
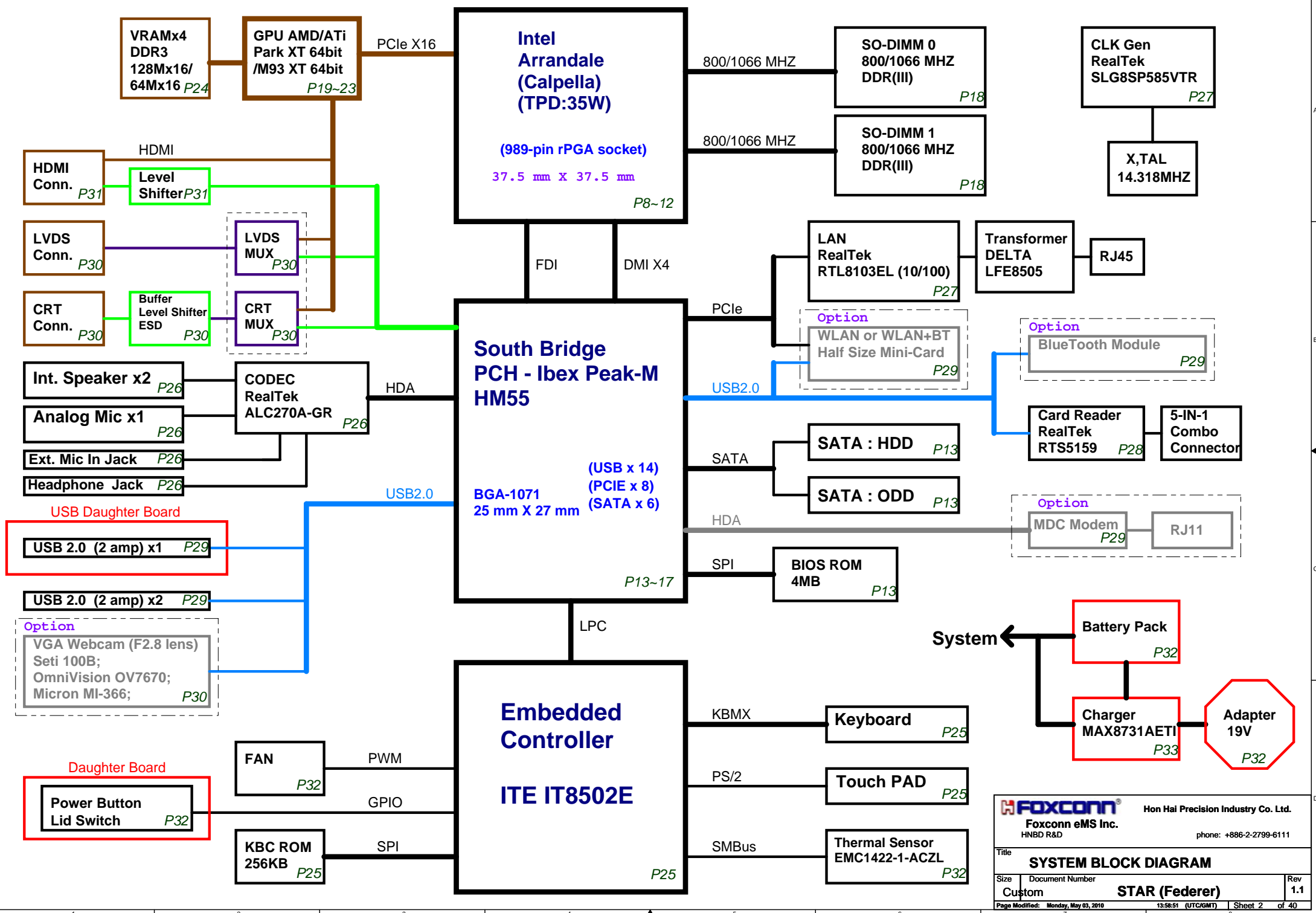
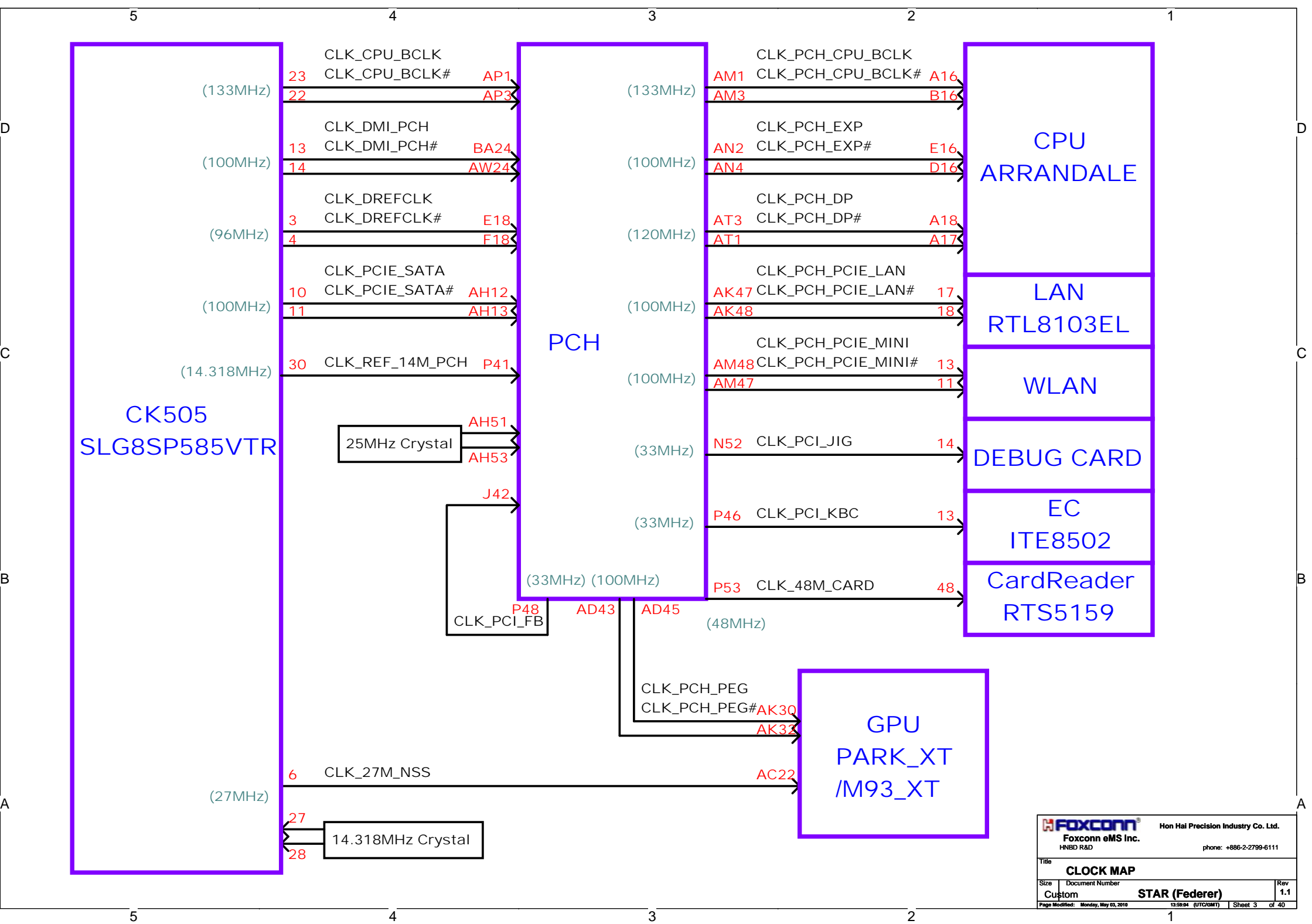


01 -- COVER SHEET	21 -- VGA_S3 (DDR3) 3/5
02 -- SYSTEM BLOCK DIAGRAM	22 -- VGA_S3 (DP) 4/5
03 -- CLOCK MAP	23 -- VGA_S3 (POWER) 5/5
04 -- POWER MAP	24 -- VRAM (DDR3)
05 -- POWER SEQUENCY DIAGRAM	25 -- EC+KBC (IT8502E)
06 -- POWER SEQUENCY TIMING	26 -- CODEC/JACK/SPEAKER/MIC
07 -- SMBUS MAP	27 -- LAN (RTL8103EL)/CLOCK GEN
08 -- Calpella (DMI,PEG,FDI)	28 -- Card Reader
09 -- Calpella (CLK,MISC,JTAG)	29 -- WLAN/BT/MDC/USB/MOUNTING
10 -- Calpella (DDR3)	30 -- LVDS/CRT/Webcam
11 -- Calpella (POWER/GND)	31 -- HDMI
12 -- Calpella (GRAPHIC POWER)	32 -- DCIN/Battery/OCP/FAN
13 -- PCH (HDA,JTAG,SATA)	33 -- PWR Charger MAX8731AETI
14 -- PCH (PCI-E,SMBUS,CLK)	34 -- 5V/3.3V SN0608098RHBT
15 -- PCH (DMI,FDI,GPIO,LVDS)	35 -- Vcore MAX17030
16 -- PCH (PCI,USB,NVRAM,GPIO)	36 -- 1.1V VTT/+V1.05RUN
17 -- PCH (POWER)	37 -- 1.5VDDR3+0.75V+V1.8RUN
18 -- DDR3(SO-DIMM_0&1)	38 -- PWR_Others power plane
19 -- VGA (PCI-E/STRAP) 1/5	39 -- CPU_VREG & Decoupling
20 -- VGA_S3 (IO) 2/5	40 -- ATVDD/+VPCIE


P. Leader	Check by	Design by

 Hon Hai Precision Industry Co. Ltd. Foxconn eMS Inc. HNBD R&D		phone: +886-2-2799-6111
Title Index Page		
Size Custom	Document Number STAR (Federer)	Rev 1.1
Page Modified: Monday, May 03, 2010 13:58:35 (UTC+GMT) Sheet 1 of 40		





SCH Page	Change Request Description from MV to MP phase	Notes
40	Modify PR912 to 80.6K	GPU power issue
37	Modify PR504 to 71.5K	1.5V power tolerance issue
40	Add PC885 for M93 SKU	GPU power issue
38	Del PC333	System shutdown issue



Hon Hai Precision Industry Co. Ltd.

Foxconn eMS Inc.

HNBD R&D

phone: +886-2-2799-6111

Title

History

Size	Document Number	Rev
Custom	STAR (Federer)	1.1

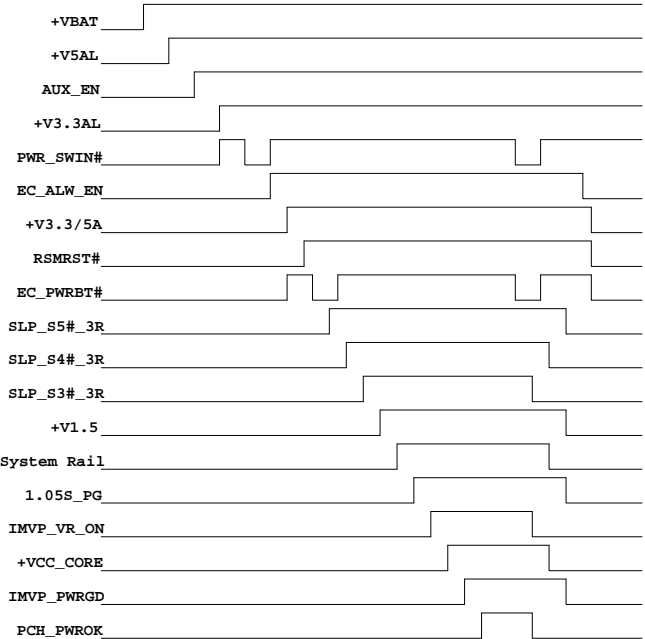
Page Modified: Monday, May 03, 2010

13:59:28 (UTC+8MT)

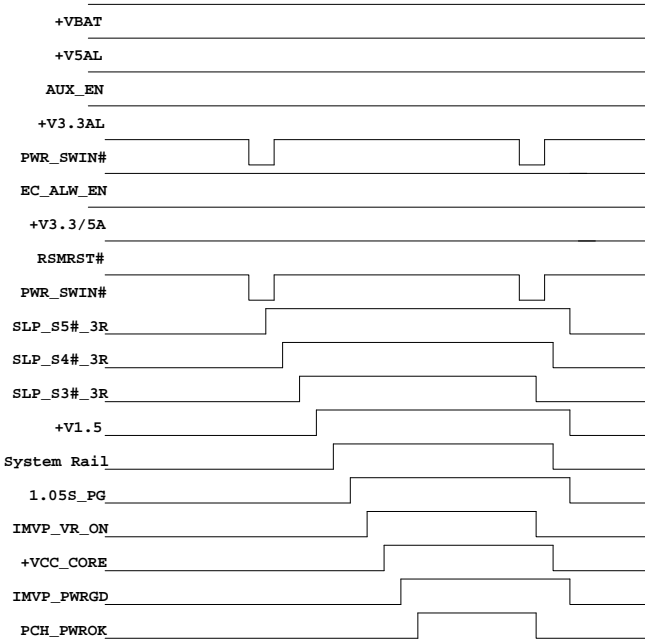
Sheet 4 of 40

POWER SEQUENCE TIMING

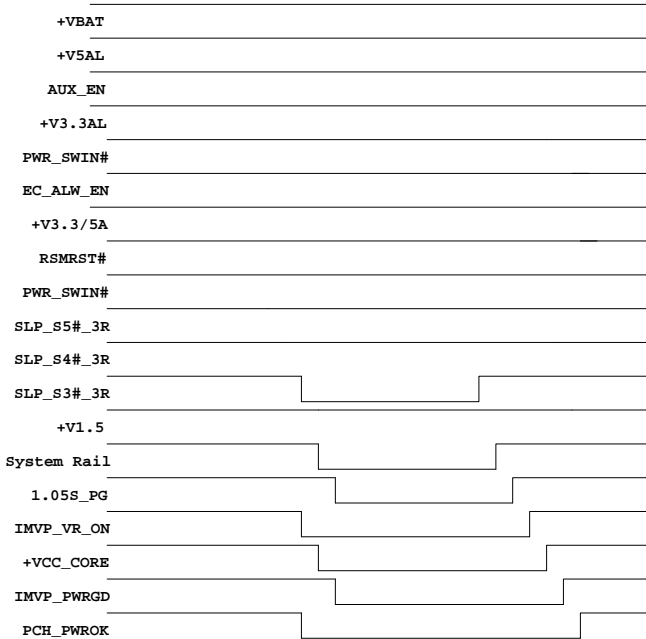
G3(OFF)->S0->S5



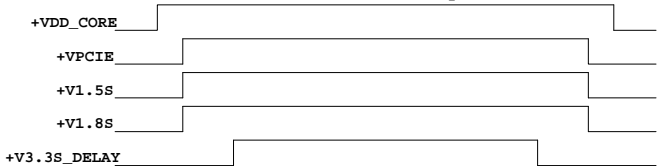
S5->S0->S5



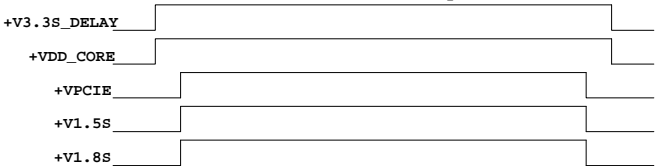
S0->S3->S0



GPU_M93 Sequence



GPU_Park Sequence



Switchable GPU

GPU
Park_XT

PCH

EC
ITE8502

CRT

LVDS

HDMI

Temp
Sensor

Charger

Battery

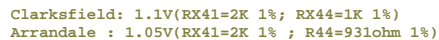
DIMM0

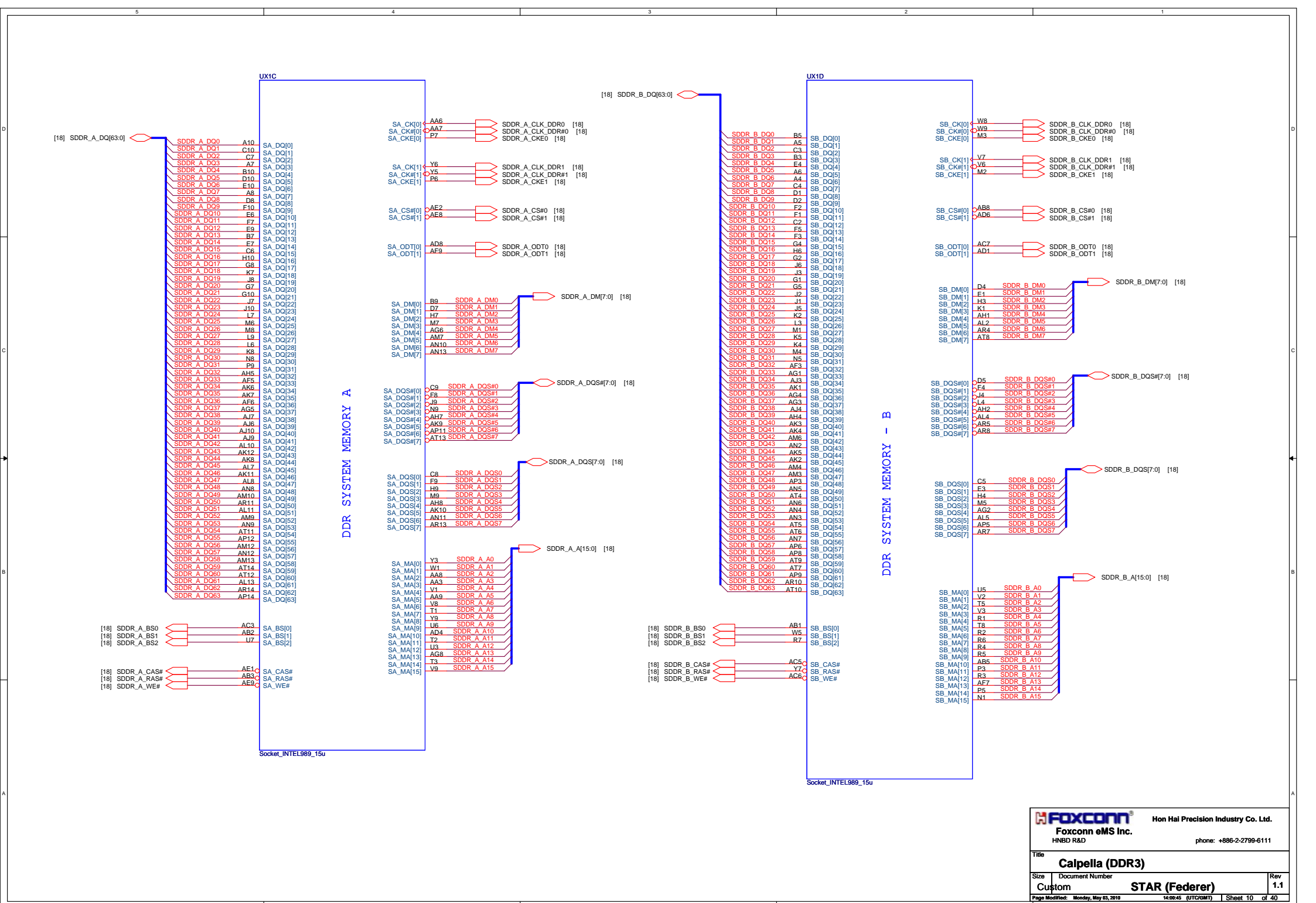
DIMM1

CLOCK
GEN

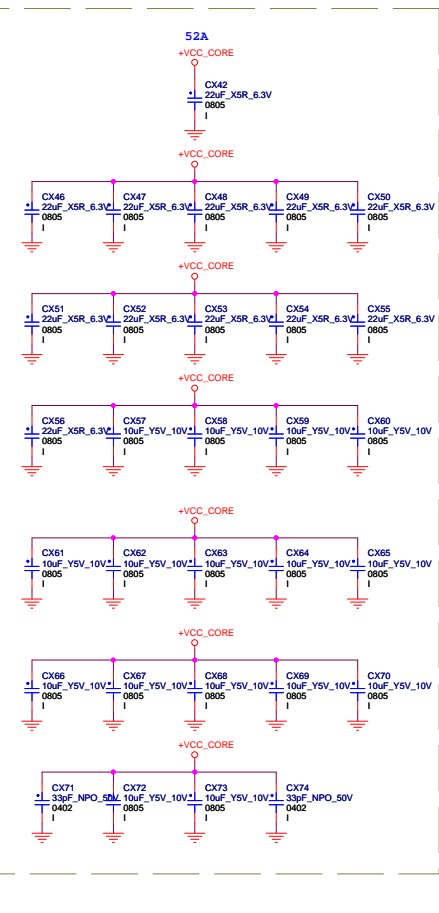
WLAN

Place close to chip



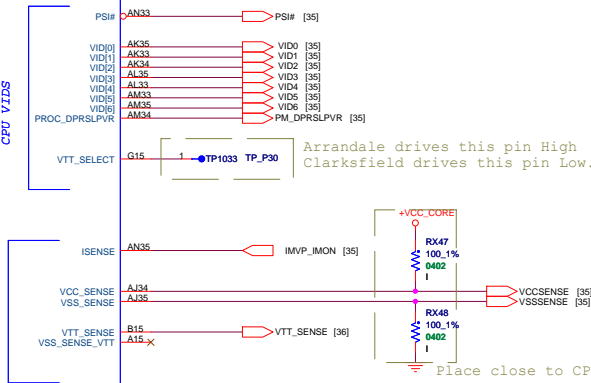
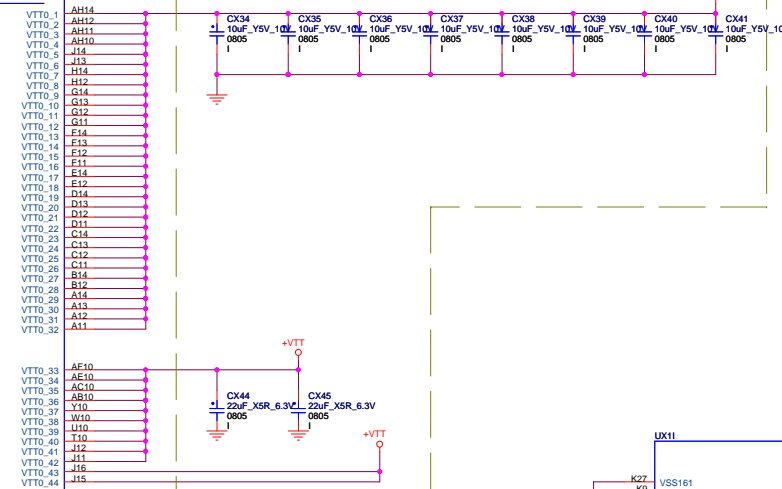


FOR VCC:
12x 0805 22 μ F inside cavity,
7x 0805 10 μ F under cavity and 9 x 0805 10
 μ F
between inductor and socket on top layer

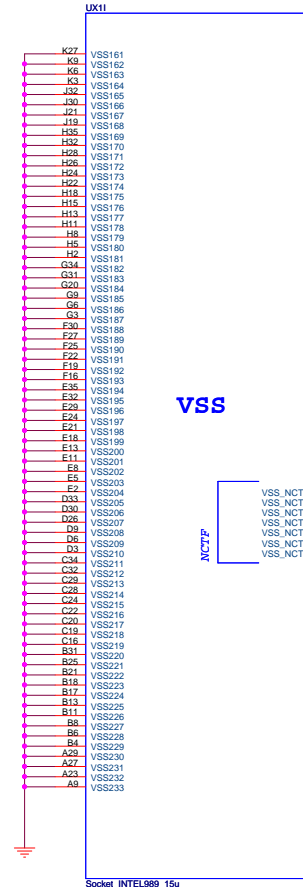


Socket_INTEL989_15u

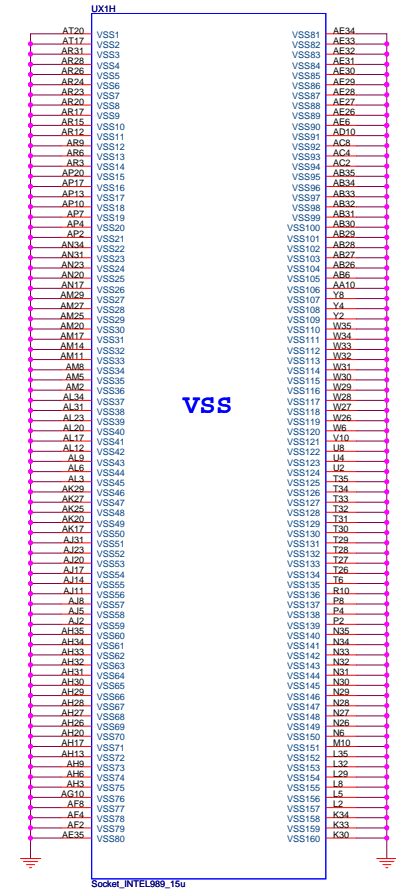
FOR VTT:
7x 0805 22 μ F under
cavity
8x 0805 10 μ F edge caps



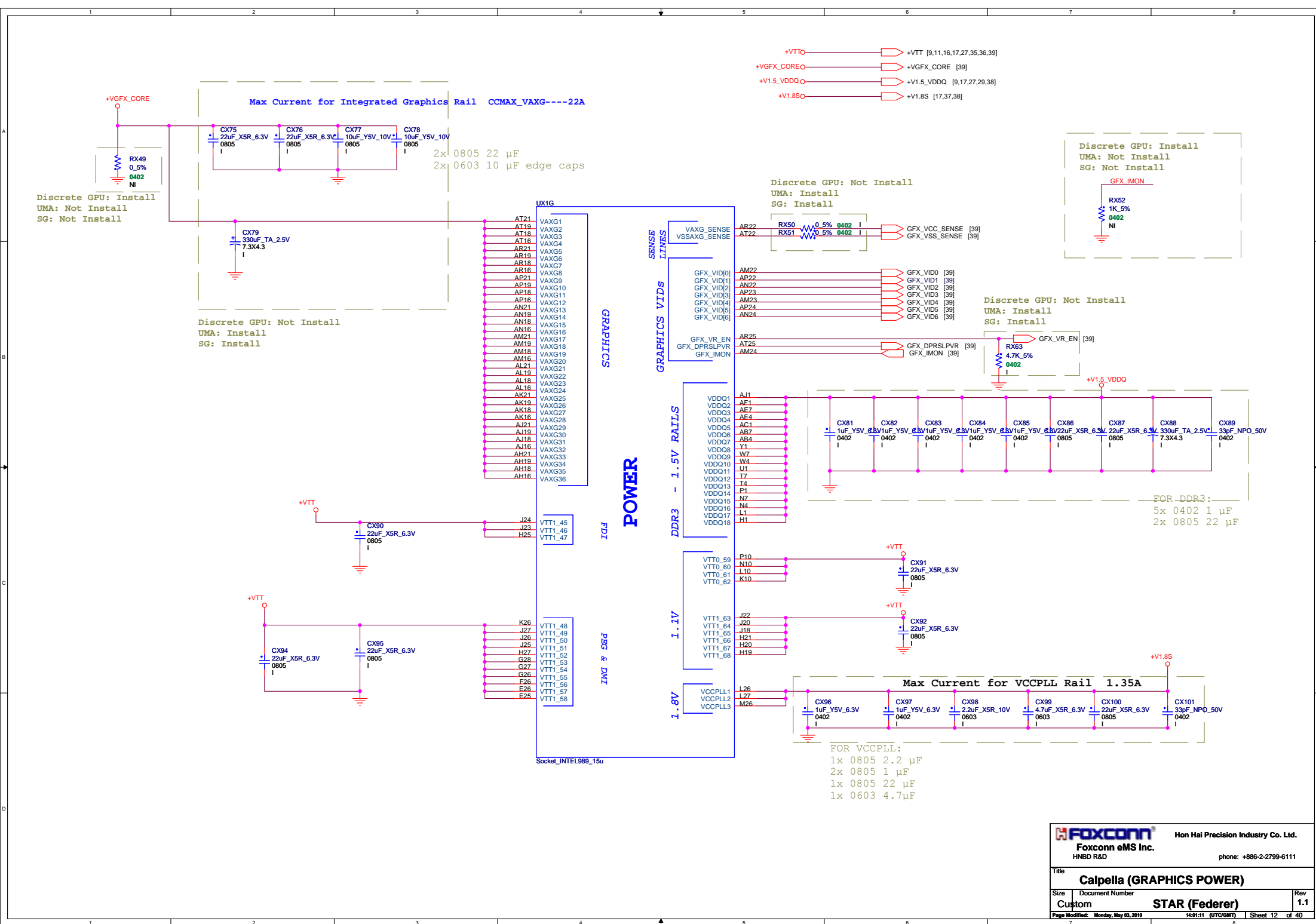
- Place close to CPU

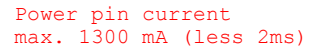


Socket_INTEL989_15



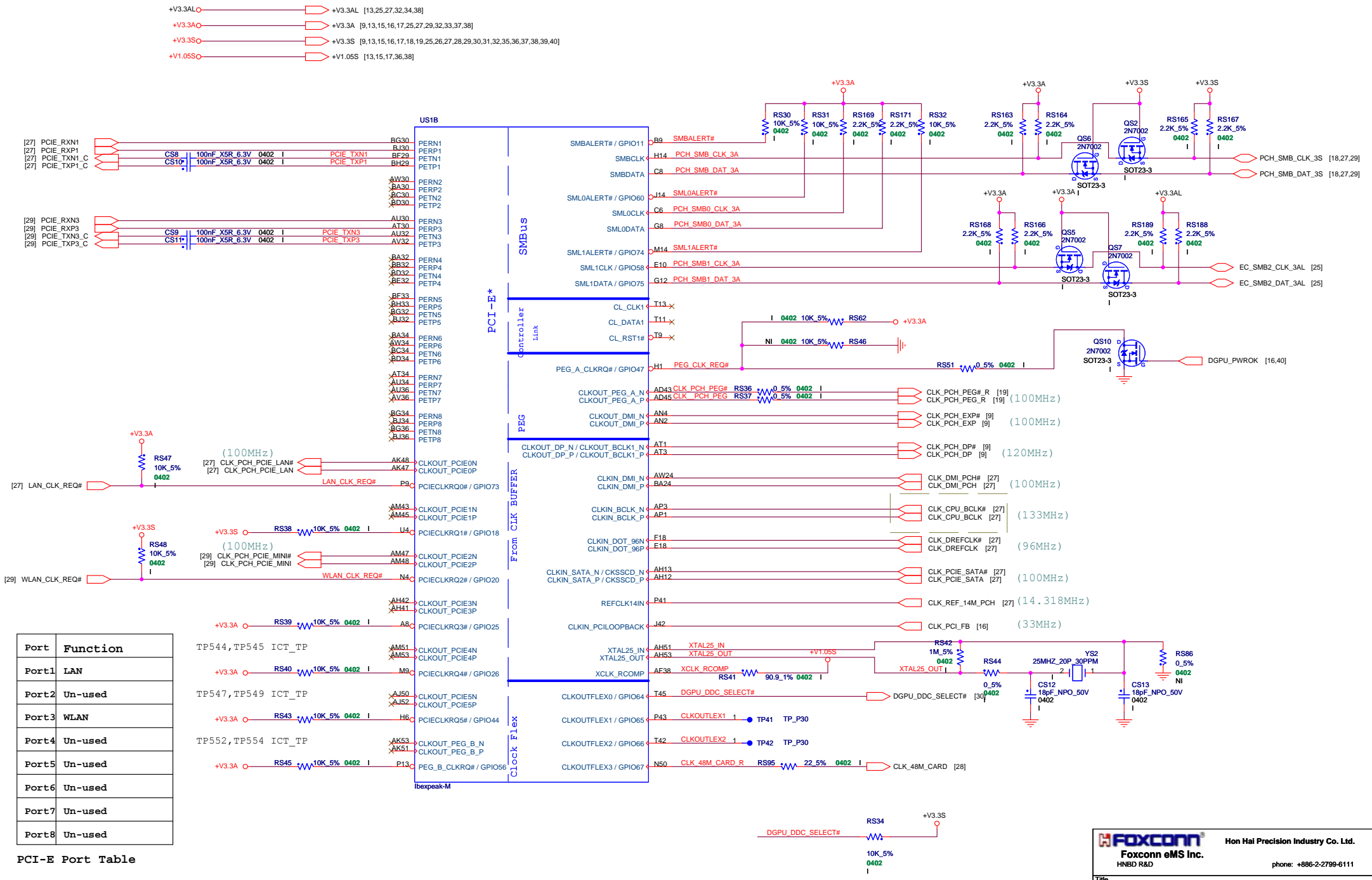
Socket_INTEL989_15U





Port	Function
Port1	LAN
Port2	Un-used
Port3	WLAN
Port4	Un-used
Port5	Un-used
Port6	Un-used
Port7	Un-used
Port8	Un-used

PCI-E Port Table



Foxconn eMS Inc.
 HNBD R&D

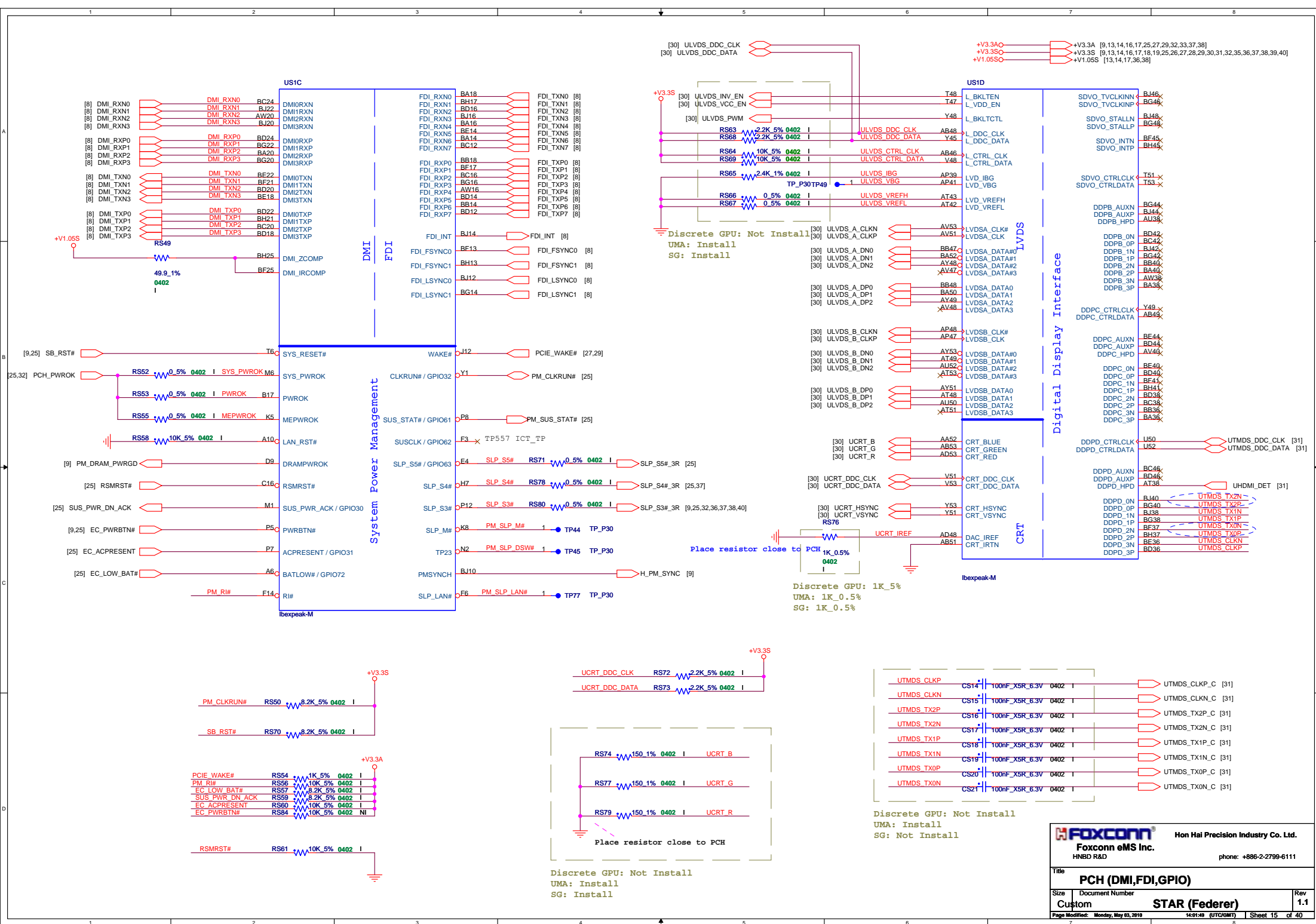
Hon Hai Precision Industry Co. Ltd.
 phone: +886-2-2799-6111

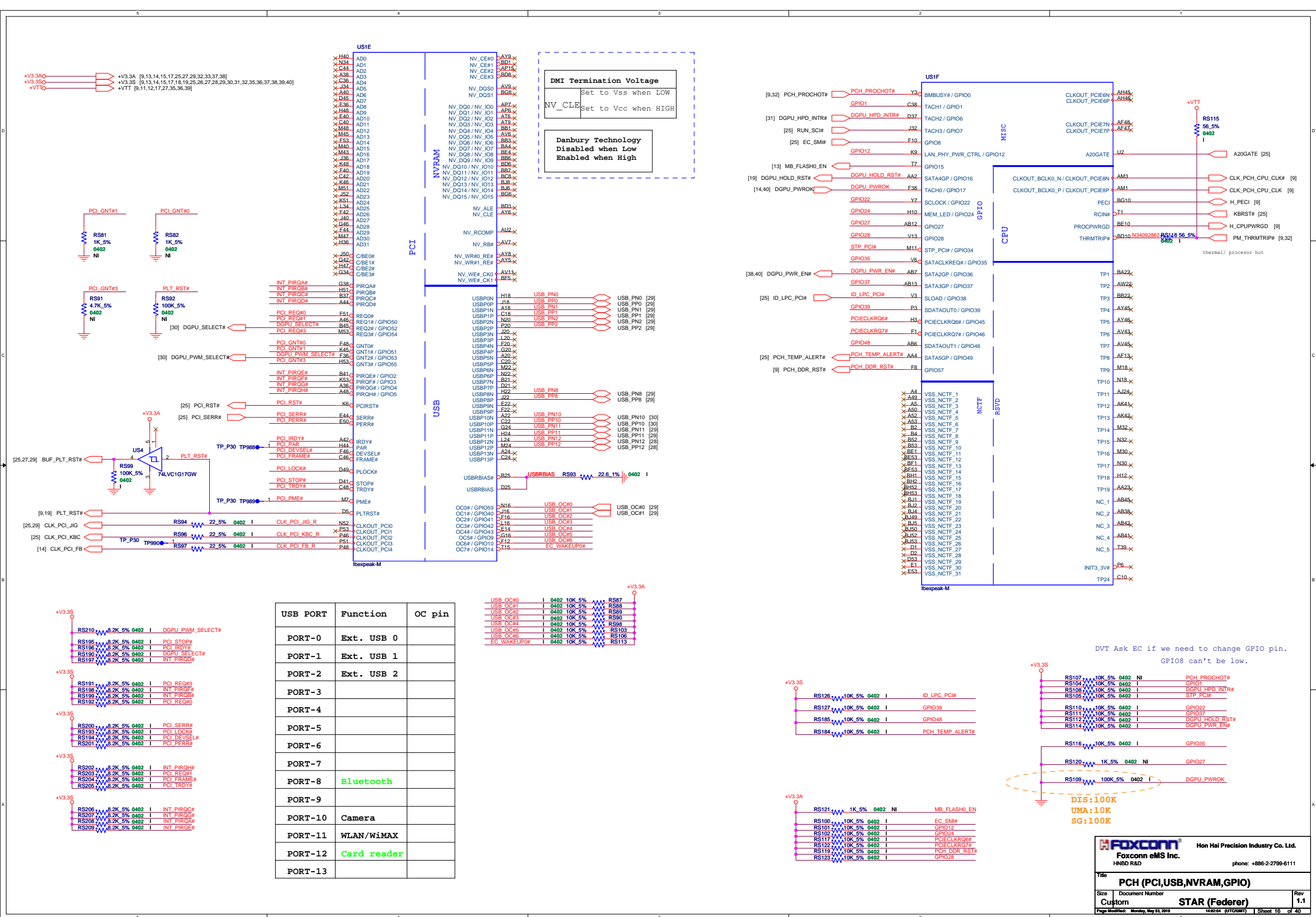
Title
PCH (PCI-E,SMBUS,CLK)

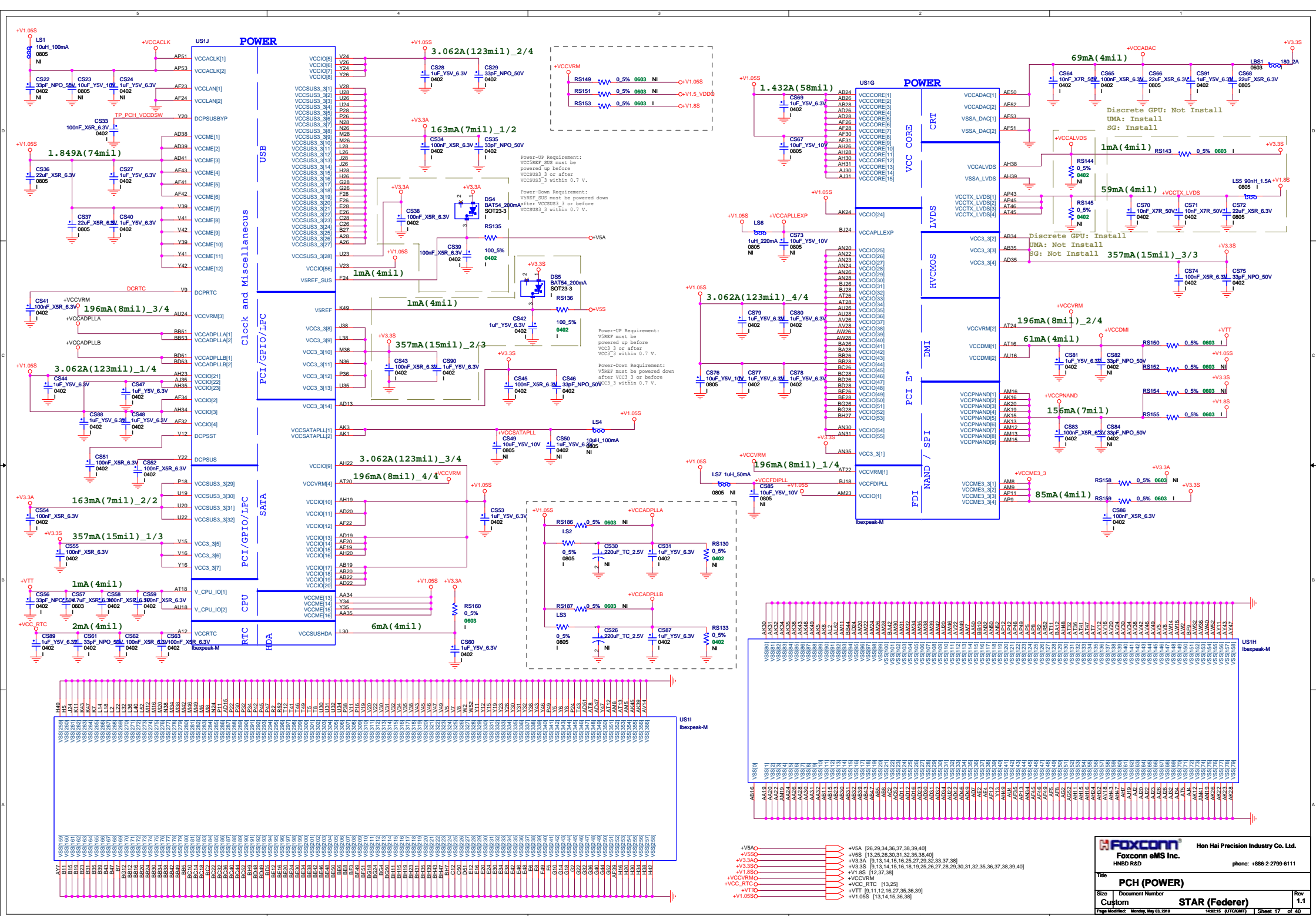
Size Document Number
Custom

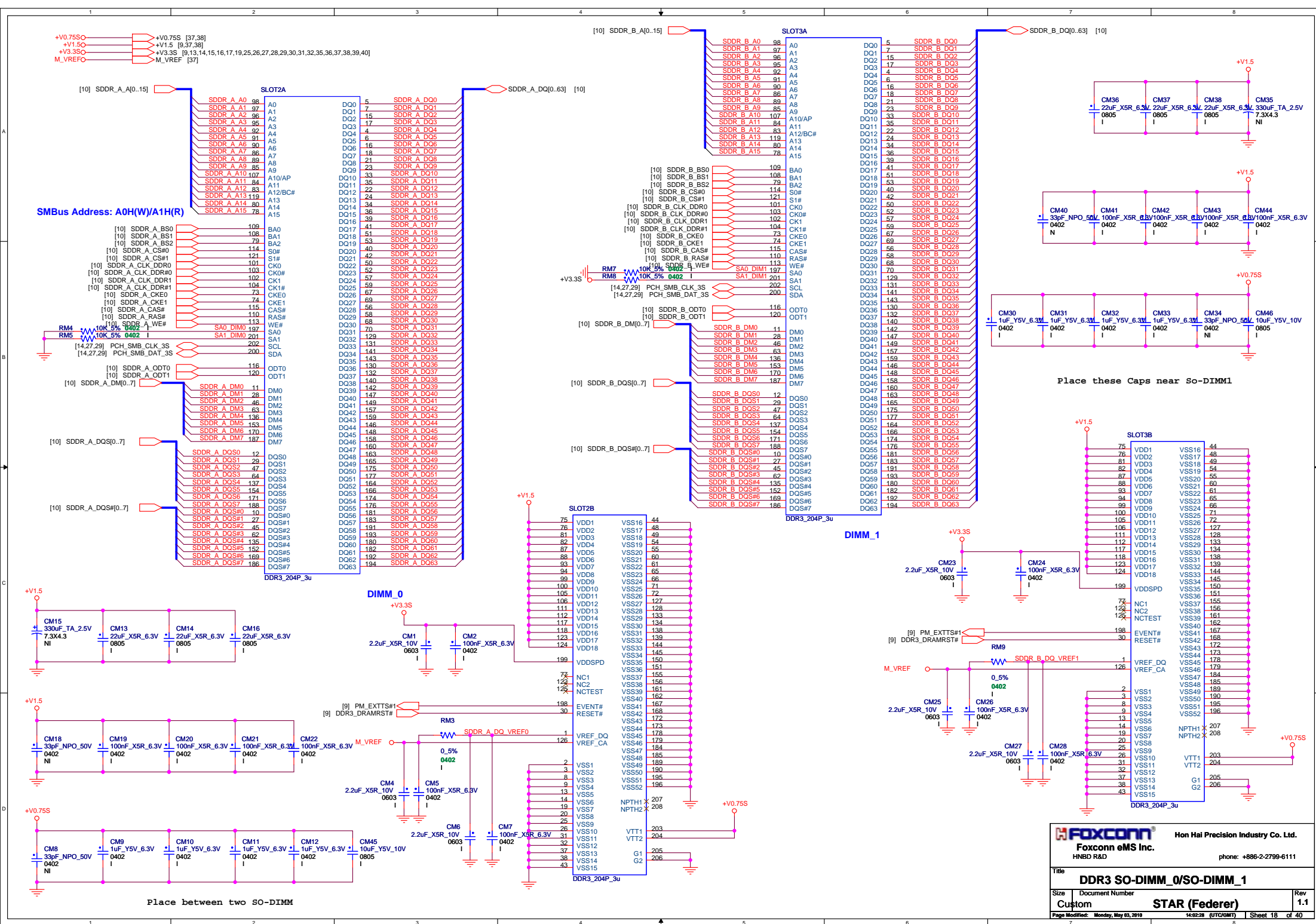
Rev
1.1

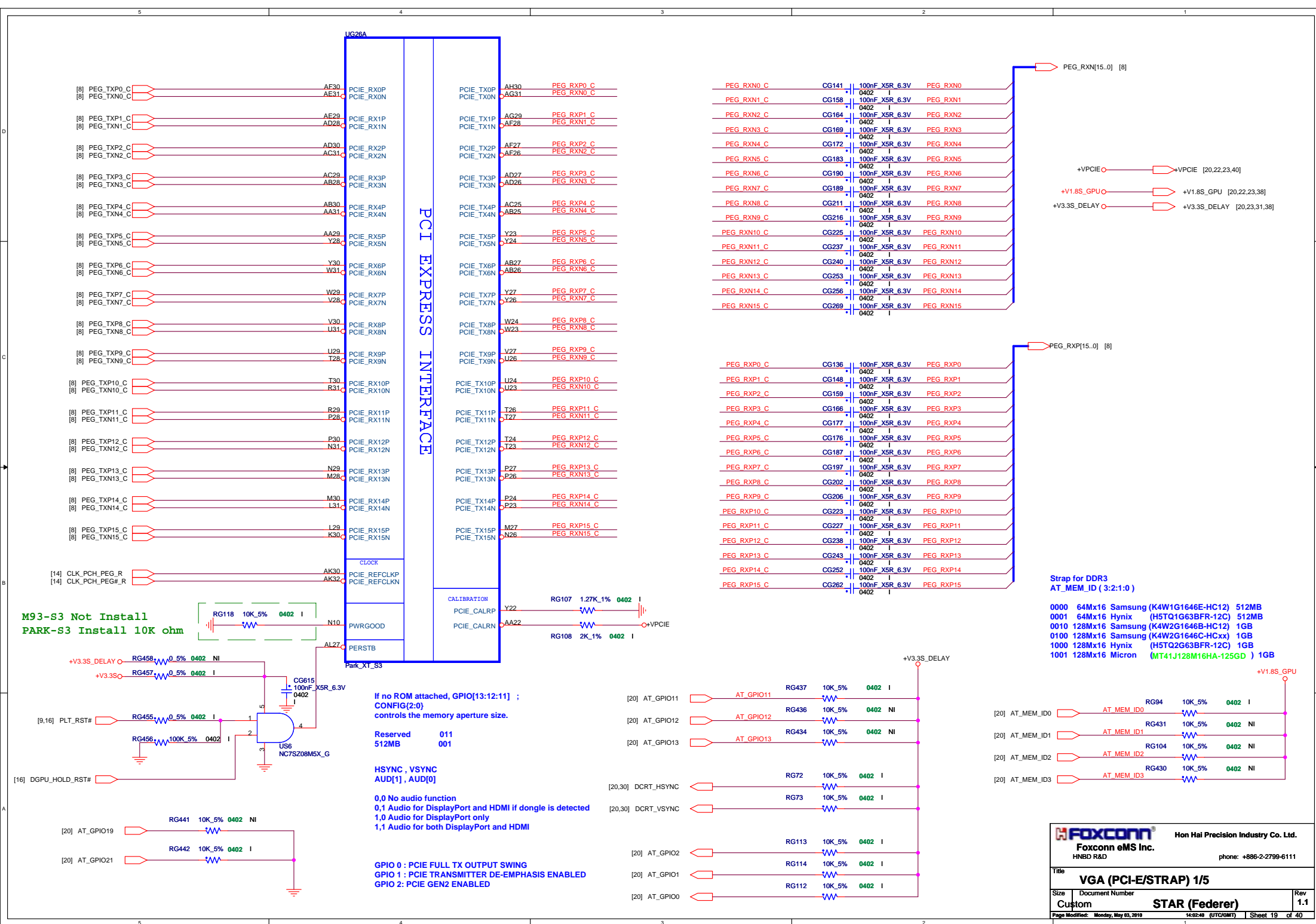
Page Modified: Monday, May 03, 2010 14:01:35 (UTC+0800) Sheet 14 of 40







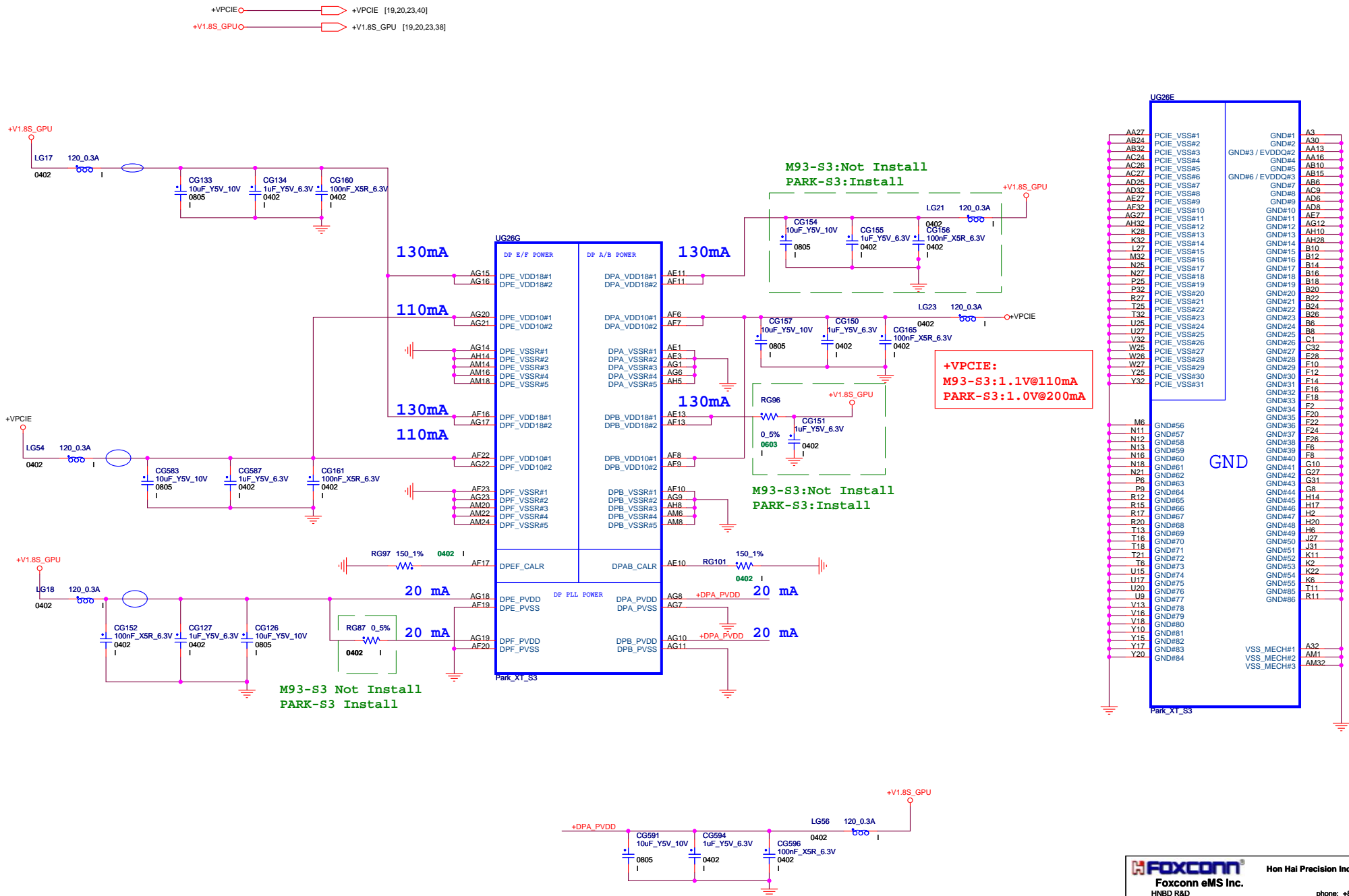


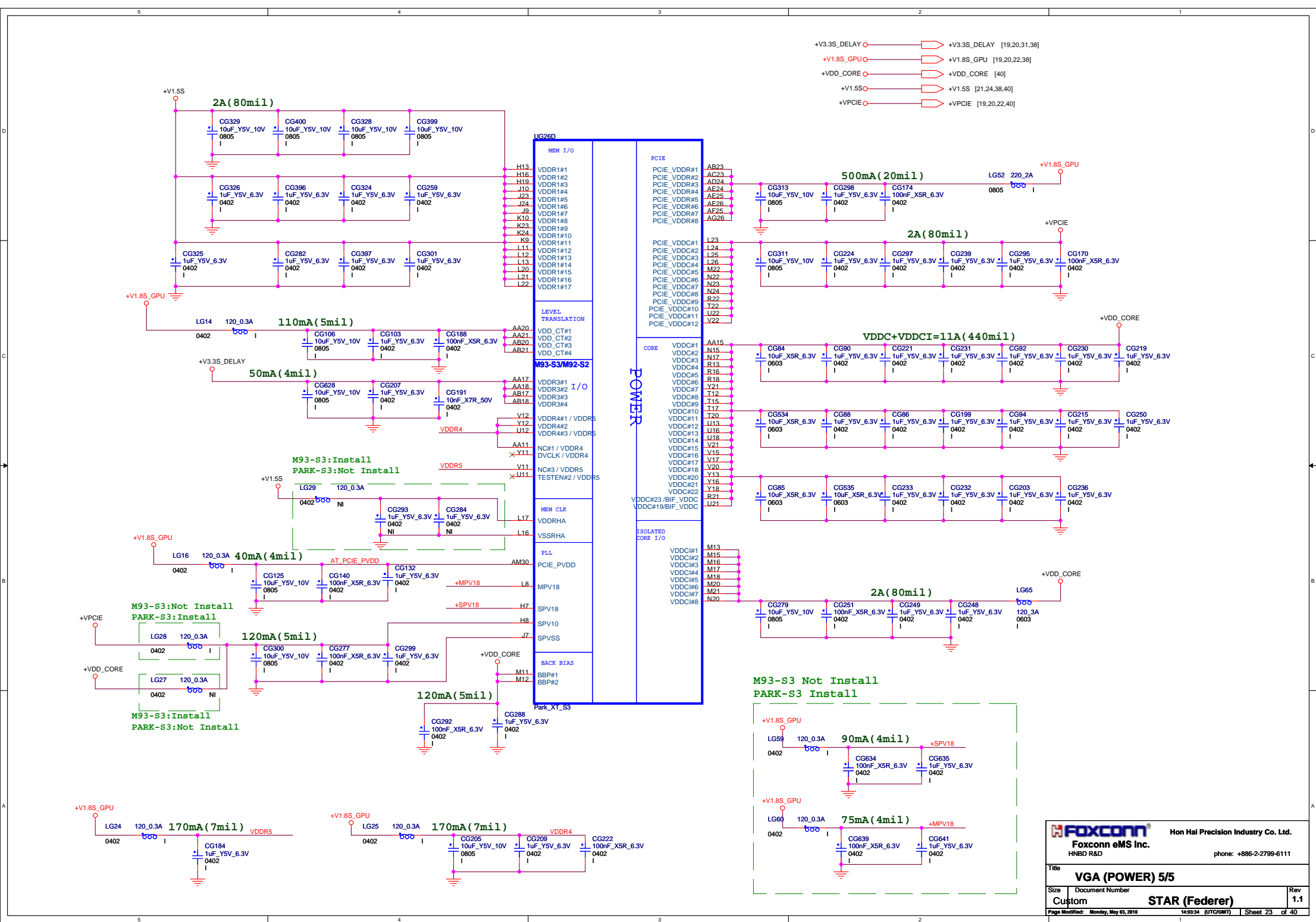




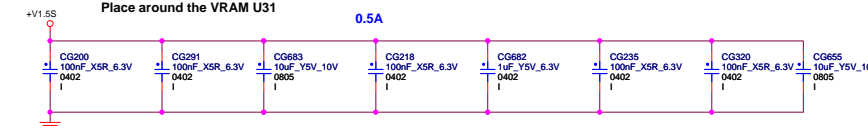
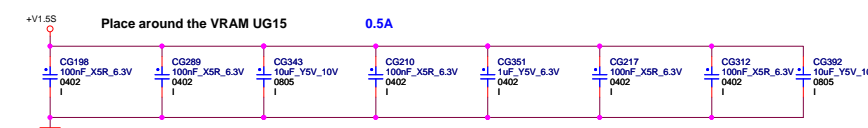
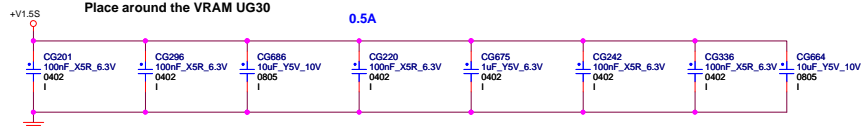
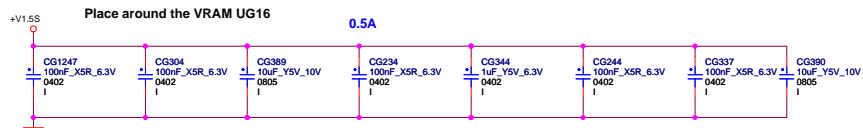
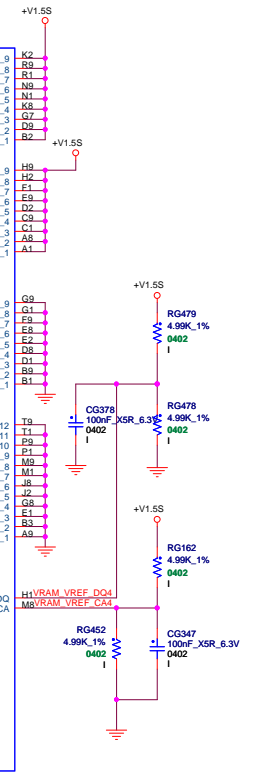
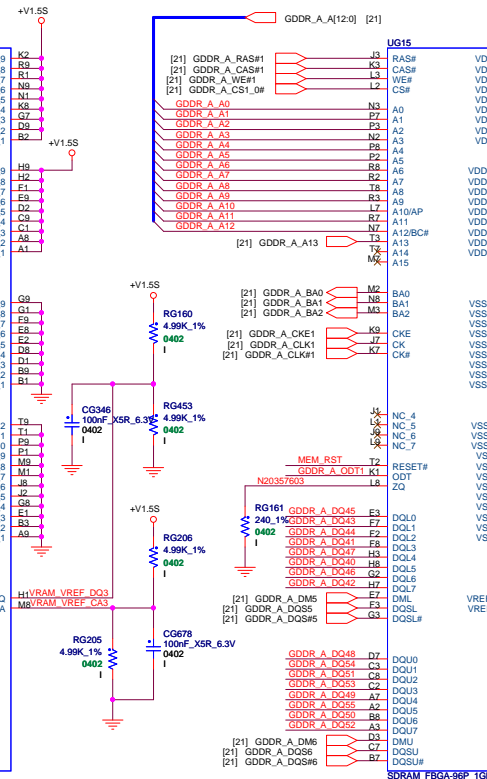
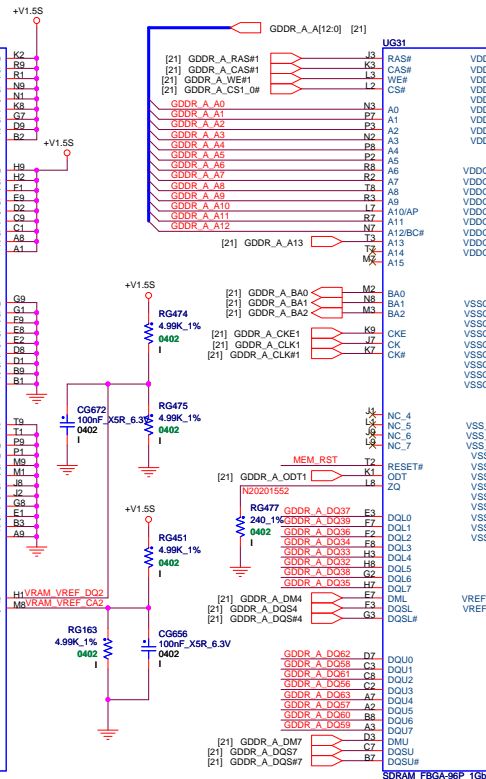
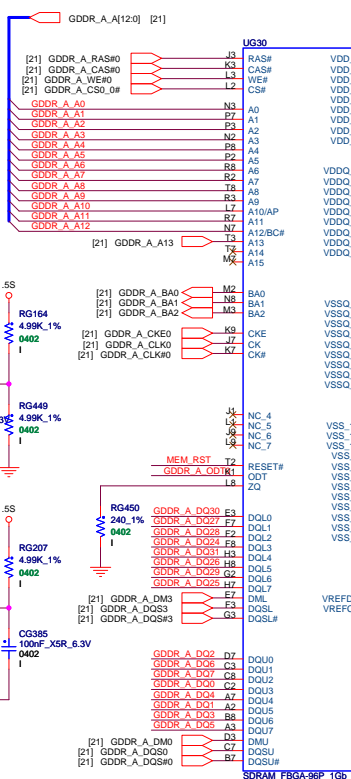
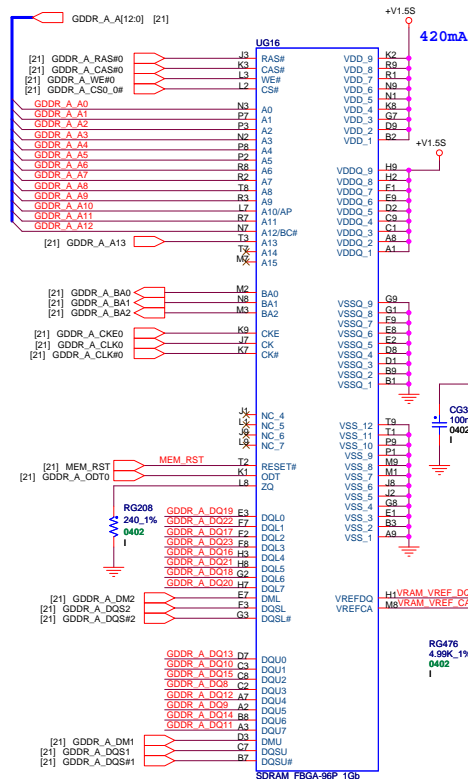


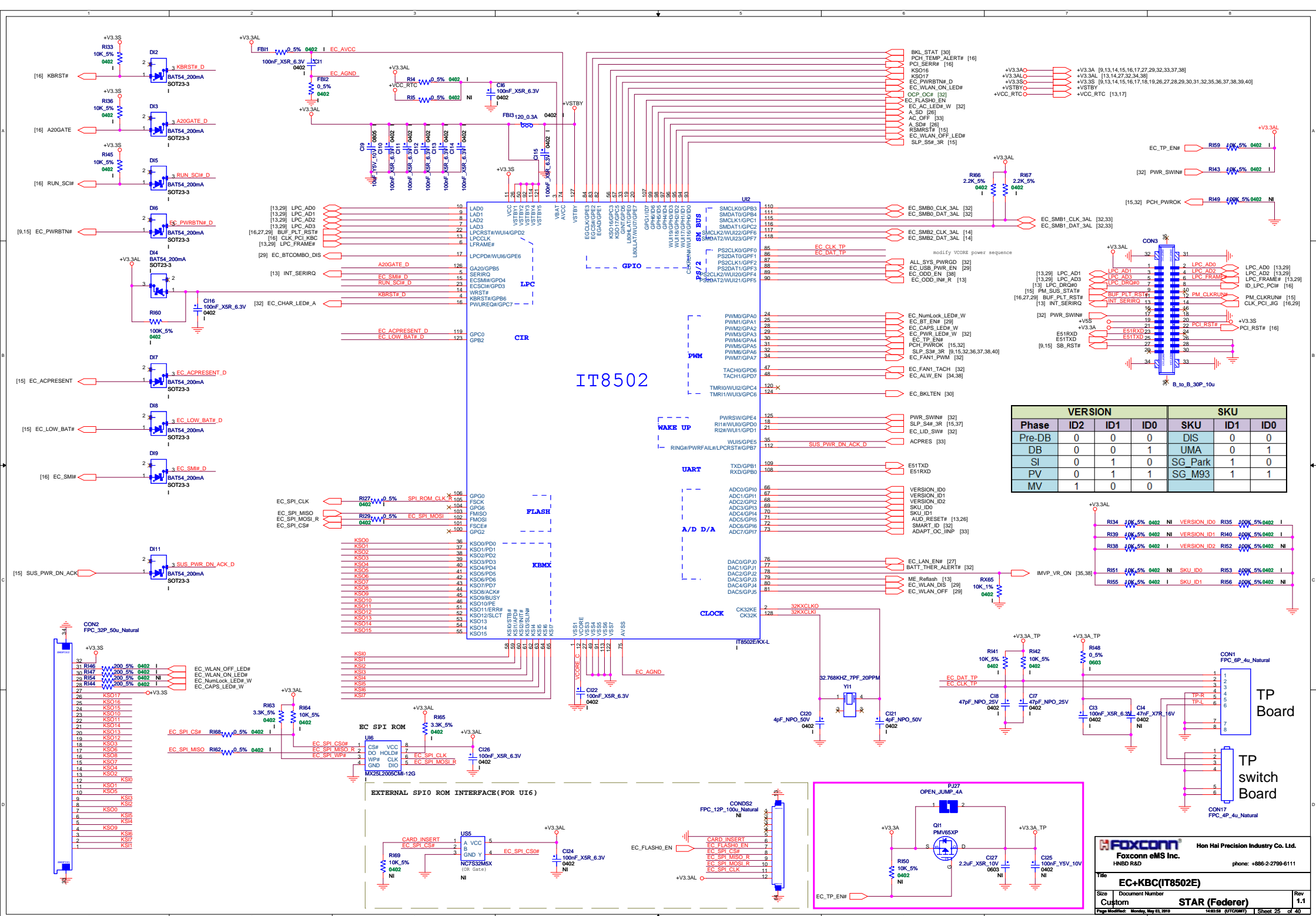
M93-S3 Install	M93-S3 Not Install	M93-S3 Install 240 ohm
PARK-S3 Not Install	PARK-S3 Install	PARK-S3 Install 150 ohm



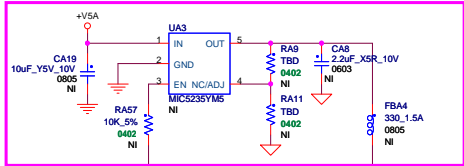


+V1.5S [21,23,38,40]

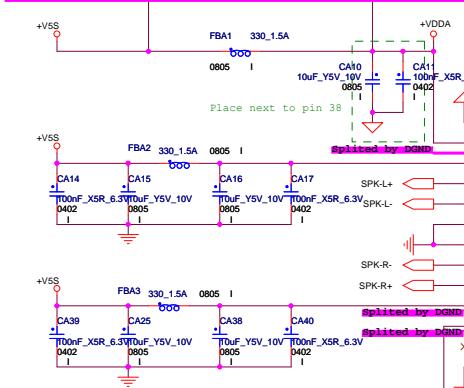




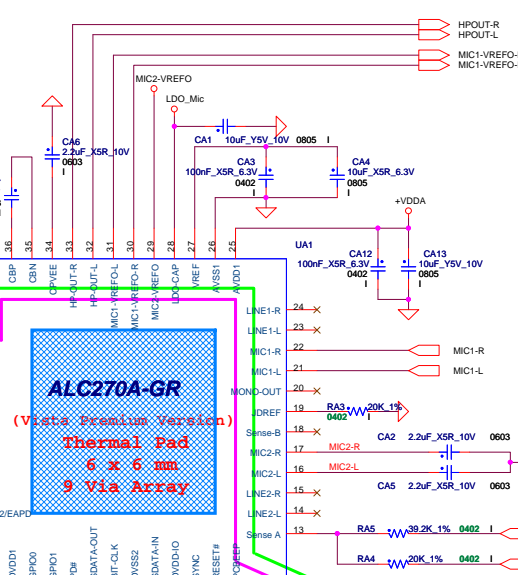
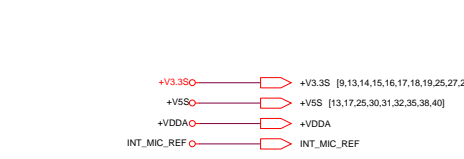
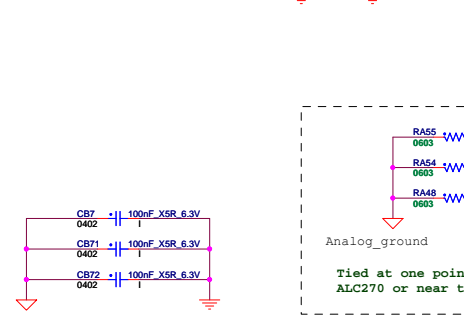
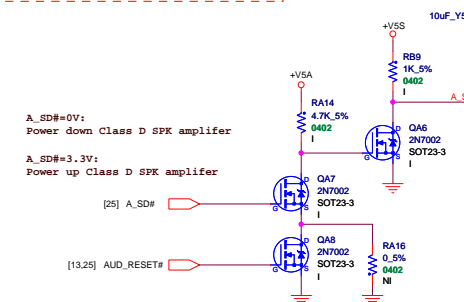
Reserved LDO circuitry for +VDDA power source



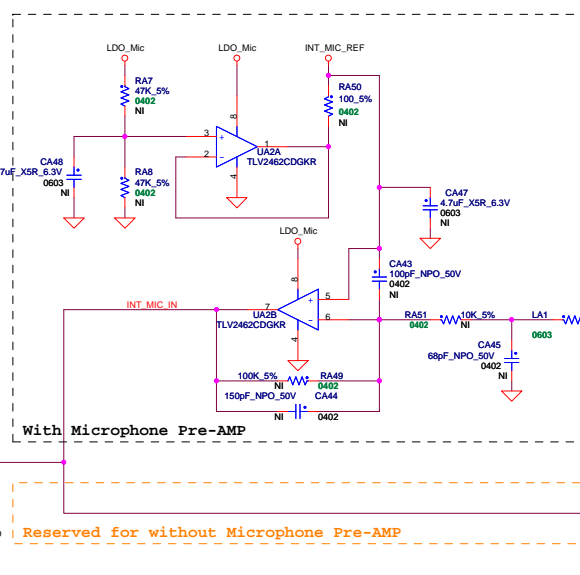
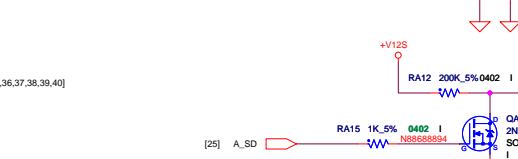
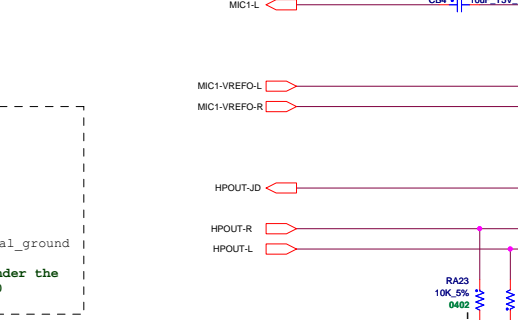
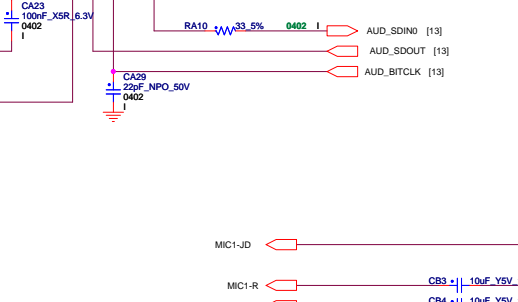
Place next to pin 38



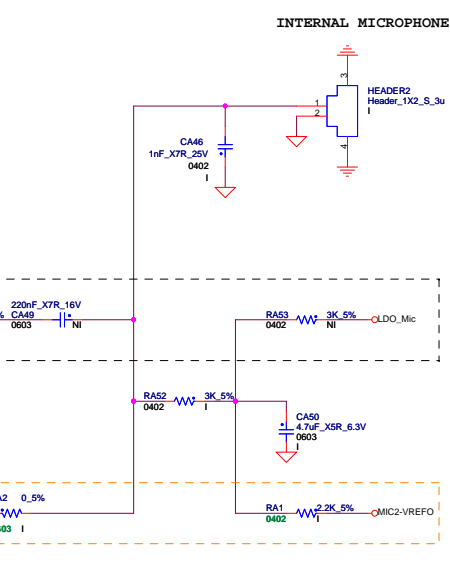
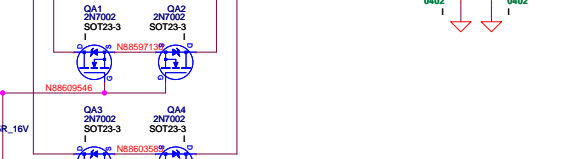
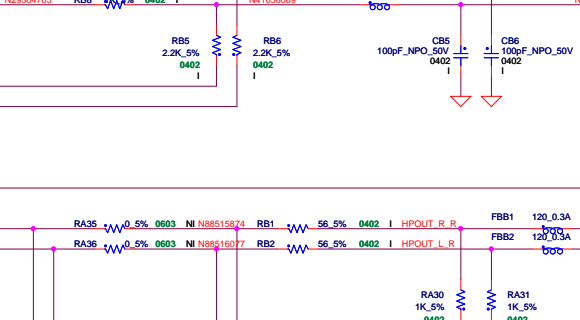
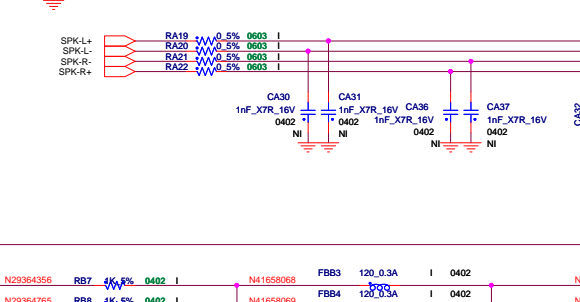
<<Attention>>
Surges of PVDD >7V duration 0.1ms when class D amplifier is working may damage the amplifier, 10uF tantalum capacitors are required at PVDD1 and PVDD2 to suppress the surge



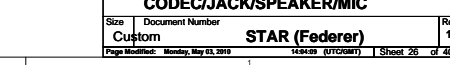
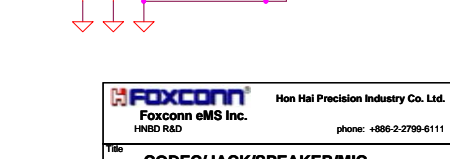
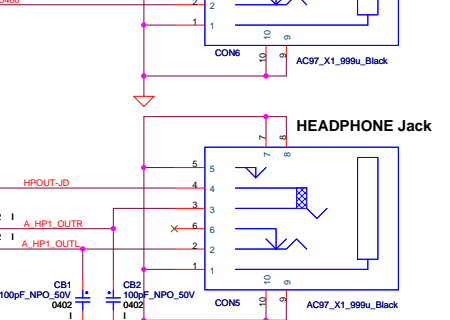
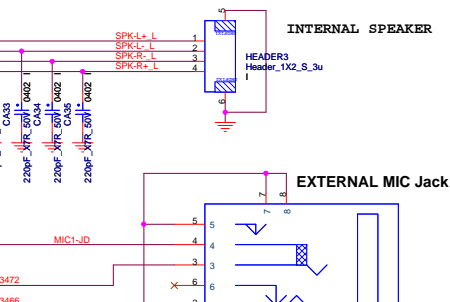
ALC270A-GR
(Viate Premium Version)
Thermal Pad
6 x 6 mm
9 Via Array

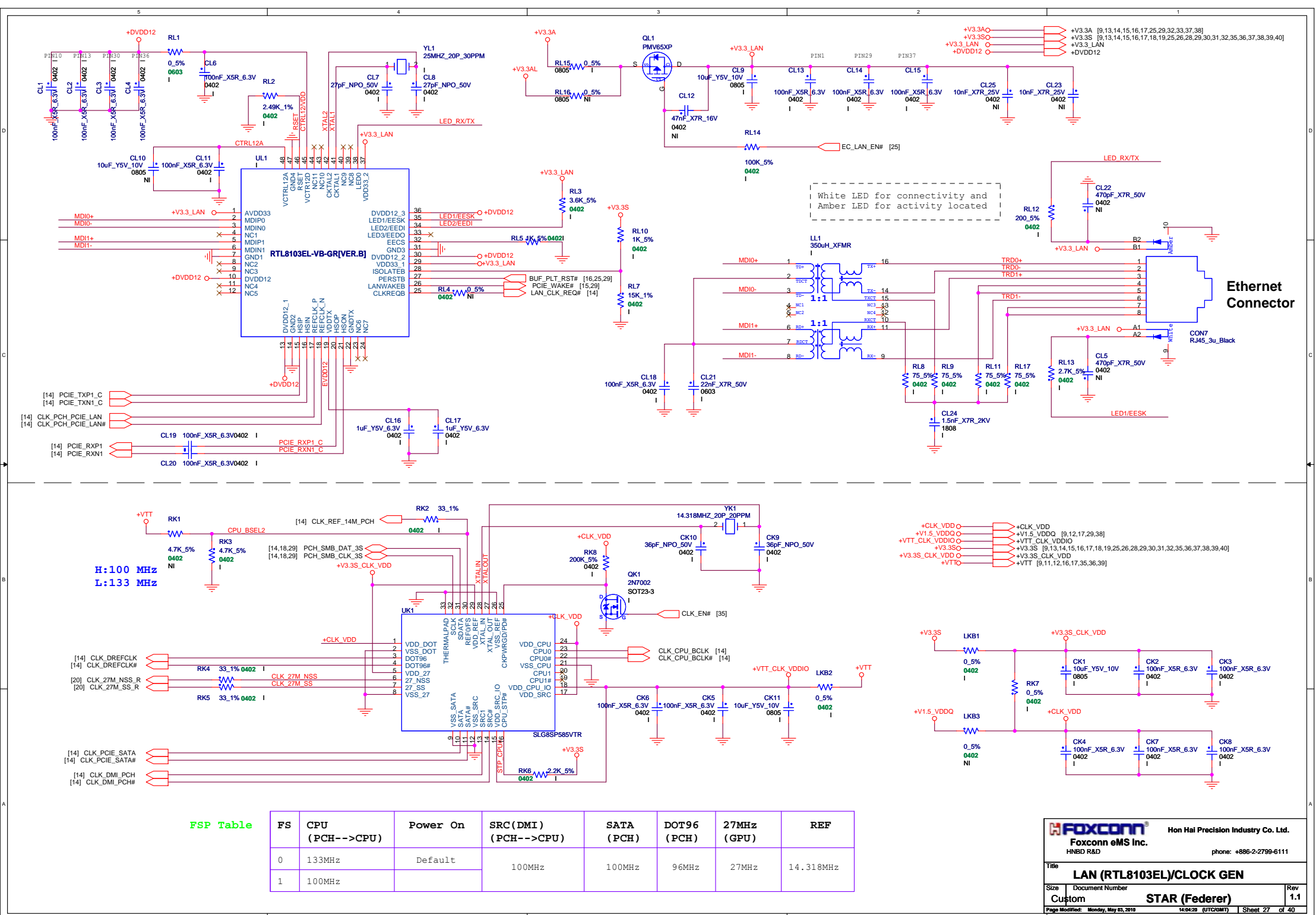


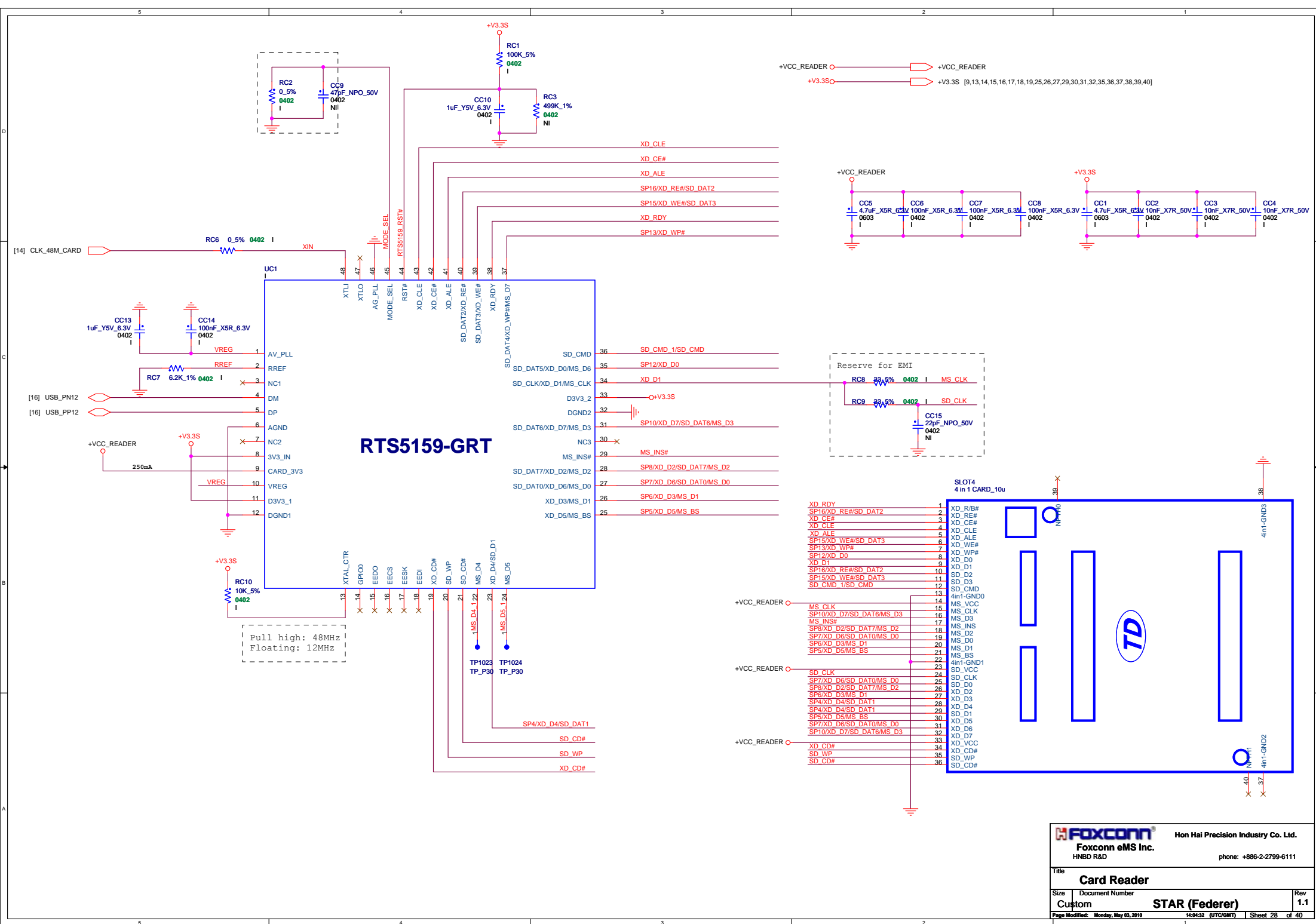
With Microphone Pre-AMP
Reserved for without Microphone Pre-AMP

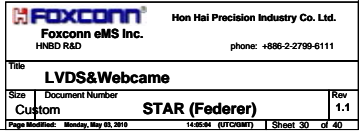


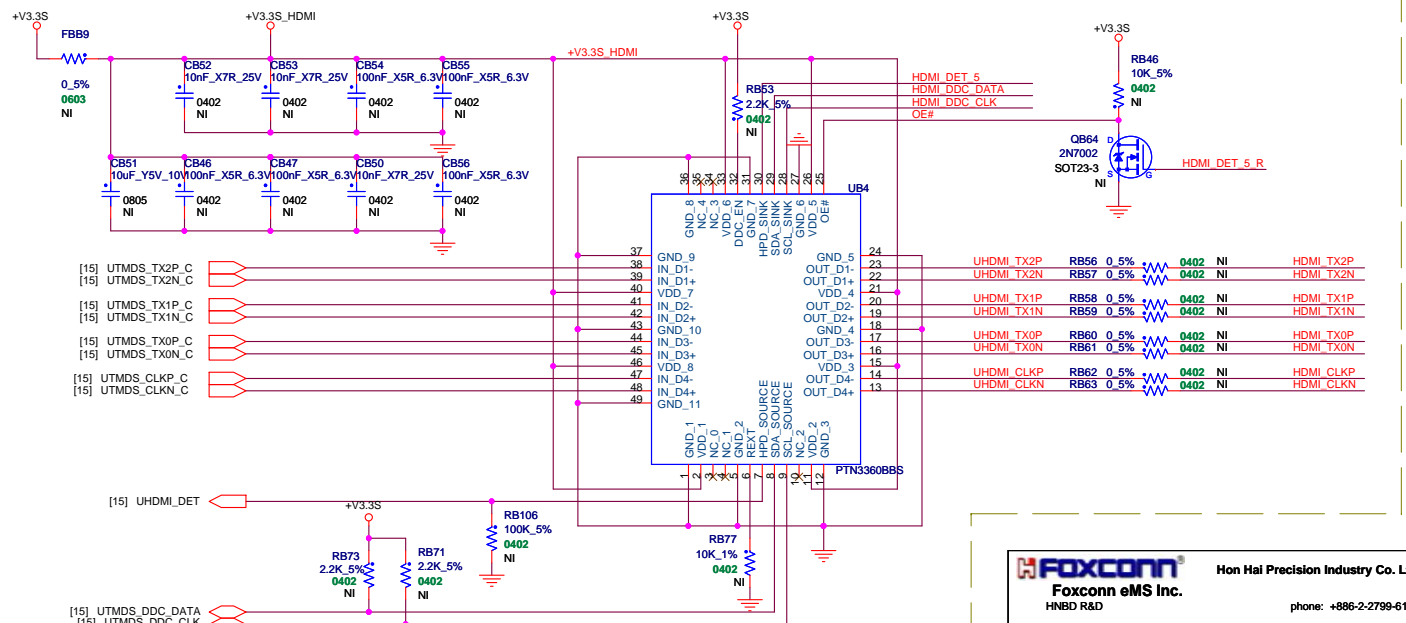
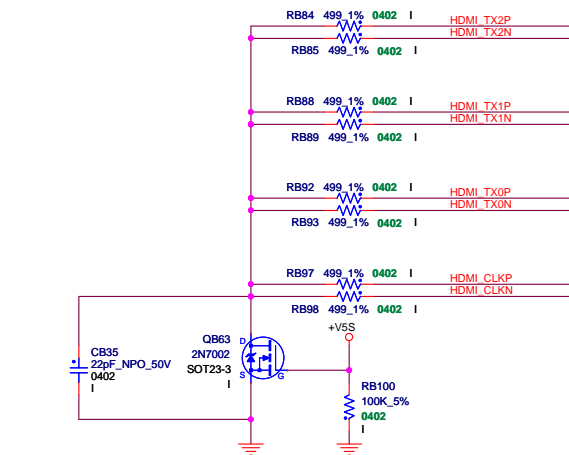
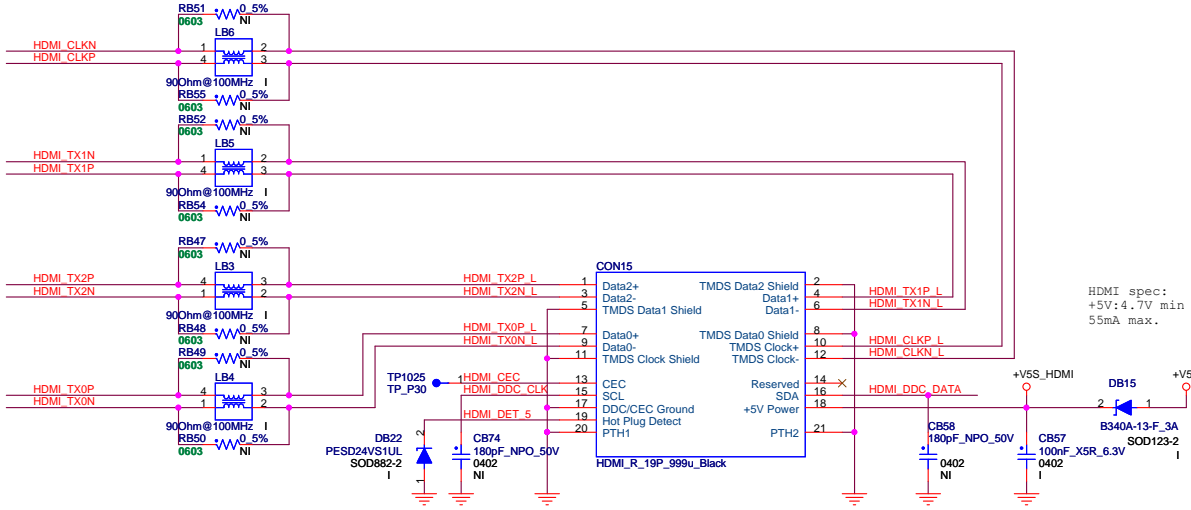
INTERNAL MICROPHONE
With Microphone Pre-AMP
Reserved for without Microphone Pre-AMP

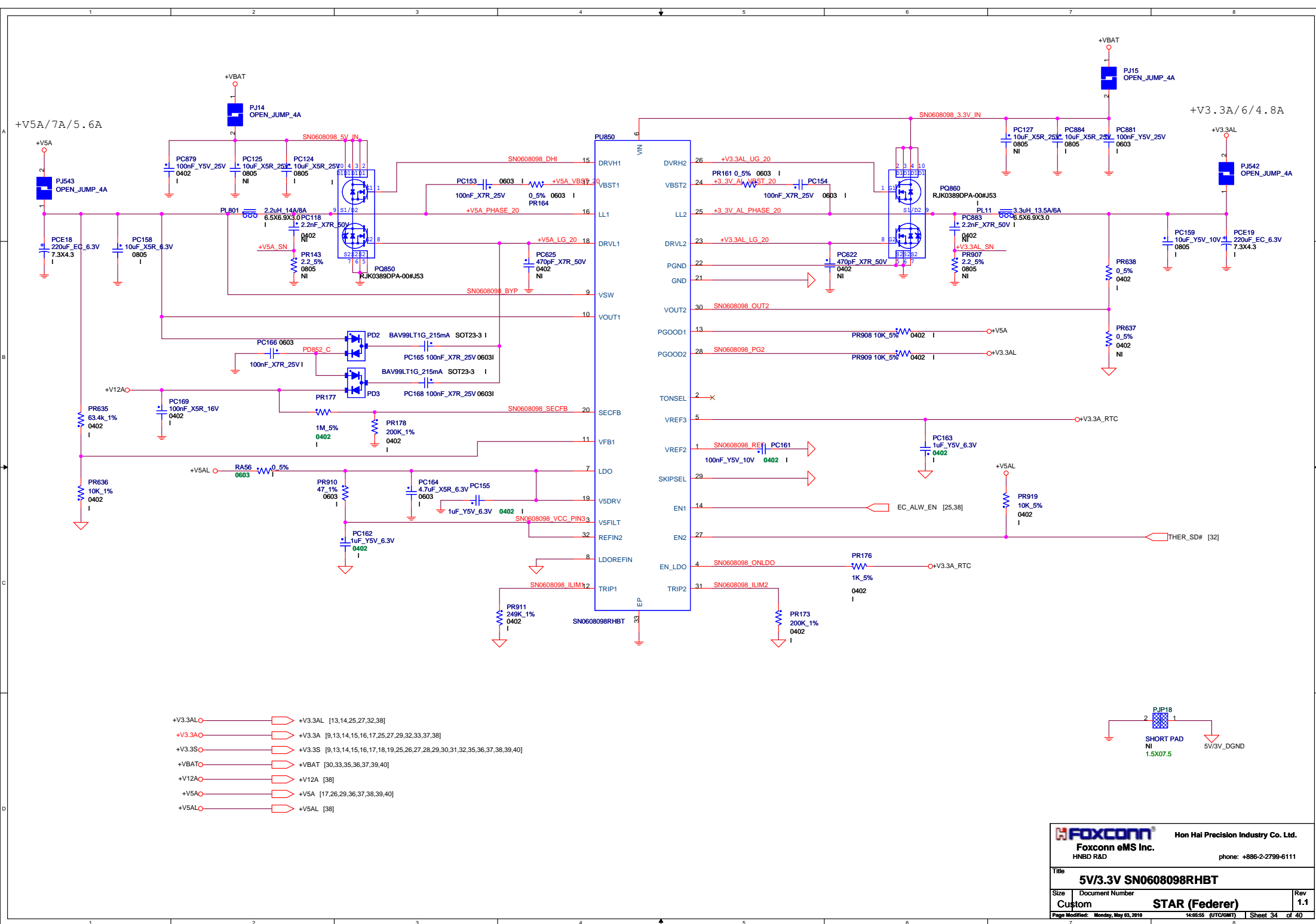


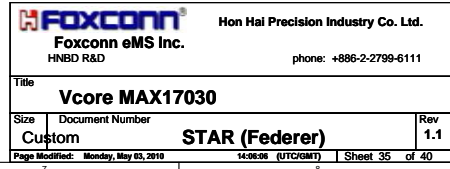




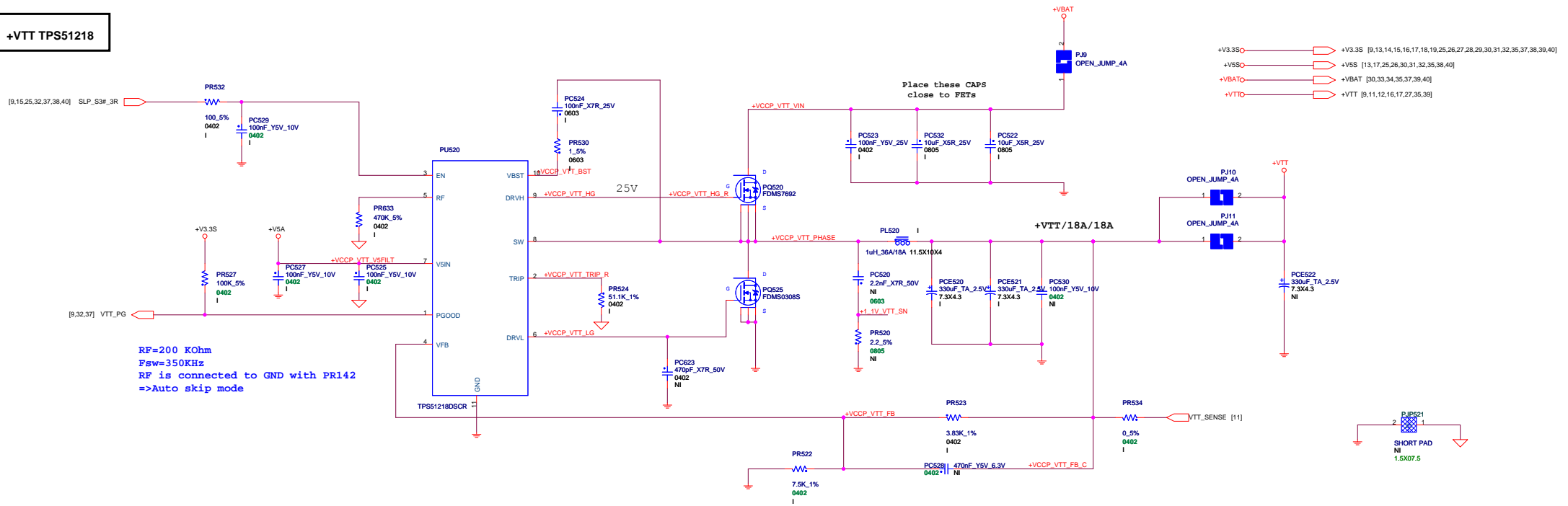




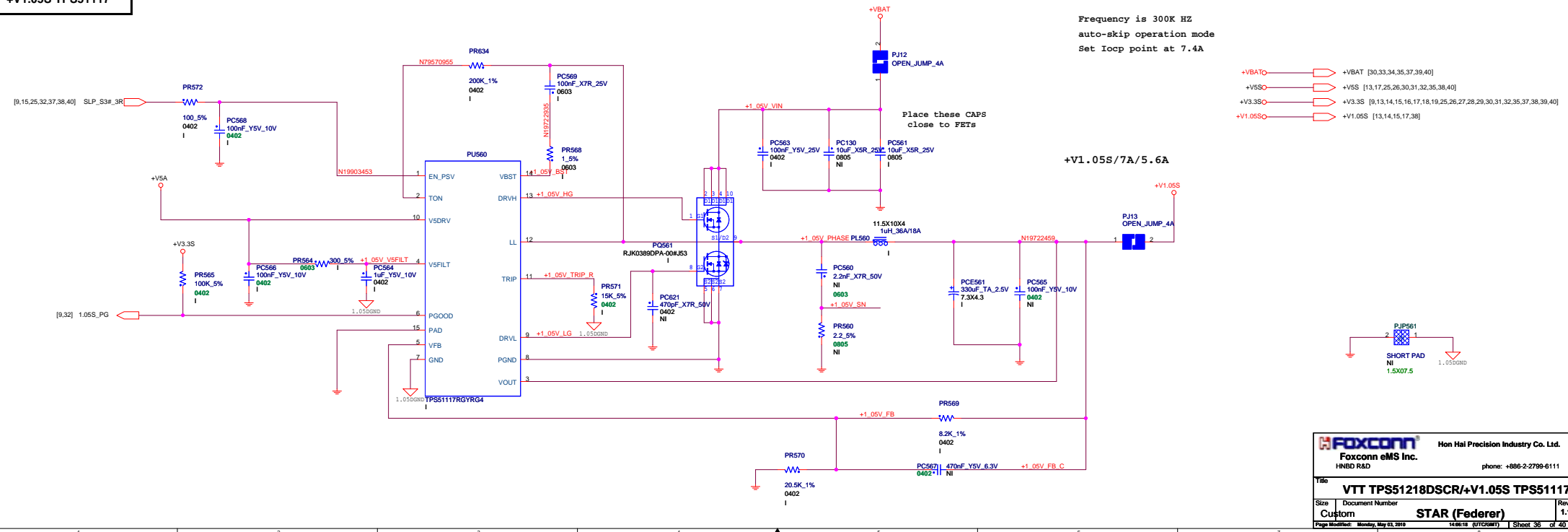


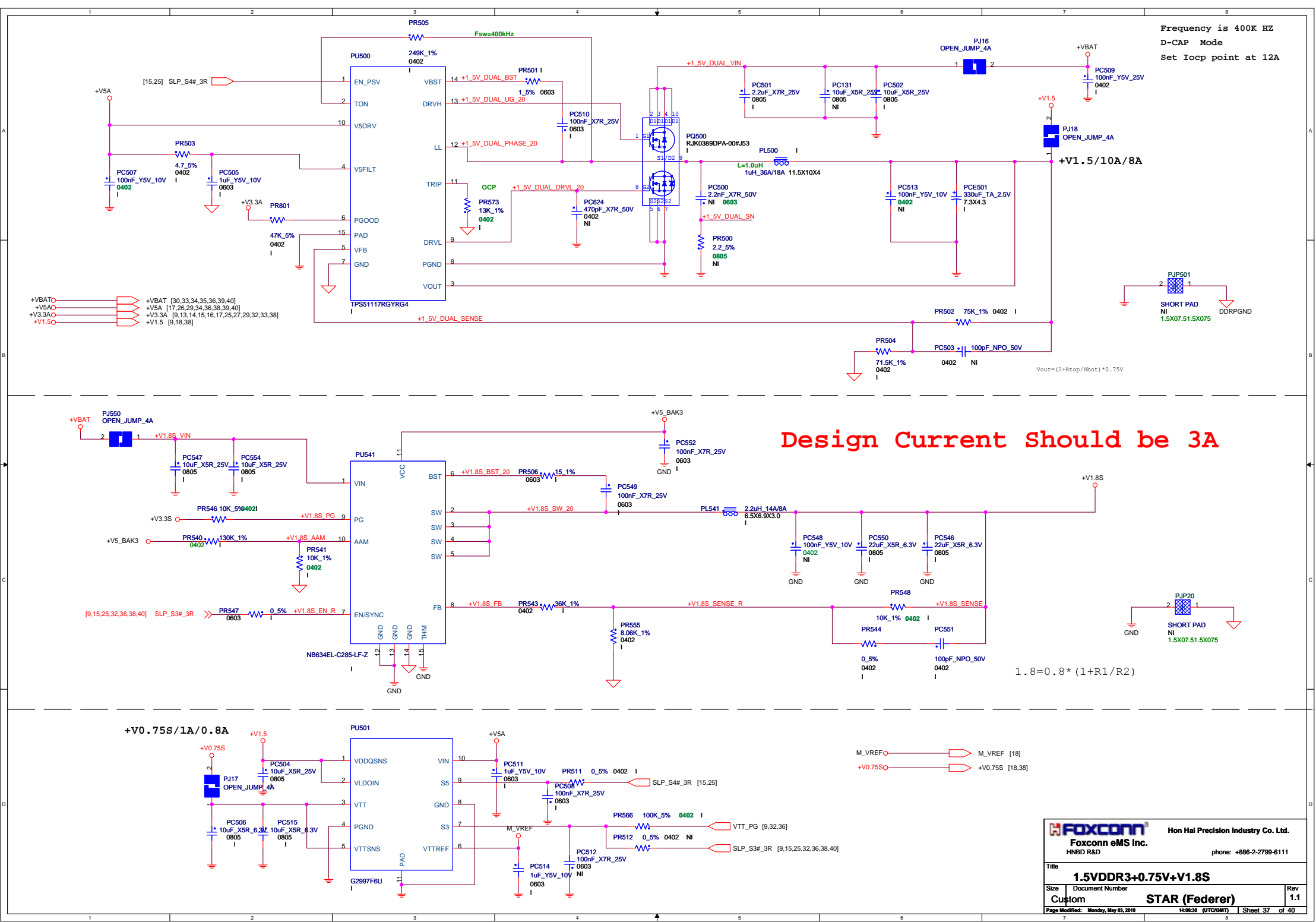


+VTT TPS51218

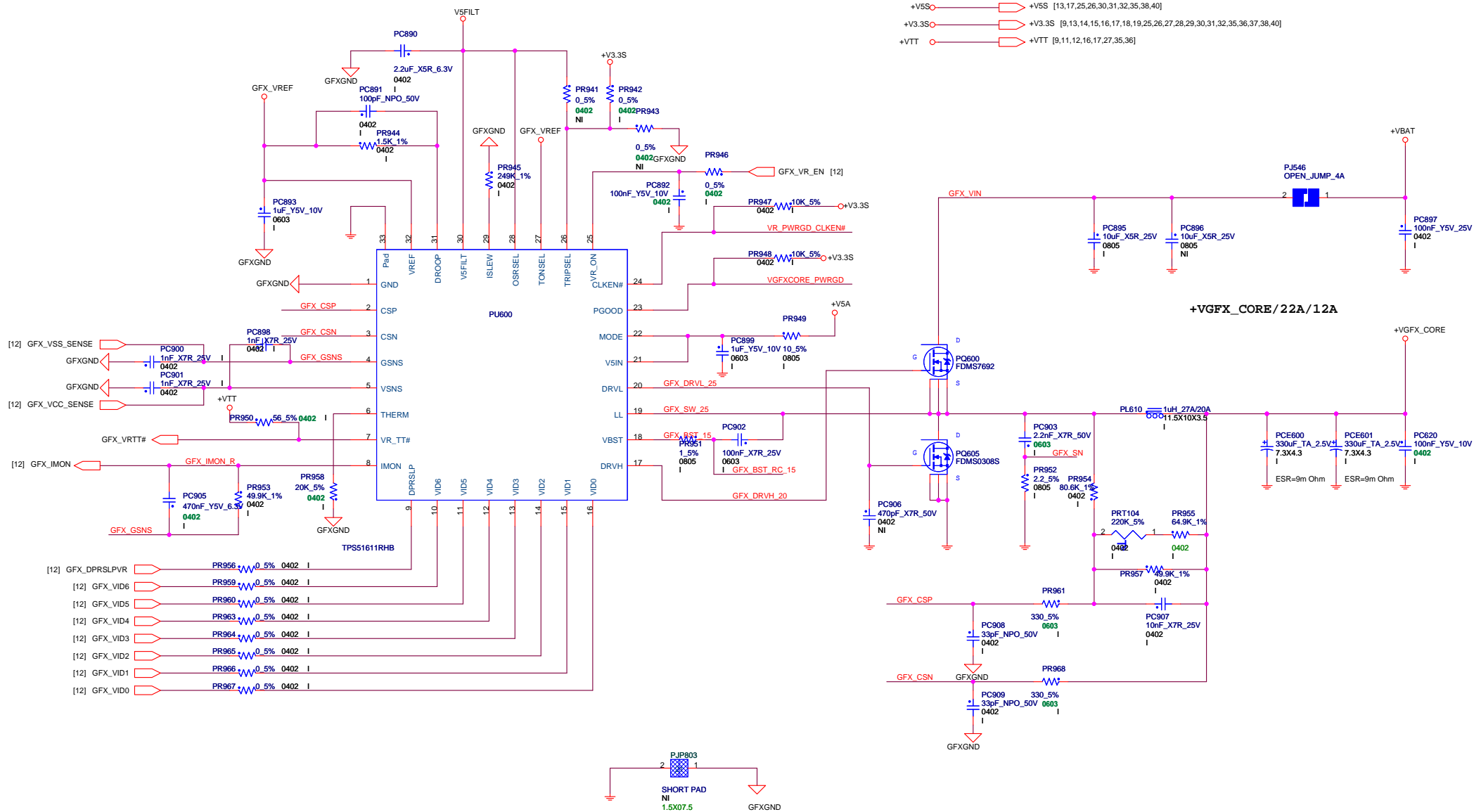


+V1.05S TPS51117





+VGFXCORE



www.s-manuals.com