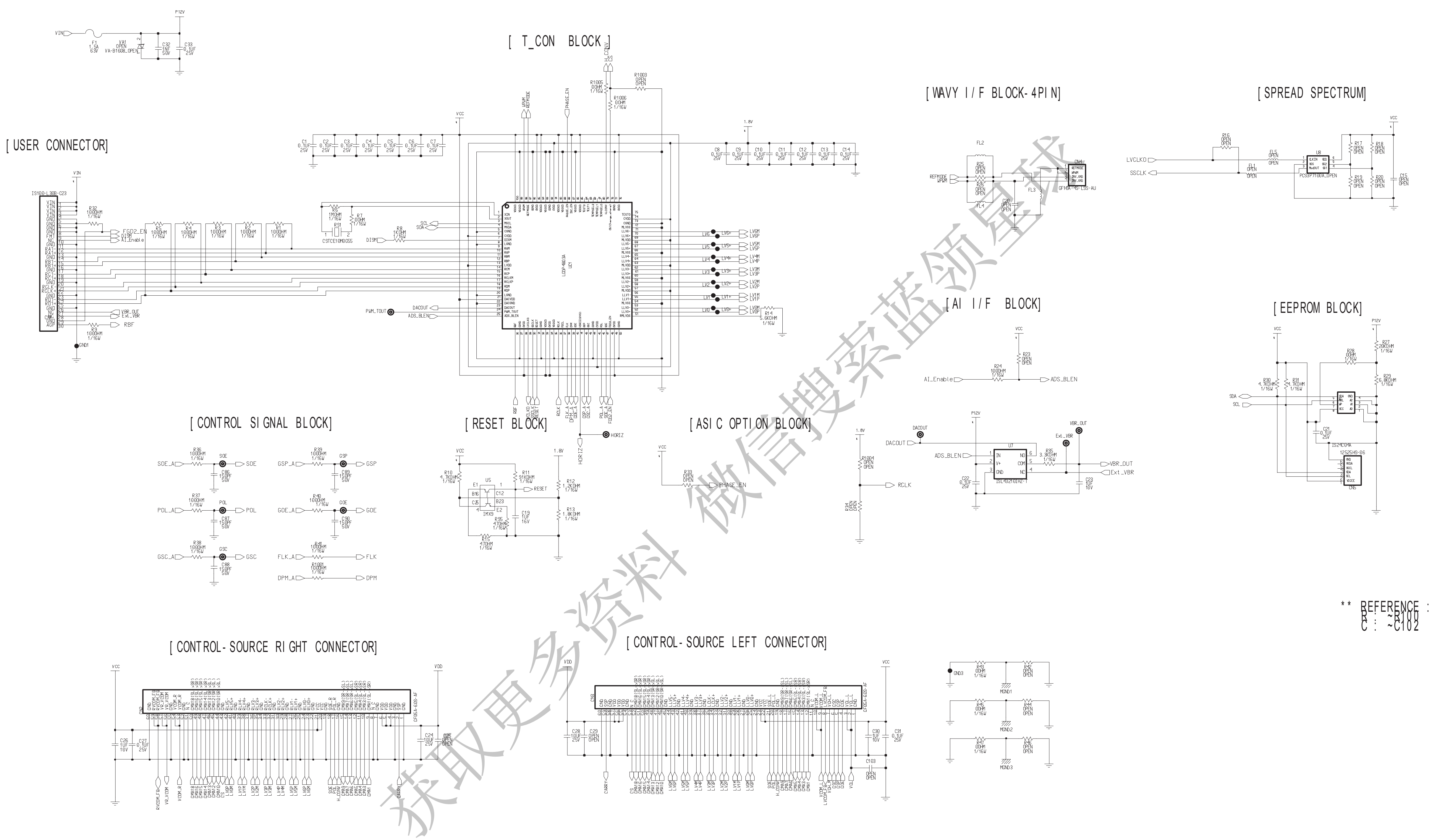

[T_CON BLOCK]
[USER CONNECTOR]
[WAVY I/F BLOCK-4PIN]
[SPREAD SPECTRUM]
[AI I/F BLOCK]
[EEPROM BLOCK]
[CONTROL SIGNAL BLOCK]
[RESET BLOCK]
[ASIC OPTION BLOCK]
[CONTROL-SOURCE RIGHT CONNECTOR]
[CONTROL-SOURCE LEFT CONNECTOR]
VIN
F12V
VCC
1.8V
VDD
LVCLKD
SSCLK
AI_Enable
ADS_BLEN
DACOUT
RCLK
VBR_OUT
Ext_VBR
PHASE_EN
RESET
HORIZ
SDE_A
SDE
GSP_A
GSP
POL_A
POL
GOE_A
GOE
GSC_A
GSC
FLK_A
FLK
DPM_A
DPM
SDA
SCL
PWM_TOUT
RBF
** REFERENCE :
R : ~R100
C : ~C102

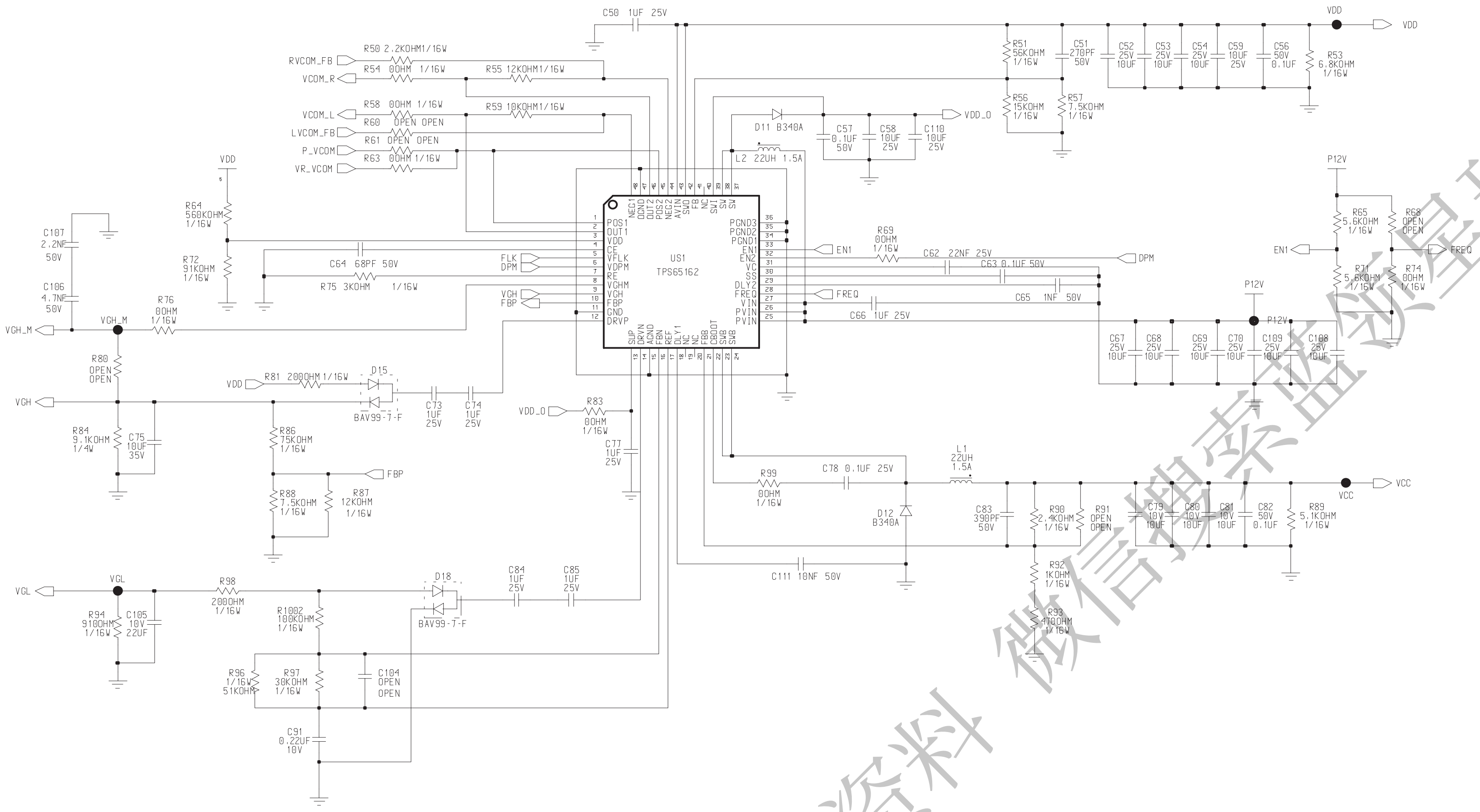
CONTROL SCHEMATIC(1/2)

LC320WXN-SAC1-731

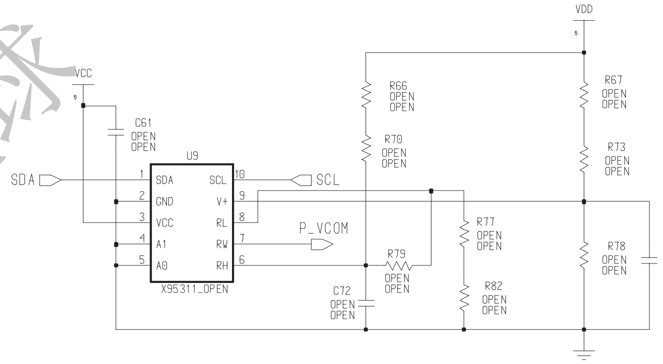
6871L-1478A

(6870C-0195A)

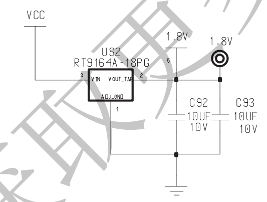
[POWER BLOCK]


C50 1UF 25V
VDD
R51 56KOHM 1/16W
C51 270PF 50V
C52 25V 10UF
C53 25V 10UF
C54 25V 10UF
C59 10UF 25V
C56 50V 0.1UF
R53 6.8KOHM 1/16W
RVCOM_FB
R50 2.2KOHM1/16W
VCOM_R
R54 0OHM 1/16W
R55 12KOHM1/16W
R56 15KOHM 1/16W
R57 7.5KOHM 1/16W
VCOM_L
R58 0OHM 1/16W
R59 10KOHM1/16W
LVCOM_FB
R60 OPEN OPEN
P_VCOM
R61 OPEN OPEN
VR_VCOM
R63 0OHM 1/16W
D11 B340A
C57 0.1UF 50V
C58 10UF 25V
C110 10UF 25V
VDD_O
L2 22UH 1.5A
US1
TPS65162
POS1
OUT1
VDD
CE
VFLK
VDPM
RE
VGHM
VGH
FBP
GND
DRVP
PGND3
PGND2
PGND1
EN1
EN2
VC
SS
DLY2
FREQ
VIN
PVIN
PVIN
R64 560KOHM 1/16W
R72 91KOHM 1/16W
C107 2.2NF 50V
C106 4.7NF 50V
C64 68PF 50V
R75 3KOHM 1/16W
FLK
DPM
VGH
FBP
R76 0OHM 1/16W
VGH_M
VGH_M
R80 OPEN OPEN
VDD
R81 200OHM 1/16W
D15
BAV99-T-F
C73 1UF 25V
C74 1UF 25V
VGH
R84 9.1KOHM 1/4W
C75 10UF 35V
R86 75KOHM 1/16W
FBP
R88 7.5KOHM 1/16W
R87 12KOHM 1/16W
VDD_O
R83 0OHM 1/16W
C77 1UF 25V
R69 0OHM 1/16W
EN1
C62 22NF 25V
C63 0.1UF 50V
DPM
FREQ
C65 1NF 50V
C66 1UF 25V
P12V
R65 5.6KOHM 1/16W
R68 OPEN OPEN
EN1
FREQ
R71 5.6KOHM 1/16W
R74 0OHM 1/16W
P12V
P12V
C67 25V 10UF
C68 25V 10UF
C69 25V 10UF
C70 10UF 25V
C109 25V 10UF
C108 25V 10UF
L1 22UH 1.5A
C78 0.1UF 25V
R99 0OHM 1/16W
D12 B340A
C83 390PF 50V
R90 2.4KOHM 1/16W
R91 OPEN OPEN
C79 10V 10UF
C80 10V 10UF
C81 10V 10UF
C82 50V 0.1UF
R89 5.1KOHM 1/16W
VCC
VCC
R92 1KOHM 1/16W
R93 470OHM 1/16W
C111 10NF 50V
VGL
VGL
R98 200OHM 1/16W
D18
BAV99-T-F
C84 1UF 25V
C85 1UF 25V
R94 910OHM 1/16W
C105 10V 22UF
R1002 100KOHM 1/16W
R96 1/16W 51KOHM
R97 30KOHM 1/16W
C104 OPEN OPEN
C91 0.22UF 10V

[P-VCOM BLOCK]


VDD
VCC
R66 OPEN OPEN
R67 OPEN OPEN
C61 OPEN OPEN
R70 OPEN OPEN
R73 OPEN OPEN
U9
SDA
SDA
GND
VCC
A1
A0
SCL
V+
RL
RW
RH
SCL
X95311_OPEN
P_VCOM
R77 OPEN OPEN
R79 OPEN OPEN
C72 OPEN OPEN
R82 OPEN OPEN
R78 OPEN OPEN
C71 OPEN OPEN

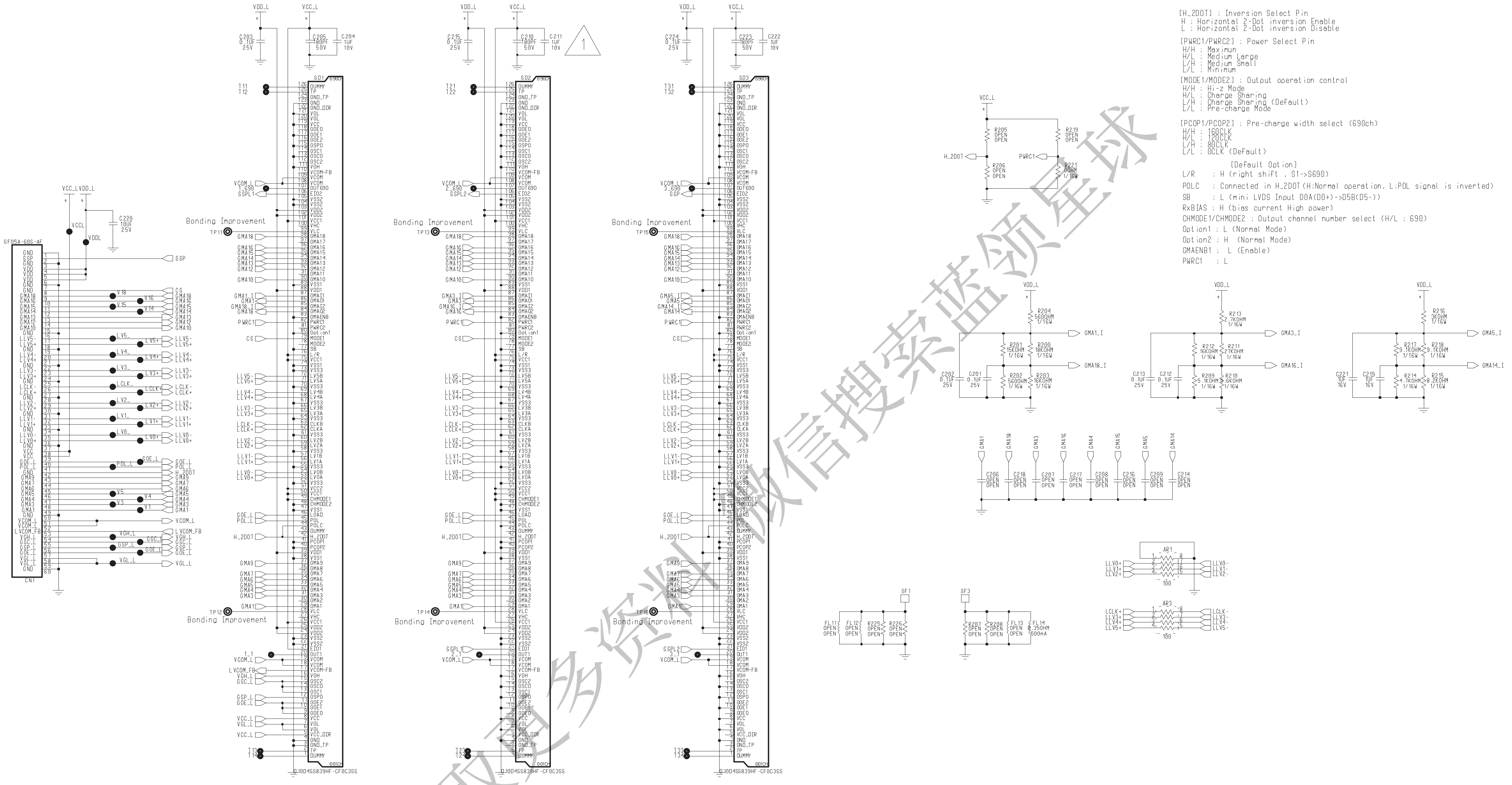
[3.3V --> 1.8V BLOCK]


VCC
US2
RT9164A-18PG
1.8V
1.8V
C92 10UF 10V
C93 10UF 10V

CONTROL SCHEMATIC (2/2)

LC320WXN-SAC1-731

6871L-1478A
(6870C- 0195A)


VDD_L
VCC_L
VCC_LVDD_L
VCCL
VDDL
GF05A-60S-AF
CN1
SD1
SD2
SD3
OJ8D4SS839HF-CF0C3SS
C203 0.1UF 25V
C205 180PF 50V
C204 1UF 10V
C215 0.1UF 25V
C210 180PF 50V
C211 1UF 10V
C224 0.1UF 25V
C223 180PF 50V
C222 1UF 10V
C220 10UF 25V
T11
T12
T21
T22
T31
T32
T13
T14
T23
T24
T33
T34
VCOM_L
1_690
SSPL1
2_690
SSPL2
3_690
SSP
Bonding Improvement
TP13
TP14
TP15
TP16
TP17
TP18
GMA18
GMA17
GMA16
GMA15
GMA14
GMA13
GMA12
GMA11
GMA10
GMA9
GMA8
GMA7
GMA6
GMA5
GMA4
GMA3
GMA2
GMA1
PWRC1
CS
LLV5-
LLV5+
LLV4-
LLV4+
LLV3-
LLV3+
LCLK-
LCLK+
LLV2-
LLV2+
LLV1-
LLV1+
LLV0-
LLV0+
SOE_L
POL_L
H_2DOT
LVCOM_FB
VGH_L
GSC_L
GSP_L
GOE_L
VCC_L
VGL_L
1
VCC_L
R205 OPEN
R219 OPEN
R206 OPEN
R221 OPEN
PWRC1
R204 560OHM 1/16W
R201 15KOHM 1/16W
R200 18KOHM 1/16W
R202 560OHM 1/16W
R203 16KOHM 1/16W
C202 0.1UF 25V
C201 0.1UF 25V
GMA1_I
GMA18_I
R213 2.7KOHM 1/16W
R212 16KOHM 1/16W
R211 2.7KOHM 1/16W
R209 5.1KOHM 1/16W
R210 5.6KOHM 1/16W
C213 0.1UF 25V
C212 0.1UF 25V
GMA3_I
GMA16_I
R216 3KOHM 1/16W
R217 9.1KOHM 1/16W
R218 9.1KOHM 1/16W
R214 4.7KOHM 1/16W
R215 8.2KOHM 1/16W
C221 1UF 16V
C219 1UF 16V
GMA5_I
GMA14_I
C206 OPEN
C218 OPEN
C207 OPEN
C217 OPEN
C208 OPEN
C216 OPEN
C209 OPEN
C214 OPEN
AR1
AR3
100
SF1
SF3
FL11 OPEN
FL12 OPEN
R225 OPEN
R226 OPEN
R207 OPEN
R208 OPEN
FL13 OPEN
FL14 350OHM 500mA

[H_2DOT] : Inversion Select Pin
H : Horizontal 2-Dot inversion Enable
L : Horizontal 2-Dot inversion Disable

[PWRC1/PWRC2] : Power Select Pin
H/H : Maximun
H/L : Medium Large
L/H : Medium Small
L/L : Minimum

[MODE1/MODE2] : Output operation control
H/H : Hi-z Mode
H/L : Charge Sharing
L/H : Charge Sharing (Default)
L/L : Pre-charge Mode

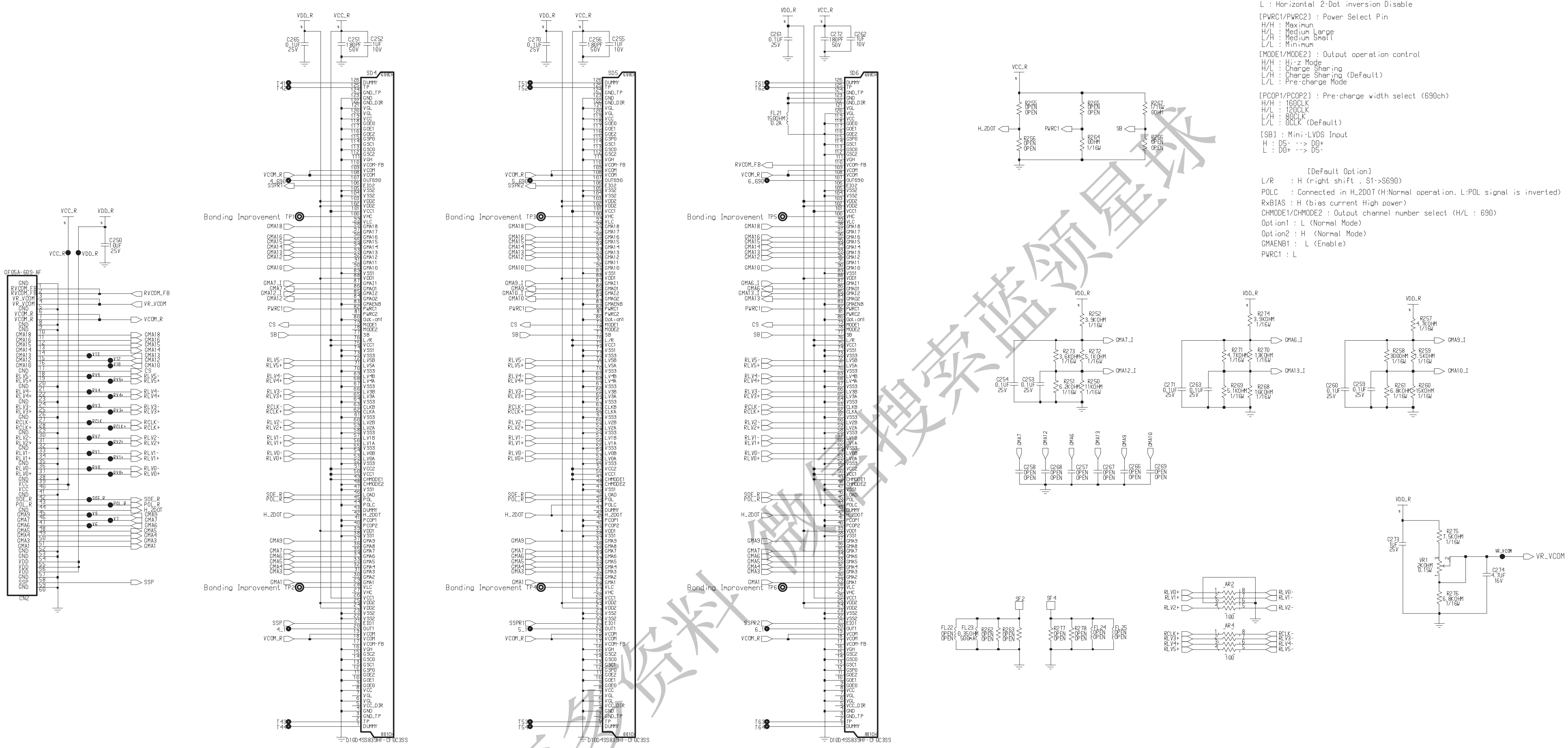
[PCOP1/PCOP2] : Pre-charge width select (690ch)
H/H : 160CLK
H/L : 120CLK
L/H : 80CLK
L/L : 0CLK (Default)

[Default Option]
L/R : H (right shift , S1->S690)
POLC : Connected in H_2DOT(H:Normal operation, L:POL signal is inverted)
SB : L (mini LVDS Input D0A(D0+)->D5B(D5-))
RxBIAS : H (bias current High power)
CHMODE1/CHMODE2 : Output channel number select (H/L : 690)
Option1 : L (Normal Mode)
Option2 : H (Normal Mode)
GMAENB1 : L (Enable)
PWRC1 : L

SOURCE LEFT PWB

LC320WXN-SAC2-731

6871L- 1475A
(6870S- 0544A)



VDD_R
VCC_R
GF05A-60S-AF
CN2
RVCOM_FB
VR_VCOM
VCOM_R
SSP
SD4
SD5
SD6
Bonding Improvement TP1
Bonding Improvement TP2
Bonding Improvement TP3
Bonding Improvement TP4
Bonding Improvement TP5
Bonding Improvement TP6
D10D45S8394F-CFOC3SS
H_2DOT
PWRC1
SB
CS
FL21 150OHM 0.2A
AR2
AR4
VR1 2KOHM 0.1W
VR_VCOM

[H_2DOT] : Inversion Select Pin
H : Horizontal 2-Dot inversion Enable
L : Horizontal 2-Dot inversion Disable

[PWRC1/PWRC2] : Power Select Pin
H/H : Maximun
H/L : Medium Large
L/H : Medium Small
L/L : Minimum

[MODE1/MODE2] : Output operation control
H/H : Hi-z Mode
H/L : Charge Sharing
L/H : Charge Sharing (Default)
L/L : Pre-charge Mode

[PCOP1/PCOP2] : Pre-charge width select (690ch)
H/H : 160CLK
H/L : 120CLK
L/H : 80CLK
L/L : 0CLK (Default)

[SB] : Mini-LVDS Input
H : D5- --> D0+
L : D0+ --> D5-

[Default Option]

L/R : H (right shift , S1->S690)

POLC : Connected in H_2DOT (H:Normal operation. L:POL signal is inverted)

RxBIAS : H (bias current High power)

CHMODE1/CHMODE2 : Output channel number select (H/L : 690)

Option1 : L (Normal Mode)

Option2 : H (Normal Mode)

GMAENB1 : L (Enable)

PWRC1 : L

SOURCE RIGHT PWB

LC320WXN-SAC2-731

6871L-1476A
(6870S-0545A)