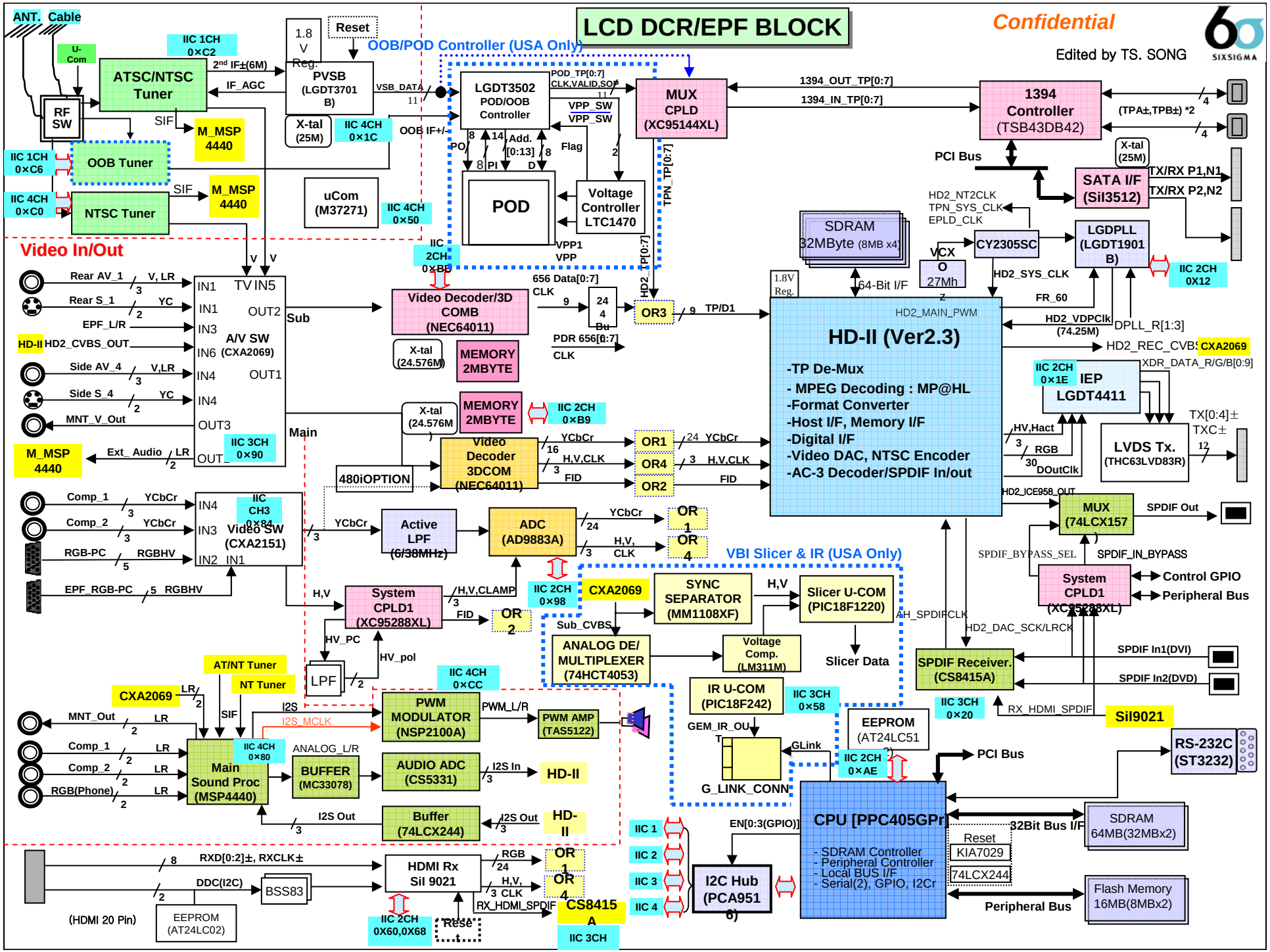
# APPENDIX D

## : BLOCK DIAGRAM


LCD DCR/EPF BLOCK
Confidential
Edited by TS. SONG
SIXSIGMA
ANT. Cable
U-Com
RF SW
ATSC/NTSC Tuner
IIC 1CH 0×C2
2nd IF±(6M)
IF_AGC
SIF
M_MSP 4440
OOB Tuner
IIC 1CH 0×C6
IIC 4CH 0×C0
NTSC Tuner
1.8 V Reg.
Reset
PVSB (LGDT3701 B)
VSB_DATA
X-tal (25M)
IIC 4CH 0×1C
OOB IF+/-
uCom (M37271)
IIC 4CH 0×50
OOB/POD Controller (USA Only)
LGDT3502 POD/OOB Controller
POD_TP[0:7]
CLK,VALID,SOP
VPP_SW
Add. [0:13]
Flag
POD
Voltage Controller LTC1470
VPP1
VPP
TPN_TP[0:7]
MUX CPLD (XC95144XL)
1394_OUT_TP[0:7]
1394_IN_TP[0:7]
1394 Controller (TSB43DB42)
(TPA±,TPB±) *2
PCI Bus
SATA I/F (Sil3512)
TX/RX P1,N1
TX/RX P2,N2
HD2_NT2CLK
TPN_SYS_CLK
EPLD_CLK
CY2305SC
LGDPLL (LGDT1901 B)
IIC 2CH 0X12
SDRAM 32MByte (8MB x4)
64-Bit I/F
VCXO 27Mhz
HD2_SYS_CLK
FR_60
HD2_VDPClk (74.25M)
DPLL_R[1:3]
HD2_REC_CVBS
CXA2069
Video In/Out
Rear AV_1
Rear S_1
EPF_L/R
HD-II HD2_CVBS_OUT
Side AV_4
Side S_4
MNT_V_Out
M_MSP 4440
Ext_ Audio
A/V SW (CXA2069)
IN1 TV IN5
IN1 OUT2
IN3
IN6 OUT1
IN4
IN4
OUT3
OUT_
IIC 3CH 0×90
Sub
Main
Video Decoder/3D COMB (NEC64011)
IIC 2CH 0×BB
X-tal (24.576M)
MEMORY 2MBYTE
656 Data[0:7]
CLK
PDR 656[0:7]
OR3
TP/D1
HD2_TP[0:7]
HD2_MAIN_PWM
HD-II (Ver2.3)
-TP De-Mux
- MPEG Decoding : MP@HL
-Format Converter
-Host I/F, Memory I/F
-Digital I/F
-Video DAC, NTSC Encoder
-AC-3 Decoder/SPDIF In/out
IIC 2CH 0×1E
IEP LGDT4411
XDR_DATA_R/G/B[0:9]
LVDS Tx. (THC63LVD83R)
TX[0:4]±
TXC±
HV,Hact
RGB
DOutClk
HD2_ICE958_OUT
MUX (74LCX157)
SPDIF Out
SPDIF_BYPASS_SEL
SPDIF_IN_BYPASS
System CPLD1 (XC95288XL)
Control GPIO
Peripheral Bus
MEMORY 2MBYTE
IIC 2CH 0×B9
480iOPTION
Video Decoder 3DCOM (NEC64011)
YCbCr
H,V,CLK
FID
OR1
OR4
OR2
Comp_1
Comp_2
RGB-PC
EPF_RGB-PC
IIC CH3 0×84
Video SW (CXA2151)
IN4
IN3
IN2 IN1
RGBHV
Active LPF (6/38MHz)
ADC (AD9883A)
OR 1
OR 4
VBI Slicer & IR (USA Only)
CXA2069
SYNC SEPARATOR (MM1108XF)
Slicer U-COM (PIC18F1220)
Slicer Data
System CPLD1 (XC95288XL)
H,V,CLAMP
OR 2
IIC 2CH 0×98
Sub_CVBS
ANALOG DE/ MULTIPLEXER (74HCT4053)
Voltage Comp. (LM311M)
IR U-COM (PIC18F242)
IIC 3CH 0×58
GEM_IR_OUT
G_LINK_CONN
GLink
EEPROM (AT24LC51)
IIC 2CH 0×AE
HD2_DAC_SCK/LRCK
SPDIF Receiver. (CS8415A)
SPDIF In1(DVI)
SPDIF In2(DVD)
IIC 3CH 0×20
RX_HDMI_SPDIF
Sil9021
HV_PC
HV_pol
LPF
AT/NT Tuner
NT Tuner
CXA2069
MNT_Out
Comp_1
Comp_2
RGB(Phone)
Main Sound Proc (MSP4440)
IIC 4CH 0×80
I2S
I2S_MCLK
SIF
IIC 4CH 0×CC
PWM MODULATOR (NSP2100A)
PWM_L/R
PWM AMP (TAS5122)
ANALOG_L/R
BUFFER (MC33078)
AUDIO ADC (CS5331)
I2S In
HD-II
I2S Out
Buffer (74LCX244)
RS-232C (ST3232)
PCI Bus
CPU [PPC405GPr]
- SDRAM Controller
- Peripheral Controller
- Local BUS I/F
- Serial(2), GPIO, I2Cr
32Bit Bus I/F
SDRAM 64MB(32MBx2)
Reset
KIA7029
74LCX244
Flash Memory 16MB(8MBx2)
Peripheral Bus
EN[0:3(GPIO)]
IIC 1
IIC 2
IIC 3
IIC 4
I2C Hub (PCA9516)
RXD[0:2]±, RXCLK±
DDC(I2C)
BSS83
HDMI Rx Sil 9021
RGB
H,V, CLK
RX_HDMI_SPDIF
CS8415A
IIC 3CH
IIC 2CH 0X60,0X68
Reset
(HDMI 20 Pin)
EEPROM (AT24LC02)