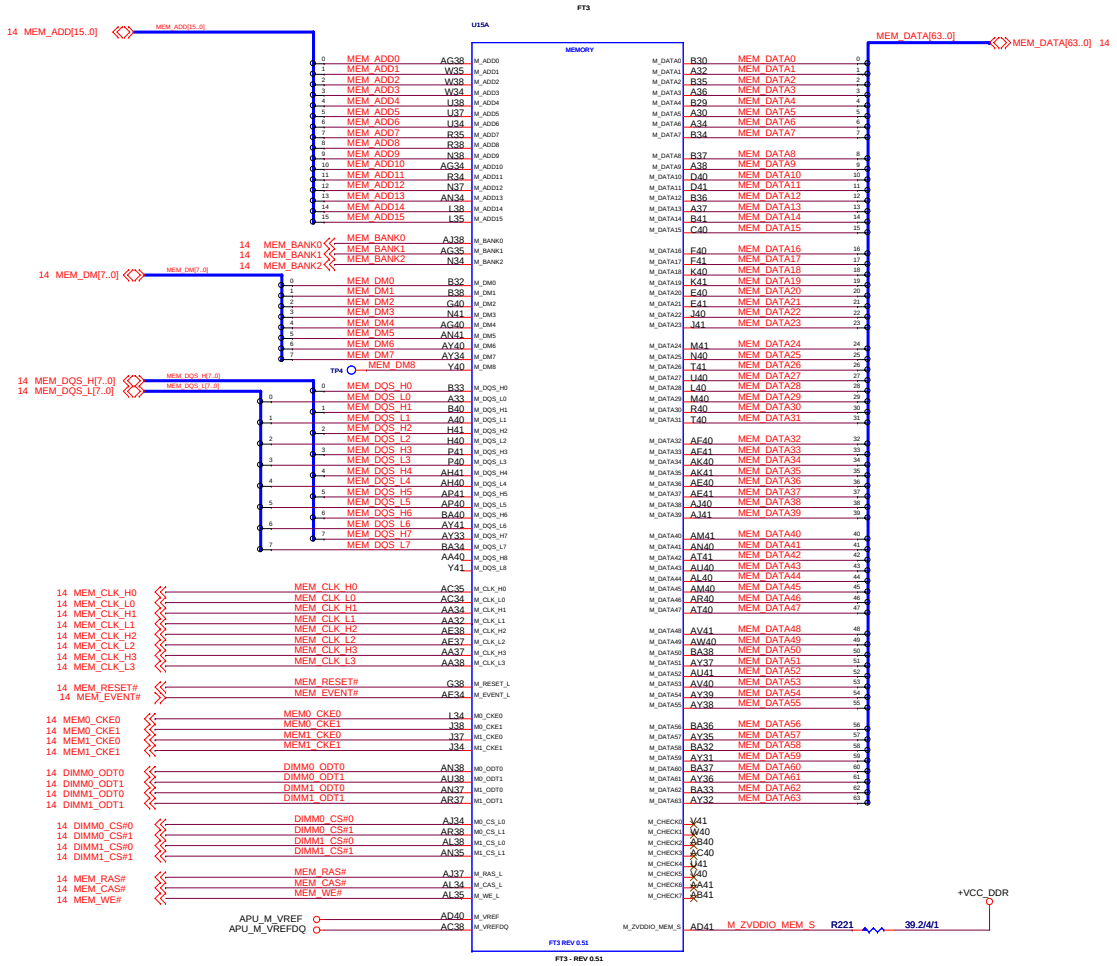




MSI	MICRO-START INTL CO.,LTD.	
Title	POWER DEVICE CHART	
Size	Document Number: MS-7833	Rev: 0E
Date: Tuesday, November 26, 2013	Sheet 5 of 26	



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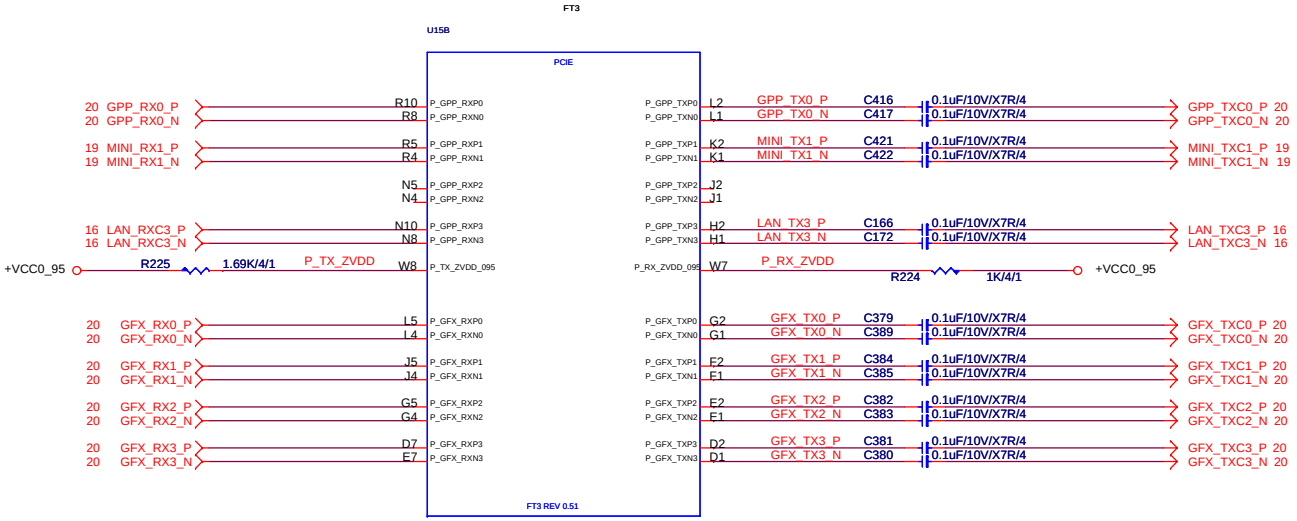
Title	FT3-MEMORY	
Size	Document Number MS-7833	Rev 0E
Date: Tuesday, November 26, 2013	Sheet 6 of 35	



MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title: *FT3 PCIE*		
Size	Document Number: **MS-7833**	Rev: **0E**
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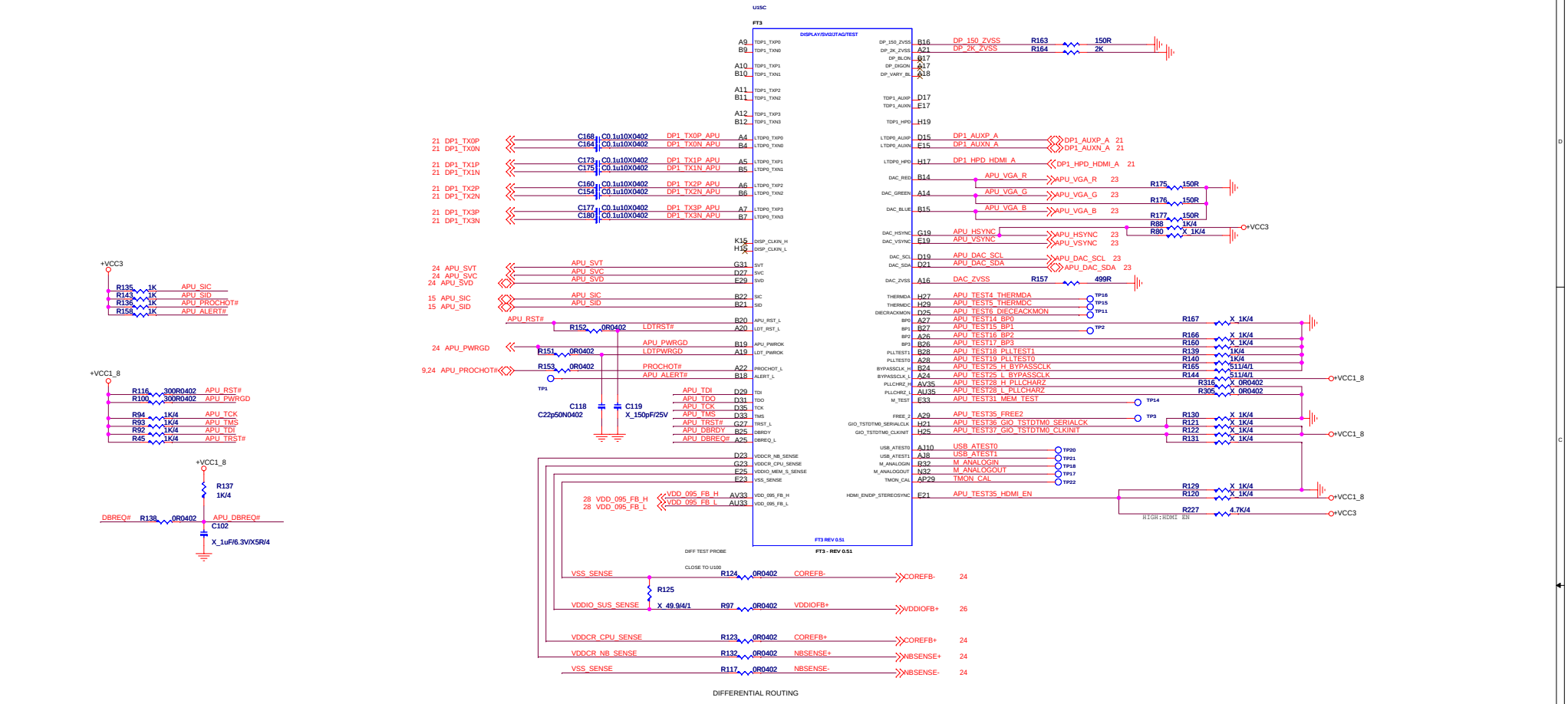

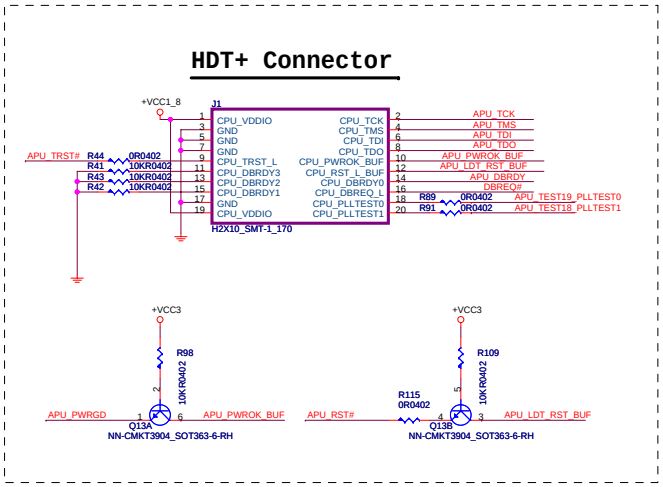

MSI MICRO-STAR INT'L CO.,LTD.			
Title: FT3 DISPLAY			
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LPC_RST# for LPC device;
PCIE_RST# for PCIE device;

U15D
FT3
ACPI/SD/AZ/GPIO/RTC/MISC

16,19,20,30 PCIE_RST# — R277 33R0402 — PCIE_RST# R
15 LPC_RST# — R283 33R0402 — LPC_RST# R
LPC_RST# R — AY4 LPC_RST_L
PCIE_RST# R — AY9 PCIE_RST_L
15 IO_RSMRST# — R311 33R0402 APU_RSMRST# — AY5 RSMRST_L
15 PWRBTN# — PWRBTN# — BA8 PWR_BTN_L
SYS_PWRGD — AM19 PWR_GOOD
31 FP_RST# — FP_RST# — AY7 SYS_RESET_L/GEVENT19_L
15,16,19,20,30 PE_WAKE# — R288 0R0402 APU_WAKE# — AW11 WAKE_L/GEVENT8_L
15,18,26 SLP_S3# — R265 0R0402 SLP_S3# APU — AY3 SLP_S3_L
15,18,26 SLP_S5# — R274 0R0402 SLP_S5# APU — BA5 SLP_S5_L
APU_TEST0 — AU13 TEST0
APU_TEST1 — AY10 TEST1/TMS
APU_TEST2 — AY6 TEST2
15 KBRST# — KBRST# — AR23 KBRST_L
15 A20GATE — A20GATE — AR31 GA20IN/GEVENT0_L
15 LPC_PME# — R400 X_0R0402 — LPC_PME# FCH — AN5 LPC_PME_L/GEVENT3_L
TP23 — SMI# — AL7 LPC_SMI_L/GEVENT23_L
AP15 AC_PRES/IR_RX0/GEVENT16_L
AV13 IR_TX0/GEVENT21_L
BA9 IR_TX1/GEVENT8_L
BA10 IR_RX1/GEVENT20_L
AV15 IR_LED_L/LLB_L/GPIO184
18 CTL3 — CTL3
AU29 CLK_REQ0_L/SATA_IS0_L/SATA_ZP0_L/GPIO60
AW29 CLK_REQ1_L/GPIO61
AR27 CLK_REQ2_L/GPIO62
AV27 CLK_REQ3_L/SATA_IS1_L/SATA_ZP1_L/GPIO63
AY29 CLK_REQ0_L/GPIO65/OSCIN
18 USB_OCP#1 — USB_OCP#1 — AY8 USB_OC0_L/SPI_TPM_CS_L/TRST_L/GEVENT12_L
18 USB_OCP#2 — USB_OCP#2 — AW1 USB_OC1_L/TDI/GEVENT13_L
18 USB_OCP#3 — USB_OCP#3 — AV1 USB_OC2_L/TCK/GEVENT14_L
18 USB_OCP#4 — USB_OCP#4 — AY1 USB_OC3_L/TDO/GEVENT15_L
AZ_BITCLK_APU — AN2 AZ_BITCLK
AZ_SDOUT_APU — AN1 AZ_SDOUT
AZ_SDIN0_APU — AK2 AZ_SDIN0/GPIO167
AK1 AZ_SDIN1/GPIO168
18 MINI_DIS# — MINI_DIS# — AM1 AZ_SDIN2/GPIO169
AL2 AZ_SDIN3/GPIO170
AZ_SYNC_APU — AM2 AZ_SYNC
AZ_RST_APU — AL1 AZ_RST_L
APU_32K_X1 — AJ2 X32K_X1
APU_32K_X2 — AJ1 X32K_X2
FT3 REV 0.51
FT3 - REV 0.51

SD_PWR_CTRL BA23
SD_CLK/GPIO73 AY22
SD_CMD/GPIO74 AY23 FCH_GPIO74 — FCH_GPIO74 15
SD_CD/GPIO75 AY20 FCH_GPIO75 — FCH_GPIO75 15
SD_WP/GPIO76 BA20 FCH_GPIO76 — FCH_GPIO76 15
SD_DATA0/GPIO77 BA22 FCH_GPIO77 — FCH_GPIO77 18
SD_DATA1/GPIO78 AY21 FCH_GPIO78 — FCH_GPIO78 18
SD_DATA2/GPIO79 AY24
SD_DATA3/GPIO80 BA24
SD_LED/GPIO45 AY25
SCL0/GPIO43 AU25 APU_SCLK0 R319 0R0402 SCLK0 — SCLK0 14
SDA0/GPIO47 AV25 APU_SDATA0 R320 0R0402 SDATA0 — SDATA0 14
SCL1/GPIO227 AY11 APU_SCLK1 R299 0R0402 SCLK1 — SCLK1 16,19,20,30
SDA1/GPIO228 BA11 APU_SDATA1 R298 0R0402 SDATA1 — SDATA1 16,19,20,30
GPIO49 AP27 CHASSIS_ID1
GPIO50 AY28 CLR_CMOS
GPIO51 BA28 CHASSIS_ID2
GPIO55 AV23
GPIO57 AP21
GPIO58 BA26
GPIO59 AV19
GPIO64 AY27
SPKR/GPIO66 BA27 SPKR — SPKR 17,31
GPIO68 AU21
GPIO69 AY26
GPIO70 AV21
GPIO71 AM21 PROCHOT# CTRL R368 X_0R0402 APU_PROCHOT# — APU_PROCHOT# 8,24 Why use this pin in CRB?
GPIO174 BA3 CTL2 R279 10K/4 +3.3V_AUX
GEVENT2_L AV17 GEVENT2_L — GEVENT2_L 13
GEVENT4_L BA4 FCH_GEVENT4
GEVENT7_L AR15 FCH_GEVENT7
GEVENT10_L AP17
GEVENT11_L AP11
GEVENT17_L AN8
BLINK/GEVENT18_L AU17
GEVENT22_L BA6
GENINT1_L/GPIO32 BA29 CHASSIS_ID3
GENINT2_L/GPIO33 AP23
FANOUT0/GPIO52 AV31
FANIN0/GPIO56 AU31
RTCCLK AV11 RTC_CLK R326 10K/4 — R313 X_2.2K/4

+3.3V_AUX — R284 X_1K/4/1 R271 15KR1%0402 — APU_TEST0
+3.3V_AUX — R302 X_1K/4/1 R292 15KR1%0402 — APU_TEST1
+3.3V_AUX — R654 X_1K/4/1 R653 15KR1%0402 — APU_TEST2
+VCC3
SCLK0 R328 2.2KR0402
SDATA0 R329 2.2KR0402
+3.3V_AUX
SCLK1 R310 2.2KR0402
SDATA1 R309 2.2KR0402
FCH_GPIO77 R644 10KR0402 +VCC3
FCH_GPIO78 R643 10KR0402 +VCC3
18 CTL2 — CTL2
+3.3V_AUX — R652 X_10KR0402 R651 X_10KR0402 — FCH_GEVENT4
+3.3V_AUX — R337 X_10KR0402 R338 X_10KR0402 — FCH_GEVENT7
+3.3V_AUX

APU_RSMRST# — C224 C1000P50X0402
Rise time ≤ 50-ms
85 voltage rails ramp up at least 10-ms
before RSMRST# is deasserted

GPIO reserver
+VCC3 — R358 X_10KR0402 R359 X_10KR0402 — CHASSIS_ID1
+VCC3 — R357 X_10KR0402 R356 X_10KR0402 — CHASSIS_ID2
+VCC3 — R369 X_10KR0402 R365 X_10KR0402 — CHASSIS_ID3
+VCC3 — R360 X_10KR0402 R363 X_10KR0402 — PROCHOT# CTRL

+3.3V_AUX — R386 X_10KR0402 LPC_PME# FCH — R276 10K/4 APU_WAKE#
+3.3V_AUX — R251 X_10K/4 USB_OCP#3; R263 X_10K/4 USB_OCP#2; R270 10K/4 USB_OCP#4; R281 10K/4 USB_OCP#1

Y3 32.768KHZ12.5P_D-1 — APU_32K_X1 — APU_32K_X2
R233 20MR
C206 C15p50N
C214 C15p50N
Layout:Place x'tal within 1.5 inch of APU

PLACE CLOSE TO U922
17 AZ_SDOUT — R569 33R0402 AZ_SDOUT_APU
17 AZ_SYNC — R540 33R0402 AZ_SYNC_APU
17 AZ_RST# — R529 33R0402 AZ_RST_APU
17 AZ_SDIN0 — R241 33R0402 AZ_SDIN0_APU
17 AZ_BIT_CLK — R237 33R0402 AZ_BITCLK_APU
AZ_SDIN0_APU — C210 15p50N0402
R617 may stuff 15pF cap for EMI
AZ_BIT_CLK — R236 X_10KR0402
AZ_SDIN0 — R248 X_10KR0402
PLACE CLOSE TO APU

POWER GOOD CIRCUIT

+1.8V_AUX — R352 10K/4
31 FP_RST# — D16 X_S-BAT54A_SOT23
15,18,26 SLP_S3# — D16 X_S-BAT54A_SOT23
PWRGD_MUX — R304 0/4 — SYS_PWRGD
C255 X_1uF/16V/X7R/6
15 SIO_PWROK — D17 S-BAT54A_SOT23
15,25 ATX_PWROK — D17 S-BAT54A_SOT23
+3.3V_AUX — R355 100K/4 — Q28 2N7002/SOT23SGD
+VCC3 — R349 10K/4
24 PWRGD_VDD — R354 0R0402
24 PWRGD_NB — R348 0R0402
VRM_PWRGD — Q27 2N7002/SOT23SGD
C131 1000pF/50V/X7R/4

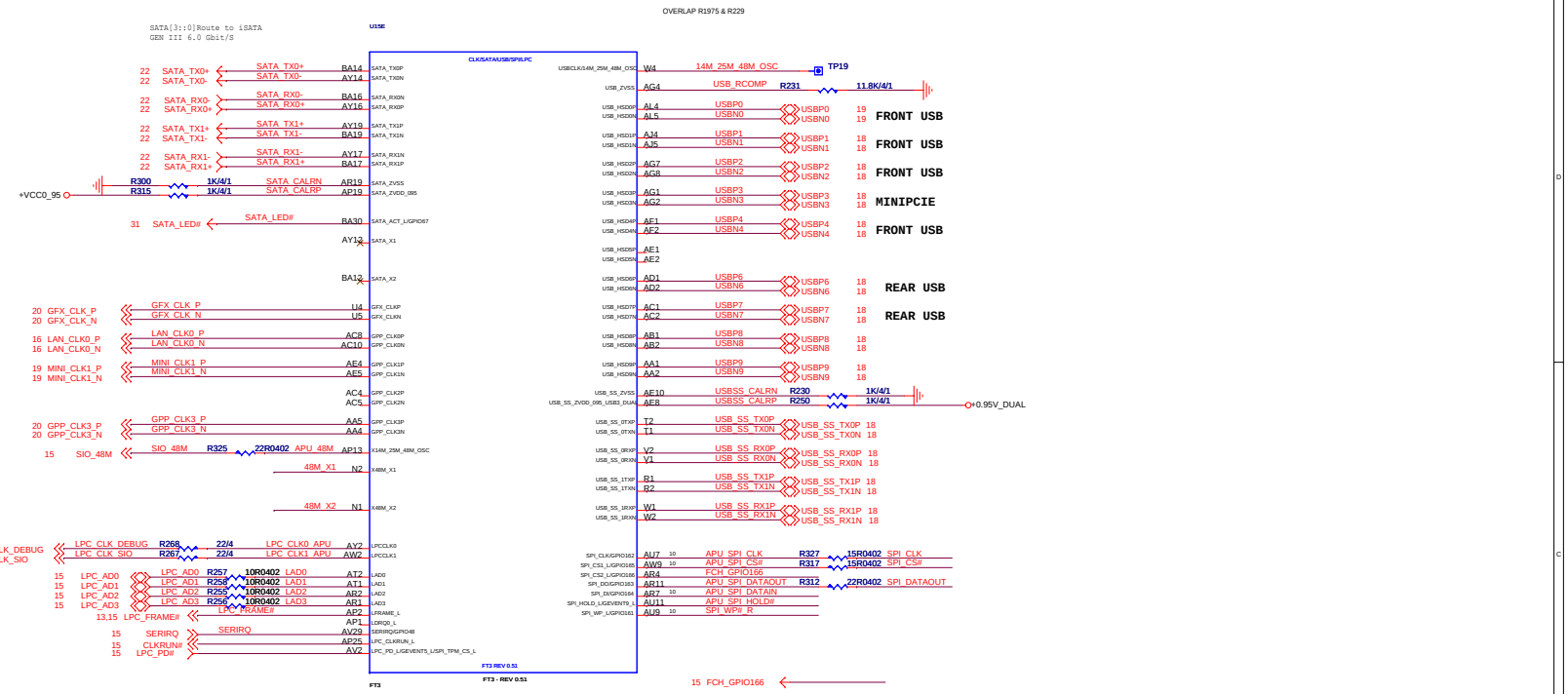
CLEAR CMOS

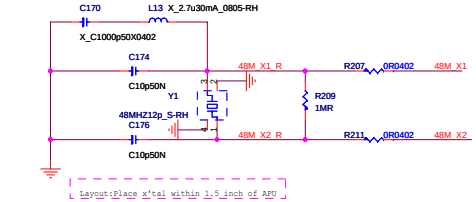
+VCC3 — R539 10KR0402 — CLR_CMOS — H1X3M_RED-RH
CLR_CMOS_X1 — JUMP1X2A_RED-RH
CMOS CLEAR JUMPER
CLR_COMS Clear CMOS

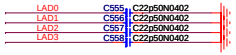
1 - 2	Normal
2 - 3	Clear CMOS

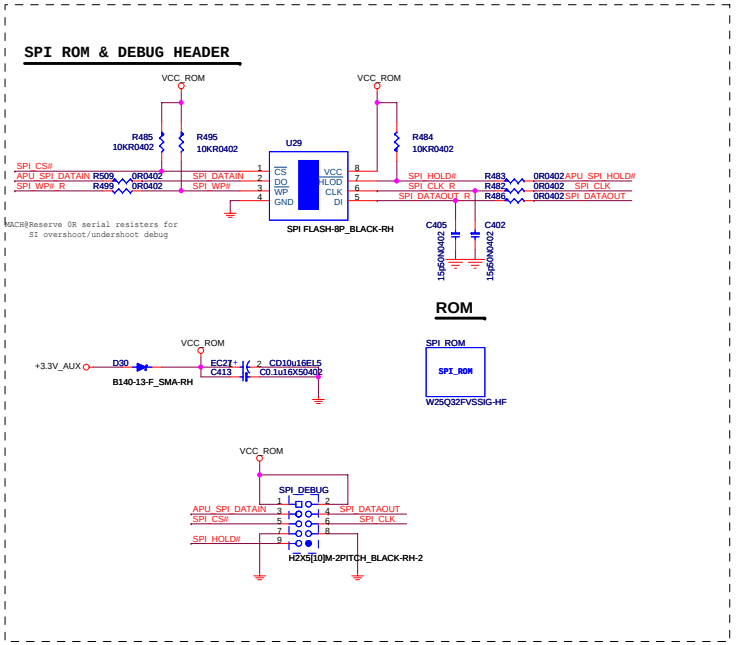
MSI Link to the Future MICRO-START INT'L CO.,LTD.

Title: FT3 ACPI/GPIO
Size: Document Number: MS-7833 Rev: 0E
Date: Tuesday, November 26, 2013 Sheet 9 of 35



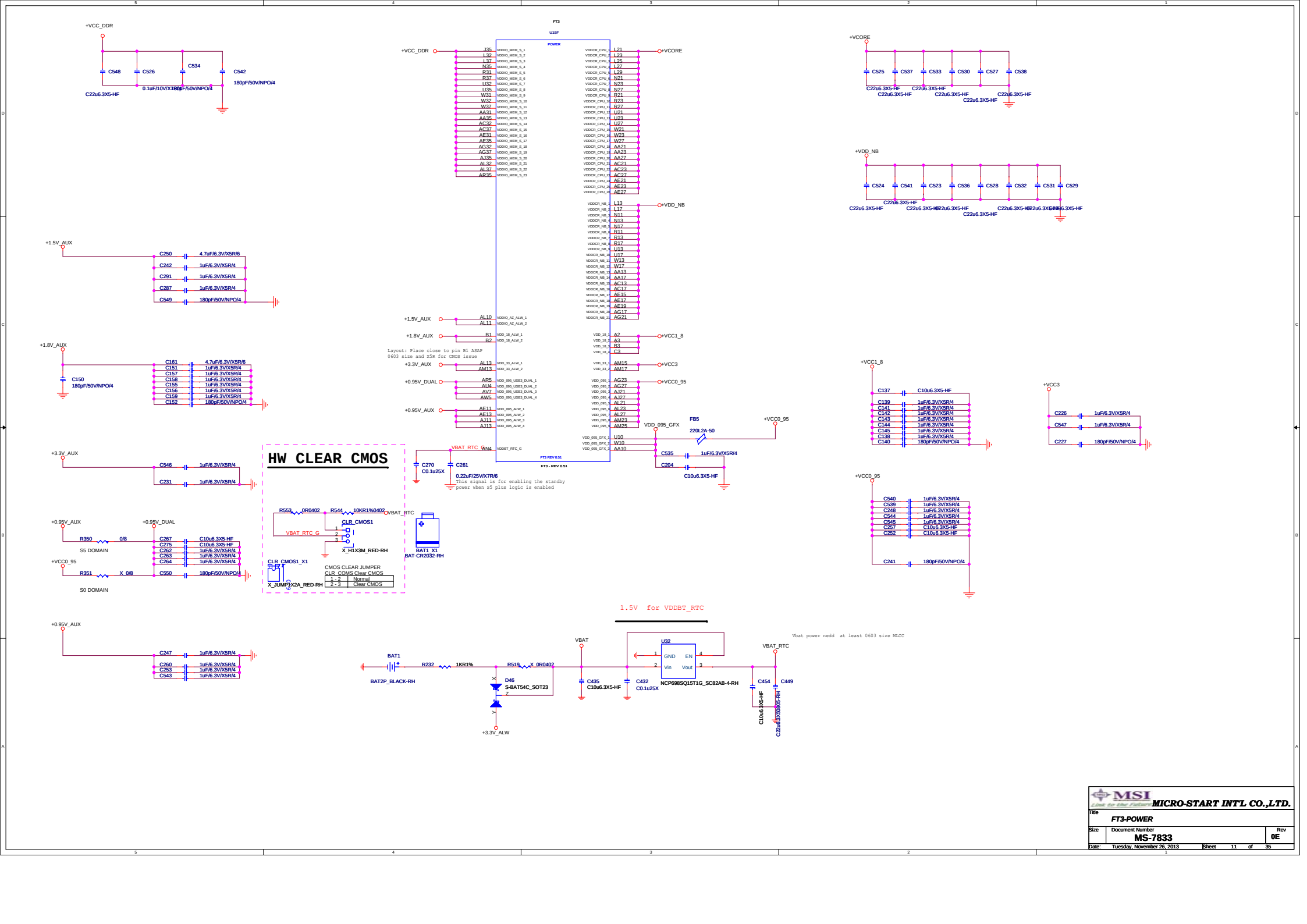






MSI Link to the Future MICRO-START INTL CO.,LTD.

Title	FT3-LPC/SPI/SATA/USB	
Size	Document Number MS-7833	Rev 0E
Date: Tuesday, November 26, 2013	Sheet 10 of 35	



Title	FT3-POWER
Size	
Document Number	MS-7833
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Date:	Tuesday, November 26, 2013
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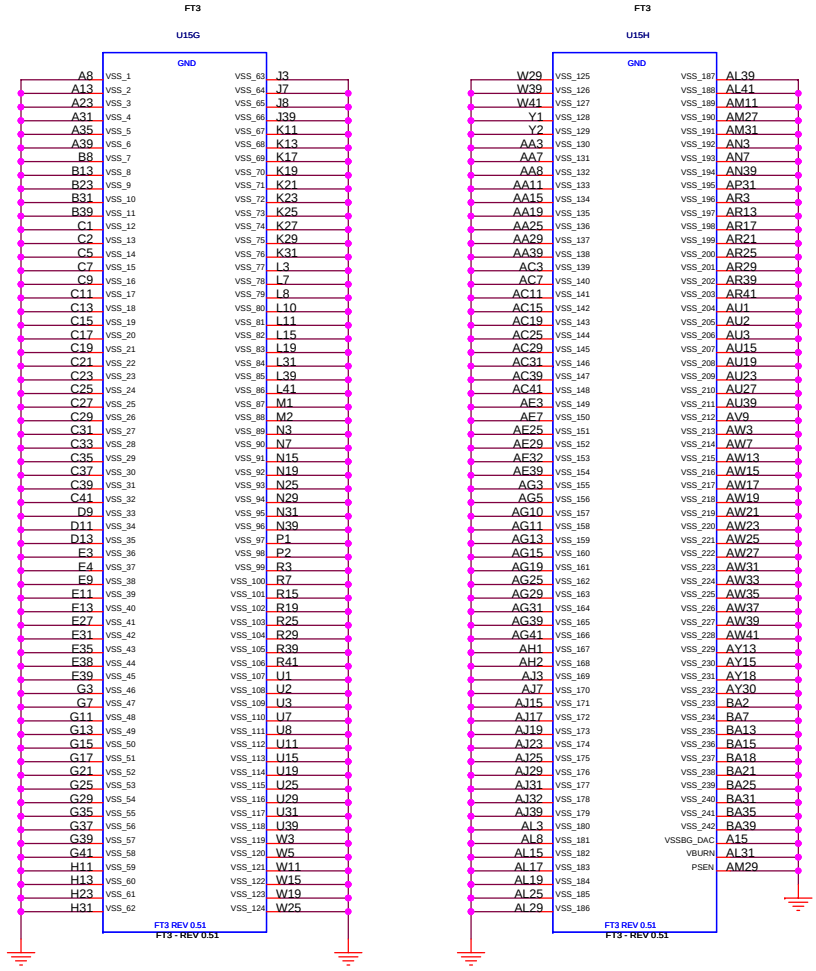
MICRO-START INT'L CO.,LTD.



MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title	**FT3-GND**	
Size	Document Number **MS-7833**	Rev **0E**
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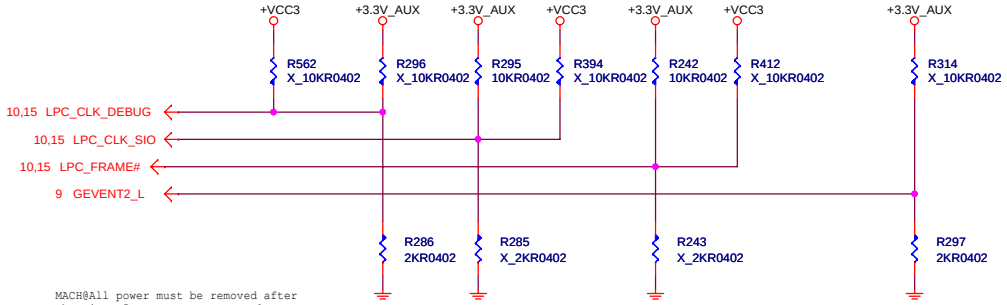
APU STRAP PINS



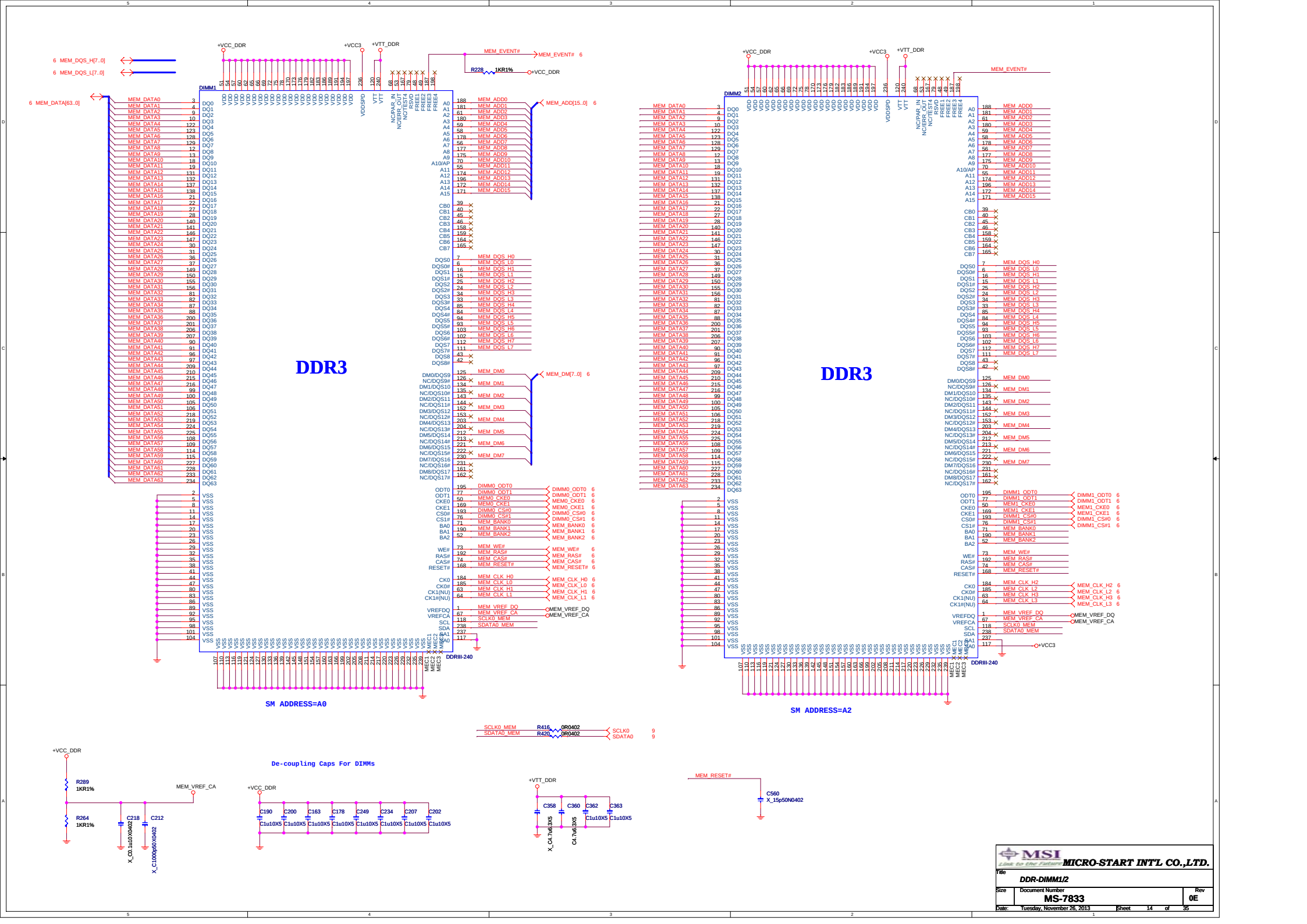
	LPC_CLK_DEBUG	LPC_CLK_SIO	LPC_FRAME#	GEVENT2_L
PULL HIGH	BOOT FAIL TIMER ENABLED	INTERNAL CLOCK GEN ENABLED DEFAULT	SPI ROM DEFAULT	1.8V SPI ROM
PULL LOW	BOOT FAIL TIMER DISABLED DEFAULT	INTERNAL CLOCK GEN DISABLED	LPC ROM	3.3V SPI ROM DEFAULT

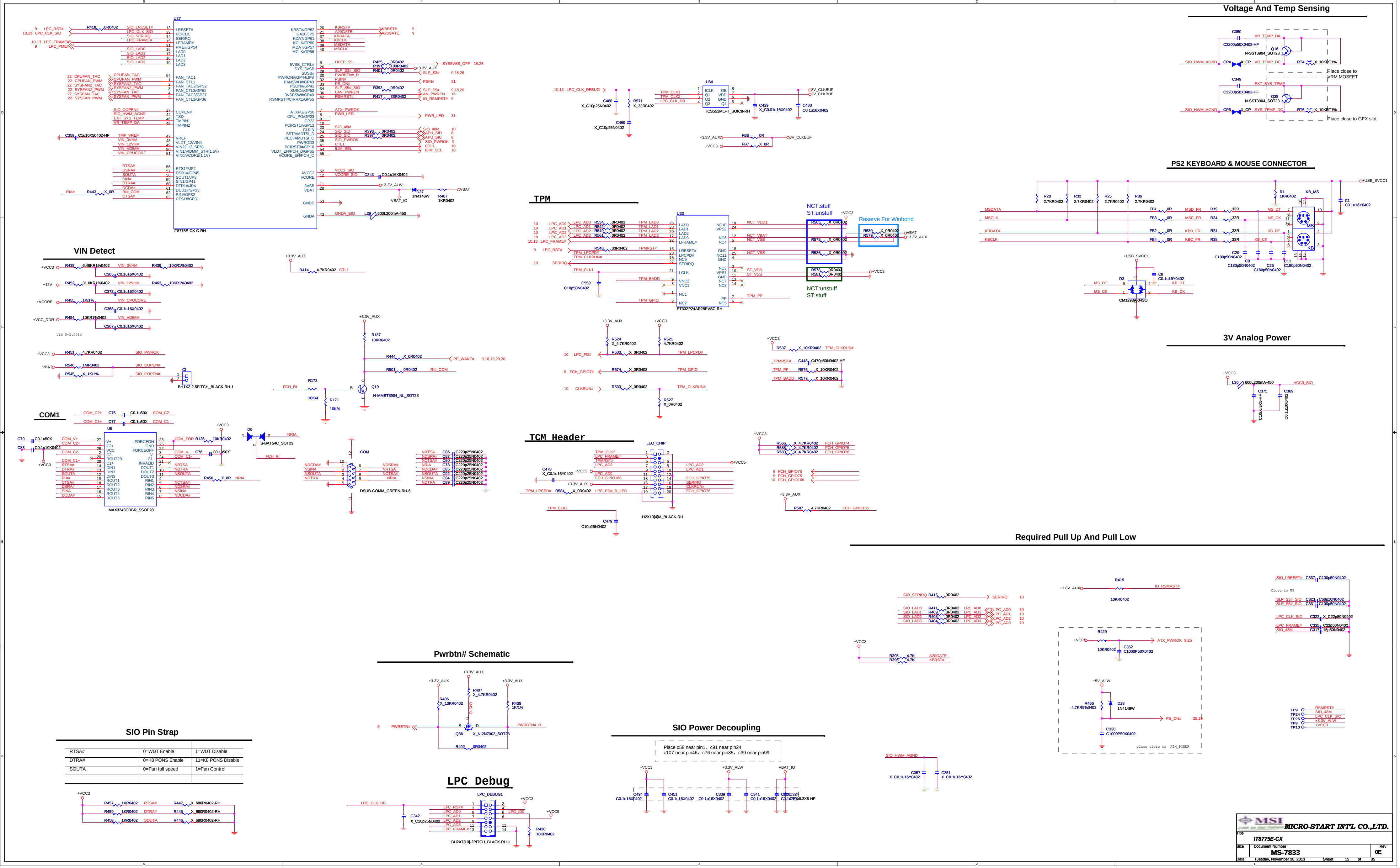
MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title: FT3-STRAP PIN

Size | Document Number: MS-7833 | Rev: 0E

Date: Tuesday, November 26, 2013 | Sheet 13 of 35


DDR3
DDR3
SM ADDRESS=A0
SM ADDRESS=A2
De-coupling Caps For DIMMs
DIMM1
DIMM2
DDRIII-240
MICRO-START INT'L CO.,LTD.
DDR-DIMM1/2
MS-7833
Tuesday, November 26, 2013



Voltage And Temp Sensing
Place close to VRM MOSFET
Place close to GFX slot
PS2 KEYBOARD & MOUSE CONNECTOR
TPM
NCT:stuff
ST:unstuff
Reserve For Winbond
NCT:unstuff
ST:stuff
VIN Detect
COM1
TCM Header
3V Analog Power
Required Pull Up And Pull Low
Pwrbtn# Schematic
SIO Power Decoupling
Place c58 near pin1、c91 near pin24
c107 near pin46、c76 near pin85、c39 near pin99
LPC Debug
SIO Pin Strap
IT8775E-CX-C-RH
ST33ZP24AR28PVSC-RH
ICS551MLFT_SOIC8-RH
MAX3243CDBR_SSOP28
DSUB-COMM_GREEN-RH-6
H2X10[4]M_BLACK-RH
BH2X7[10]-2PITCH_BLACK-RH-1
BH1X2-2.5PITCH_BLACK-RH-1
MICRO-START INT'L CO.,LTD.
IT8775E-CX
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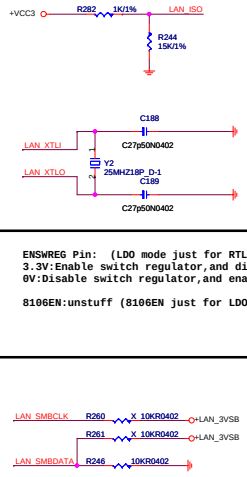
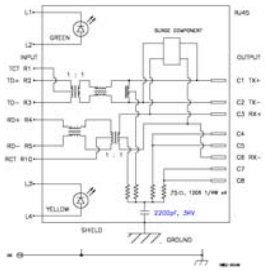
SIO Pin Strap

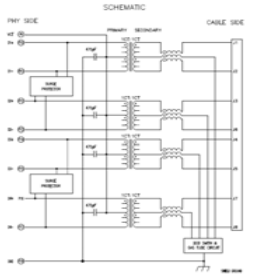
RTSA#	0=WDT Enable	1=WDT Disable
DTRA#	0=K8 PONS Enable	11=K8 PONS Disable
SOUTA	0=Fan full speed	1=Fan Control

RTL8105E-VD Co-lay 8106EN, RTL8111F-VB

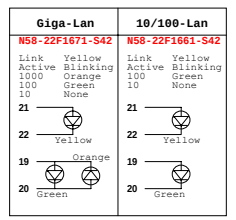
(58mA+289mA)







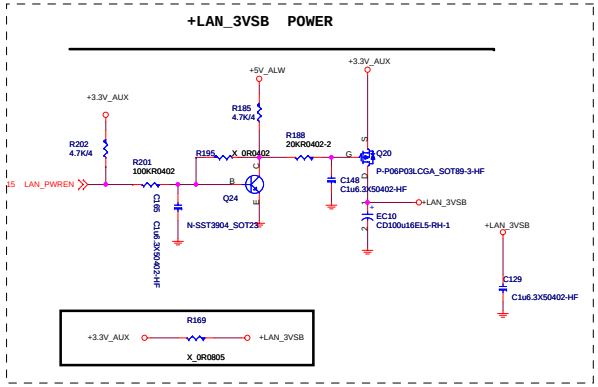
Giga-Lan		10/100-Lan	
N58-22F1671-S42		N58-22F1661-S42	
Link	Yellow	Link	Yellow
Active	Blinking	Active	Blinking
1000	Orange	100	Green
100	Green	10	None
10	None		



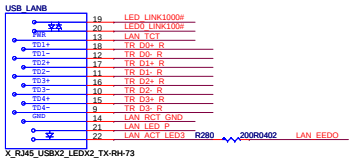
WOL	status	Yellow	Grn/Org
don't care	No Link	off	off
off	S3/S4/S5	off	off
on	S3/S4/S5	off	off
on	10M,inactive		off
on	10M,active		off
on	100M,inactive		
on	100M,active		
on	1G,inactive		
on	1G,active		

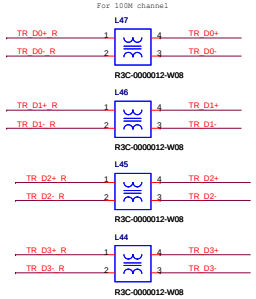
always on
always on
always on
blinking

+LAN_3VSB POWER



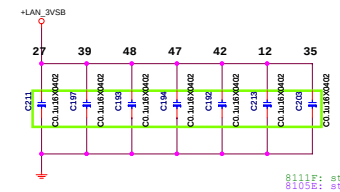
LAN Connector





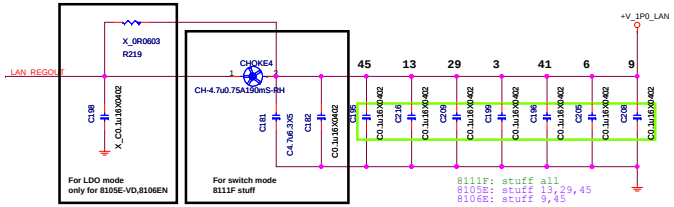
when use 8105E-VD,Correspond to use connector PN N58-22F1661-S42;
when use 8111F-VB,Correspond to use connector PN N58-22F1671-S42 .

Place Near Pin

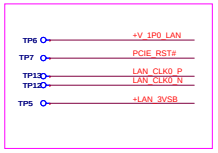


8111F: stuff all
8105E: stuff 27,39,47,48
8106E: stuff 47,48,35

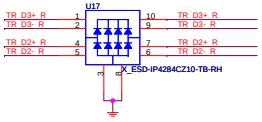
Place Near Pin

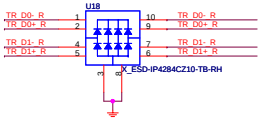


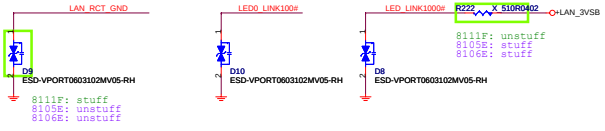
8111F: stuff all
8105E: stuff 13,29,45
8106E: stuff 9,45

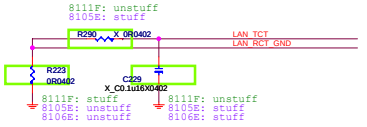


ESD









MSI MICRO-START INT'L CO.,LTD.

Title	LAN- RTL8111GN	
Size	Document Number MS-7833	Rev 0E
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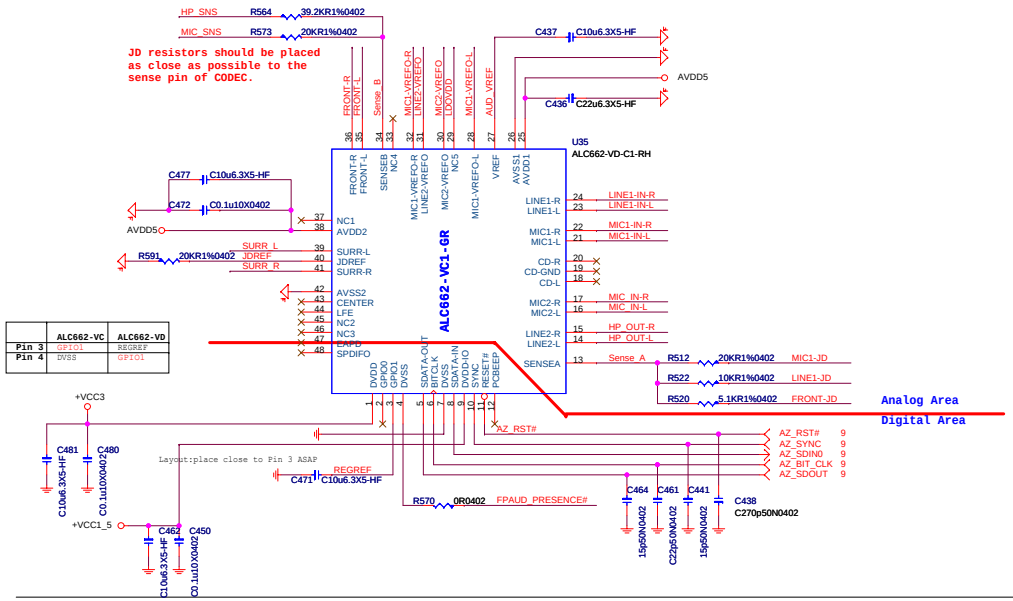
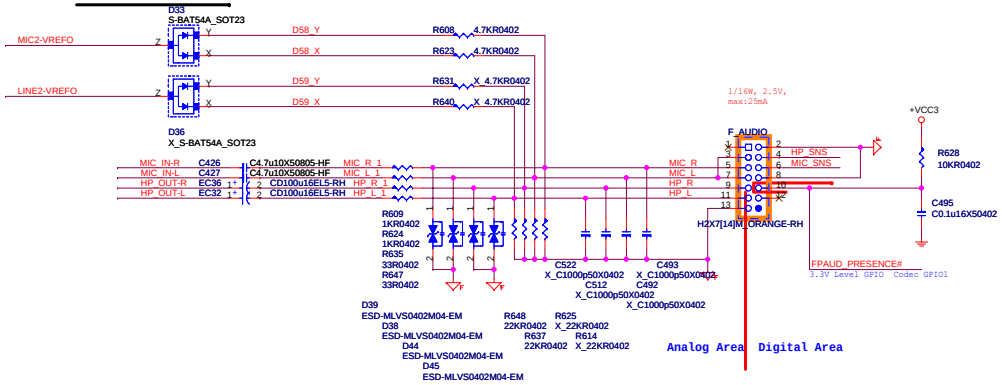
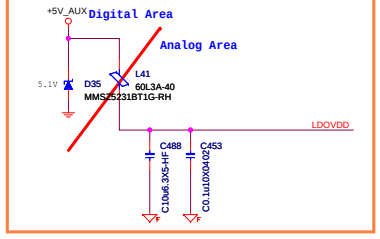
Audio Codec ALC662 VD



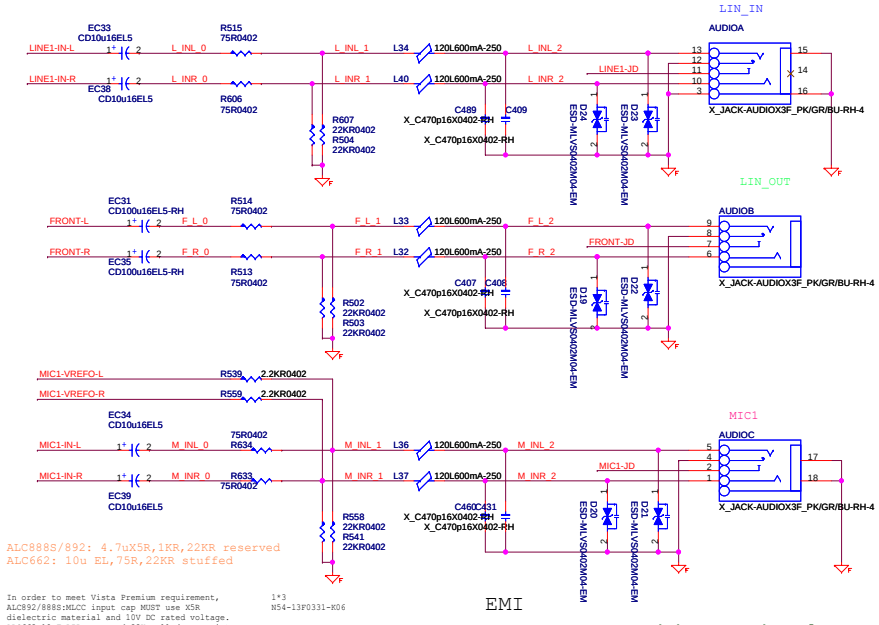
Front Audio Jack

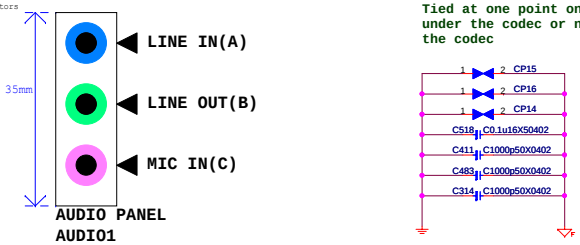


ALC662-VD PART



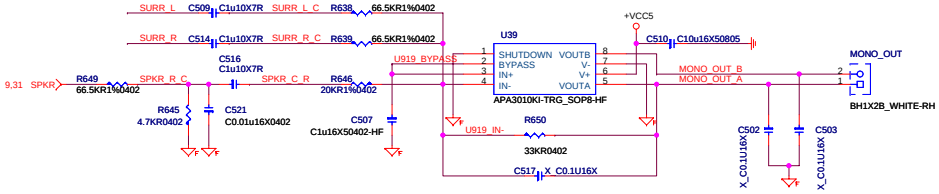
Rear Phone Jack 3 IN 1





Tied at one point only under the codec or near the codec

MONO Amplifier



Title	ALC662-VD		
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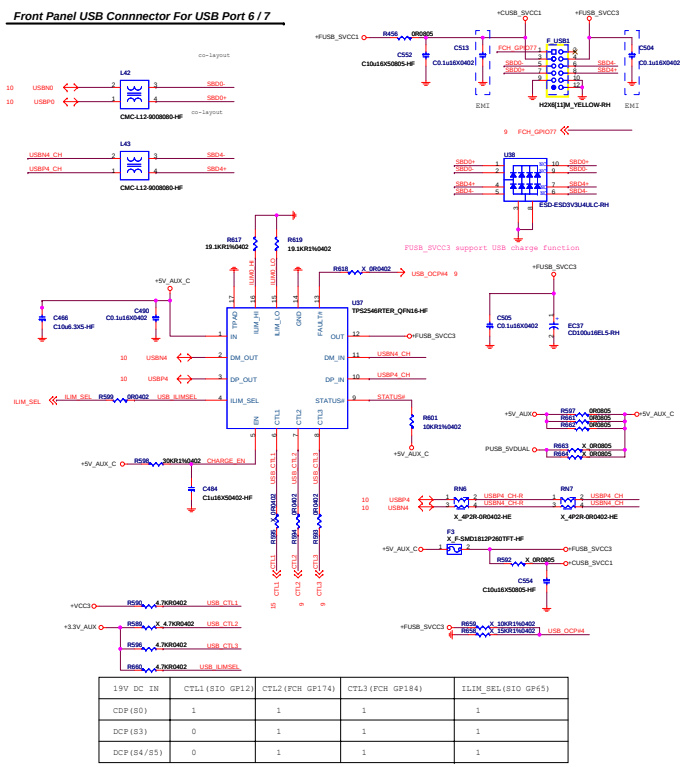
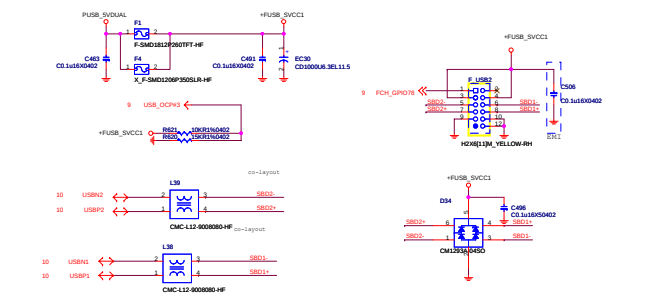
MSI Link to the Future MICRO-START INT'L CO.,LTD.

Front Panel USB Connnector For USB Port 6 / 7

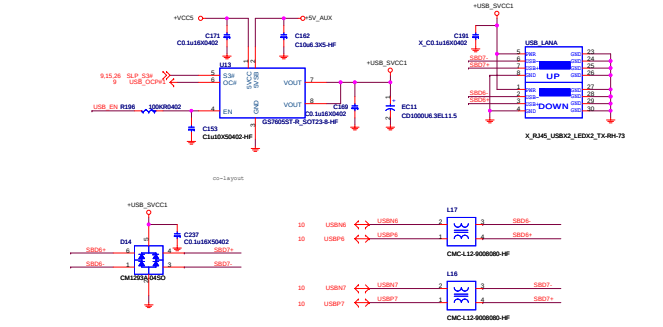


19V DC IN	CTL1(SIO GP12)	CTL2(FCH GP174)	CTL3(FCH GP184)	ILIM_SEL(SIO GP65)
CDP(S0)	1	1	1	1
DCP(S3)	0	1	1	1
DCP(S4/S5)	0	1	1	1

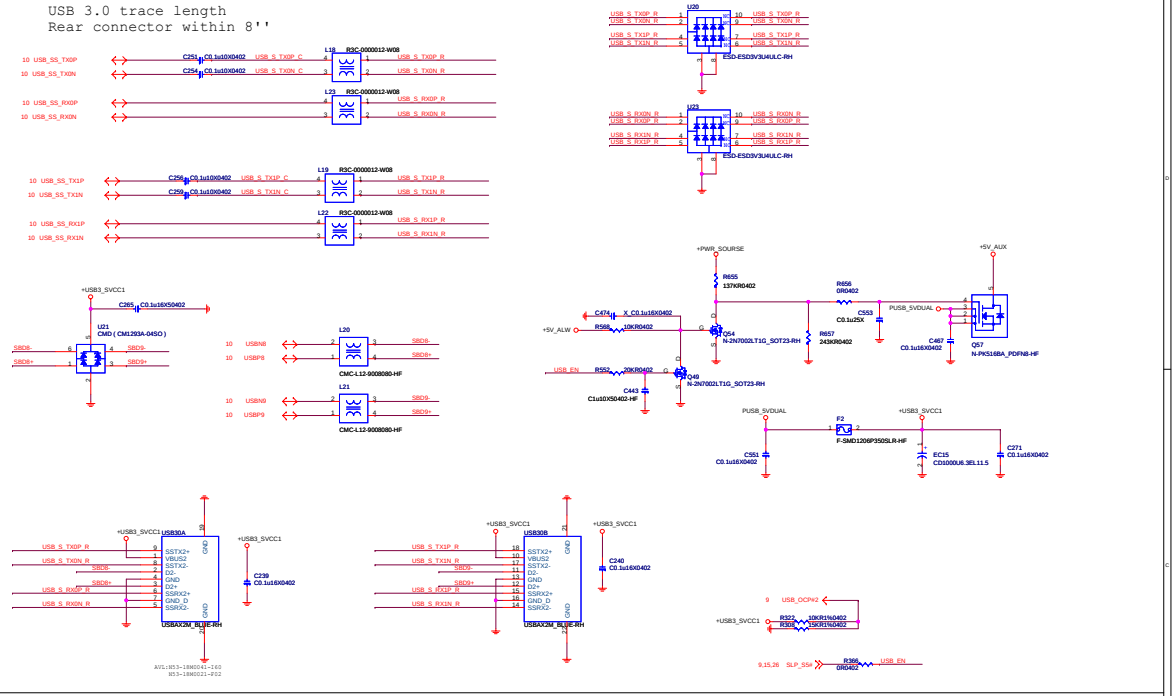
Front Panel USB Connnector For USB Port 6 / 7



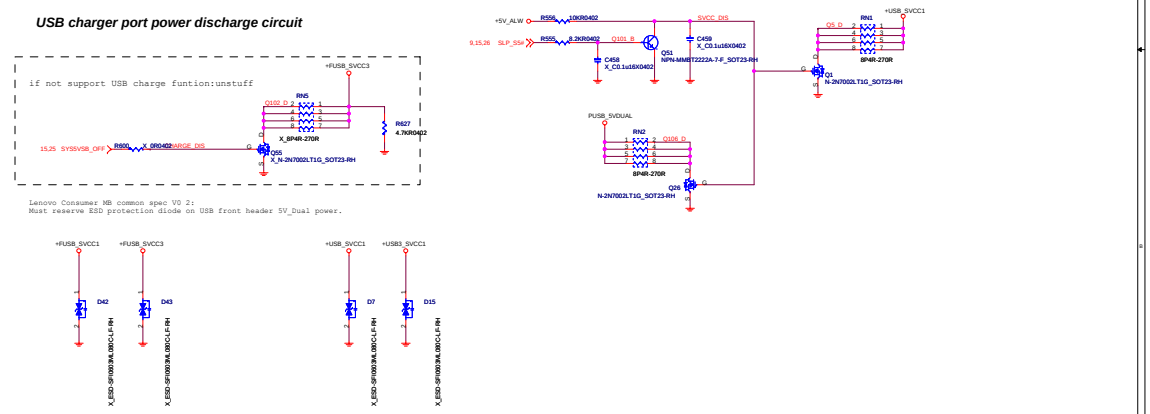
Rear USB Connnector For USB Port 8 / 9



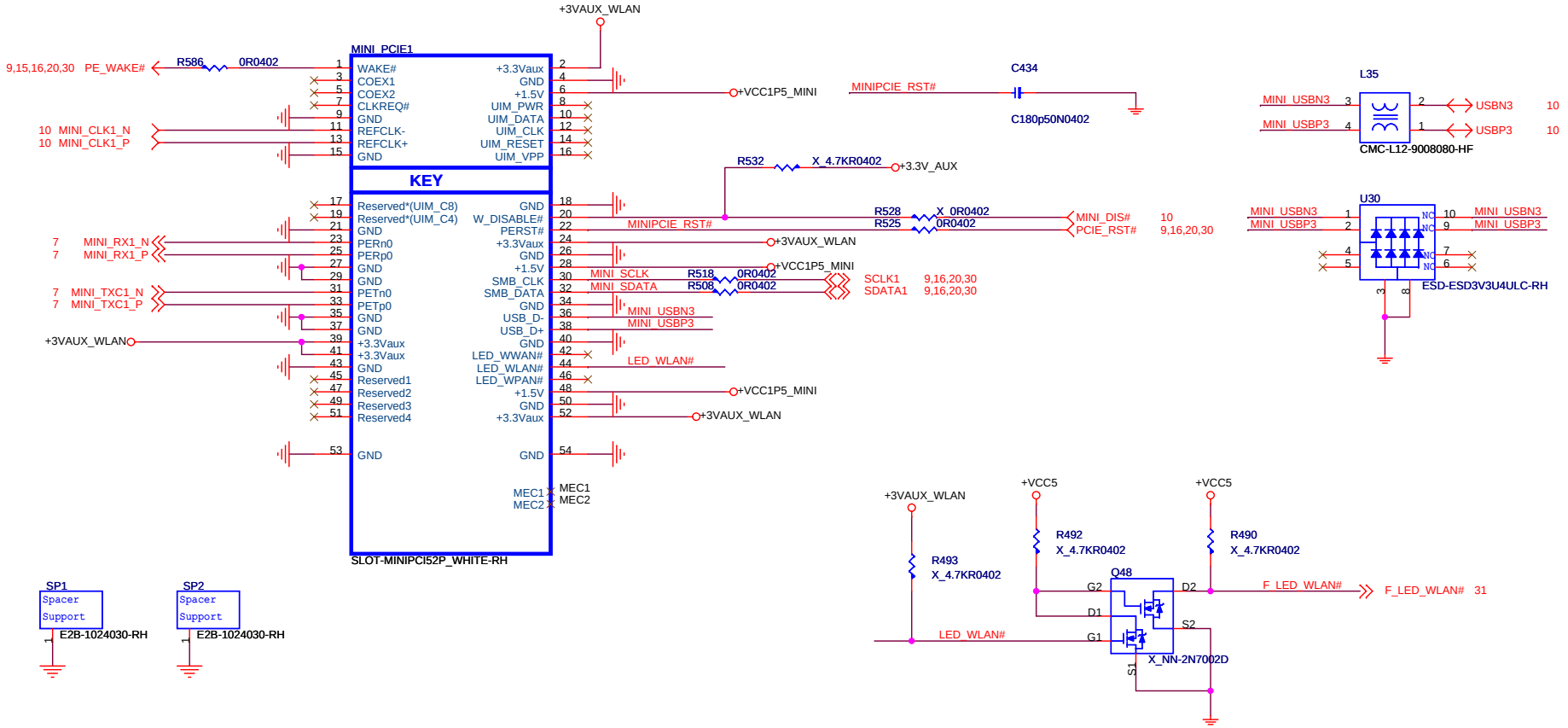
USB 3.0 trace length
Rear connector within 8''



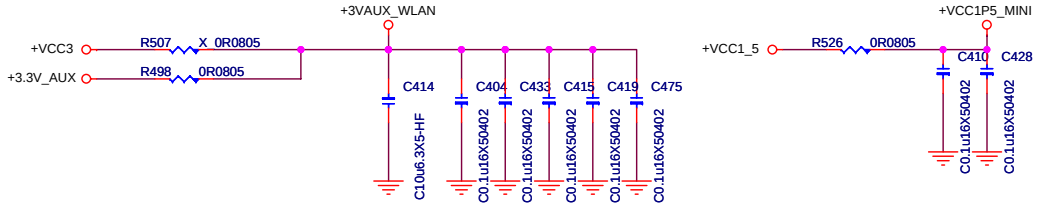
USB charger port power discharge circuit



MINIPCIE (reserve)



3.3V@1.5 A



MICRO-START INT'L CO.,LTD.		
Title: MINIPCIE		
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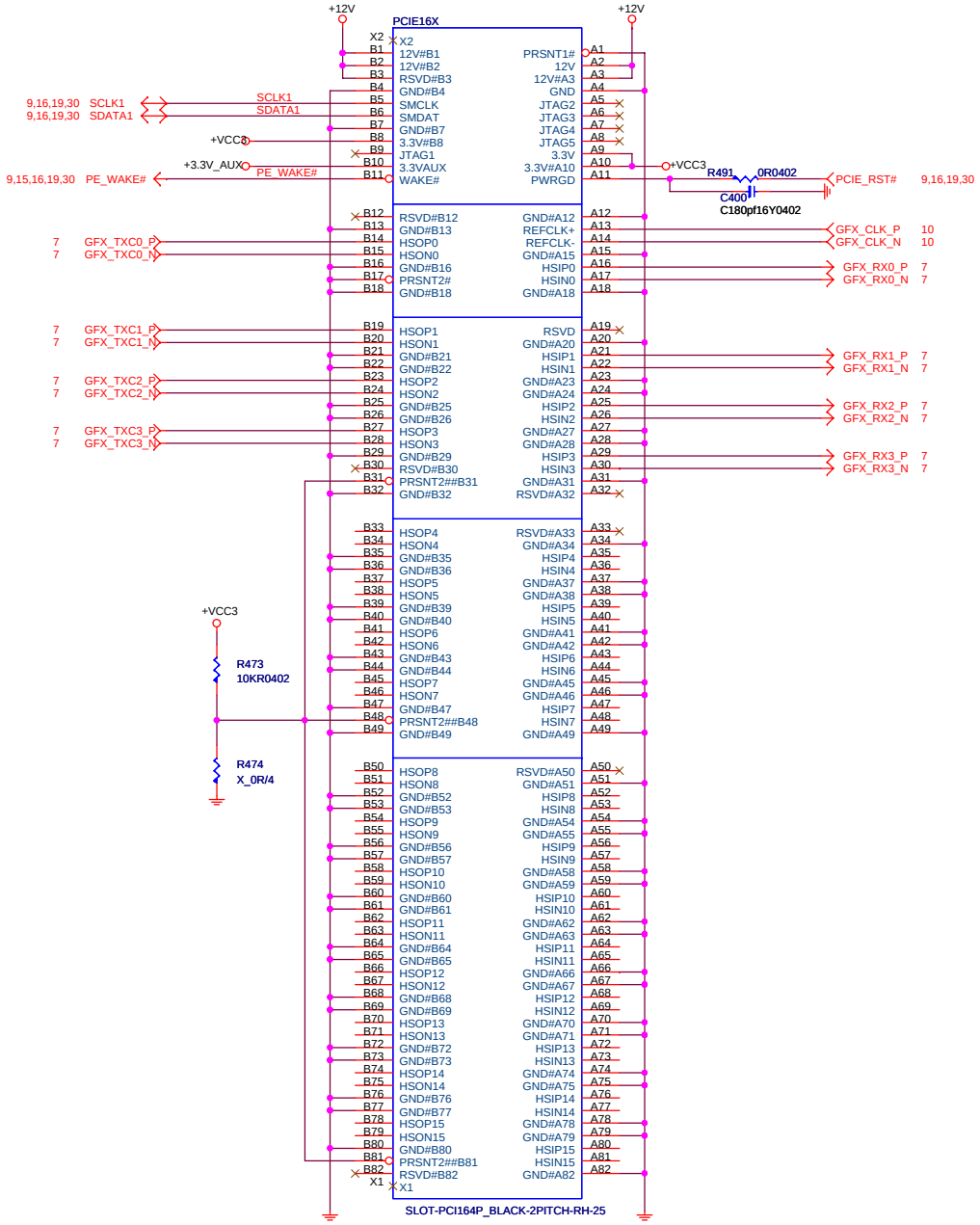
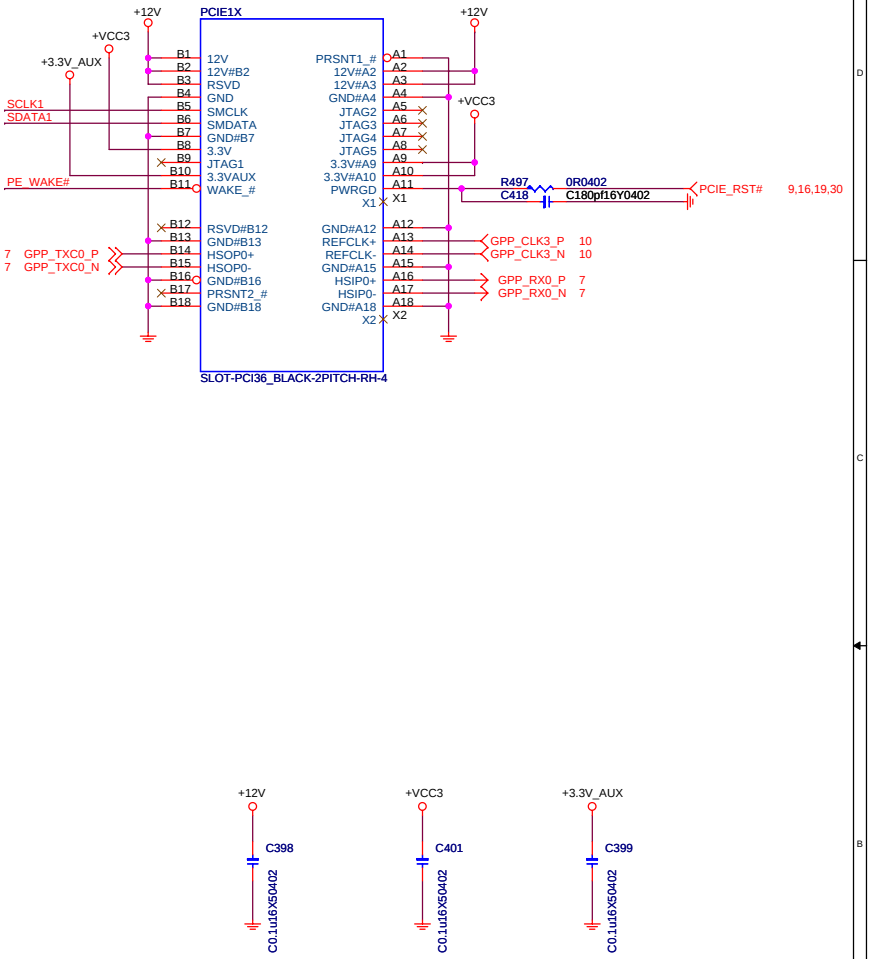
PCI EXPRESS X16 Slot



PCI EXPRESS X1 Slot



MICRO-START INT'L CO.,LTD.

Title	PCIE16X&PCIE1X	
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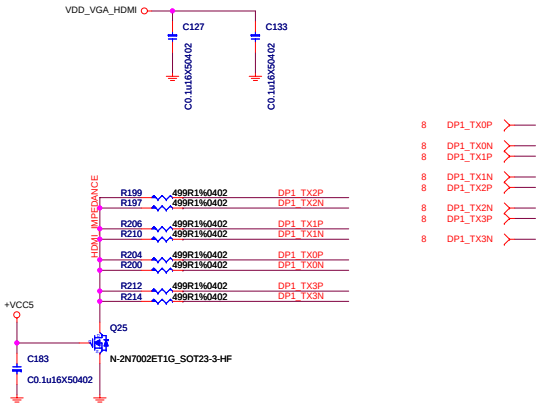
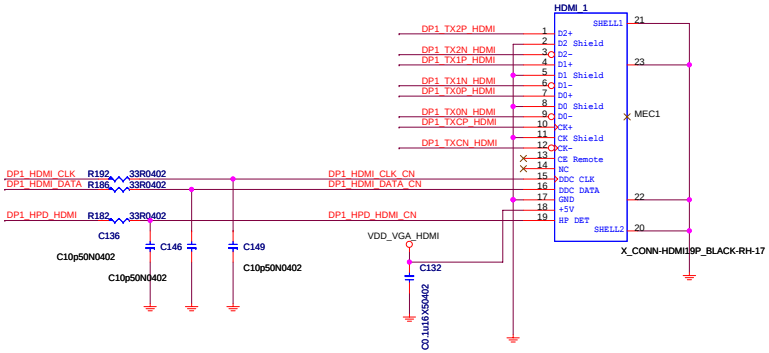
HDMI CONN

Compact, Small Package 100mA Power-Distribution Switches

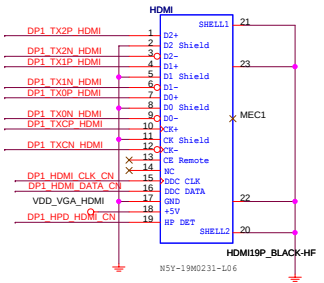
Close to HDMI



8 DP1_TX0P
8 DP1_TX0N
8 DP1_TX1P
8 DP1_TX1N
8 DP1_TX2P
8 DP1_TX2N
8 DP1_TX3P
8 DP1_TX3N

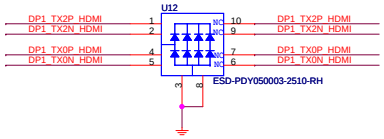


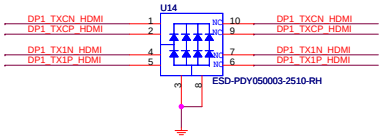
HDMI footprint(HDMI_D19_4)_Colay

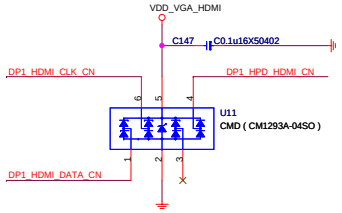


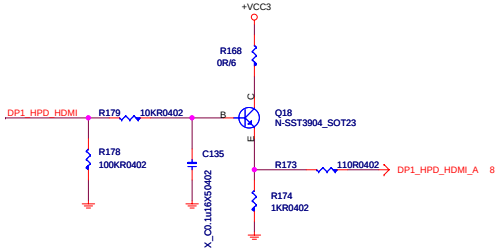
DP CONOFIGERATION TABLE

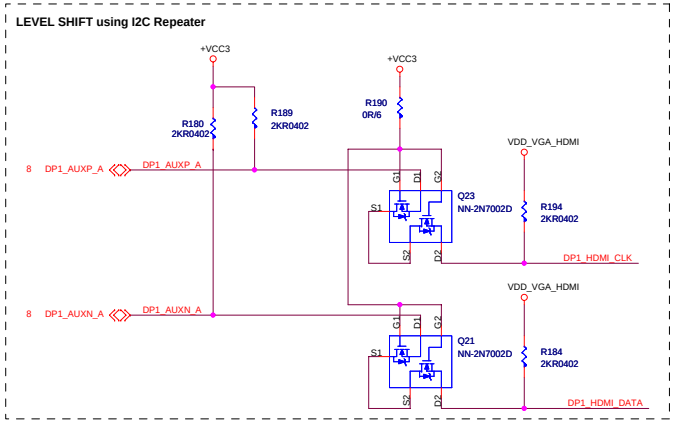
INTERFACE	DP PORT OF FM1			
DP	3	2	1	0
HDMI	Channel Clock	Ch 0	Ch 1	Ch 2

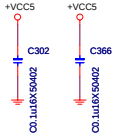


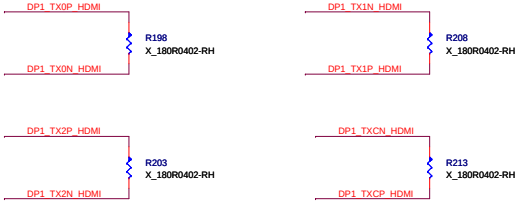












MSI Link to the Future MICRO-START INT'L CO.,LTD.

Title	HDMI CONN	
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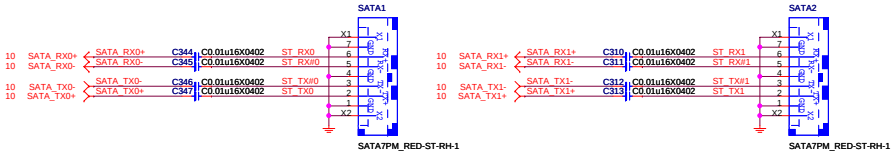
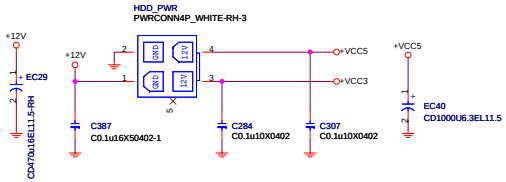
iSATA CONNECTOR

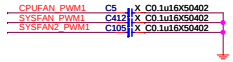
Layout:For Gen 3.0,trace length within 3''



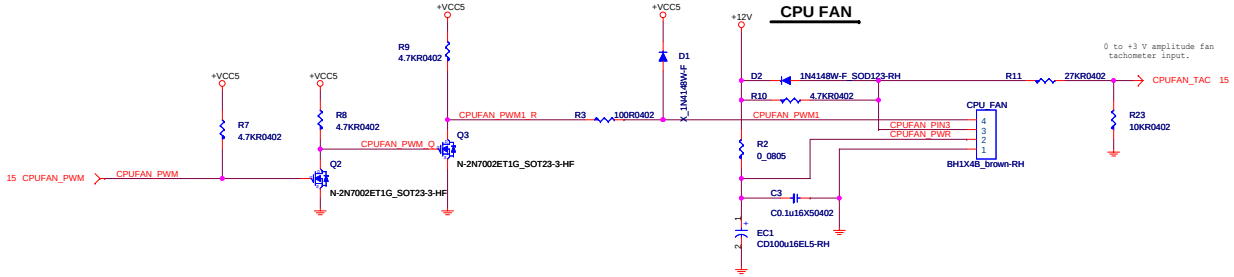
HDD/ODD POWER CONNECTOR



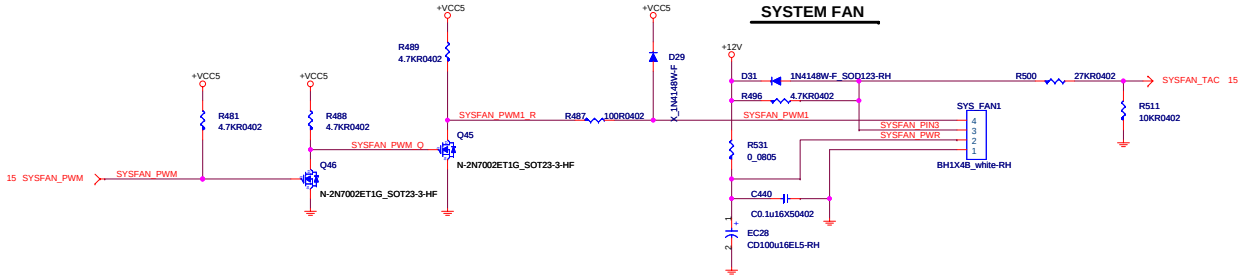
CPU FAN /SYSTEM FAN

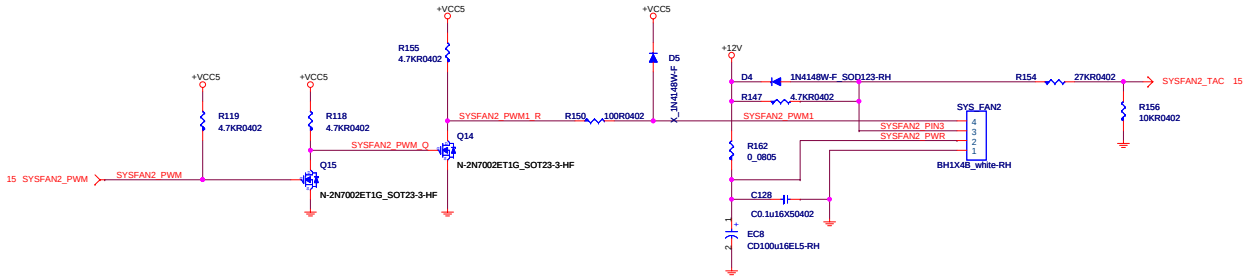


CPU FAN



SYSTEM FAN





MICRO-START INTL CO.,LTD.

Title	SATA&FAN	
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VGA CONNECTOR

VGA 1A
HDMI 0.1A

R932-R934 CLOSE TO CRT CONNECTOR, THE TRACE IMPEDANCE BETWEEN NB AND 150OHM RESISTOR SHOULD BE 37OHM+/-15%, THE TRACE IMPEDANCE BETWEEN THE 2 150OHM

RESISTOR SHOULD BE 50 OHM +/-15%,

THE IMPEDANCE BETWEEN THE 2ND RESISTOR TO THE CONNECTOR SHOULD BE 75OHM+/-15%

PLACE ESD PROTECTION DIODES
1. CLOSE TO CONNECTOR PINS
2. DIRECTLY ON SIGNAL TRACES
3. +5V & GND TRACE TO DIODE SHOULDBE LESS THAN 100MILS AND 20MILS WIDE
4. THE ESD DIODE SHOULD BE THE FIRST DEVICE FROM CONNECTOR

Layout:PLACE L 90 DEGREE FROM EACH OTHER

mach@The value of L,C refer to demo board,maybe adjusted for test

CLOSE TO VGA Connector

+12V R51 4.7KR0402 VDD_VGA_HDMI
+VCC5 Q6 N-APM2308AC-TRL_SOT23-3-RH FS1 F-MICROSMD110 C38 C10u6.3X5-HF C41 C0.01u50N0402

8 APU_VGA_R — L8 10n300mA — VGA_R — L7 0R — R149 150R1%0402 C108 X_C1p50N0402-RH C120 C3.3p50N0402 C113 X_C1p50N0402-RH

8 APU_VGA_G — L10 10n300mA — VGA_G — L9 0R — R159 150R1%0402 C123 X_C1p50N0402-RH C126 C3.3p50N0402 C124 X_C1p50N0402-RH

8 APU_VGA_B — L5 10n300mA — VGA_B — L6 0R — R141 150R1%0402 C101 X_C1p50N0402-RH C98 C3.3p50N0402 C103 X_C1p50N0402-RH

+VCC5 C72 C0.1u16Y0402 U3 AHCT1G126GV_SOT23-5-RH
8 APU_VSYNC — VSYNC_5V — C55 X_C100p50N0402

+VCC5 C56 C0.1u16Y0402 U5 AHCT1G126GV_SOT23-5-RH
8 APU_HSYNC — HSYNC_5V — C58 X_C100p50N0402

VDD_VGA_HDMI C70 C0.1u16Y0402

DDCCLK_5V R61 33R0402 DDCCLK_CONN
VSYNC_5V R74 27R0402 VSYNC_CONN
HSYNC_5V R81 27R0402 HSYNC_CONN
DDCDATA_5V R101 33R0402 DDCDATA_CONN

C57 C18p50N0402 C69 C18p50N0402 C48 C18p50N0402 C54 C18p50N0402

VGA DSUB-VGAF_BLUE-RH-2
BLUE_CONN
GREEN_CONN
RED_CONN

+VCC3 R64 4.7KR0402 R56 4.7KR0402
8 APU_DAC_SCL — R65 — S1
8 APU_DAC_SDA — R57 — S2
G1 +VCC3 D1 DDCCLK_5V DDCDATA_5V D2 G2 +VCC3
Q7 NN-2N7002D

VDD_VGA_HDMI R99 2KR0402 R62 2KR0402 DDCCLK_5V DDCDATA_5V

C104 C0.1u16Y0402 VDD_VGA_HDMI U9 ESD-AOZ8902CIL-HF
BLUE_CONN — RED_CONN
GREEN_CONN

C49 C0.1u16Y0402 VDD_VGA_HDMI U4 ESD-AOZ8902CIL-HF
DDCCLK_CONN — VSYNC_CONN
DDCDATA_CONN — HSYNC_CONN

MSI Link to the Future MICRO-START INT'L CO.,LTD.

Title: VGA CONN		
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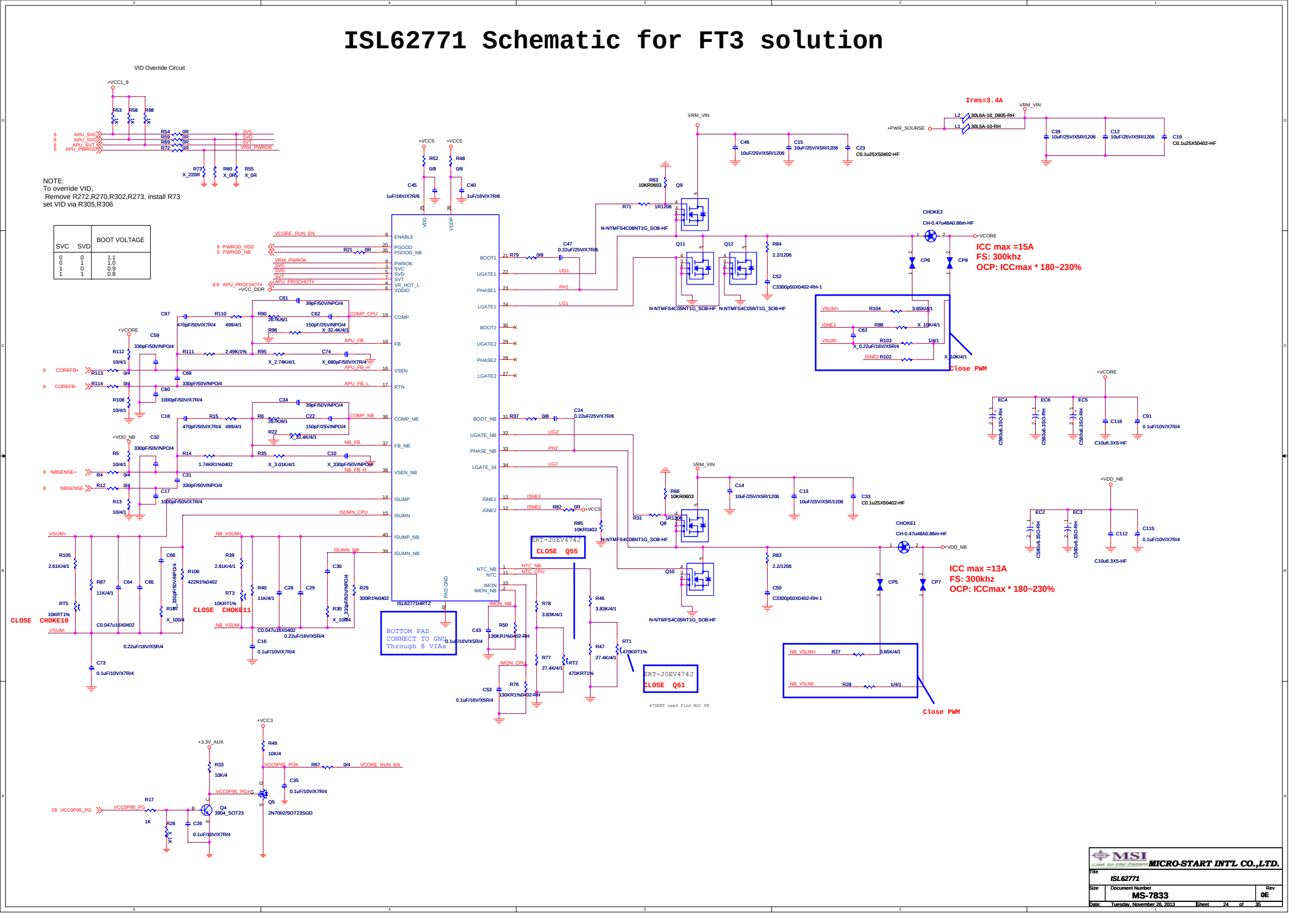
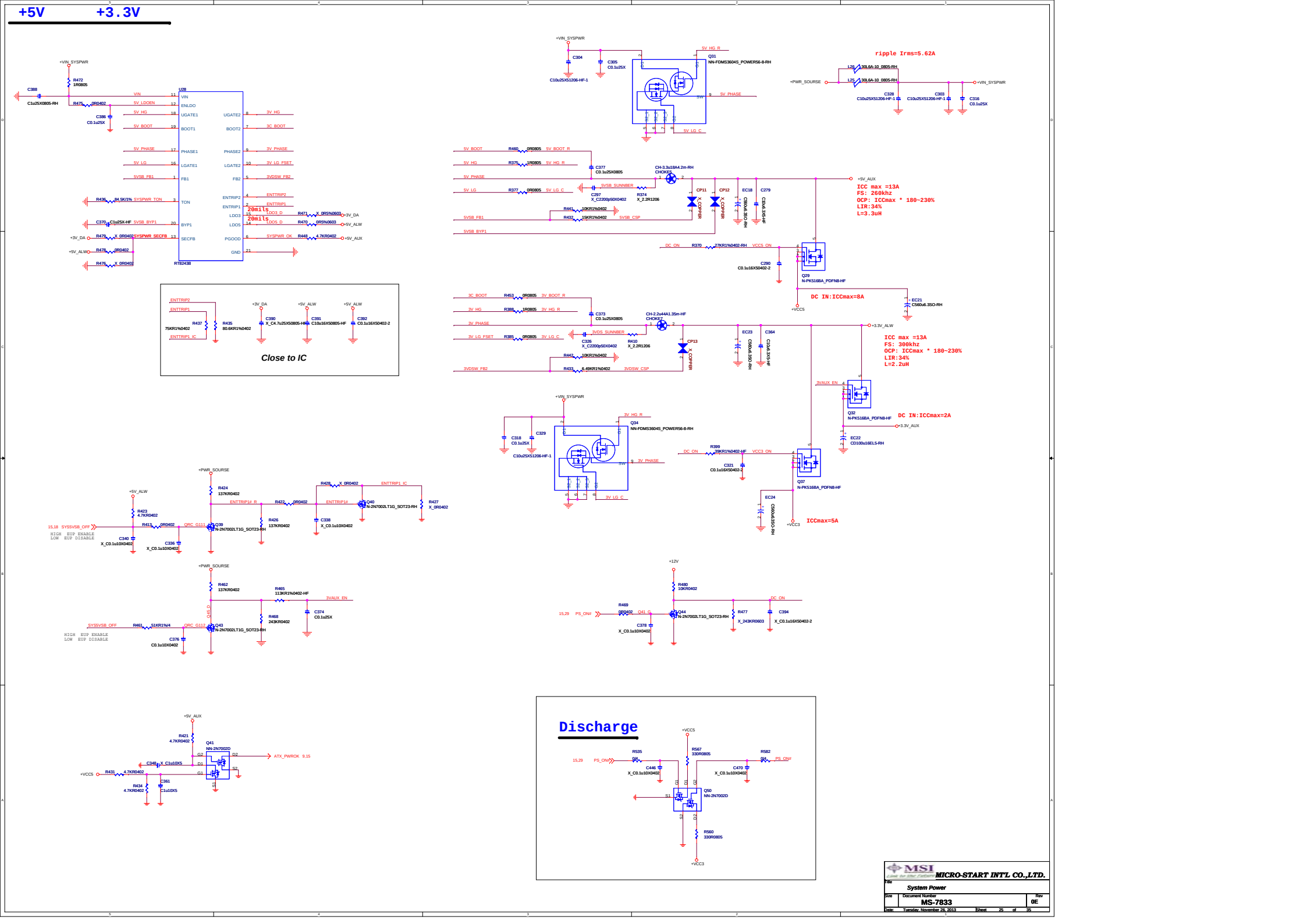
ISL62771 Schematic for FT3 solution



+5V +3.3V



MSI MICRO-START INT'L CO.,LTD.			
Title: System Power			
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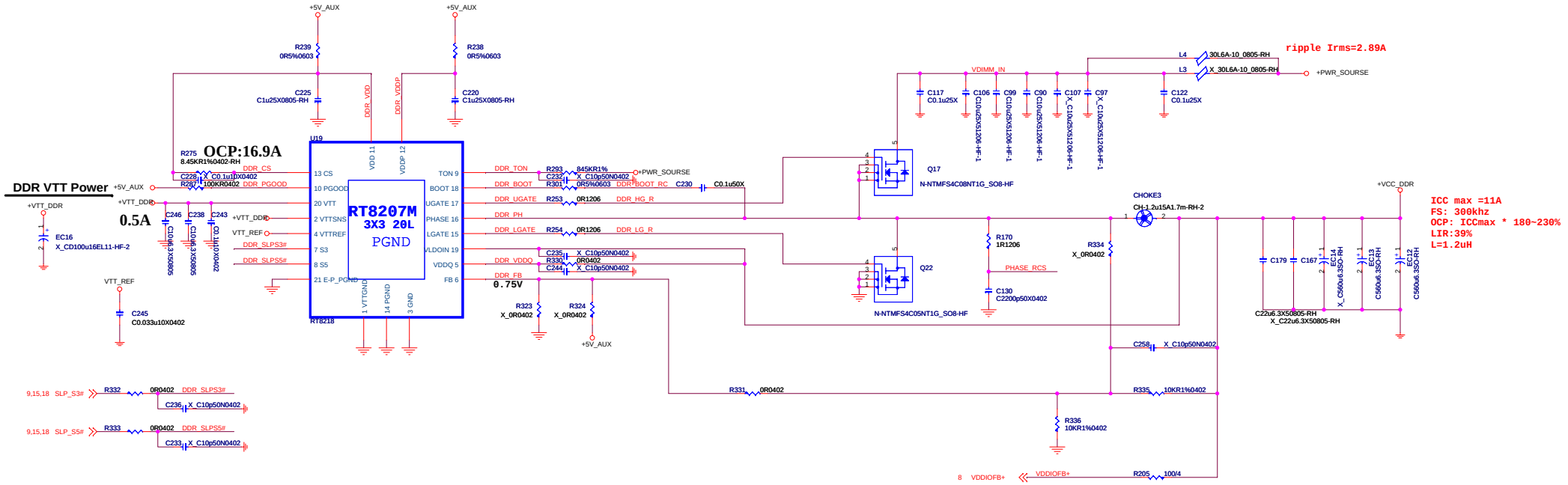
DDR POWER



Title	DDR POWER
Size	Document Number: MS-7833
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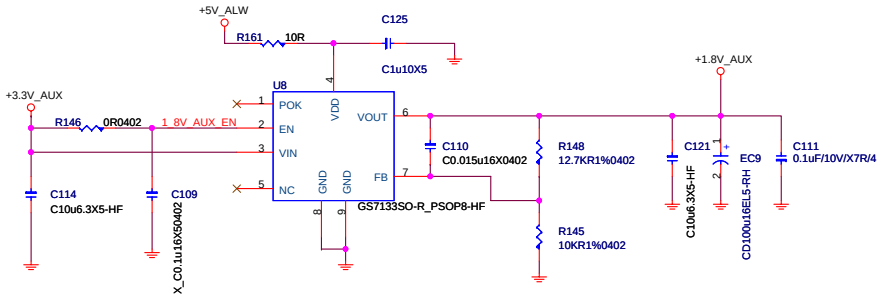
MICRO-START INTL CO.,LTD.

+1.8V_AUX

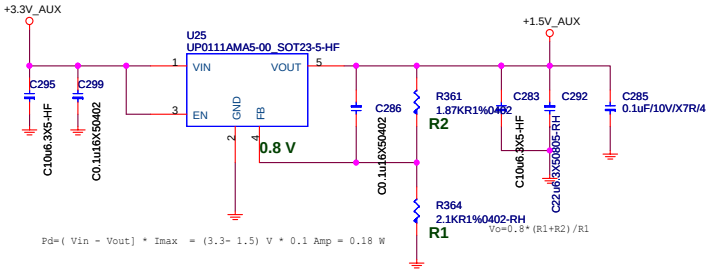
Iccmax=0.5A



Pd=(Vin - Vout] * Imax = (3.3- 1.8) V * 0.5 Amp = 0.75 W

+1.5V_AUX

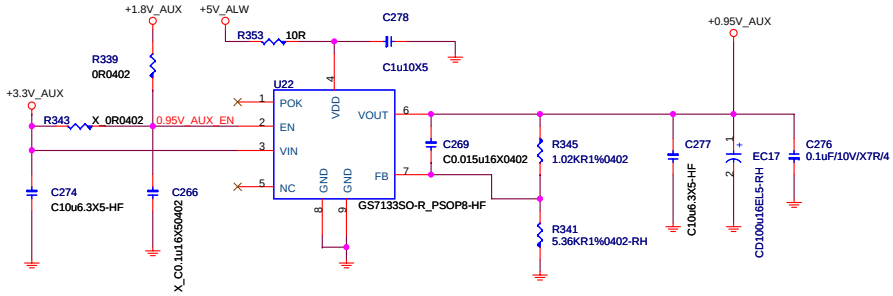
Iccmax=0.1A



Pd=(Vin - Vout] * Imax = (3.3- 1.5) V * 0.1 Amp = 0.18 W

+0.95V_AUX

Iccmax=1.5A



MSI MICRO-START INT'L CO.,LTD.

Title	*+1.8V_AUX/+1.5V_AUX/+0.95_AUX*	
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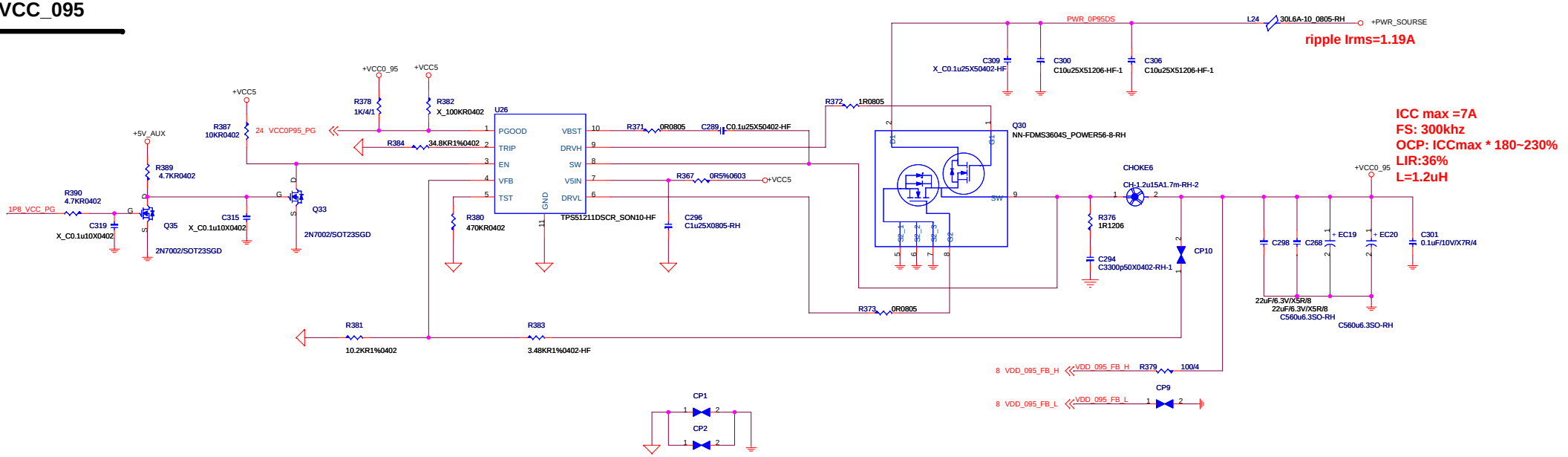
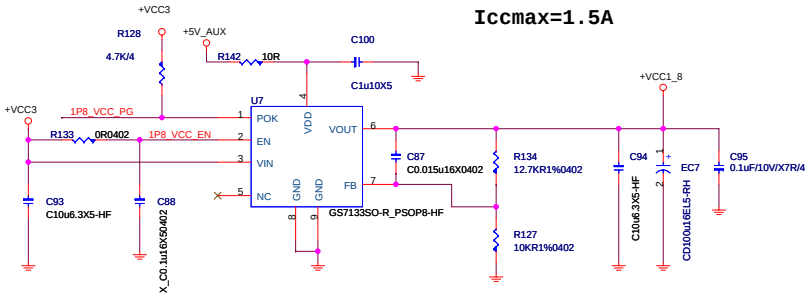
VCC_095



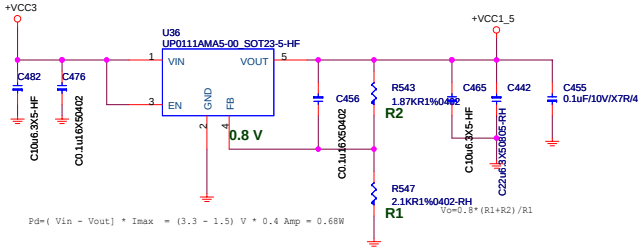
VCC1_8

Iccmax=1.5A



VCC1_5

Iccmax=0.4A



MSI Link to the Future	MICRO-START INT'L CO.,LTD.	
Title	VCC1_8&VCC1_5&VCC0_95	
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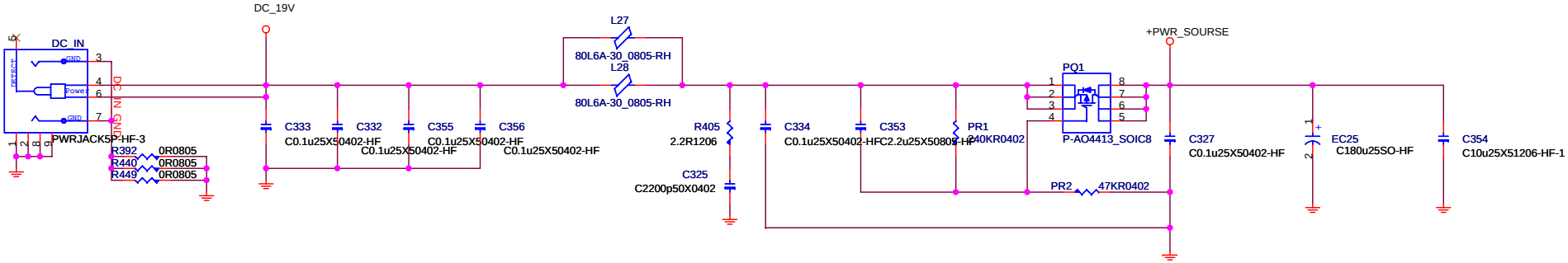


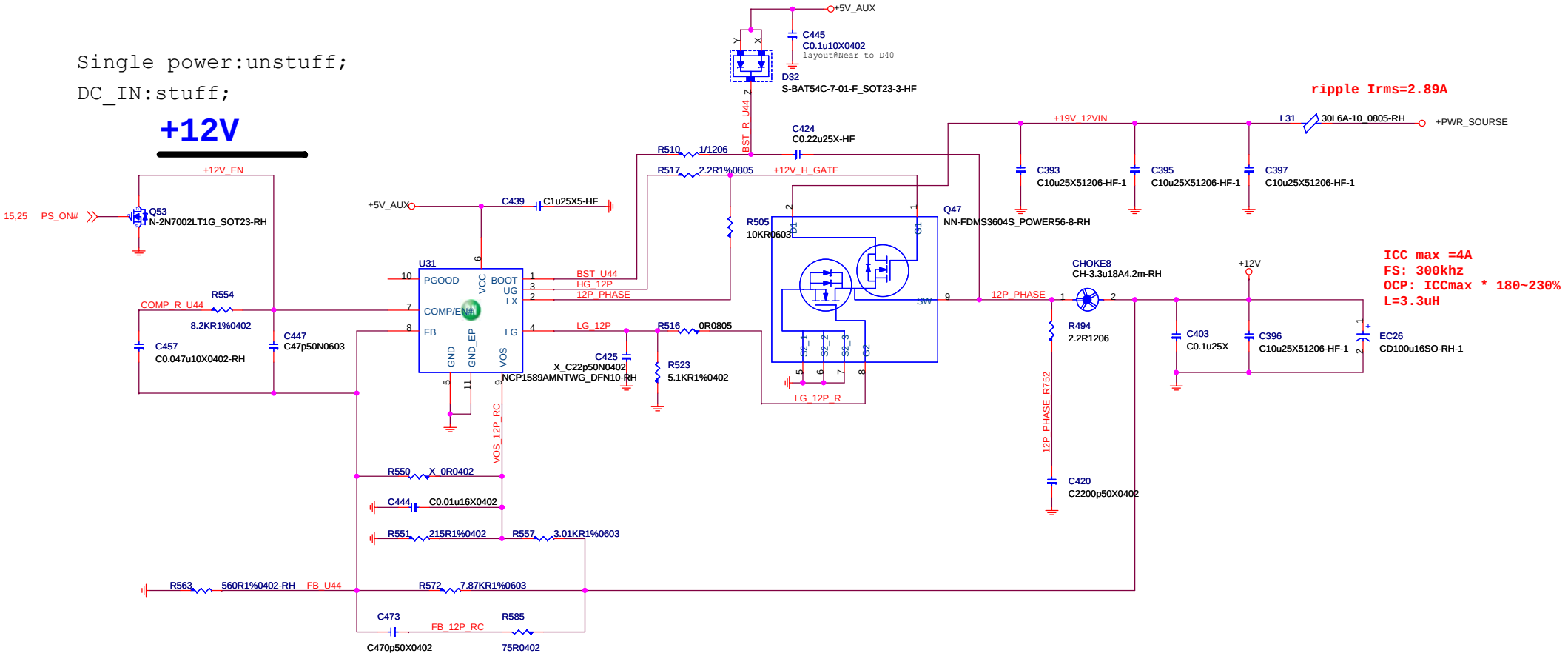
MICRO-START INT'L CO.,LTD.

Title: *DC-IN Supply*		
Size	Document Number: MS-7833	Rev: 0E
Date: Tuesday, November 26, 2013	Sheet 29 of 35	

Single power:unstuff;

DC_IN:stuff;

+12V



MSI Link to the Future	MICRO-START INT'L CO.,LTD.	
Title: +12V		
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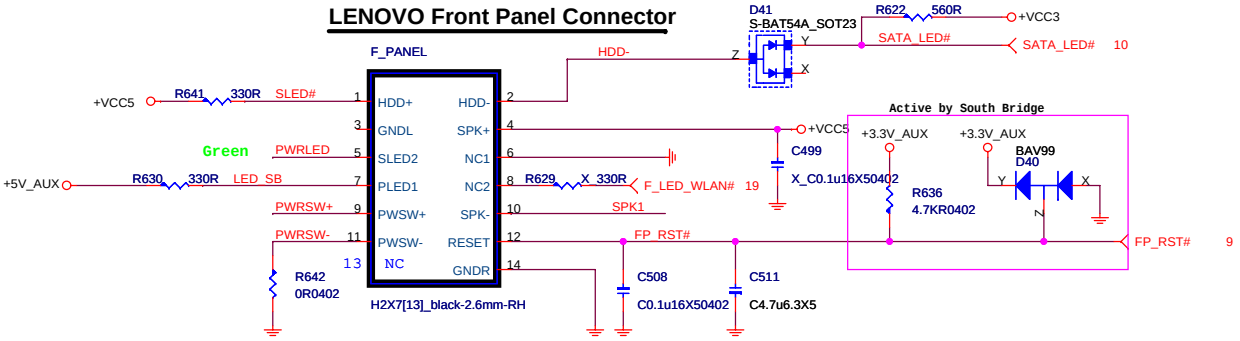
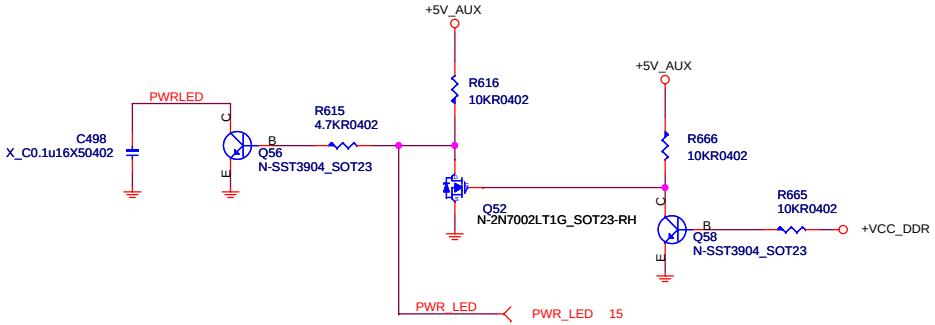
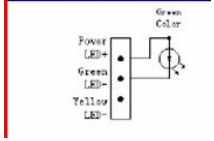
LENOVO Front Panel Connector



POWER LED



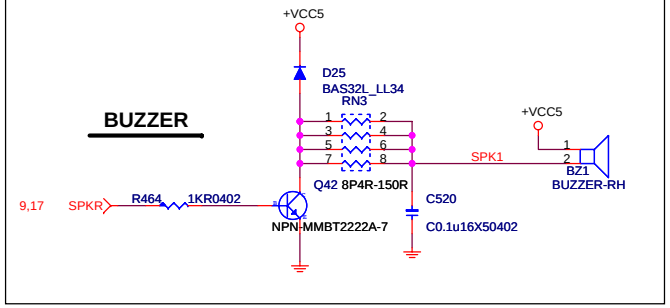
2-pin single color Power LED



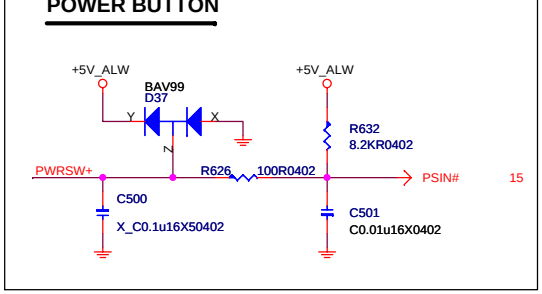
power LED definition

LED Status (Dual color LED)	
System State	Dual Color POWER LED State
S0	Steady Green
S1	Green Blinking（frequency is under 1Hz）
S3	Steady Yellow
S4/S5	Off
Default S5 in lose power .	Note series resistor is 330Ω

BUZZER



POWER BUTTON



MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title	DC-IN&Front Panel	
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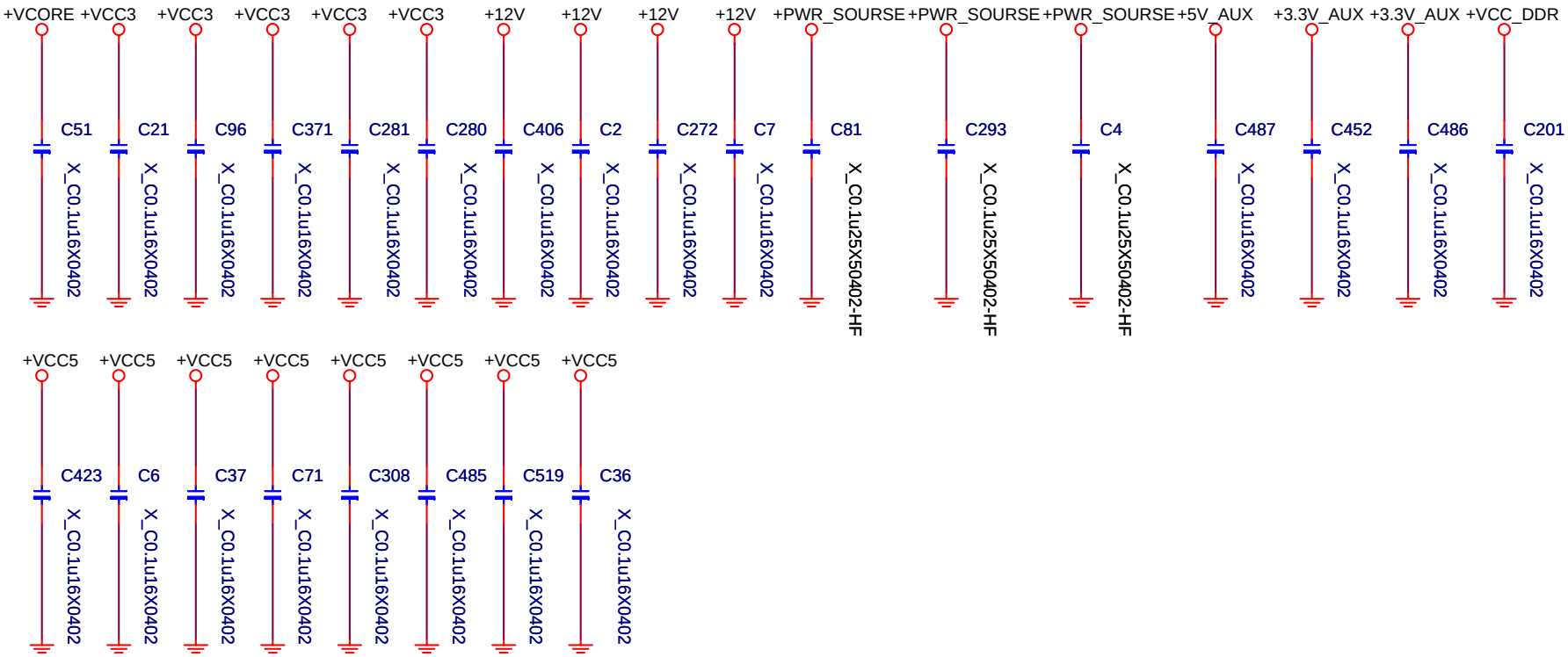

MSI MICRO-STAR INTERNATIONAL
Link to the Future
MICRO-START INT'L CO.,LTD.

Title	***EMI reserve***	
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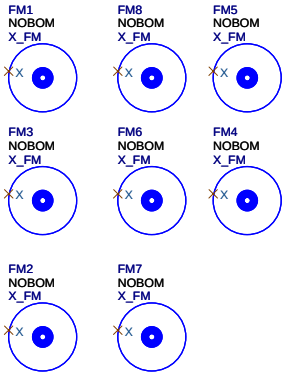
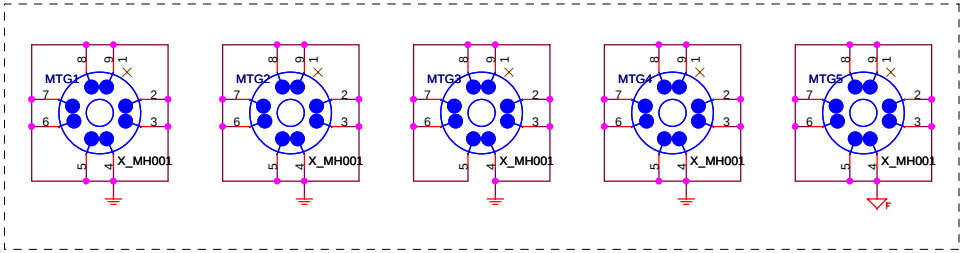
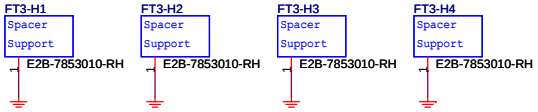
Optics Orientation Holes

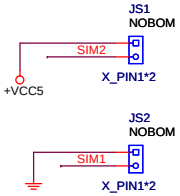


Mounting Holes

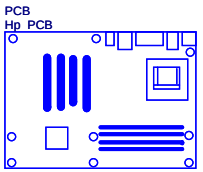




Simulation



PCB



when use 8105E-VD,Correspond to use connector PN N58-22F1661-S42;
when use 8111F-VB,Correspond to use connector PN N58-22F1671-S42 .

MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title: **BOM Option Parts**		
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SIO(NCT5533D)

PIN NAME	USAGE	Input/Output	NOTES
GPIO0	CTL3	Output	control the charging mode and the signal switches
GPIO4	CTL2	Input	control the charging mode and the signal switches
GPIO20	GP20	Input	Keyboard data in
GPIO21	GP21	Output	keyboard clcok out
GPIO22	GP22	Input	Mouse data in
GPIO23	GP23	Output	Mouse clcok out
GPIO24	SIO_WAKE#	Input	Wake up signal from LAN
GPIO25	AMDPWR_EN	Input	SIO SMI# generation
GPIO26	TSIC	Output	use SB-TSI
GPIO41	SMI#	Output	SIO SMI# generation
GPIO42	SDATA0_SIO	Output	Pull High
GPIO54	NC	Input	NC
GPIO56	LAN_PWREN	Input	LAN Power Control
GPIO57	PWR_LED	Output	LED drive signal which shows the system state
GPIO80	NC	Input	NC
GPIO81	NC	Input	NC
GPIO82	RTSA#	Output	Com port signal
GPIO83	DTRA#	Output	Com port signal
GPIO84	NC	Input	NC
GPIO85	SOUTA	Output	Com port signal
GPIO86	NC	Input	NC
GPIO87	NC	Input	NC
GPIO74	ILIM_SEL	Output	Control USB charge
GPIO75	CTL1	Output	control the charging mode and the signal switches

MSI Link to the Future **MICRO-START INT'L CO.,LTD.**

Title: *History*		
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