DSLR-A200

SERVICE MANUAL

LEVEL 3

Ver. 1.3 2008.10
Revision History

AEP Model
UK Model
Chinese Model
Korea Model
Japanese Model



Link

- SERVICE NOTE
- PRINTED WIRING BOARDS
- REPAIR PARTS LIST
- SCHEMATIC DIAGRAMS

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL SINGLE LENS REFLEX CAMERA

SONY®

DSLR-A200_L3
9-852-244-11

Sony EMCS Co.

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1. SERVICE NOTE

ENGLISH | JAPANESE

1-1. CHEMICALS

Some chemicals used for servicing are highly volatile.
Their evaporation caused by improper management affects your health and environment, and wastes resources.
Manage the chemicals carefully as follows.

- Store chemicals sealed in a specific place to prevent from exposure to high temperature or direct sunlight.
- Avoid dividing chemicals into excessive numbers of small containers to reduce natural evaporation.
- Keep containers sealed to avoid natural evaporation when chemicals are not in use.
- Avoid using chemicals as much as possible. When using chemicals, divide only required amount to a small plate from the container and use up it.

1-2. EXTERIOR PARTS

Be careful to the following points for plastic parts used in this unit.

- Use a piece of cleaning paper or cleaning cloth for cleaning plastic parts. Avoid using chemicals.
  Even if you have to use chemicals to clean heavy dirt, don't use paint thinner, ketone, nor alcohol.
- Insert the specific screws vertically to the part when installing a plastic part.
  Be careful not to tighten screws too much.

1-3. UNLEADED SOLDER

This unit uses unleaded solder.
Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(**Caution:** Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Be careful to the following points to solder or unsolder.

- Set the soldering iron tip temperature to 350 °C approximately.
  If cannot control temperature, solder/unsolder at high temperature for a short time.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Be sure to control soldering iron tips used for unleaded solder and those for leaded solder so they are managed separately. Mixing unleaded solder and leaded solder will cause detachment phenomenon.

1-4. SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270 °C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

1. SERVICE NOTE

ENGLISH | JAPANESE

1-1. 各種薬品の取り扱いについて

現在使用されている薬品の中には揮発性の高い薬品もあります。
それらを不用意に取り扱い蒸発させてしまうと，環境や健康へ影響を与えたり，資源の無駄使いになります。
各種薬品は，下記の点に注意して取り扱ってください。

・ 保管場所を定め，高温になったり直射日光の当たらない場所に密閉して保管してください。
・ 小分け（ハンドラップ等）する数は必要最小限に留め，容器による自然蒸発を防いでください。
・ 作業に使用しない時は，必ずキャップ等をして自然蒸発を防いでください。
・ 薬品を使用する回数を極力少なくし，使用する場合は使用する量だけ容器より出して受け皿に残さないようにしてください。

1-2. 樹脂系部品の取り扱いについて

本機に使用されている樹脂系の部品は，下記の点に注意して取り扱ってください。

・ 清掃には薬品を使用せず，清掃紙や清掃布を使用してください。
やむを得ず汚れがひどくて薬品を使用する場合は，シンナー，ケトン，エーテルは使用しないでください。
・ 各部品の取り付けには指定されたねじを使用し，部品に対して垂直に取り付けてください。
また，ねじを締め付ける時は，無理な力を加えないでください。

1-3. 無鉛半田について

本機には無鉛半田が使用されています。
無鉛半田を使用している基板には，無鉛（Lead Free）を意味するレッドフリーマークがプリントされています。
（**注意：**基板サイズによっては，無鉛半田を使用していてもレッドフリーマークがプリントされていないものがあります）

：レッドフリーマーク
無鉛半田は，下記の点に注意して使用してください。

・ 半田こてのこて先温度は約350℃に設定してください。
温度調節が無理な場合は，高温短時間で作業を行ってください。
注意：半田こてを長く当てすぎると，基板のパターン（銅箔）がはがれてしまうことがありますので，注意してください。また，従来の半田よりも粘性が強いため，IC端子などが半田ブリッジしないように注意してください。
・ 半田こてのこて先は，必ず無鉛半田用と有鉛半田用に分けて管理してください。
無鉛半田と有鉛半田が混在すると剥離現象が発生してしまいます。

1-4. SAFETY CHECK-OUT

サービス，点検時には次のことにご注意ください。

1. 注意事項をお守りください。
   サービスのとき特に注意を要する個所については，キャビネット，シャーシ，部品などにラベルや捺印で注意事項を表示しています。これらの注意書き及び取扱説明書等の注意事項を必ずお守りください。

2. 指定部品のご使用を
   セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。
   従って交換部品は，使用されていたものと同じ特性の部品を使用してください。
   特に回路図，部品表に⚠印で指定されている安全上重要な部品は必ず指定のものをご使用ください。

3. 部品の取付けや配線の引きまわしはもとどおりに
   安全上，チューブやテープなどの絶縁材料を使用したり，プリント基板から浮かして取付けた部品があります。
   また内部配線は引きまわしやクランパによって発熱部品や高圧部品に接近しないよう配慮されていますので，これらは必ずもとどおりにしてください。

4. サービス後は安全点検を
   サービスのために取外したネジ，部品，配線がもとどおりになっているか，またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し，安全性が確保されていることを確認してください。

5. チップ部品交換時の注意
   ・取り外した部品は再使用しないでください。
   ・タンタルコンデンサのマイナス側は熱に弱いため交換時は注意してください。

6. フレキシブルプリント基板の取扱いについて
   ・こて先温度を270℃前後にして行なってください。
   ・同一パターンに何度もコテ先を当てないでください。（3回以内）
   ・パターンに力が加わらないよう注意してください。

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

4-2. SCHEMATIC DIAGRAMS

Link

- AM-013 BOARD (1/19) (Not Used)
- AM-013 BOARD (2/19) (IMAGE PROCESSOR)
- AM-013 BOARD (3/19) (IMAGE PROCESSOR, SDRAM)
- AM-013 BOARD (4/19) (IMAGE PROCESSOR)
- AM-013 BOARD (5/19) (FLASH)
- AM-013 BOARD (6/19) (MAIN CPU)
- AM-013 BOARD (7/19) (I/O CONTROL)
- AM-013 BOARD (8/19) (MOTOR DRIVE)
- AM-013 BOARD (9/19) (ANTI-SHAKE CONTROL, SUB CPU)
- AM-013 BOARD (10/19) (ANTI-SHAKE ANALOG MASTER)
- AM-013 BOARD (11/19) (ANTI-SHAKE DRIVE)
- AM-013 BOARD (12/19) (BATTERY AUTHENTICATION)
- AM-013 BOARD (13/19) (REGULATOR)
- AM-013 BOARD (14/19) (DC IN)
- AM-013 BOARD (15/19) (DC/DC CONVERTER)
- AM-013 BOARD (16/19) (CONNECTOR)
- AM-013 BOARD (17/19) (CONNECTOR)
- AM-013 BOARD (18/19) (CONNECTOR)
- AM-013 BOARD (19/19) (CONNECTOR)

- COMMON NOTE FOR SCHEMATIC DIAGRAMS

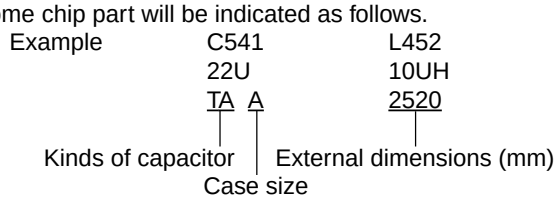
4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS (ENGLISH)

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.



- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

(JAPANESE)

回路図共通ノート
（他に必要なノートは各ブロックに記載してあります）
【回路図ノート】
・ケミコン，タンタルを除くコンデンサで，耐圧50V以下のものはその耐圧を省略。単位はすべてμF（pはpF）。
・チップ抵抗で指示のないものは，1／10W以下。
kΩ＝1000Ω，MΩ＝1000kΩ
・チップ部品交換時の注意
取り外した部品は再使用せず，未使用の部品をご使用ください。
タンタルコンデンサのマイナス側は熱に弱いため注意してください。
・チップ部品には下記のように表示したものがあります。

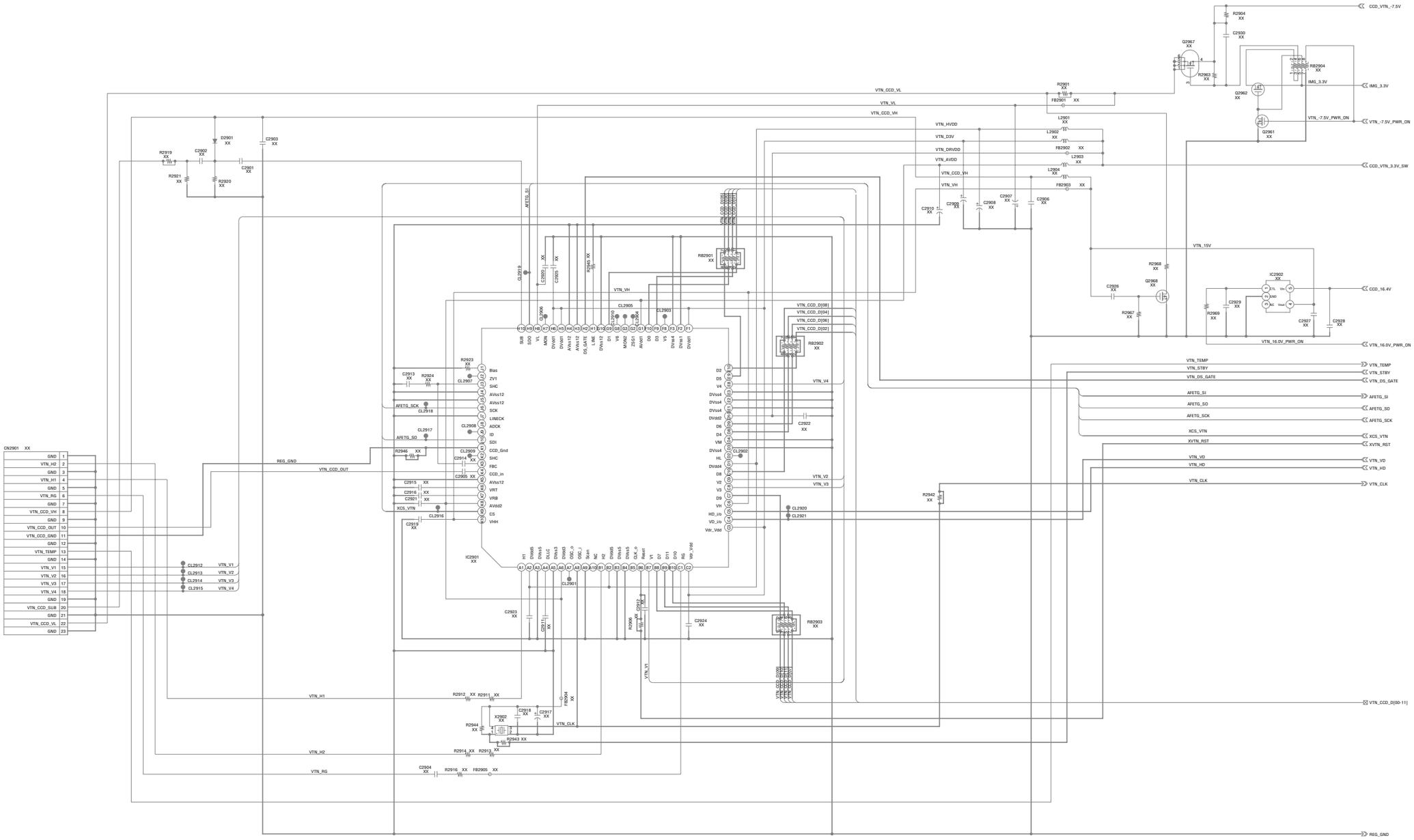
例	C 541		L 452
	22U		10UH
	TA	A	2520
	↑	↑	↑
	種類	ケースサイズ	外形寸法（mm）

・抵抗，コンデンサ，ICなど定数にXXがあるものは，使用していない事を示しています。このため，使用していない回路が記載されている事があります。
・★印のある部品は，機種などにより異なりますので機能別マウント一覧表を参照してください。
・可変抵抗と半固定抵抗で，B特性の表示を省略。
・信号名表記について，下記のような場合があります。
XEDIT → $\overline{\text{EDIT}}$　　PB/XREC → PB/$\overline{\text{REC}}$
・  は不燃性抵抗。
・  はヒューズ抵抗。
・  はパネル表示名称。
・はB＋ライン。
・はB－ライン。
・  はBライン（＋，－）の入出力方向を示す。
・  は調整名称。

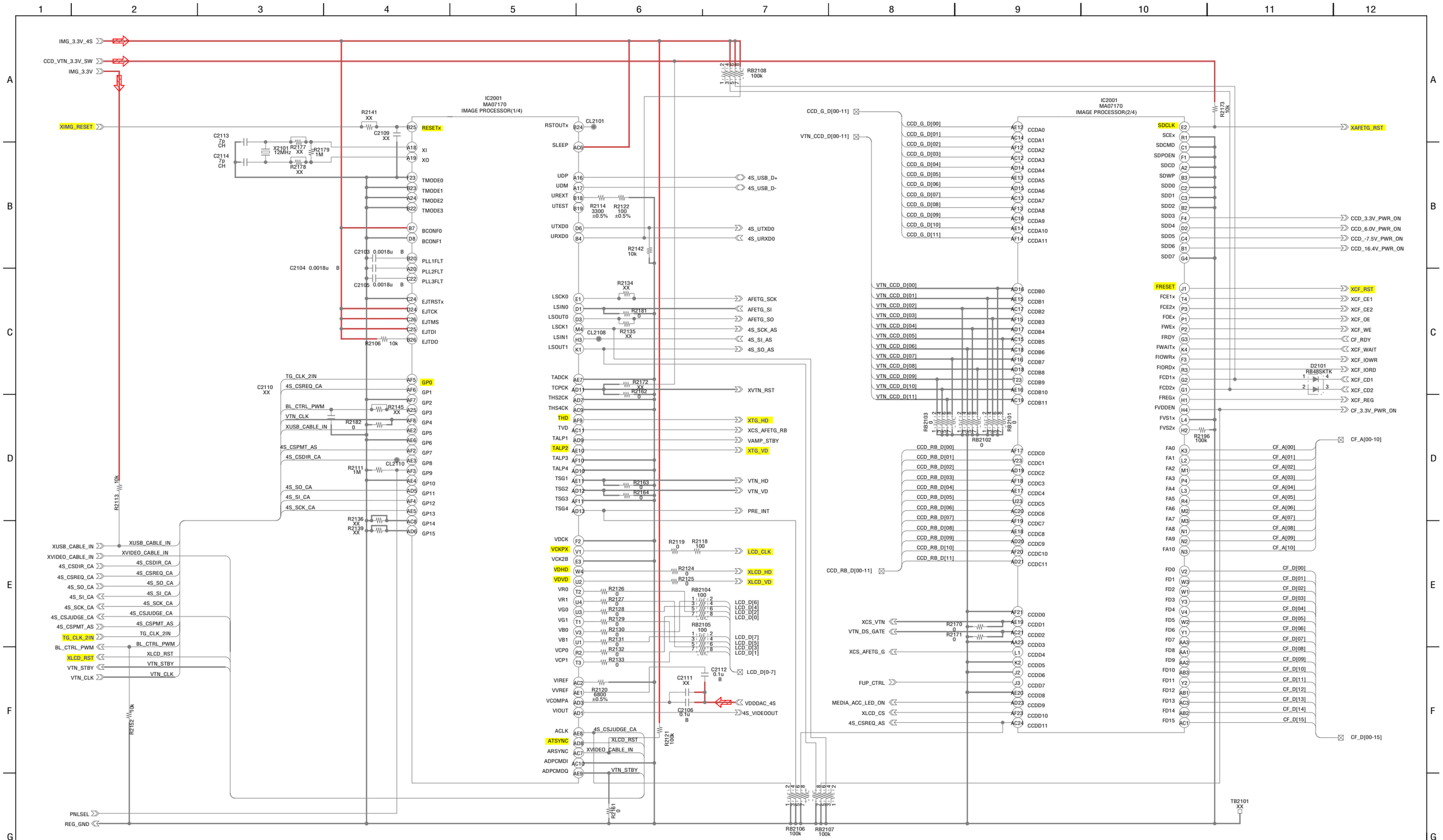
イメージャ交換時の注意
・イメージャを交換した場合は，カメラ部の全調整を行ってください。
・イメージャは構造上，静電気により破壊される恐れがあるため，MOS ICと同様に注意して取り扱ってください。
また，受光部にはゴミの付着，および強い光がはいることのないように注意してください。

⚠印の部品，または⚠印付きの点線で囲まれた部品は，安全性を維持するために重要な部品です。
従って交換時は，必ず指定の部品を使用して下さい。

お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定して下さい。



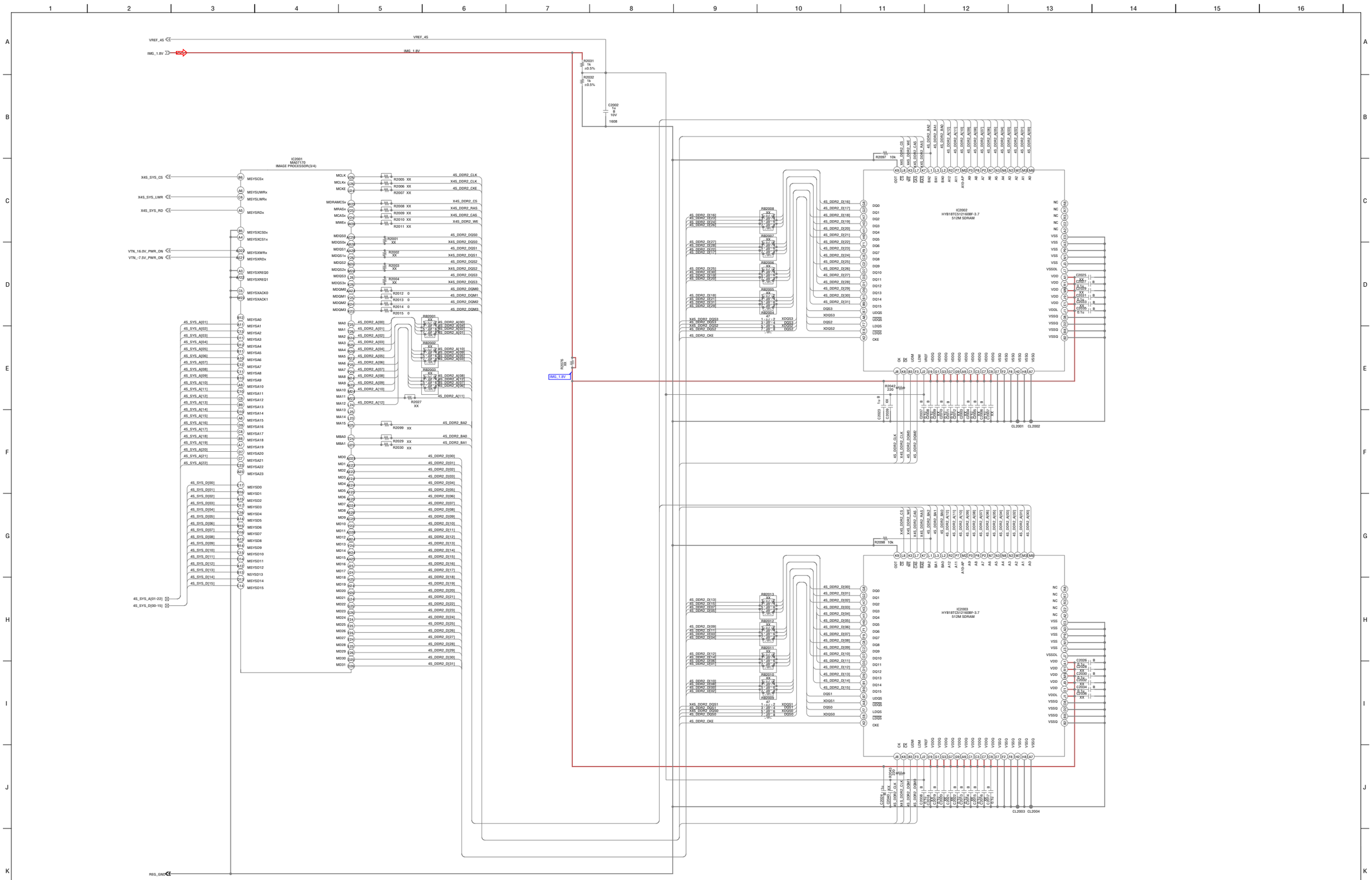
AM-013 BOARD (1/19)
(Not Used)
XX MARK:NO MOUNT



AM-013 BOARD (2/19)

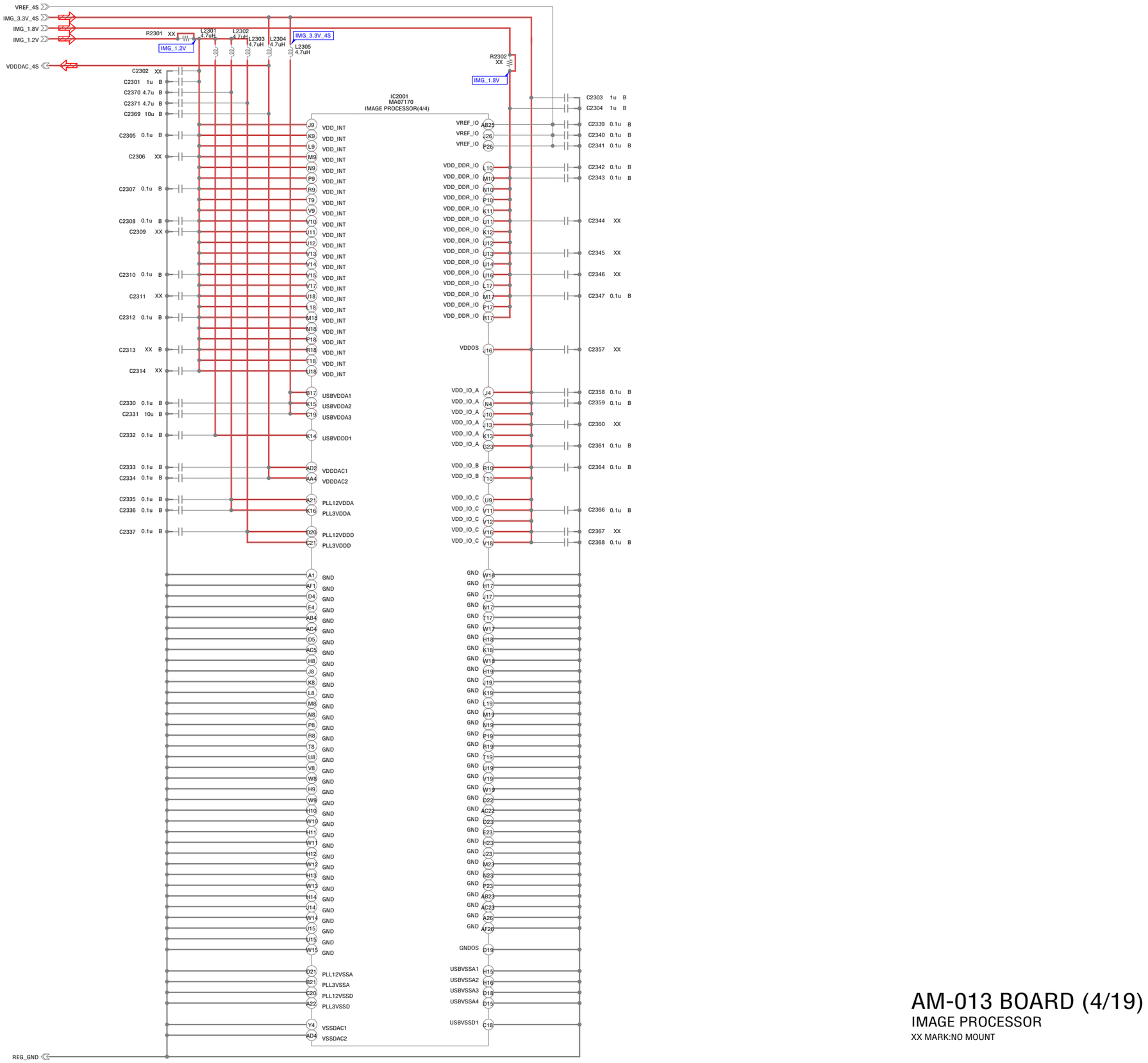
IMAGE PROCESSOR

XX MARK:NO MOUNT



DSLR-A200_L3

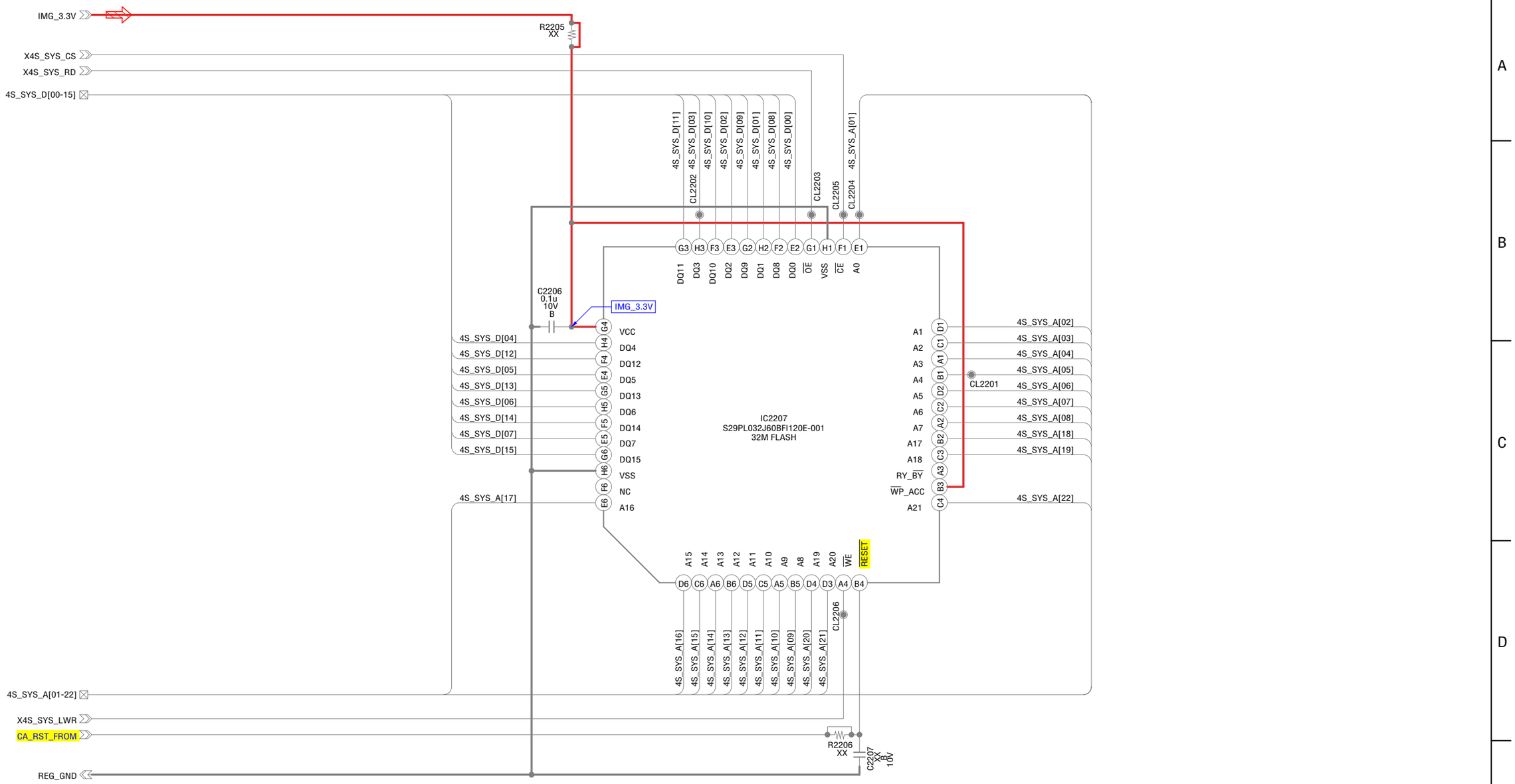
AM-013 (3/19)



AM-013 BOARD (4/19)

IMAGE PROCESSOR

XX MARK:NO MOUNT

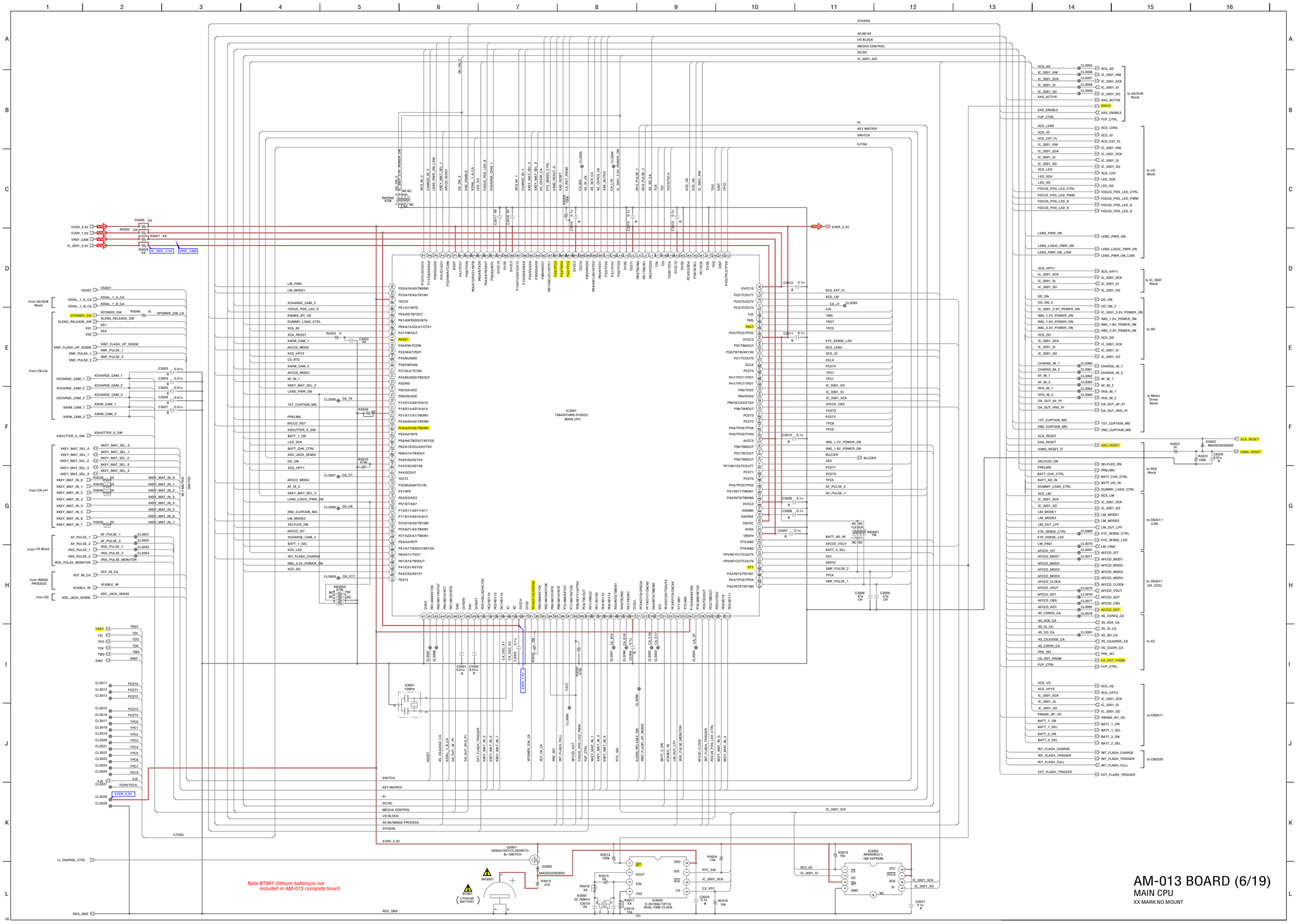


AM-013 BOARD (5/19)

FLASH

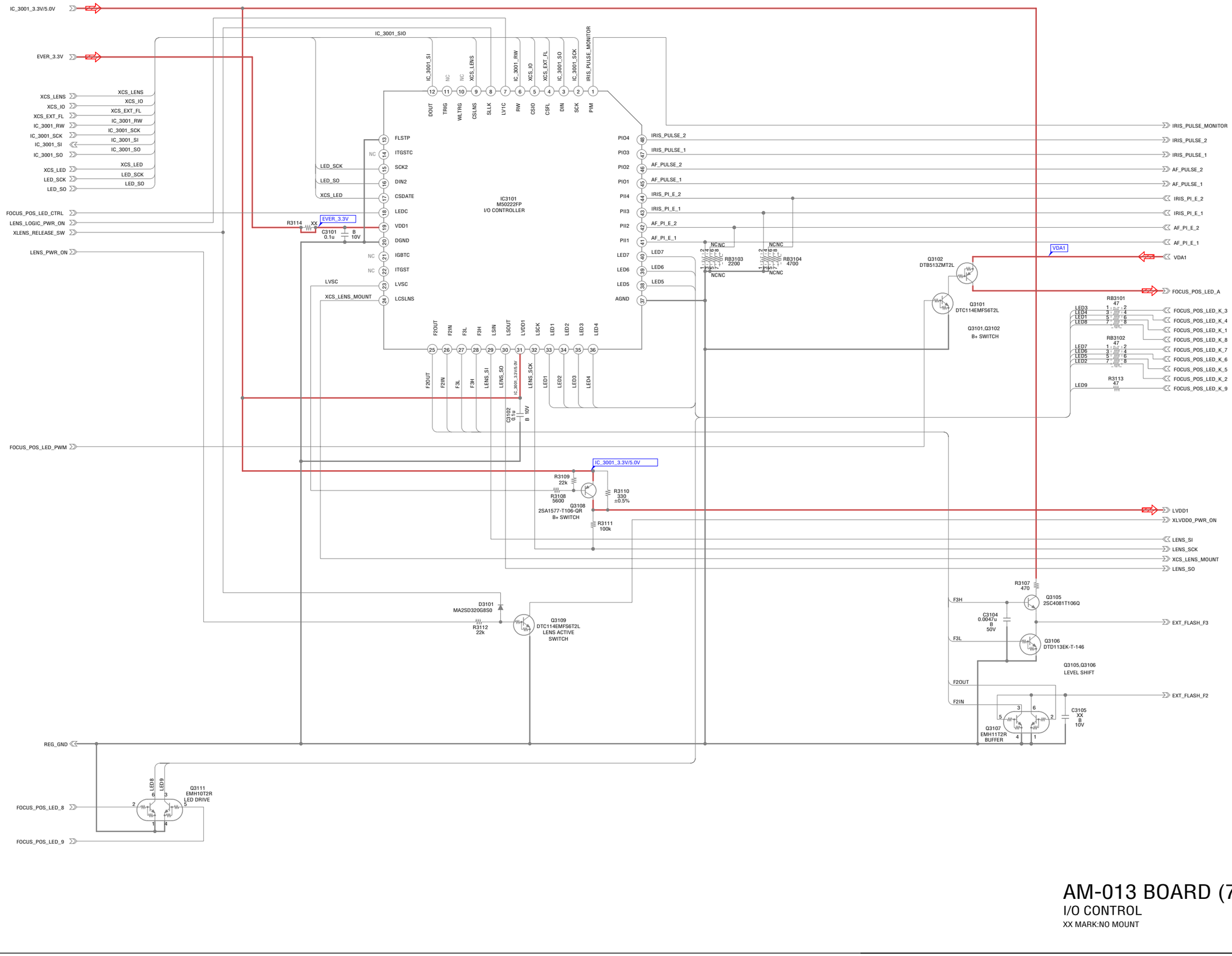
XX MARK:NO MOUNT

• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.

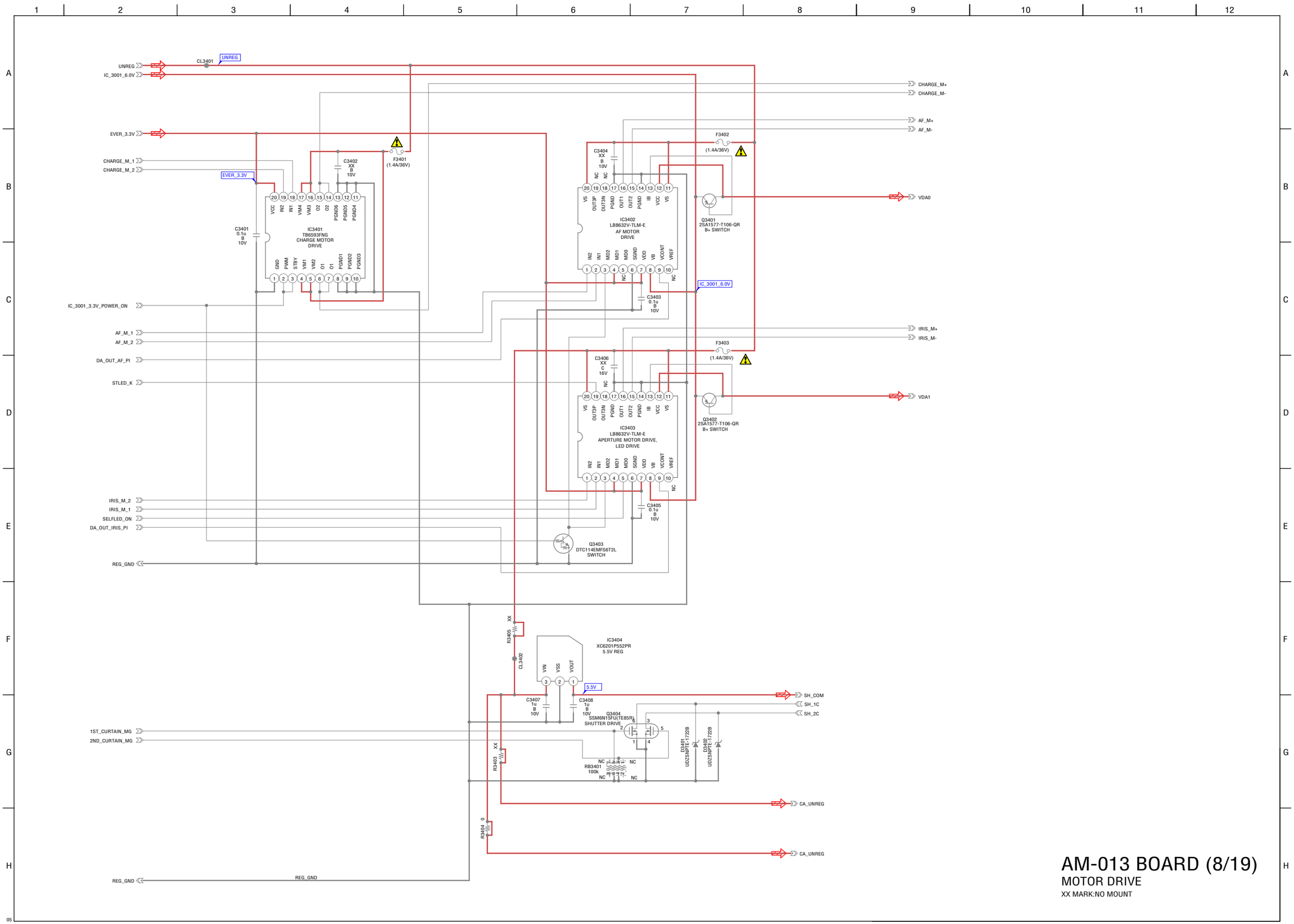


DSLR-A200_L3

AM-013 (6/19)


IC_3001_3.3V/5.0V
EVER_3.3V
IC_3001_SIO
XCS_LENS
XCS_IO
XCS_EXT_FL
IC_3001_RW
IC_3001_SCK
IC_3001_SI
IC_3001_SO
XCS_LED
LED_SCK
LED_SO
FOCUS_POS_LED_CTRL
LENS_LOGIC_PWR_ON
XLENS_RELEASE_SW
LENS_PWR_ON
FOCUS_POS_LED_PWM
REG_GND
FOCUS_POS_LED_8
FOCUS_POS_LED_9
IC3101
M50222FP
I/O CONTROLLER
FLSTP
ITGSTC
SCK2
DIN2
CSDATE
LEDC
VDD1
DGND
IGBTC
ITGST
LVSC
LCSLNS
AGND
PIO4
PIO3
PIO2
PIO1
PII4
PII3
PII2
PII1
LED7
LED6
LED5
R3114
C3101
0.1u
B
10V
R3103
2200
R3104
4700
IRIS_PULSE_MONITOR
IRIS_PULSE_2
IRIS_PULSE_1
AF_PULSE_2
AF_PULSE_1
IRIS_PI_E_2
IRIS_PI_E_1
AF_PI_E_2
AF_PI_E_1
VDA1
Q3102
DTB513ZMT2L
Q3101
DTC114EMFS6T2L
Q3101,Q3102
B+ SWITCH
FOCUS_POS_LED_A
RB3101
47
RB3102
47
R3113
47
FOCUS_POS_LED_K_3
FOCUS_POS_LED_K_4
FOCUS_POS_LED_K_1
FOCUS_POS_LED_K_8
FOCUS_POS_LED_K_7
FOCUS_POS_LED_K_6
FOCUS_POS_LED_K_5
FOCUS_POS_LED_K_2
FOCUS_POS_LED_K_9
F2OUT
F2IN
F3L
F3H
LSIN
LSOUT
LVDD1
LSCK
LED1
LED2
LED3
LED4
LENS_SI
LENS_SO
LENS_SCK
R3109
22k
R3108
5600
Q3108
2SA1577-T106-QR
B+ SWITCH
R3110
330
±0.5%
R3111
100k
LVDD1
XLVDD0_PWR_ON
LENS_SI
LENS_SCK
XCS_LENS_MOUNT
LENS_SO
D3101
MA2SD320G8S0
R3112
22k
Q3109
DTC114EMFS6T2L
LENS ACTIVE
SWITCH
R3107
470
Q3105
2SC4081T106Q
C3104
0.0047u
B
50V
Q3106
DTD113EK-T-146
Q3105,Q3106
LEVEL SHIFT
EXT_FLASH_F3
EXT_FLASH_F2
C3105
XX
B
10V
Q3107
EMH11T2R
BUFFER
Q3111
EMH10T2R
LED DRIVE
LED8
LED9
AM-013 BOARD (7/19)
I/O CONTROL
XX MARK:NO MOUNT

• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.



AM-013 BOARD (8/19)

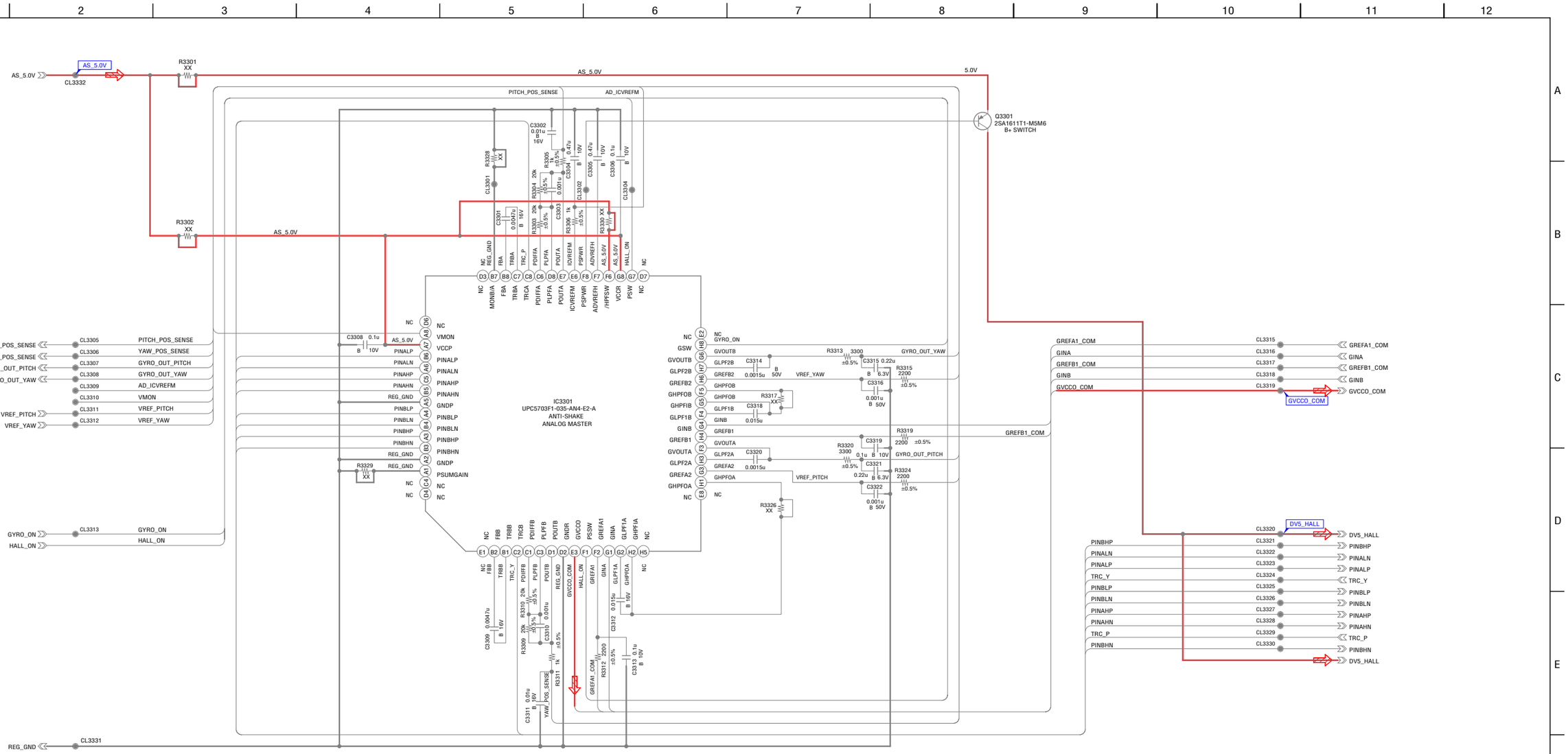
MOTOR DRIVE

XX MARK:NO MOUNT

AM-013 BOARD (9/19)

ANTI-SHAKE CONTROL, SUB CPU

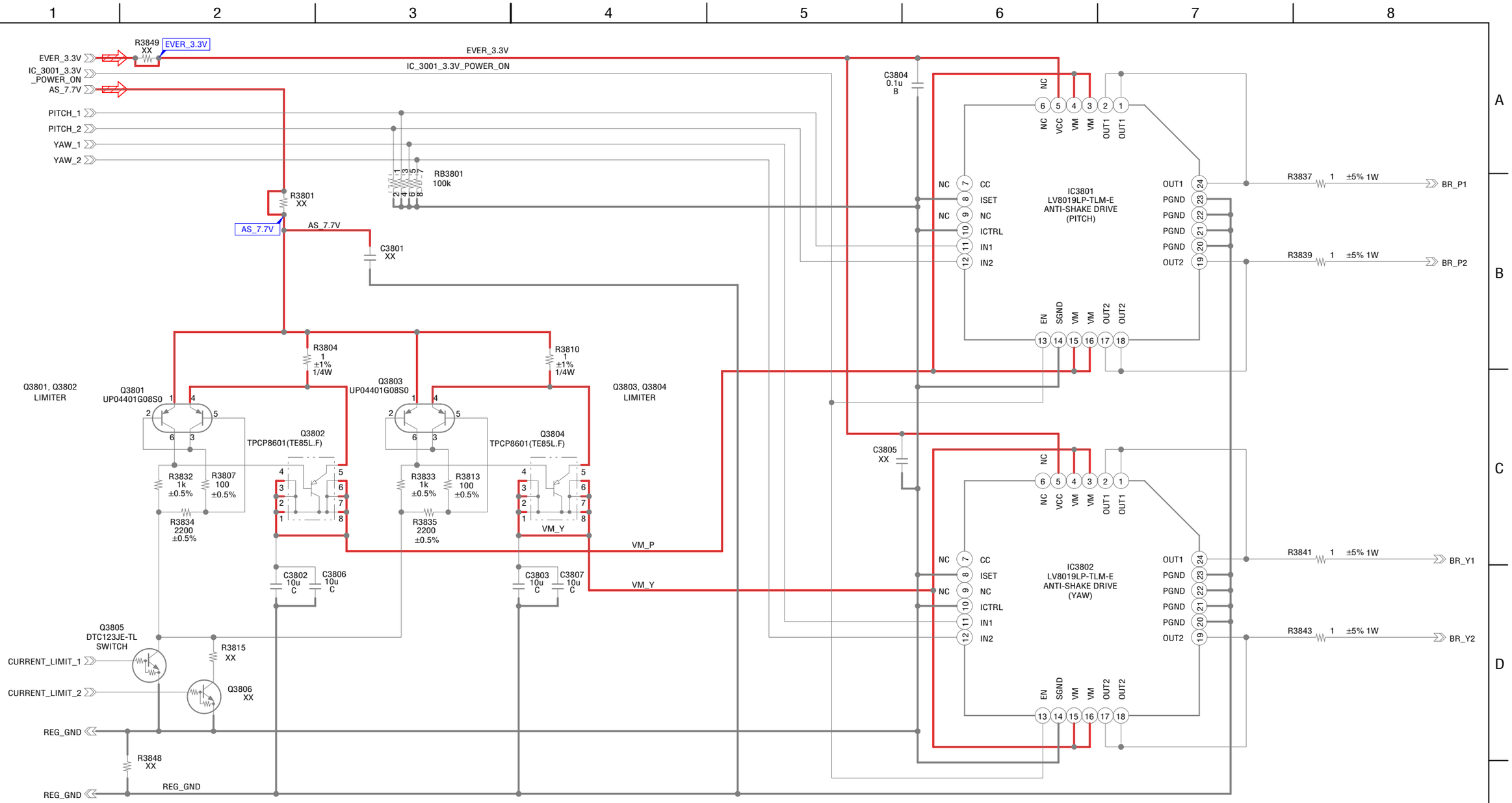
XX MARK:NO MOUNT



AM-013 BOARD (10/19)

ANTI-SHAKE ANALOG MASTER

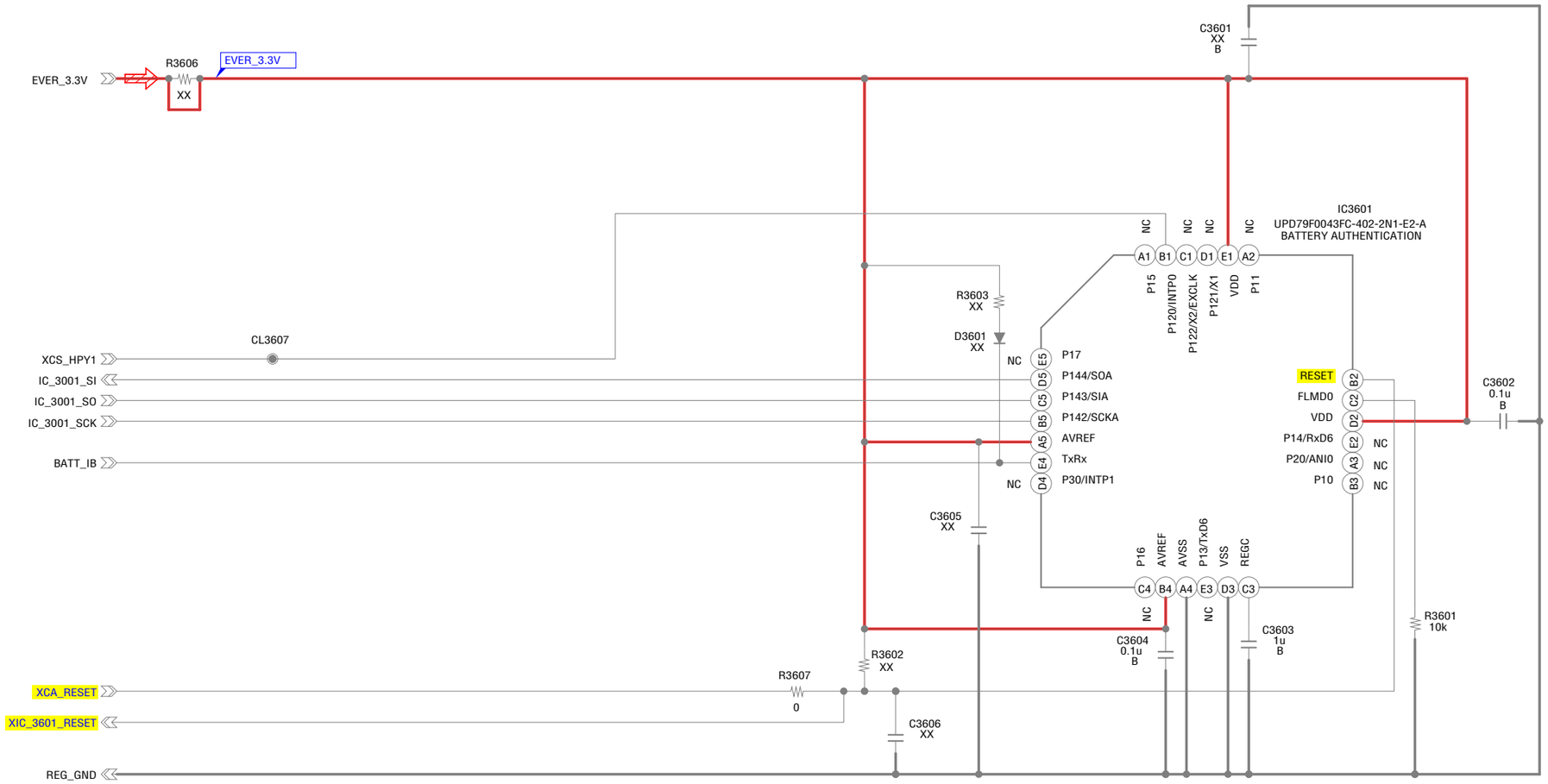
XX MARK:NO MOUNT



AM-013 BOARD (11/19)

ANTI-SHAKE DRIVE

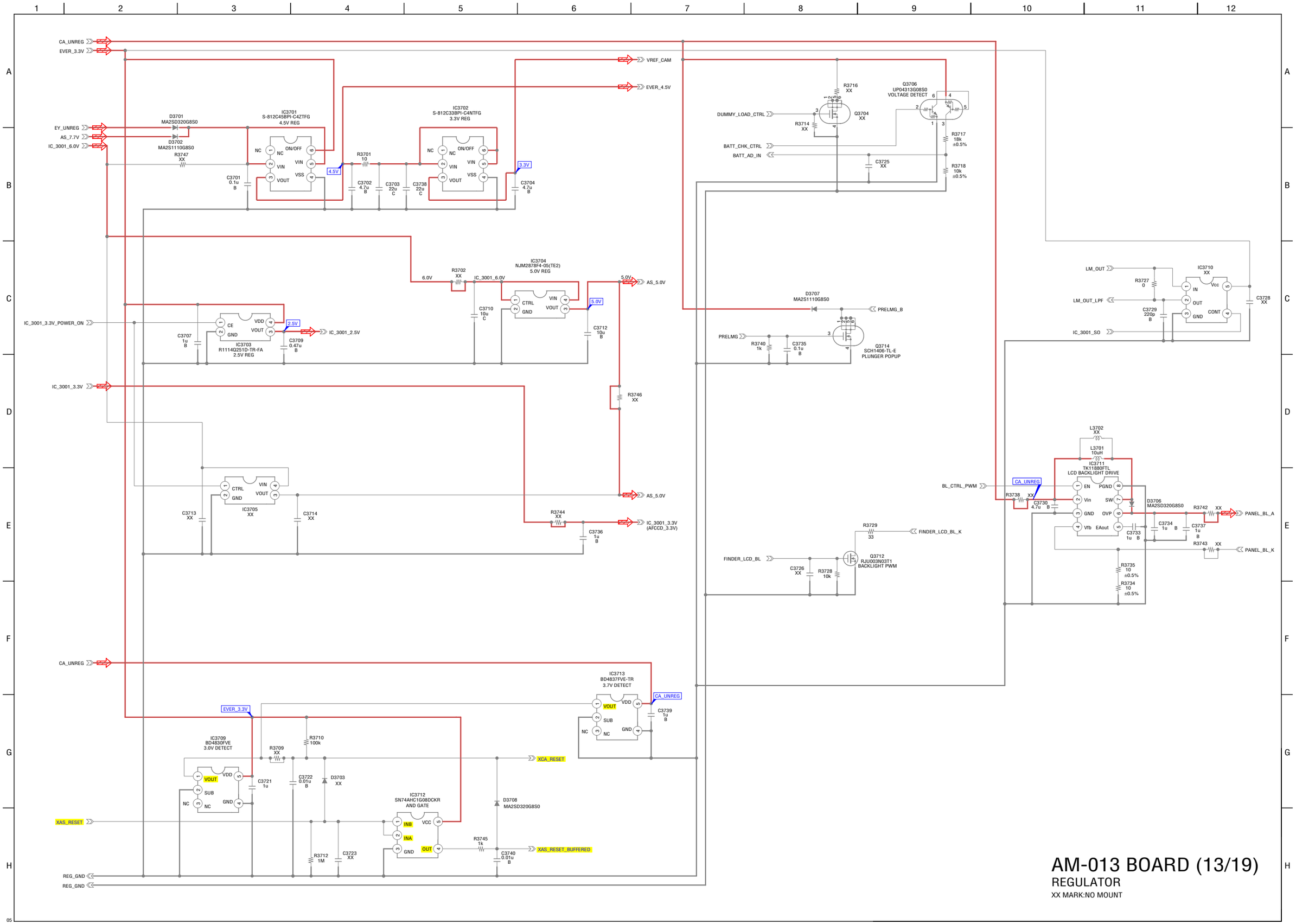
XX MARK:NO MOUNT



AM-013 BOARD (12/19)

BATTERY AUTHENTICATION

XX MARK:NO MOUNT

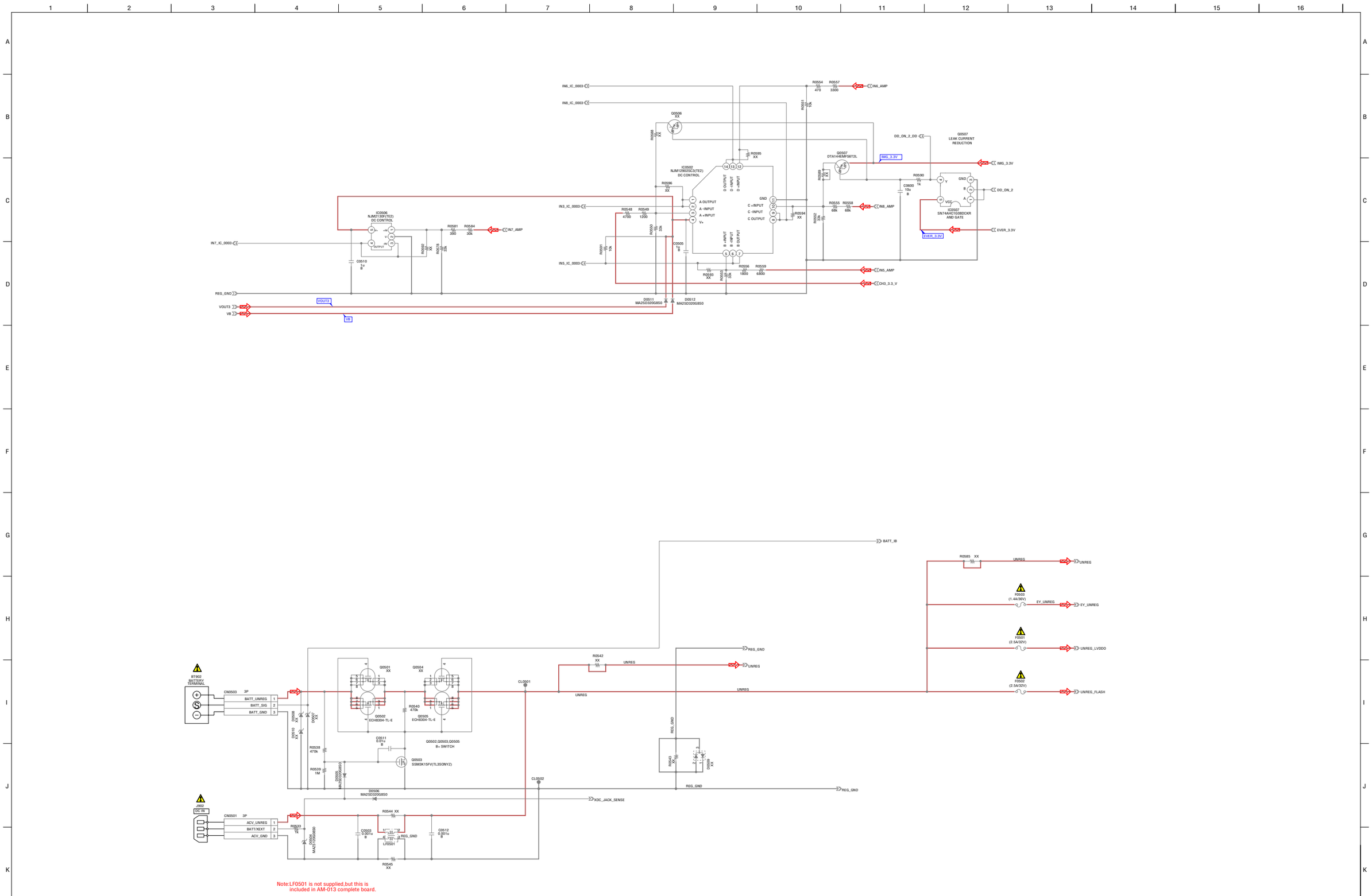


AM-013 BOARD (13/19)

REGULATOR

XX MARK:NO MOUNT

• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.



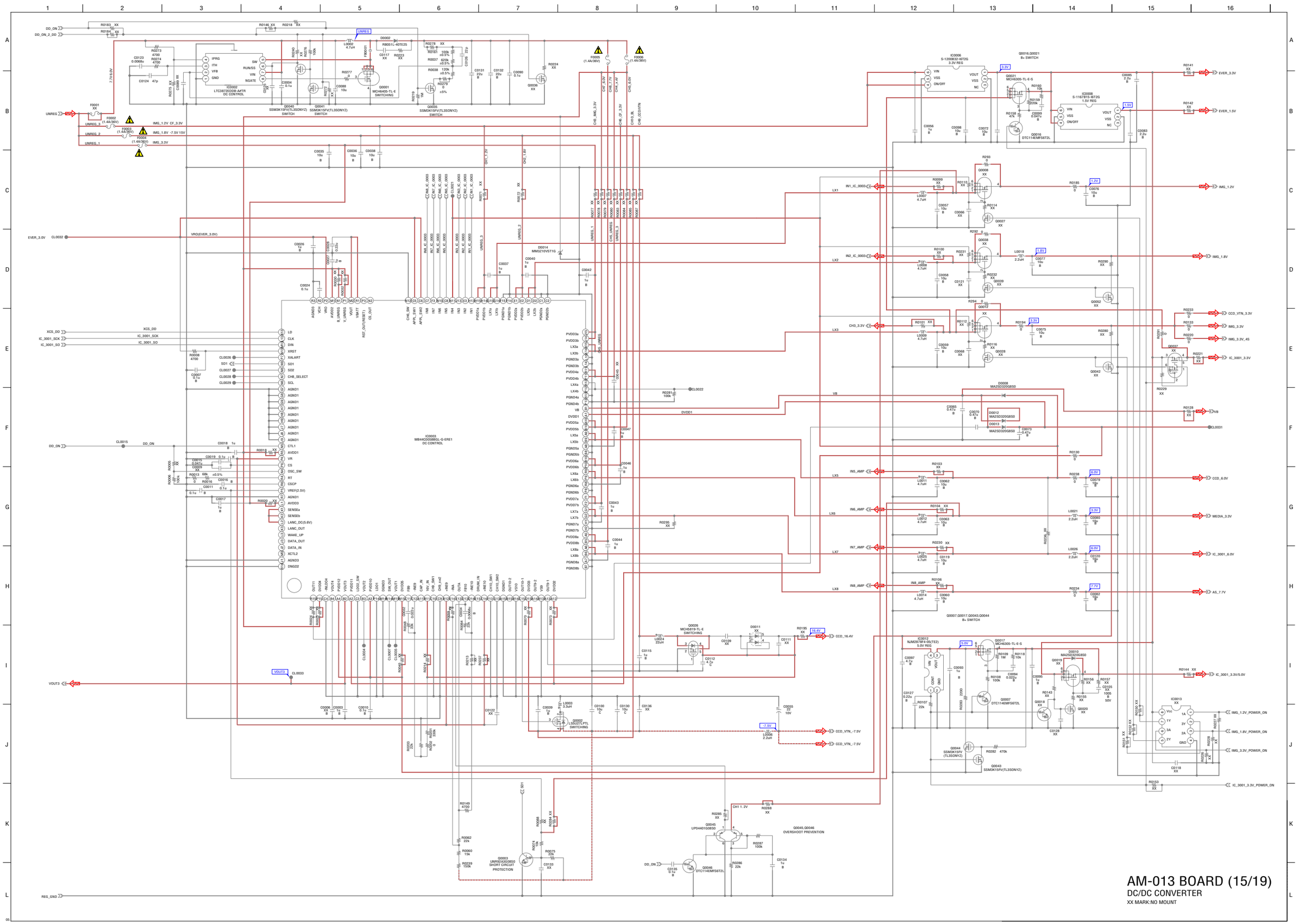
Note:LF0501 is not supplied,but this is included in AM-013 complete board.

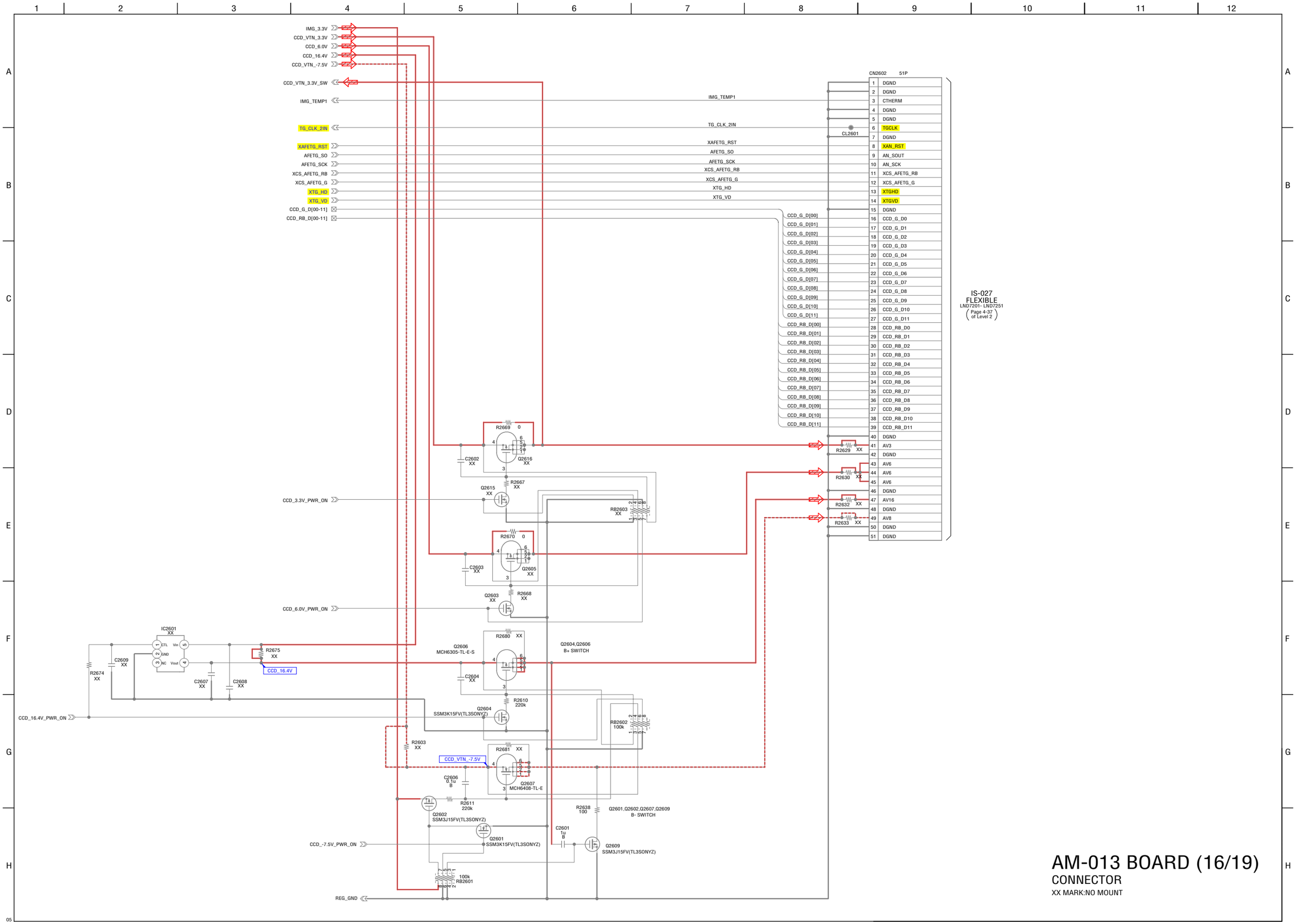
AM-013 BOARD (14/19)

DC IN

XX MARK:NO MOUNT

• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.

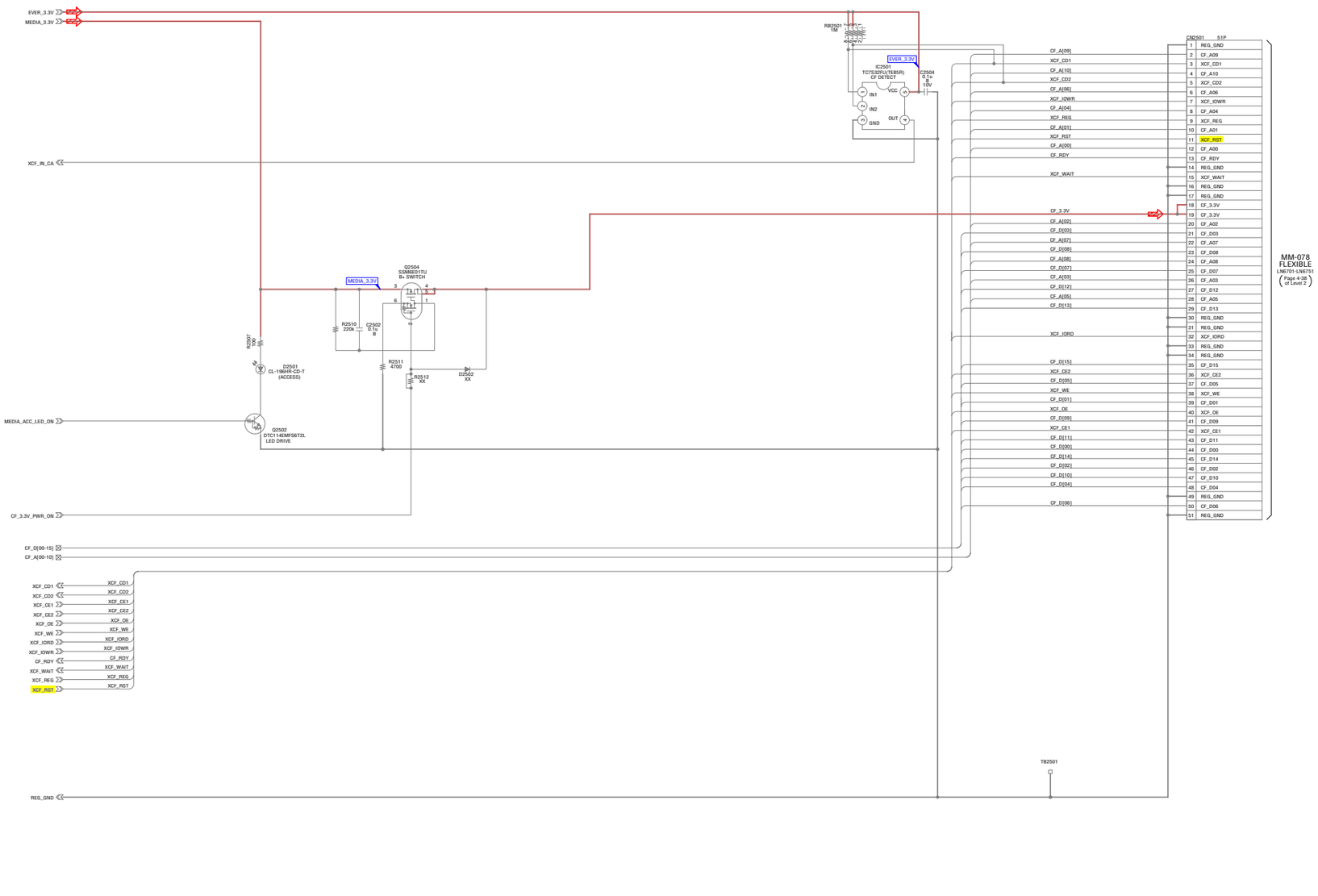

AM-013 BOARD (15/19)
DC/DC CONVERTER
XX MARK:NO MOUNT
IC0003 MB44D0308GL-G-ERE1 DC CONTROL
IC0002 LTC3872EDD#-MFTR DC CONTROL
IC0006 S-1200B32-I6T2G 3.3V REG
IC0008 S-1167B15-I6T2G 1.5V REG
IC0012 NJM2878F4-05(TE2) 5.0V REG
IC0013
Q0001 MCH6405-TL-E SWITCHING
Q0002 LSS027LPTL SWITCHING
Q0026 MCH6819-TL-E SWITCHING
Q0035 SSM3K15FV(TL3SONYZ) SWITCH
Q0036 XX
Q0040 SSM3K15FV(TL3SONYZ) SWITCH
Q0041 SSM3K15FV(TL3SONYZ) SWITCH
Q0003 UMR02A3G0BS0 SHORT CIRCUIT PROTECTION
Q0045,Q0046 OVERSHOOT PREVENTION
Q0007,Q0017,Q0043,Q0044 B+ SWITCH
Q0016,Q0021 B+ SWITCH
Q0021 MCH6305-TL-E-S
Q0016 DTC114EMFS6T2L
Q0007 DTC114EMFS6T2L
Q0017 MCH6305-TL-E-S
Q0043 SSM3K15FV(TL3SONYZ)
Q0044 SSM3K15FV (TL3SONYZ)
Q0045 UPD44D1G0BS0
Q0046 DTC114EMFS6T2L
D0002 RB051L-40TE25
D0008 MA2SD320GBS0
D0010 MA2SD320GBS0
D0011 XX
D0012 MA2SD320GBS0
D0013 MA2SD320GBS0
D0014 MM3Z10VST1G
F0001 XX
F0002 (1.4A/36V)
F0003 (1.4A/36V)
F0004 (1.4A/36V)
F0005 (1.4A/36V)
F0006 (1.4A/36V)
L0002 4.7uH
L0003 3.3uH
L0007 4.7uH
L0008 4.7uH
L0009 4.7uH
L0010 4.7uH
L0011 4.7uH
L0012 4.7uH
L0013 4.7uH
L0014 4.7uH
L0018 2.2uH
L0021 2.2uH
L0022 2.2uH
L0024 22uH
L0026 2.2uH
L0006 2.2uH
UNREG
UNREG_2
UNREG_1
IMG_1.2V CF_3.3V
IMG_1.8V -7.5V 15V
IMG_3.3V
VRO(EVER_3.0V)
EVER_3.0V
VOUT3
REG_GND
DD_ON
DD_ON_2_DD
XCS_DD
IC_3001_SCK
IC_3001_SO
DVDD1
VB
IN1_IC_0003
IN2_IC_0003
CH3_3.3V
IN5_AMP
IN6_AMP
IN7_AMP
IN8_AMP
LX1
LX2
LX3
LX5
LX6
LX7
LX8
EVER_3.3V
EVER_1.5V
IMG_1.2V
IMG_1.8V
CCD_VTN_3.3V
IMG_3.3V
IMG_3.3V_4S
IC_3001_3.3V
CCD_6.0V
MEDIA_3.3V
IC_3001_6.0V
AS_7.7V
CCD_16.4V
CCD_VTN_-7.5V
IC_3001_3.3V/5.0V
IMG_1.2V_POWER_ON
IMG_1.8V_POWER_ON
IMG_3.3V_POWER_ON
IC_3001_3.3V_POWER_ON
CH1_1.2V
CH2_1.8V
CH3_3.3V
CH4_-7.5V
CH5_5.0V
CH6_CP_3.3V
CH7_BIAS_3.3V
CH8_OP_3.3V
CH9_OCSVTN
CH10_IR
CH1 1.2V
CH4_-7.5V
LD
CLK
DIN
XRST
XALART
SD1
SD2
CHB_SELECT
SCL
AGND1
AVDD1
VR
CS
OSC_SW
RT
CSCP
VREF(2.5V)
AGND3
SENSEa
SENSEb
LANC_DC(5.6V)
LANC_OUT
WAKE_UP
DATA_OUT
DATA_IN
XCTL2
DNGD2
DVDD3a
DVDD3b
PGND3a
PGND3b
PVDD4a
PVDD4b
PGND4a
PGND4b
PVDD5a
PVDD5b
PGND5a
PGND5b
PVDD6a
PVDD6b
PGND6a
PGND6b
PVDD7a
PVDD7b
PGND7a
PGND7b
PVDD8a
PVDD8b
PGND8a
PGND8b
CHB_SW
APPL_SW1
APPL_SW2
CHB_UNREG
CH5_SW
CH10_SW1
CH10_SW2
CH1 1.2V
CH4_-7.5V
CL0015
CL0022
CL0031
CL0032
CL0033
CL0034
CL0035
CL0036
CL0037
CL0038
CL0039
CL0040
CL0041
CL0042
CL0043
CL0044
CL0045
CL0046
CL0047
CL0048
CL0049
CL0050
CL0051
CL0052
CL0053
CL0054
CL0055
CL0056
CL0057
CL0058
CL0059
CL0060
CL0061
CL0062
CL0063
CL0064
CL0065
CL0066
CL0067
CL0068
CL0069
CL0070



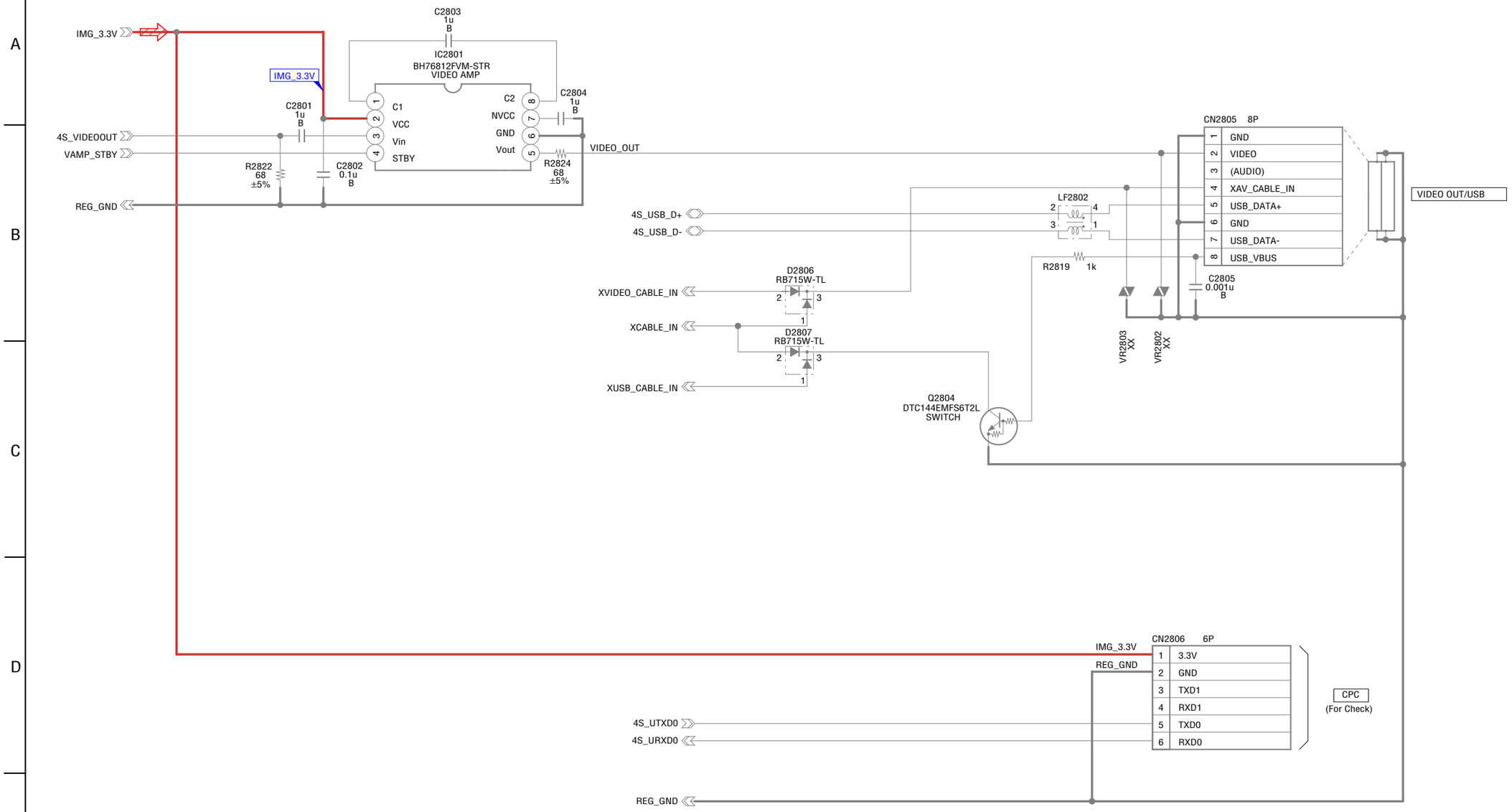
AM-013 BOARD (16/19)

CONNECTOR

XX MARK:NO MOUNT



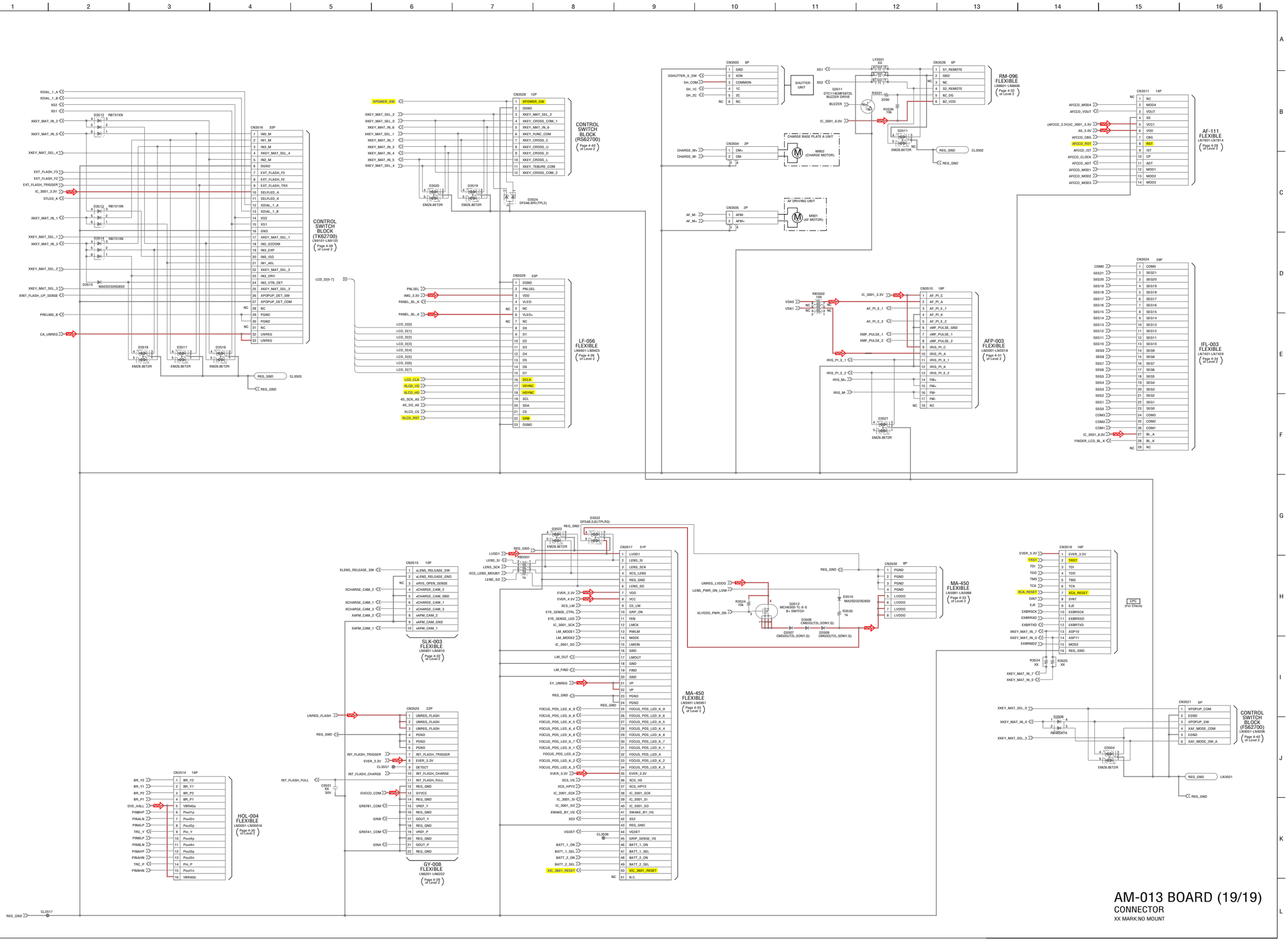
AM-013 BOARD (17/19)
CONNECTOR
XX MARK:NO MOUNT



AM-013 BOARD (18/19)

CONNECTOR

XX MARK:NO MOUNT


CONTROL SWITCH BLOCK (TK62700) LN9101-LN9133 (Page 4-39 of Level 2)
CONTROL SWITCH BLOCK (RS62700) (Page 4-40 of Level 2)
LF-056 FLEXIBLE LN9401-LN9423 (Page 4-26 of Level 2)
RM-096 FLEXIBLE LN8601-LN8606 (Page 4-32 of Level 2)
AF-111 FLEXIBLE LN7801-LN7814 (Page 4-28 of Level 2)
AFP-003 FLEXIBLE LND001-LND018 (Page 4-31 of Level 2)
IFL-003 FLEXIBLE LN7401-LN7429 (Page 4-34 of Level 2)
SHUTTER UNIT
CHARGE BASE PLATE A UNIT
AF DRIVING UNIT
M902 (CHARGE MOTOR)
M901 (AF MOTOR)
SLK-003 FLEXIBLE LN5801-LN5810 (Page 4-32 of Level 2)
GY-008 FLEXIBLE LN6201-LN6222 (Page 4-29 of Level 2)
HOL-004 FLEXIBLE LN2001-LN2016 (Page 4-30 of Level 2)
MA-450 FLEXIBLE LN3901-LN3951 (Page 4-33 of Level 2)
MA-450 FLEXIBLE LN3981-LN3988 (Page 4-33 of Level 2)
CONTROL SWITCH BLOCK (FS62700) LN3201-LN3206 (Page 4-40 of Level 2)
CPC (For Check)
REG_GND
CL3517
AM-013 BOARD (19/19)
CONNECTOR
XX MARK:NO MOUNT

4-3. PRINTED WIRING BOARDS

Link

- AM-013 BOARD (SIDE A)
- AM-013 BOARD (SIDE B)
- COMMON NOTE FOR PRINTED WIRING BOARDS

4-3. PRINTED WIRING BOARDS

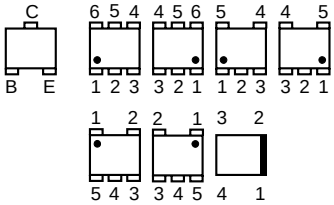
(ENGLISH)

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

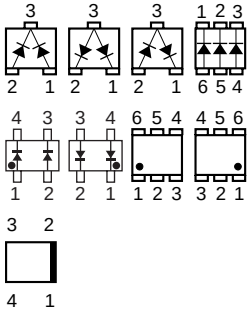
- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  : pattern of the rear side
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



(JAPANESE)

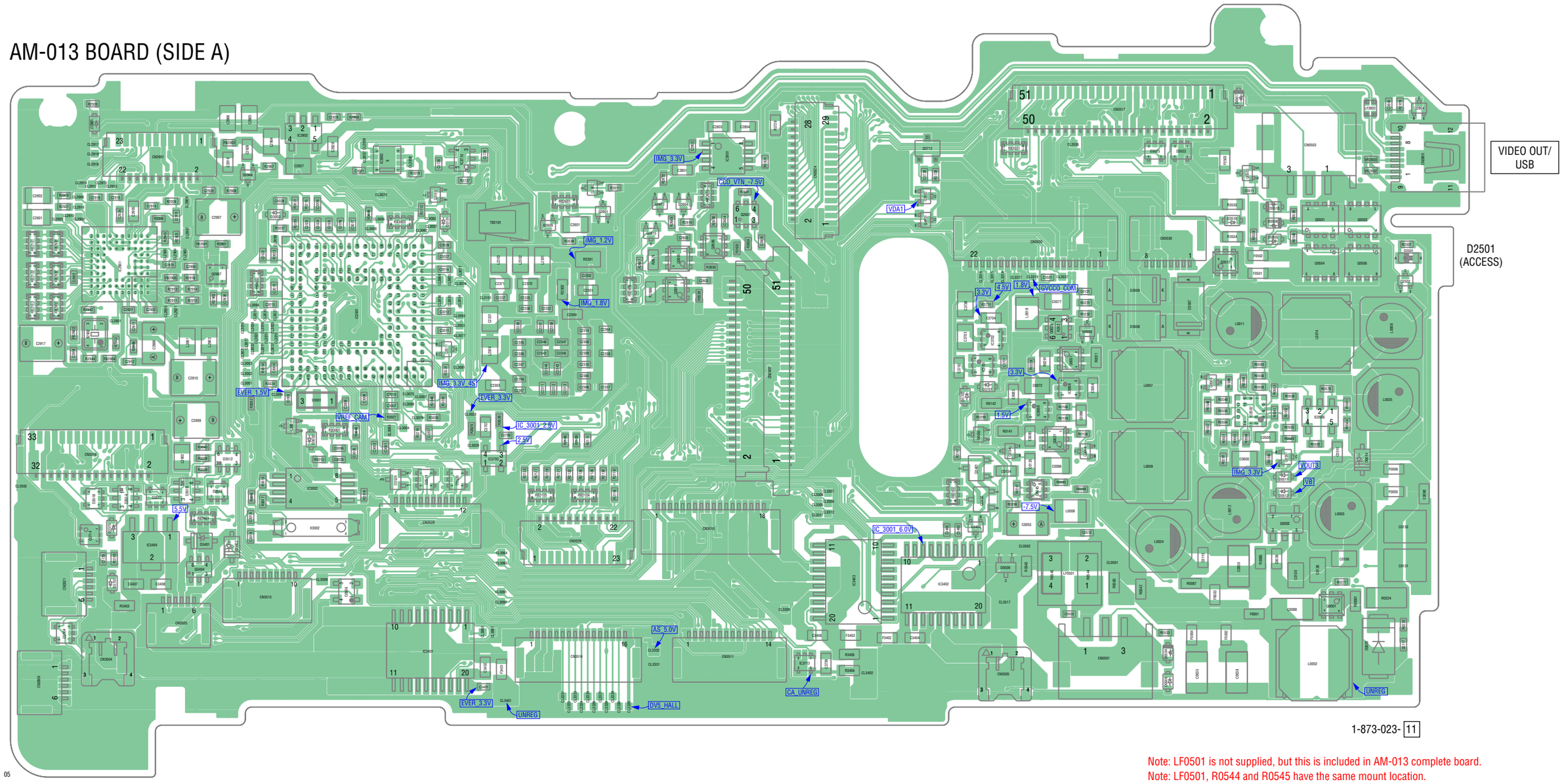
プリント図共通ノート
【プリント図ノート】

- ：無鉛半田を使用しています。
- ：基板
  ：フレキシブル配線板
  見ている面側のパターン。
  ：裏側のパターン
  （他のパターンについては表示されていません）
- スルーホールは省略。
- プリント図には，本機で使用していない部品が記載されている場合があります。
- はパネル表示名称。

AM-013 (8 layers)

: Uses unleaded solder.

AM-013 BOARD (SIDE A)



1-873-023-11

Note: LF0501 is not supplied, but this is included in AM-013 complete board.
Note: LF0501, R0544 and R0545 have the same mount location.
When you replace, since either LF0501 or R0544 and R0545 are used, please refer to schematic diagram and electrical parts list.
Note: Q0038 and R292 have the same mount location.
When you replace, since either Q0038 or R292 are used, please refer to schematic diagram and electrical parts list.

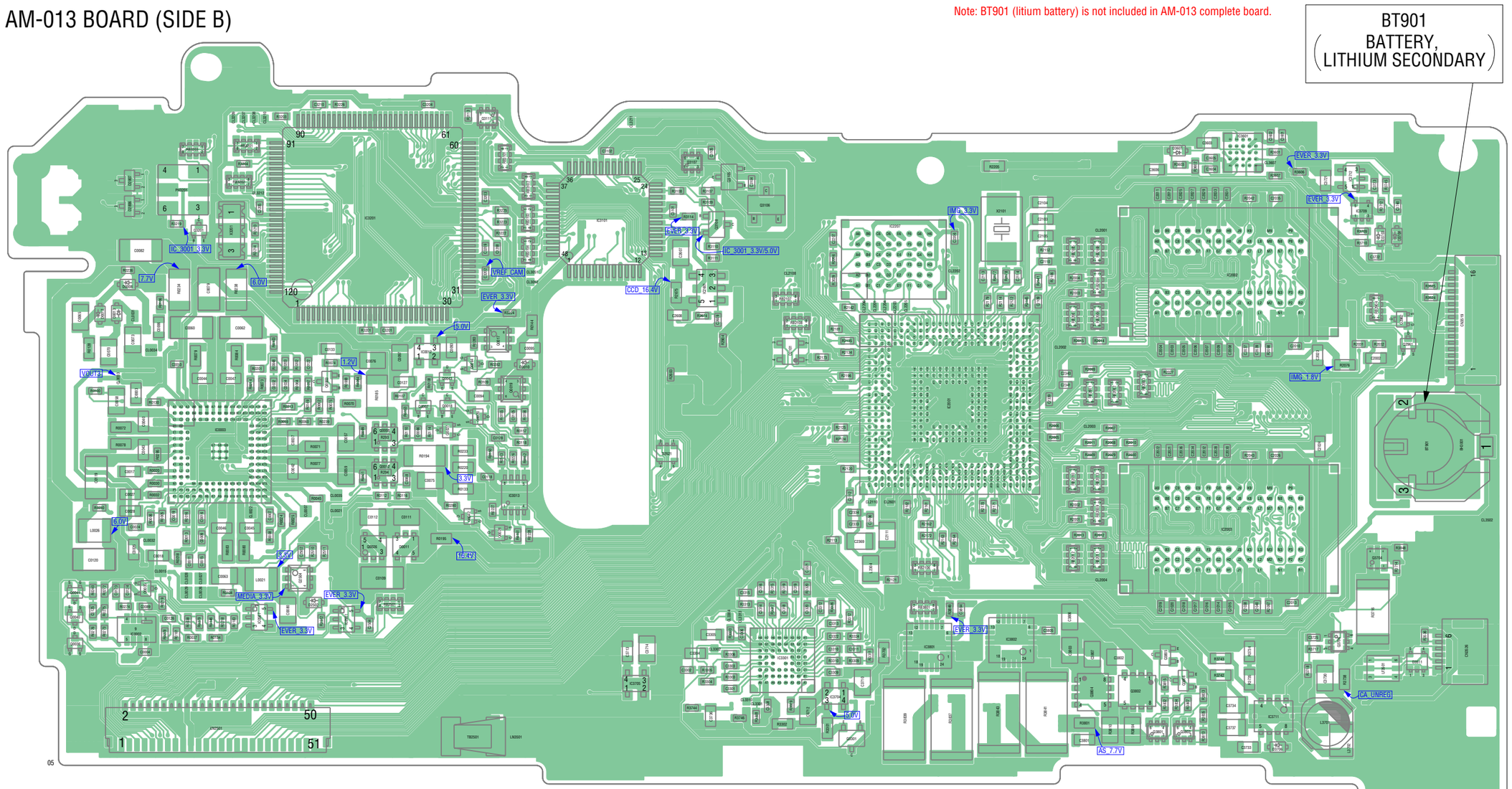
Ver. 1.1 2008.05

AM-013 (8 layers)

: Uses unleaded solder.

AM-013 BOARD (SIDE B)

Note: BT901 (litium battery) is not included in AM-013 complete board.



Note: Q0008 and R293 have the same mount location.
When you replace, since either Q0008 or R293 are used, please refer to schematic diagram and electrical parts list.

Note: Q0012 and R294 have the same mount location.
When you replace, since either Q0012 or R294 are used, please refer to schematic diagram and electrical parts list.

Note: L3701 and L3702 have the same mount location.
When you replace, since either L3701 or L3702 are used, please refer to schematic diagram and electrical parts list.

1-873-023-11

Note: Replace the battery holder (BH3001) together when replacing the lithium battery (BT901) on the AM-013 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: AM-013基板のリチウム電池（BT901）を交換する場合はバッテリホルダ（BH3001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着してください。

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

5. REPAIR PARTS LIST

(ENGLISH)

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(JAPANESE)

【使用上の注意】

- ここに記載されている部品は, 補修用部品であるため, 回路図及びセットに付いている部品と異なる場合があります。
- -XX, -Xは標準化部品のため, セットに付いている部品と異なる場合があります。
- *印の部品は常備在庫しておりません。
- コンデンサの単位でuFは μFを示します。
- 抵抗の単位Ωは省略してあります。
  金　　被：金属被膜抵抗。
  サンキン：酸化金属被膜抵抗。
- インダクタの単位でuHは μHを示します。
- 半導体の名称でuA..., uPA..., uPB..., uPC..., uPD...等はそれぞれ μA..., μPA..., μPB..., μPC..., μPD...を示します。

お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定してください。

⚠印の部品，または⚠印付の点線で囲まれた部品は，安全性を維持するために，重要な部品です。
従って交換時は，必ず指定の部品を使用してください。

- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  NE : North European model

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1437-664-A	AM-013 BOARD, COMPLETE (SERVICE)			
		**********			
		(BT901 (lithium battery) is not included in AM-013 complete board. LF0501 is not supplied, but this is included in AM-013 complete board.)			
		< BATTERY HOLDER >			
⚠ BH3001	1-756-615-41	HOLDER, BATTERY (Note)			
		< BATTERY >			
⚠ BT901	1-756-134-12	BATTERY, STORAGE, LITHIUM (Note)			
		< CAPACITOR >			
* C0003	1-112-298-91	CERAMIC CHIP	1uF	10%	16V
C0004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0007	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0010	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0011	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0015	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C0016	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0017	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0018	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0019	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0024	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C0026	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0027	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0028	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C0032	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C0034	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C0035	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0036	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0037	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0038	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0039	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0040	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0042	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0043	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0044	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0046	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0047	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0055	1-165-897-11	TANTAL. CHIP	22uF	20%	10V
C0056	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0057	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0058	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0059	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0060	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0062	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0063	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0065	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C0070	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C0072	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0073	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C0075	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0076	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0077	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0079	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0080	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0082	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0083	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C0085	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C0088	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0090	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C0093	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0094	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C0095	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0097	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C0098	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C0099	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C0100	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
C0112	1-100-670-11	CERAMIC CHIP	4.7uF	20%	16V
C0115	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0119	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0120	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C0123	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C0124	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C0126	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C0127	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C0130	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
C0131	1-100-055-21	CERAMIC CHIP	22uF	20%	16V
C0132	1-100-055-21	CERAMIC CHIP	22uF	20%	16V
C0134	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0135	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C0503	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C0505	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0510	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C0511	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C0512	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C0600	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2002	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2006	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2008	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2010	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2011	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2013	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2015	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2017	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

Note: Replace the battery holder (BH3001) together when replacing the lithium battery (BT901) on the AM-013 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: AM-013基板のリチウム電池（BT901）を交換する場合はバッテリホルダ（BH3001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着してください。

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description			
C2019	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2022	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2023	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2024	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2026	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2027	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2030	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2031	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2034	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2035	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2037	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2038	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2103	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C2104	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C2105	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C2106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2112	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2113	1-164-847-11	CERAMIC CHIP	7PF	0.5PF	50V
C2114	1-164-847-11	CERAMIC CHIP	7PF	0.5PF	50V
C2206	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2301	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2303	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2304	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2307	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2308	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2310	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2312	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2330	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2331	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2332	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2333	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2334	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2335	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2336	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2337	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2339	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2340	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2341	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2342	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2343	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2347	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2358	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2359	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2361	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2364	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2366	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2368	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2369	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
* C2370	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
* C2371	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2502	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2504	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2601	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C2606	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2801	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2802	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2803	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2804	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2805	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3001	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C3002	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C3003	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3005	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C3006	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C3007	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3008	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3009	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3010	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3011	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3012	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3013	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3014	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3015	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3019	1-164-852-11	CERAMIC CHIP	12PF	5%	50V
C3020	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3021	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3023	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3024	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3025	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3026	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3027	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3028	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3101	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3104	1-100-581-81	CERAMIC CHIP	0.0047uF	10%	50V
C3201	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3202	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3204	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3205	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3206	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3207	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3301	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C3302	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C3303	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3304	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C3305	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C3306	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3308	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3309	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C3310	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3311	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C3312	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
C3313	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3314	1-164-938-11	CERAMIC CHIP	0.0015uF	10%	50V
C3315	1-165-887-91	CERAMIC CHIP	0.22uF	10%	6.3V
C3316	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3318	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
C3319	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3320	1-164-938-11	CERAMIC CHIP	0.0015uF	10%	50V
C3321	1-165-887-91	CERAMIC CHIP	0.22uF	10%	6.3V
C3322	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3401	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3403	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
C3405	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3407	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3408	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3602	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3603	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3604	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3701	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
* C3702	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3703	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
* C3704	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3707	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3709	1-100-415-91	CERAMIC CHIP	0.47uF	10%	6.3V
C3710	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
C3712	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C3721	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3722	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3729	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
C3730	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C3733	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3734	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C3735	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3736	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3737	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C3738	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C3739	1-100-660-91	CERAMIC CHIP	1uF	10%	10V
C3740	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3802	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
C3803	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
C3804	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3806	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
C3807	1-112-342-91	CERAMIC CHIP	10uF	20%	10V
		< CONNECTOR >			
CN0501	1-580-056-21	PIN, CONNECTOR (SMD) 3P			
CN0503	1-580-056-21	PIN, CONNECTOR (SMD) 3P			
* CN2501	1-820-857-71	CONNECTOR, FPC (ZIF) 51P			
* CN2602	1-819-860-51	CONNECTOR, FPC (ZIF) 51P			
* CN2805	1-820-333-11	MULTI CONNECTOR (REC) 8P (VIDEO OUT/USB)			
* CN2806	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN3503	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN3504	1-820-332-11	HOUSING, CONNECTOR 2P			
* CN3505	1-820-332-11	HOUSING, CONNECTOR 2P			
* CN3510	1-816-647-51	FFC/FPC CONNECTOR (LIF) 18P			
* CN3511	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P			
* CN3514	1-816-646-51	FFC/FPC CONNECTOR (LIF) 16P			
* CN3515	1-816-643-51	FFC/FPC CONNECTOR (LIF) 10P			
* CN3516	1-817-830-71	CONNECTOR, FPC (ZIF) 33P			
* CN3517	1-820-857-71	CONNECTOR, FPC (ZIF) 51P			
* CN3519	1-816-646-51	FFC/FPC CONNECTOR (LIF) 16P			
* CN3520	1-816-649-51	FFC/FPC CONNECTOR (LIF) 22P			
* CN3521	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN3524	1-818-818-71	CONNECTOR, FPC (ZIF) 29P			
* CN3526	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN3528	1-816-644-51	FFC/FPC CONNECTOR (LIF) 12P			
* CN3529	1-819-659-71	CONNECTOR, FPC (ZIF) 23P			
* CN3530	1-816-655-51	FFC/FPC CONNECTOR (LIF) 8P			

Ref. No.	Part No.	Description
		< DIODE >
D0002	8-719-066-98	DIODE RB051L-40TE25
D0008	6-500-813-01	DIODE MA2SD32008S0
D0010	6-500-813-01	DIODE MA2SD32008S0
D0012	6-500-813-01	DIODE MA2SD32008S0
D0013	6-500-813-01	DIODE MA2SD32008S0
* D0014	6-502-221-01	DIODE MM3Z10VST1G
* D0504	6-501-961-01	DIODE MAZS120G08S0
D0505	6-500-813-01	DIODE MA2SD32008S0
D0506	6-500-813-01	DIODE MA2SD32008S0
D0511	6-500-813-01	DIODE MA2SD32008S0
D0512	6-500-813-01	DIODE MA2SD32008S0
D2101	8-719-074-08	DIODE MA4ZD03001S0
D2501	8-719-077-09	DIODE CL-196HR-CD-T (ACCESS)
D2806	8-719-082-45	DIODE RB715W-TL
D2807	8-719-082-45	DIODE RB715W-TL
D3002	6-500-813-01	DIODE MA2SD32008S0
D3003	6-500-813-01	DIODE MA2SD32008S0
D3101	6-500-813-01	DIODE MA2SD32008S0
D3401	8-719-083-85	DIODE UDZSNPTE-1722B
D3402	8-719-083-85	DIODE UDZSNPTE-1722B
D3504	8-719-084-17	DIODE EMZ6.8ET2R
D3506	8-719-074-08	DIODE MA4ZD03001S0
* D3507	6-502-135-01	DIODE CMG03 (T2L, SONY, Q)
* D3508	6-502-135-01	DIODE CMG03 (T2L, SONY, Q)
* D3509	6-502-135-01	DIODE CMG03 (T2L, SONY, Q)
D3510	6-500-813-01	DIODE MA2SD32008S0
D3511	8-719-084-17	DIODE EMZ6.8ET2R
D3512	6-500-115-01	DIODE RB731XN
D3513	6-500-115-01	DIODE RB731XN
D3514	6-500-115-01	DIODE RB731XN
D3515	6-500-813-01	DIODE MA2SD32008S0
D3516	8-719-084-17	DIODE EMZ6.8ET2R
D3517	8-719-084-17	DIODE EMZ6.8ET2R
D3518	8-719-084-17	DIODE EMZ6.8ET2R
D3519	8-719-084-17	DIODE EMZ6.8ET2R
D3520	8-719-084-17	DIODE EMZ6.8ET2R
D3521	8-719-084-17	DIODE EMZ6.8ET2R
D3522	8-719-082-92	DIODE DF5A8.2JE (TPLR3)
D3523	8-719-084-17	DIODE EMZ6.8ET2R
D3524	8-719-081-73	DIODE DF3A6.8FE (TPL3)
D3701	6-500-813-01	DIODE MA2SD32008S0
* D3702	6-501-947-01	DIODE MA2S1110G8S0
D3706	6-500-813-01	DIODE MA2SD32008S0
* D3707	6-501-947-01	DIODE MA2S1110G8S0
D3708	6-500-813-01	DIODE MA2SD32008S0
		< FUSE >
⚠ F0002	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠ F0003	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠ F0004	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠ F0005	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠ F0006	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠* F0501	1-576-874-11	FUSE (2.5A/32V)
⚠* F0502	1-576-874-11	FUSE (2.5A/32V)
⚠ F0503	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠ F3401	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠ F3402	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
⚠F3403	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
		< FERRITE BEAD >
FB0001	1-400-177-21	INDUCTOR, EMI FERRITE (1608)
		< IC >
* IC0002	6-712-193-01	IC LTC3872EDDB-A#TR
* IC0003	6-710-636-01	IC MB44C005BBGL-G-ERE1
* IC0006	6-711-562-01	IC S-1200B32-I6T2G
IC0008	6-711-149-01	IC S-1167B15-I6T2G
* IC0012	6-711-661-01	IC NJM2878F4-05 (TE2)
IC0502	6-702-523-01	IC NJM12902SC3 (TE2)
IC0506	8-759-580-26	IC NJM2130F (TE2)
IC0507	8-759-649-46	IC SN74AHC1G08DCKR
* IC2001	6-711-636-01	IC MA07170
* IC2002	6-711-672-01	IC HYB18TC512160BF-3.7
* IC2003	6-711-672-01	IC HYB18TC512160BF-3.7
IC2207	6-808-043-01	IC S29PL032J60BFI120E-001
IC2501	8-759-058-64	IC TC7S32FU (TE85R)
IC2801	6-707-834-01	IC BH76812FVM-STR
* IC3001	6-807-879-01	IC 19A43FZXBG-0105 (EL
* IC3002	6-709-666-01	IC S-35190A-T8T1G
IC3003	6-805-607-01	IC AK6508CU-L
* IC3101	6-709-676-01	IC M50222FP
* IC3201	6-808-096-01	IC MB91F233LAPMC-G-07-ERE1
* IC3301	6-711-675-01	IC uPC5703F1-035-AN4-E2-A
* IC3401	6-709-661-01	IC TB6593FNG
* IC3402	6-709-658-01	IC LB8632V-TLM-E
* IC3403	6-709-658-01	IC LB8632V-TLM-E
* IC3404	6-709-663-01	IC XC6201P552PR
* IC3601	6-807-572-01	IC uPD79F0043FC-402-2N1-E2-A
* IC3701	6-709-668-01	IC S-812C45BPI-C4ZTFG
* IC3702	6-709-667-01	IC S-812C33BPI-C4NTFG
* IC3703	6-708-464-01	IC R1114Q251D-TR-FA
* IC3704	6-711-661-01	IC NJM2878F4-05 (TE2)
IC3709	6-704-433-01	IC BD4830FVE
* IC3711	6-711-528-01	IC TK11880FTL
IC3712	8-759-649-46	IC SN74AHC1G08DCKR
* IC3713	6-709-786-01	IC BD4837FVE-TR
* IC3801	6-711-677-01	IC LV8019LP-TLM-E
* IC3802	6-711-677-01	IC LV8019LP-TLM-E
		< COIL >
* L0002	1-457-522-21	INDUCTOR 4.7uH
* L0003	1-457-598-11	INDUCTOR 3.3uH
* L0006	1-400-820-11	INDUCTOR 2.2uH
* L0007	1-457-522-21	INDUCTOR 4.7uH
L0008	1-456-135-11	INDUCTOR 4.7uH
* L0009	1-457-522-21	INDUCTOR 4.7uH
L0011	1-456-135-11	INDUCTOR 4.7uH
L0012	1-456-135-11	INDUCTOR 4.7uH
* L0014	1-457-522-21	INDUCTOR 4.7uH
* L0018	1-400-820-11	INDUCTOR 2.2uH
* L0021	1-400-820-11	INDUCTOR 2.2uH
L0024	1-456-137-11	INDUCTOR 22uH
L0025	1-456-135-11	INDUCTOR 4.7uH
* L0026	1-400-820-11	INDUCTOR 2.2uH

Ref. No.	Part No.	Description
* L2301	1-400-411-21	INDUCTOR 4.7uH
* L2302	1-400-411-21	INDUCTOR 4.7uH
* L2303	1-400-411-21	INDUCTOR 4.7uH
* L2304	1-400-411-21	INDUCTOR 4.7uH
* L2305	1-400-411-21	INDUCTOR 4.7uH
L3701	1-456-500-11	INDUCTOR 10uH
		< LINE FILTER >
LF0501	(Not supplied)	COMMON MODE CHOKE COIL
LF2802	1-457-223-11	COMMON MODE CHOKE COIL
		< SENSOR >
* PH3201	1-480-391-21	SLANT SENSOR (HORIZONTAL/VERTICAL POSITION DETECT)
		< TRANSISTOR >
* Q0001	6-551-832-01	TRANSISTOR MCH6405-TL-E
Q0002	6-550-405-01	TRANSISTOR CPH5815-TL-E
* Q0003	6-551-796-01	TRANSISTOR UNR92A3G08S0
Q0007	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
Q0016	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
Q0017	6-551-184-01	TRANSISTOR MCH6305-TL-E-S
Q0021	6-551-184-01	TRANSISTOR MCH6305-TL-E-S
Q0026	6-550-533-01	TRANSISTOR MCH5819-TL-E
Q0035	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
Q0040	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
Q0041	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
Q0043	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
Q0044	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
* Q0045	6-551-846-01	TRANSISTOR UP04401G08S0
Q0046	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
* Q0502	6-551-831-01	TRANSISTOR ECH8304-TL-E
Q0503	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
* Q0505	6-551-831-01	TRANSISTOR ECH8304-TL-E
Q0507	6-550-239-01	TRANSISTOR DTA144EMFS6T2L
Q2502	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
Q2504	6-550-576-01	TRANSISTOR SSM6E01TU
Q2601	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
Q2602	6-550-791-01	TRANSISTOR SSM3J15FV (TL3SONYZ)
Q2604	6-550-789-01	TRANSISTOR SSM3K15FV (TL3SONYZ)
Q2606	6-551-184-01	TRANSISTOR MCH6305-TL-E-S
* Q2607	6-551-833-01	TRANSISTOR MCH6408-TL-E
Q2609	6-550-791-01	TRANSISTOR SSM3J15FV (TL3SONYZ)
Q2804	6-550-119-01	TRANSISTOR DTC144EMFS6T2L
Q3001	6-550-791-01	TRANSISTOR SSM3J15FV (TL3SONYZ)
Q3101	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
* Q3102	6-551-525-01	TRANSISTOR DTB513ZMT2L
Q3105	8-729-905-37	TRANSISTOR 2SC4081T106Q
Q3106	8-729-904-66	TRANSISTOR DTD113EK-T-146
Q3107	6-550-807-01	TRANSISTOR EMH11T2R
Q3108	8-729-922-10	TRANSISTOR 2SA1577-QR
Q3109	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
* Q3111	6-550-011-01	TRANSISTOR EMH10T2R
Q3201	6-550-242-01	TRANSISTOR DTC114EMFS6T2L
Q3301	8-729-140-63	TRANSISTOR 2SA1611-M5M6
Q3401	8-729-922-10	TRANSISTOR 2SA1577-QR
Q3402	8-729-922-10	TRANSISTOR 2SA1577-QR

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description			
Q3403	6-550-242-01	TRANSISTOR	DTC114EMFS6T2L		
Q3404	6-550-014-01	TRANSISTOR	SSM6N15FU (TE85R)		
Q3511	6-550-242-01	TRANSISTOR	DTC114EMFS6T2L		
Q3512	6-551-184-01	TRANSISTOR	MCH6305-TL-E-S		
* Q3706	6-551-852-01	TRANSISTOR	UP04313G08S0		
* Q3712	6-551-526-01	TRANSISTOR	RJU003N03T106		
Q3714	6-550-714-01	TRANSISTOR	SCH1406-TL-E		
* Q3801	6-551-846-01	TRANSISTOR	UP04401G08S0		
Q3802	6-551-329-01	TRANSISTOR	TPCP8601 (TE85L.F)		
* Q3803	6-551-846-01	TRANSISTOR	UP04401G08S0		
Q3804	6-551-329-01	TRANSISTOR	TPCP8601 (TE85L.F)		
Q3805	8-729-929-08	TRANSISTOR	DTC123JE		
		< RESISTOR >			
R0006	1-218-977-11	RES-CHIP	100K	5%	1/16W
R0008	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R0013	1-218-990-81	SHORT CHIP	0		
R0016	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R0037	1-208-954-81	METAL CHIP	620K	0.5%	1/16W
R0038	1-218-978-11	RES-CHIP	120K	5%	1/16W
R0048	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R0060	1-208-711-11	METAL CHIP	15K	0.5%	1/16W
R0062	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R0064	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R0074	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R0075	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R0107	1-218-969-11	RES-CHIP	22K	5%	1/16W
R0108	1-218-977-11	RES-CHIP	100K	5%	1/16W
R0109	1-218-989-11	RES-CHIP	1M	5%	1/16W
R0118	1-218-965-11	RES-CHIP	10K	5%	1/16W
R0130	1-218-990-81	SHORT CHIP	0		
R0133	1-216-864-11	SHORT CHIP	0		
R0149	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R0158	1-218-973-11	RES-CHIP	47K	5%	1/16W
R0159	1-218-981-91	RES-CHIP	220K	5%	1/16W
R0160	1-218-965-11	RES-CHIP	10K	5%	1/16W
R0161	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R0185	1-216-296-11	SHORT CHIP	0		
R0194	1-216-296-11	SHORT CHIP	0		
R0201	1-208-947-11	METAL CHIP	330K	0.5%	1/16W
R0202	1-218-990-81	SHORT CHIP	0		
R0203	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R0219	1-218-989-11	RES-CHIP	1M	5%	1/16W
R0220	1-216-864-11	SHORT CHIP	0		
R0233	1-216-864-11	SHORT CHIP	0		
R0234	1-216-296-11	SHORT CHIP	0		
R0238	1-216-296-11	SHORT CHIP	0		
R0239	1-208-939-11	METAL CHIP	150K	0.5%	1/16W
R0273	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R0274	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R0276	1-218-977-11	RES-CHIP	100K	5%	1/16W
R0277	1-218-990-81	SHORT CHIP	0		
R0279	1-218-990-81	SHORT CHIP	0		
R0281	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R0282	1-218-985-11	RES-CHIP	470K	5%	1/16W
R0283	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R0286	1-218-969-11	RES-CHIP	22K	5%	1/16W
R0287	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			
R0291	1-216-864-11	SHORT CHIP	0		
R292	1-218-990-81	SHORT CHIP	0		
R293	1-218-990-81	SHORT CHIP	0		
R294	1-218-990-81	SHORT CHIP	0		
R0533	1-218-953-11	RES-CHIP	1K	5%	1/16W
R0538	1-218-985-11	RES-CHIP	470K	5%	1/16W
R0539	1-218-989-11	RES-CHIP	1M	5%	1/16W
R0540	1-218-985-11	RES-CHIP	470K	5%	1/16W
R0548	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R0549	1-208-889-11	METAL CHIP	1.2K	0.5%	1/16W
R0550	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R0551	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R0552	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R0553	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R0554	1-208-675-11	METAL CHIP	470	0.5%	1/16W
R0555	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R0556	1-208-893-11	METAL CHIP	1.8K	0.5%	1/16W
R0557	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R0558	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R0559	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R0578	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R0581	1-218-948-11	RES-CHIP	390	5%	1/16W
R0584	1-208-922-11	METAL CHIP	30K	0.5%	1/16W
R0590	1-218-953-11	RES-CHIP	1K	5%	1/16W
R0591	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R2012	1-218-990-81	SHORT CHIP	0		
R2013	1-218-990-81	SHORT CHIP	0		
R2014	1-218-990-81	SHORT CHIP	0		
R2015	1-218-990-81	SHORT CHIP	0		
R2031	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R2032	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R2042	1-208-871-81	METAL CHIP	220	0.5%	1/16W
R2043	1-208-871-81	METAL CHIP	220	0.5%	1/16W
R2097	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R2098	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R2106	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2111	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2113	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2114	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R2118	1-218-941-81	RES-CHIP	100	5%	1/16W
R2119	1-218-990-81	SHORT CHIP	0		
R2120	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R2121	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2122	1-218-941-11	RES-CHIP	100	5%	1/16W
R2124	1-218-990-81	SHORT CHIP	0		
R2125	1-218-990-81	SHORT CHIP	0		
R2126	1-218-990-81	SHORT CHIP	0		
R2127	1-218-990-81	SHORT CHIP	0		
R2128	1-218-990-81	SHORT CHIP	0		
R2129	1-218-990-81	SHORT CHIP	0		
R2130	1-218-990-81	SHORT CHIP	0		
R2131	1-218-990-81	SHORT CHIP	0		
R2132	1-218-990-81	SHORT CHIP	0		
R2133	1-218-990-81	SHORT CHIP	0		
R2142	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2152	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2161	1-218-990-81	SHORT CHIP	0		

Ref. No.	Part No.	Description			
R2162	1-218-990-81	SHORT CHIP	0		
R2163	1-218-990-81	SHORT CHIP	0		
R2164	1-218-990-81	SHORT CHIP	0		
R2170	1-218-990-81	SHORT CHIP	0		
R2171	1-218-990-81	SHORT CHIP	0		
R2173	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R2179	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2181	1-218-990-81	SHORT CHIP	0		
R2182	1-218-990-81	SHORT CHIP	0		
R2196	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2507	1-218-941-81	RES-CHIP	100	5%	1/16W
R2510	1-218-981-91	RES-CHIP	220K	5%	1/16W
R2511	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2610	1-218-981-91	RES-CHIP	220K	5%	1/16W
R2611	1-218-981-91	RES-CHIP	220K	5%	1/16W
R2638	1-218-941-81	RES-CHIP	100	5%	1/16W
R2669	1-216-864-11	SHORT CHIP	0		
R2670	1-216-864-11	SHORT CHIP	0		
R2819	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2822	1-218-939-11	RES-CHIP	68	5%	1/16W
R2824	1-218-939-11	RES-CHIP	68	5%	1/16W
R3010	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3013	1-218-949-11	RES-CHIP	470	5%	1/16W
R3014	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3018	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3019	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3023	1-218-990-81	SHORT CHIP	0		
R3024	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3029	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3030	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3031	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3035	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3037	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3046	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3107	1-218-949-11	RES-CHIP	470	5%	1/16W
R3108	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R3109	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3110	1-208-671-11	METAL CHIP	330	0.5%	1/16W
R3111	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3112	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3113	1-218-937-11	RES-CHIP	47	5%	1/16W
R3201	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3203	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3213	1-218-951-11	RES-CHIP	680	5%	1/16W
R3214	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3215	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3216	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3219	1-218-945-11	RES-CHIP	220	5%	1/16W
R3222	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3225	1-218-990-81	SHORT CHIP	0		
R3226	1-218-990-81	SHORT CHIP	0		
R3303	1-208-918-11	METAL CHIP	20K	0.5%	1/16W
R3304	1-208-918-11	METAL CHIP	20K	0.5%	1/16W
R3305	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R3306	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R3309	1-208-918-11	METAL CHIP	20K	0.5%	1/16W
R3310	1-208-918-11	METAL CHIP	20K	0.5%	1/16W
R3311	1-208-683-11	METAL CHIP	1K	0.5%	1/16W

Ref. No.	Part No.	Description			
R3312	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3313	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R3315	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3319	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3320	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R3324	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3404	1-216-864-11	SHORT CHIP	0		
R3531	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R3534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3535	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3536	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3601	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3607	1-218-990-81	SHORT CHIP	0		
R3701	1-218-929-11	RES-CHIP	10	5%	1/16W
R3710	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3712	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3717	1-208-713-11	METAL CHIP	18K	0.5%	1/16W
R3718	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R3727	1-218-990-81	SHORT CHIP	0		
R3728	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3729	1-216-803-11	METAL CHIP	33	5%	1/10W
R3734	1-211-969-11	METAL CHIP	10	0.5%	1/10W
R3735	1-211-969-11	METAL CHIP	10	0.5%	1/10W
R3740	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3745	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3804	1-219-724-11	METAL CHIP	1	1%	1/4W
R3807	1-208-659-11	METAL CHIP	100	0.5%	1/16W
R3810	1-219-724-11	METAL CHIP	1	1%	1/4W
R3813	1-208-659-11	METAL CHIP	100	0.5%	1/16W
R3832	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R3833	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R3834	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3835	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3837	1-218-602-11	METAL CHIP	1	5%	1W
R3839	1-218-602-11	METAL CHIP	1	5%	1W
R3841	1-218-602-11	METAL CHIP	1	5%	1W
R3843	1-218-602-11	METAL CHIP	1	5%	1W

< COMPOSITION CIRCUIT BLOCK >

RB2004	1-234-944-21	RES, NETWORK	47 (1005X4)
RB2009	1-234-944-21	RES, NETWORK	47 (1005X4)
RB2101	1-234-795-21	RES, NETWORK	0X4 (2010)
RB2102	1-234-795-21	RES, NETWORK	0X4 (2010)
RB2103	1-234-795-21	RES, NETWORK	0X4 (2010)
RB2104	1-234-945-21	RES, NETWORK	100 (1005X4)
RB2105	1-234-945-21	RES, NETWORK	100 (1005X4)
RB2106	1-234-381-21	RES, NETWORK	100K (1005X4)
RB2107	1-234-381-21	RES, NETWORK	100K (1005X4)
RB2108	1-234-381-21	RES, NETWORK	100K (1005X4)
RB2501	1-234-384-21	RES, NETWORK	1M (1005X4)
RB2601	1-234-381-21	RES, NETWORK	100K (1005X4)
RB2602	1-234-381-21	RES, NETWORK	100K (1005X4)
RB3001	1-234-384-11	RES, NETWORK	1M (1005X4)
RB3002	1-234-383-21	RES, NETWORK	470K (1005X4)
RB3003	1-234-383-21	RES, NETWORK	470K (1005X4)
RB3101	1-234-944-21	RES, NETWORK	47 (1005X4)
RB3102	1-234-944-21	RES, NETWORK	47 (1005X4)

Ref. No.	Part No.	Description	
RB3103	1-234-376-11	RES, NETWORK	2.2K (1005X4)
RB3104	1-234-377-21	RES, NETWORK	4.7K (1005X4)
RB3201	1-234-381-11	RES, NETWORK	100K (1005X4)
RB3202	1-234-381-11	RES, NETWORK	100K (1005X4)
RB3203	1-234-379-21	RES, NETWORK	22K (1005X4)
RB3401	1-234-381-21	RES, NETWORK	100K (1005X4)
RB3501	1-234-375-21	RES, NETWORK	1K (1005X4)
RB3502	1-234-945-21	RES, NETWORK	100 (1005X4)
RB3801	1-234-381-11	RES, NETWORK	100K (1005X4)
		< TERMINAL >	
* TB2501	1-694-592-21	TERMINAL	
		< VIBRATOR >	
* X2101	1-813-090-31	VIBRATOR, CRYSTAL (12MHz)	
X3001	1-795-244-11	VIBRATOR, CERAMIC (10MHz)	
X3002	1-781-525-11	VIBRATOR, CRYSTAL (32.768kHz)	
X3201	1-781-646-21	VIBRATOR, CERAMIC (4MHz)	

DSLR-A200

SONY

LEVEL 3

SERVICE MANUAL

Ver. 1.1 2008.05

AEP Model
UK Model
Chinese Model
Korea Model
Japanese Model

SUPPLEMENT-1

File this supplement with the service manual.
(DI08-082)

- **Change of Board's Suffix No.**
- **Change of Repair Parts**
- **Correction of Schematic Diagram**
- **Correction of Printed Wiring Board**

Note: Please refer to Ver.1.1 of SERVICE MANUAL (9-854-244-11) for the correction of schematic disgram and the correction of printed wiring board.

- **Suffix No. of AM-013 board has been changed from 11 into 13, 23.**

Sony EMCS Co.

2008E0500-1
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Published by Kohda TEC

: Points changed portion.

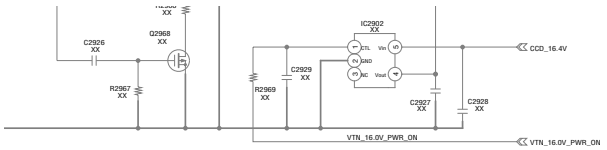
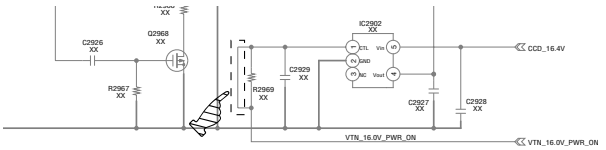
- **Change of Board's Suffix No.**

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

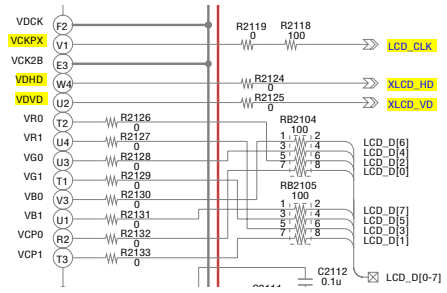
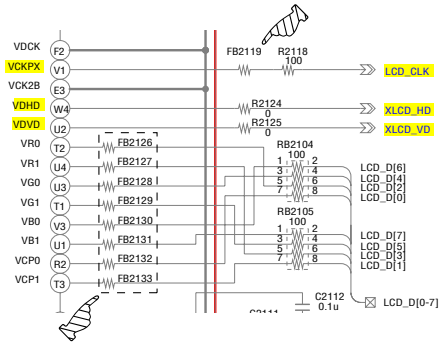
AM-013 BOARD (1/19) (Not Used)

(Service manual page 4-7, Location E-12 to E-15)

Suffix: -11	Suffix: -13, -23
	

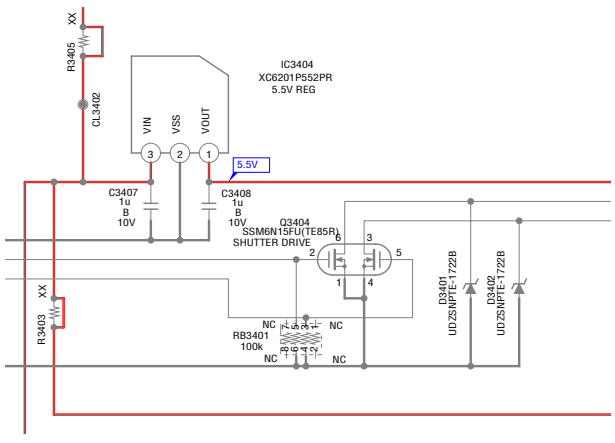
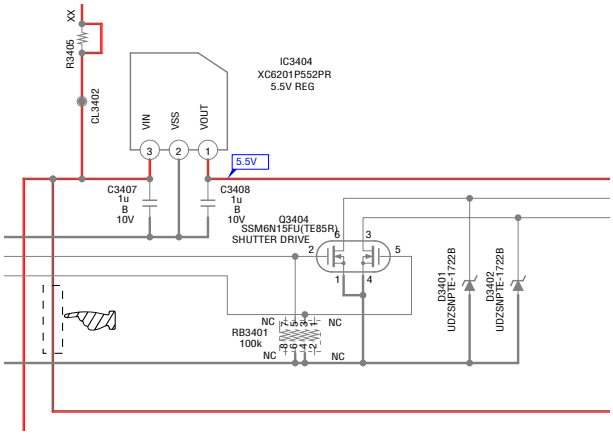
AM-013 BOARD (2/19) (IMAGE PROCESSOR)

(Service manual page 4-8, Location E-5 to F-7)

Suffix: -11	Suffix: -13, -23
	

AM-013 BOARD (8/19) (MOTOR DRIVE)

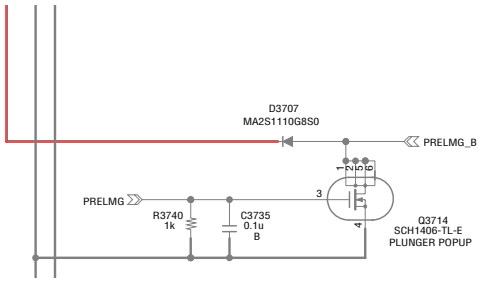
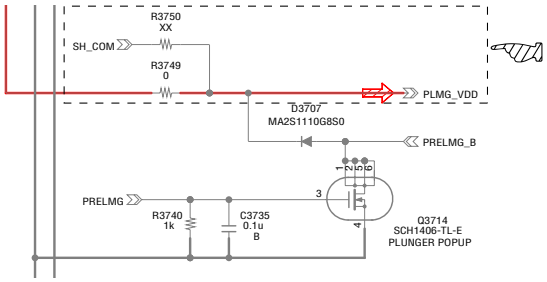
(Service manual page 4-14, Location F-5 to G-7)

Suffix: -11	Suffix: -13, -23
	

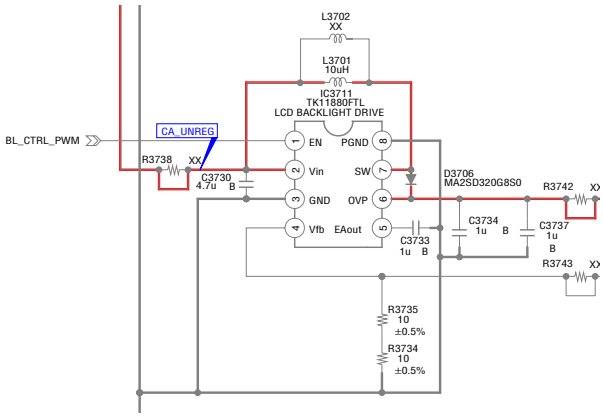
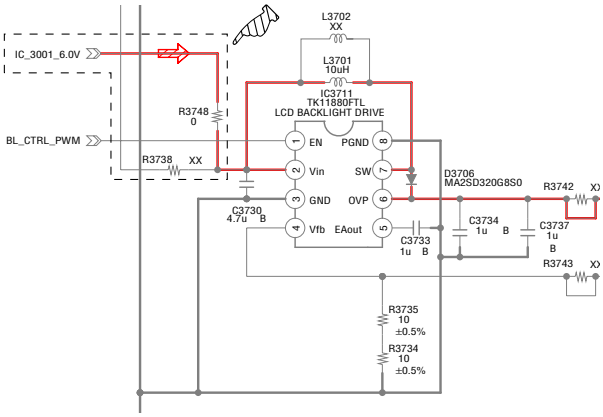
: **Points changed portion.**

AM-013 BOARD (13/19) (REGULATOR)

(Service manual page 4-19, Location C-7 to D-9)

Suffix: -11	Suffix: -13, -23
	

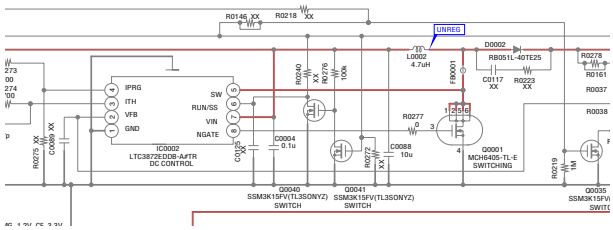
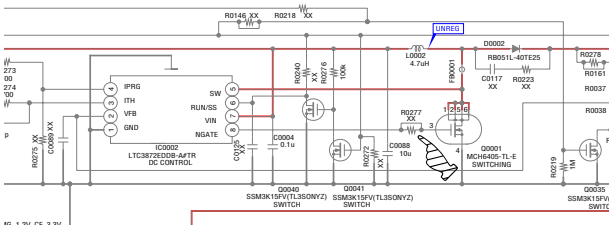
(Service manual page 4-19, Location D-9 to F-11)

Suffix: -11	Suffix: -13, -23
	

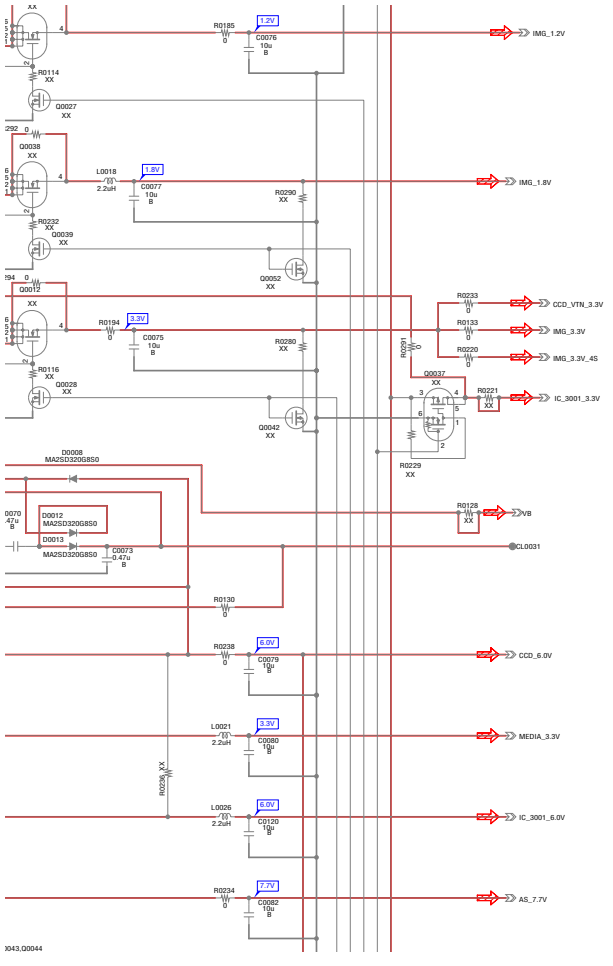
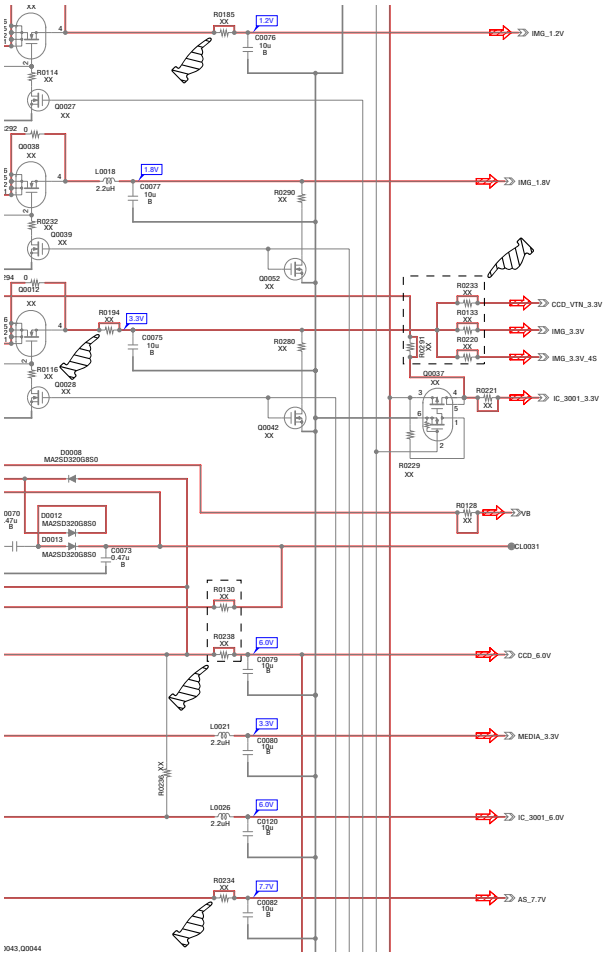
: **Points changed portion.**

AM-013 BOARD (15/19) (DC/DC CONVERTER)

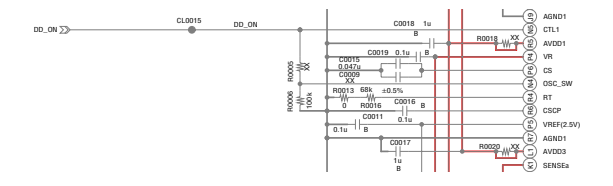
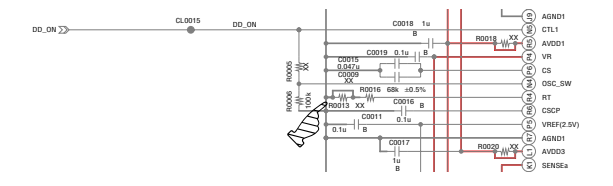
(Service manual page 4-21, Location A-3 to B-6)

Suffix: -11	Suffix: -13, -23
	

(Service manual page 4-21, Location C-13 to H-16)

Suffix: -11	Suffix: -13, -23
	

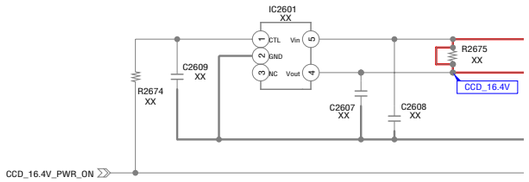
(Service manual page 4-21, Location F-1 to G-4)

Suffix: -11	Suffix: -13, -23
	

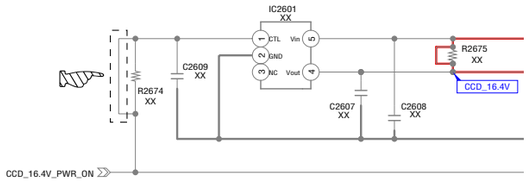
: Points changed portion.

AM-013 BOARD (16/19) (CONNECTOR)
(Service manual page 4-22, Location F-1 to G-3)

Suffix: -11

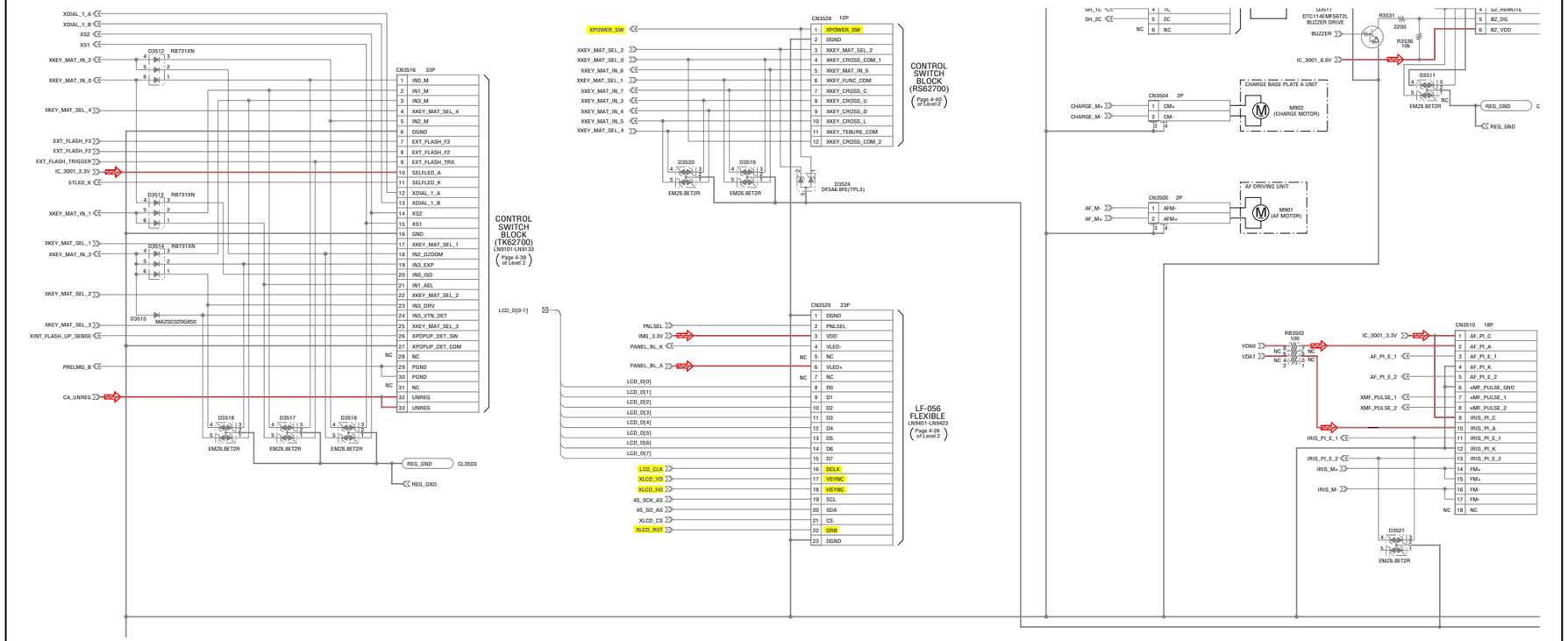


Suffix: -13, -23

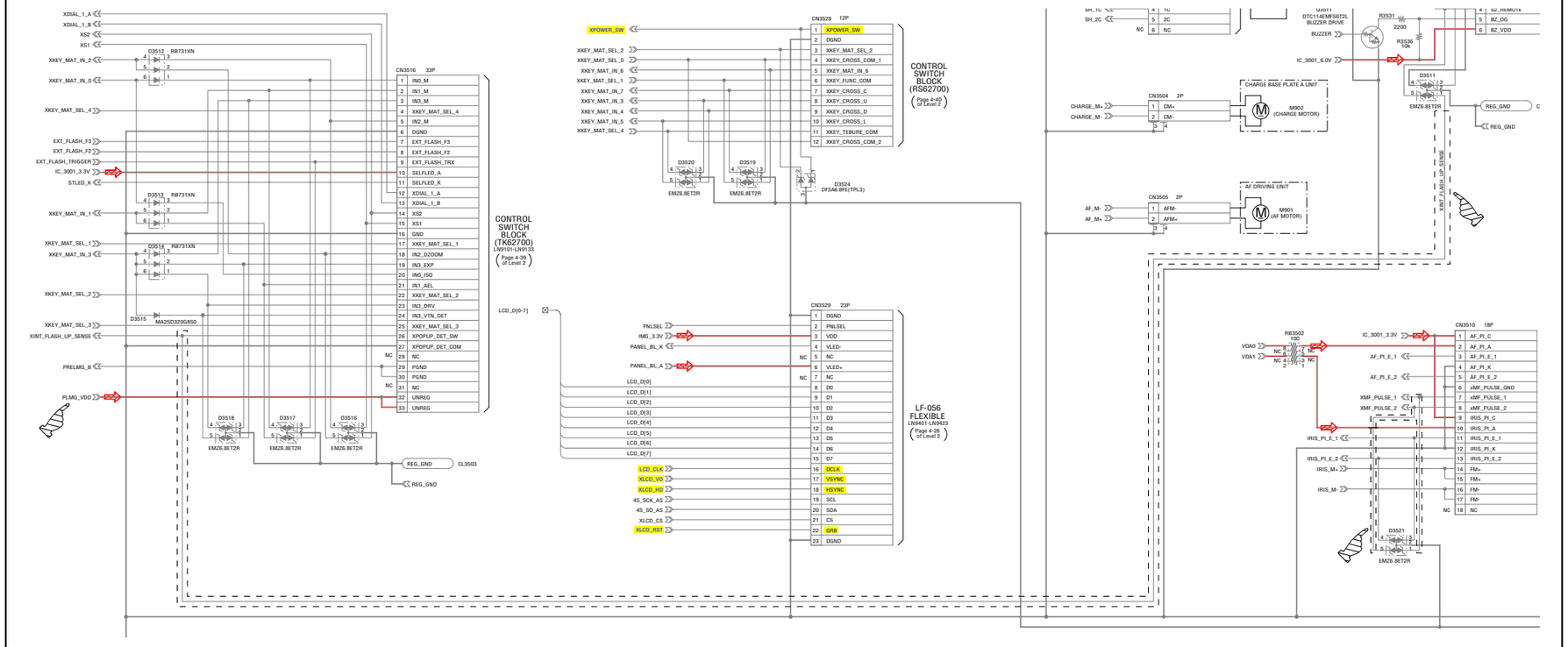


AM-013 BOARD (19/19) (CONNECTOR)
(Service manual page 4-25, Location B-1 to F-13)

Suffix: -11



Suffix: -13, -23



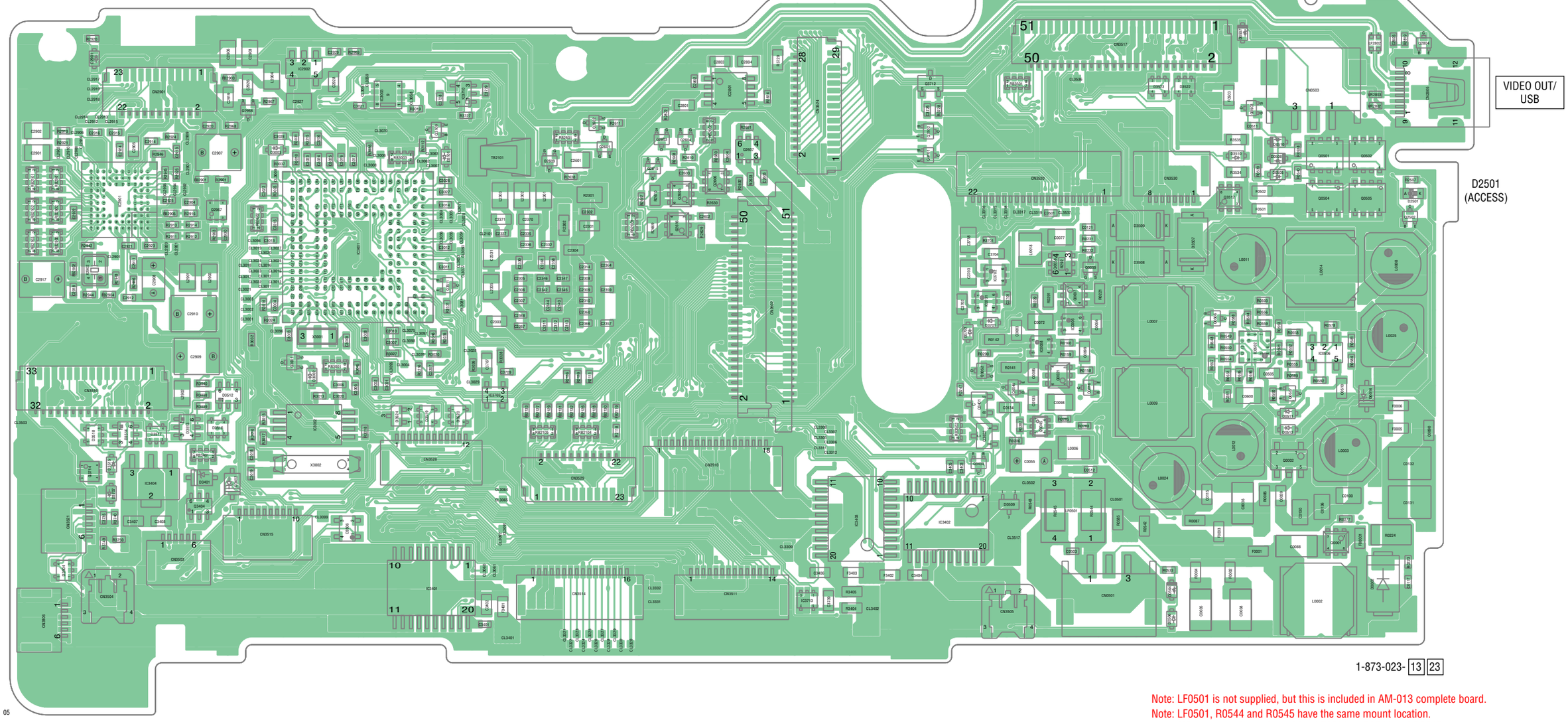
4-3. PRINTED WIRING BOARDS

AM-013 (8 layers)

: Uses unleaded solder.

Note: Q0038 and R292 have the same mount location.
When you replace, since either Q0038 or R292 are used,
please refer to schematic diagram and electrical parts list.

AM-013 BOARD (SIDE A)



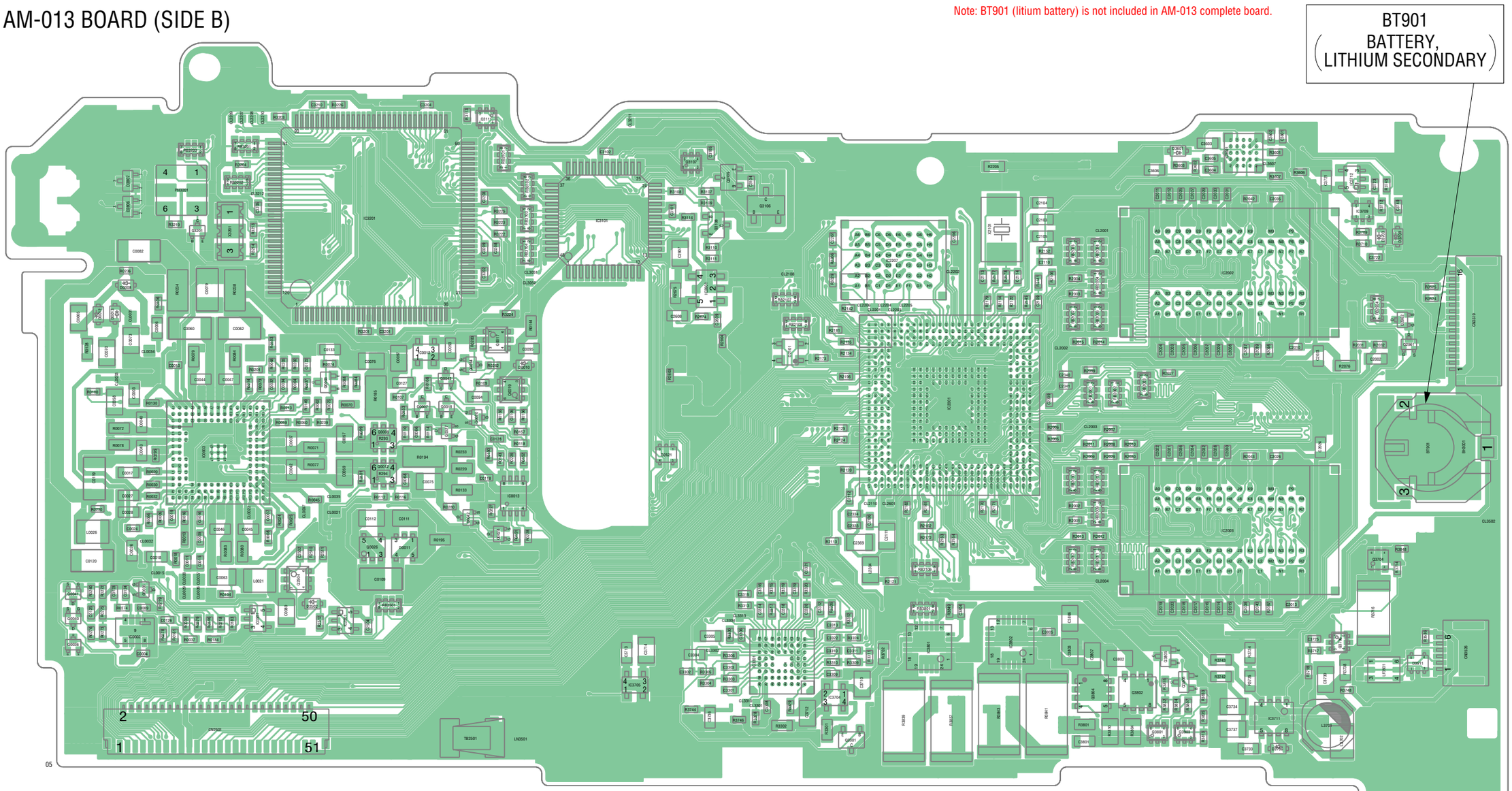
1-873-023- 13 23

Note: LF0501 is not supplied, but this is included in AM-013 complete board.
Note: LF0501, R0544 and R0545 have the same mount location.
When you replace, since either LF0501 or R0544 and R0545 are used,
please refer to schematic diagram and electrical parts list.

AM-013 (8 layers)

: Uses unleaded solder.

AM-013 BOARD (SIDE B)



Note: BT901 (litium battery) is not included in AM-013 complete board.

Note: Q0008 and R293 have the same mount location.
When you replace, since either Q0008 or R293 are used, please refer to schematic diagram and electrical parts list.

Note: Q0012 and R294 have the same mount location.
When you replace, since either Q0012 or R294 are used, please refer to schematic diagram and electrical parts list.

Note: L3701 and L3702 have the same mount location.
When you replace, since either L3701 or L3702 are used, please refer to schematic diagram and electrical parts list.

1-873-023-13 23

Note: Replace the battery holder (BH3001) together when replacing the lithium battery (BT901) on the AM-013 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: AM-013基板のリチウム電池（BT901）を交換する場合はバッテリホルダ（BH3001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着してください。

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

Page	Suffix: -11				Suffix: -13, -23			
	Ref. No.	Part No.	Description		Ref. No.	Part No.	Description	
5-16		A-1437-664-A	AM-013 BOARD, COMPLETE (SERVICE) **********			A-1437-664-B	AM-013 BOARD, COMPLETE (SERVICE) **********	
			< FERRITE BEAD >				< FERRITE BEAD >	
5-19					FB2119	1-218-990-81	SHORT CHIP	0 (Note)
					FB2126	1-218-990-81	SHORT CHIP	0 (Note)
					FB2127	1-218-990-81	SHORT CHIP	0 (Note)
					FB2128	1-218-990-81	SHORT CHIP	0 (Note)
					FB2129	1-218-990-81	SHORT CHIP	0 (Note)
					FB2130	1-218-990-81	SHORT CHIP	0 (Note)
					FB2131	1-218-990-81	SHORT CHIP	0 (Note)
					FB2132	1-218-990-81	SHORT CHIP	0 (Note)
					FB2133	1-218-990-81	SHORT CHIP	0 (Note)
			< RESISTOR >				< RESISTOR >	
5-20	R0013	1-218-990-81	SHORT CHIP	0				
	R0130	1-218-990-81	SHORT CHIP	0				
	R0133	1-216-864-11	SHORT CHIP	0				
	R0185	1-216-296-11	SHORT CHIP	0				
	R0194	1-216-296-11	SHORT CHIP	0				
	R0220	1-216-864-11	SHORT CHIP	0				
	R0233	1-216-864-11	SHORT CHIP	0				
	R0234	1-216-296-11	SHORT CHIP	0				
	R0238	1-216-296-11	SHORT CHIP	0				
	R0277	1-218-990-81	SHORT CHIP	0				
	R0291	1-216-864-11	SHORT CHIP	0				
	R2119	1-218-990-81	SHORT CHIP	0				
	R2126	1-218-990-81	SHORT CHIP	0				
	R2127	1-218-990-81	SHORT CHIP	0				
	R2128	1-218-990-81	SHORT CHIP	0				
	R2129	1-218-990-81	SHORT CHIP	0				
	R2130	1-218-990-81	SHORT CHIP	0				
	R2131	1-218-990-81	SHORT CHIP	0				
	R2132	1-218-990-81	SHORT CHIP	0				
	R2133	1-218-990-81	SHORT CHIP	0				
5-21					R3748	1-218-990-81	SHORT CHIP	0
					R3749	1-218-990-81	SHORT CHIP	0

Note: Short chips are mounted to the location where FB2119 and FB2126 to FB2133 are printed.

Note: FB2119，FB2126～FB2133には短絡がマウントされています。

: Points changed portion.

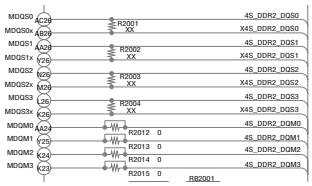
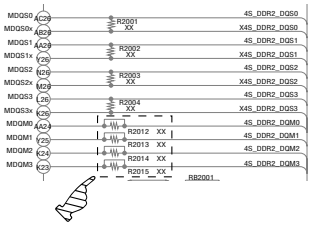
- **Change of Repair Parts**

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

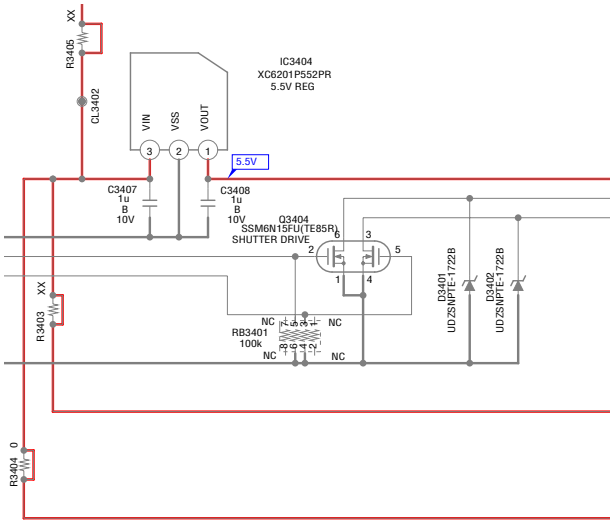
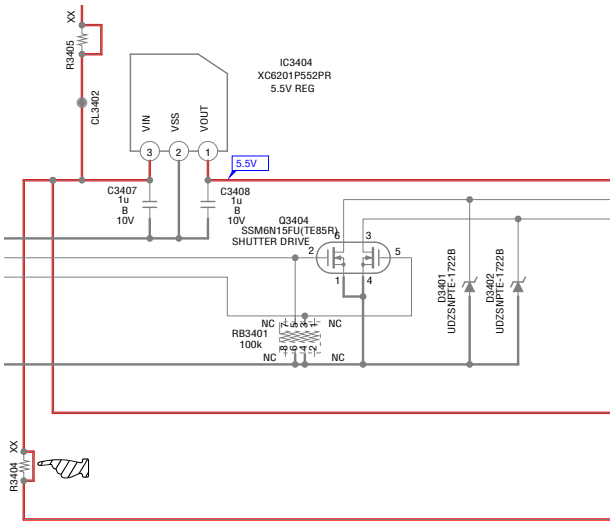
AM-013 BOARD (3/19) (IMAGE PROCESSOR, SDRAM)

(Service manual page 4-9, Location D-5 to D-6)

Former	New
	

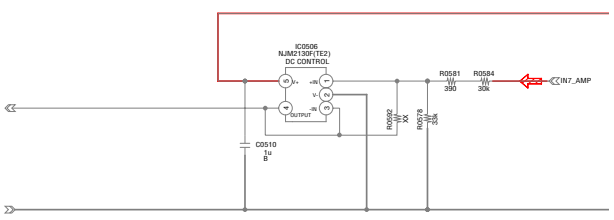
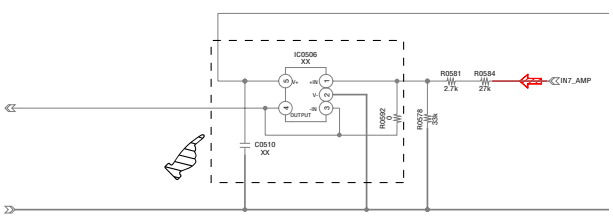
AM-013 BOARD (8/19) (MOTOR DRIVE)

(Service manual page 4-14, Location F-5 to H-7)

Former	New
	

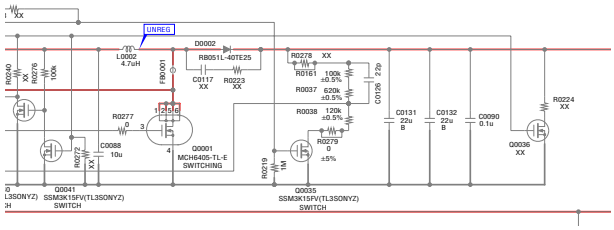
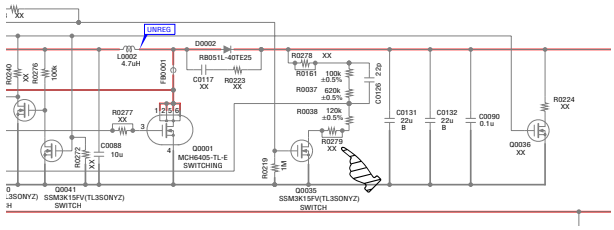
AM-013 BOARD (14/19) (DC IN)

(Service manual page 4-20, Location C-4 to D-6)

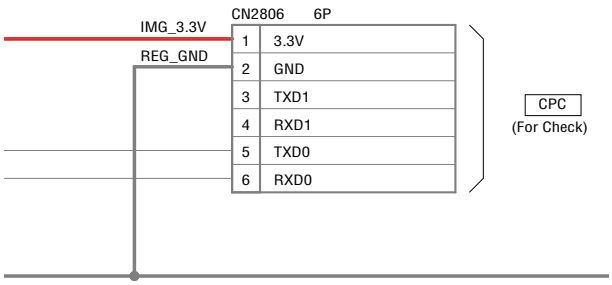
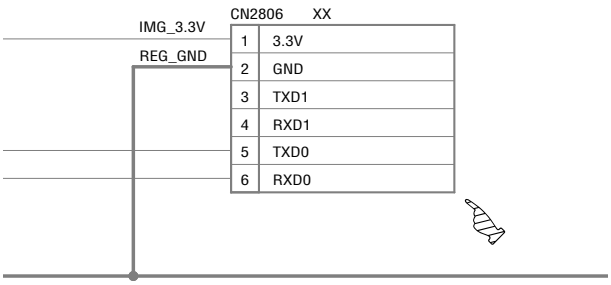
Former	New
	

: **Points changed portion.**

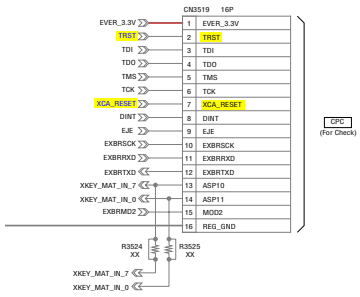
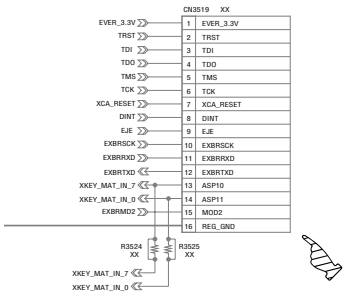
AM-013 BOARD (15/19) (DC/DC CONVERTER)
(Service manual page 4-21, Location A-5 to B-7)

Former	New
	

AM-013 BOARD (18/19) (CONNECTOR)
(Service manual page 4-24, Location D-6 to D-7)

Former	New
	

AM-013 BOARD (19/19) (CONNECTOR)
(Service manual page 4-25, Location G-13 to I-15)

Former	New
	

5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

Page	Former (Suffix: -11)						New (Suffix: -11, -13, -23)					
	Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
	AM-013 Board						**AM-013 Board**					
			< CAPACITOR >						< CAPACITOR >			
5-16	C0510	1-165-908-11	CERAMIC CHIP	1uF	10%	10V						
			< IC >						< IC >			
5-19	IC0506	8-759-580-26	IC NJM2130F (TE2)									
			< RESISTOR >						< RESISTOR >			
5-20	R0581	1-218-948-11	RES-CHIP	390	5%	1/16W	R0581	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
	R0584	1-208-922-11	METAL CHIP	30K	0.5%	1/16W	R0584	1-218-970-11	RES-CHIP	27K	5%	1/16W
							R0592	1-218-990-81	SHORT CHIP	0		

Page	Former (Suffix: -11, -13, -23)				New (Suffix: -11, -13, -23)			
	Ref. No.	Part No.	Description		Ref. No.	Part No.	Description	
	AM-013 Board				**AM-013 Board**			
			< CONNECTOR >				< CONNECTOR >	
5-18	* CN2806	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P					
	* CN3503	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P		CN3503	1-816-654-61	FFC/FPC CONNECTOR (LIF) 6P	
	* CN3511	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P		CN3511	1-816-645-61	FFC/FPC CONNECTOR (LIF) 14P	
	* CN3519	1-816-646-51	FFC/FPC CONNECTOR (LIF) 16P					
	* CN3521	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P		CN3521	1-816-654-61	FFC/FPC CONNECTOR (LIF) 6P	
	* CN3526	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P		CN3526	1-816-654-61	FFC/FPC CONNECTOR (LIF) 6P	
	* CN3530	1-816-655-51	FFC/FPC CONNECTOR (LIF) 8P		CN3530	1-816-655-61	CONNECTOR, FFC/FPC 8P	
			< TRANSISTOR >				< TRANSISTOR >	
5-20	Q3805	8-729-929-08	TRANSISTOR	DTC123JE	Q3805	8-729-929-09	TRANSISTOR	DTC123JE-TL
			< RESISTOR >				< RESISTOR >	
	R0279	1-218-990-81	SHORT CHIP	0				
	R2012	1-218-990-81	SHORT CHIP	0				
	R2013	1-218-990-81	SHORT CHIP	0				
	R2014	1-218-990-81	SHORT CHIP	0				
	R2015	1-218-990-81	SHORT CHIP	0				
5-21	R3404	1-216-864-11	SHORT CHIP	0				

DSLR-A200

SONY

LEVEL 3

SERVICE MANUAL

AEP Model
UK Model
Chinese Model
Korea Model
Japanese Model

Ver. 1.3 2008.10

This SUPPLEMENT-3 is the revised version
of SUPPLEMENT-2.
Replace the SUPPLEMENT-2 (9-852-244-85)
with the SUPPLEMENT-3.
Please discard the SUPPLEMENT-2.

SUPPLEMENT-3

File this supplement with the service manual.

(DI08-272)

- **Change of Repair Parts**
- **Change of Board's Suffix No.**

- **Suffix No. of AM-013 board has been changed from 13, 23 into 25.**

Note: For the change of AM-013 board's suffix No. from 11 to 13, 23, refer to SUPPLEMENT-1 (9-852-244-82).

DSLR-A200_L3
9-852-244-87

Sony EMCS Co.

2008J0500-1
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Published by Kohda TEC

: Points changed portion.

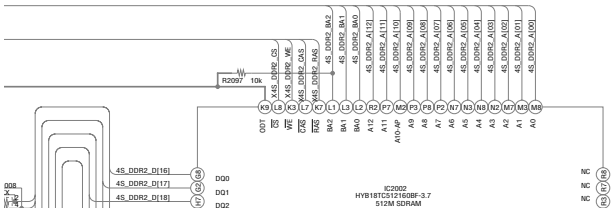
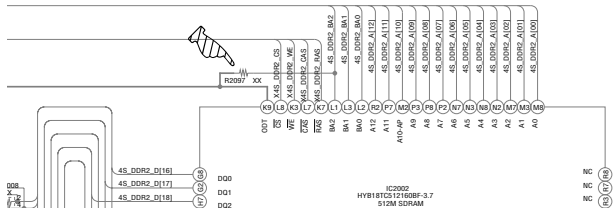
- **Change of Repair Parts**

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

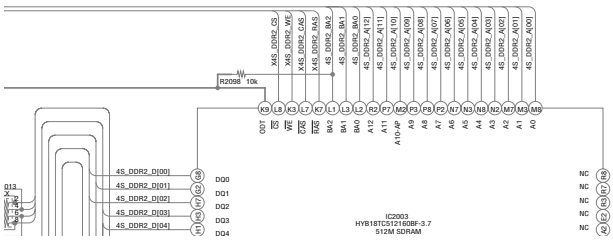
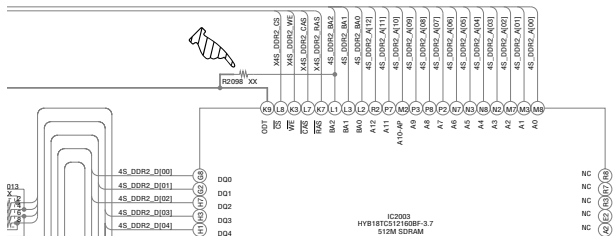
4-2. SCHEMATIC DIAGRAMS

AM-013 BOARD (3/19) (IMAGE PROCESSOR, SDRAM)

(Service manual page 4-9, Location B-10 to C-13)

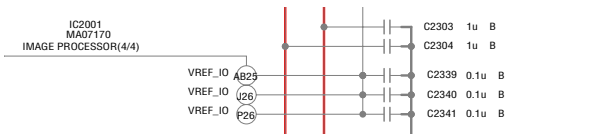
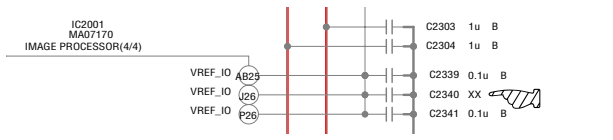
Former	New
	

(Service manual page 4-9, Location G-10 to H-13)

Former	New
	

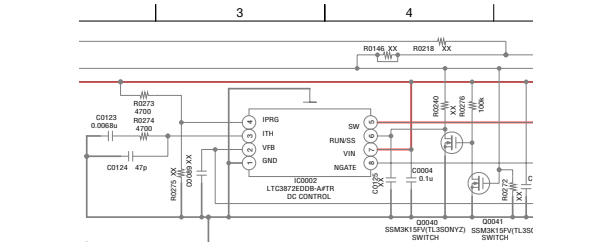
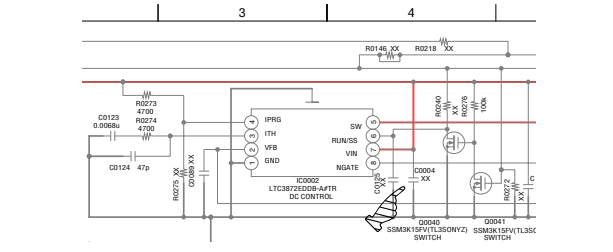
AM-013 BOARD (4/19) (IMAGE PROCESSOR)

(Service manual page 4-10, Location A-6 to B-8)

Former	New
	

AM-013 BOARD (15/19) (DC/DC CONVERTER)

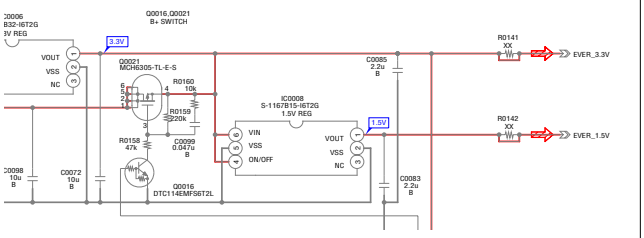
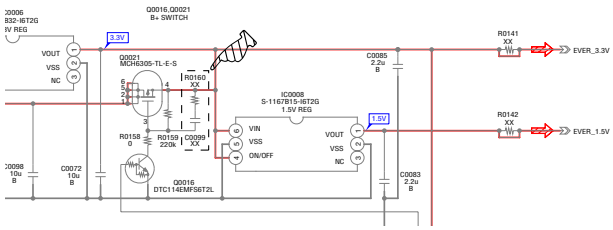
(Service manual page 4-21, Location A-3 to B-4)

Former	New
	

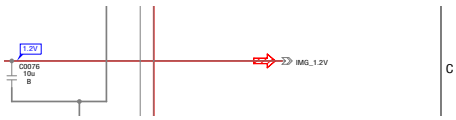
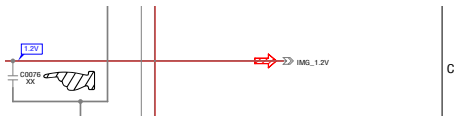
: **Points changed portion.**

AM-013 BOARD (15/19) (DC/DC CONVERTER)

(Service manual page 4-21, Location A-13 to B-16)

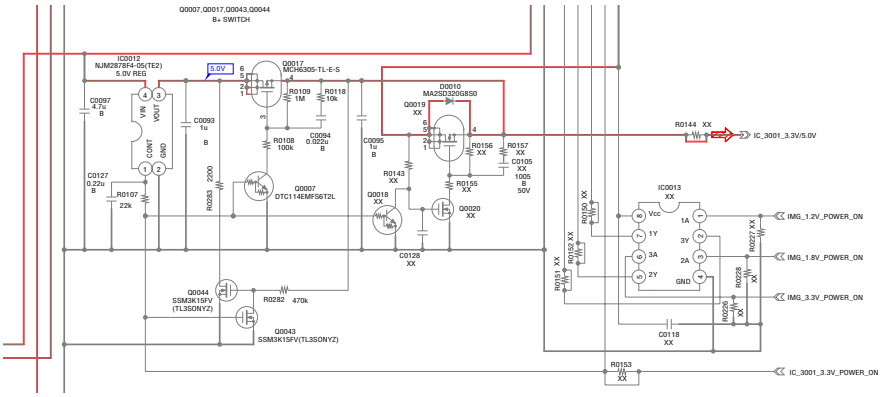
Former	New
	

(Service manual page 4-21, Location C-14 to C-16)

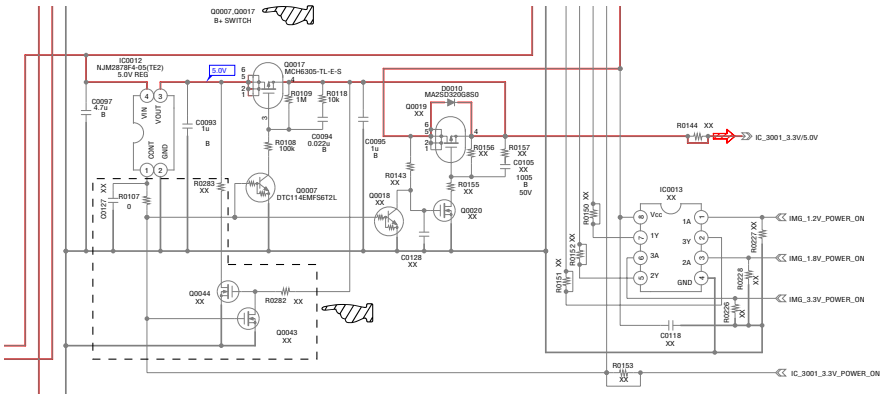
Former	New
	

(Service manual page 4-21, Location I-12 to J-16)

Former



New



5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

Page	Former						New					
	Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
	AM-013 Board						**AM-013 Board**					
			< BATTERY HOLDER >						< BATTERY HOLDER >			
5-16	⚠BH3001	1-756-615-41	HOLDER, BATTERY (Note)				⚠* BH3001	1-756-615-51	HOLDER, BATTERY (Note)			
			< CAPACITOR >						< CAPACITOR >			
	C0004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V						
	C0076	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V						
	C0099	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V						
	C0100	1-112-342-91	CERAMIC CHIP	10uF	20%	10V	C0100	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
	C0127	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V						
	C0130	1-112-342-91	CERAMIC CHIP	10uF	20%	10V	C0130	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
5-17	C2340	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V						
	C3102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3102	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
5-18	C3703	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V	C3703	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
	* C3704	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V	C3704	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C3709	1-100-415-91	CERAMIC CHIP	0.47uF	10%	6.3V	C3709	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C3738	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V	C3738	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
	C3739	1-100-660-91	CERAMIC CHIP	1uF	10%	10V	C3739	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C3802	1-112-342-91	CERAMIC CHIP	10uF	20%	10V	C3802	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
	C3803	1-112-342-91	CERAMIC CHIP	10uF	20%	10V	C3803	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
	C3806	1-112-342-91	CERAMIC CHIP	10uF	20%	10V	C3806	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
	C3807	1-112-342-91	CERAMIC CHIP	10uF	20%	10V	C3807	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
			< CONNECTOR >						< CONNECTOR >			
	* CN2501	1-820-857-71	CONNECTOR, FPC (ZIF) 51P				* CN2501	1-820-857-81	CONNECTOR, FPC (ZIF) 51P			
	* CN3517	1-820-857-71	CONNECTOR, FPC (ZIF) 51P				* CN3517	1-820-857-81	CONNECTOR, FPC (ZIF) 51P			
	* CN3524	1-818-818-71	CONNECTOR, FPC (ZIF) 29P				* CN3524	1-818-818-81	CONNECTOR, FPC (ZIF) 29P			
	* CN3529	1-819-659-71	CONNECTOR, FPC (ZIF) 23P				* CN3529	1-819-659-81	CONNECTOR, FPC (ZIF) 23P			
			< TRANSISTOR >						< TRANSISTOR >			
5-19	Q0043	6-550-789-01	TRANSISTOR	SSM3K15FV (TL3SONYZ)								
	Q0044	6-550-789-01	TRANSISTOR	SSM3K15FV (TL3SONYZ)								
			< RESISTOR >						< RESISTOR >			
5-20	R0107	1-218-969-11	RES-CHIP	22K	5%	1/16W	R0107	1-218-990-81	SHORT CHIP	0		
	R0158	1-218-973-11	RES-CHIP	47K	5%	1/16W	R0158	1-218-990-81	SHORT CHIP	0		
	R0160	1-218-965-11	RES-CHIP	10K	5%	1/16W						
	R0282	1-218-985-11	RES-CHIP	470K	5%	1/16W						
	R0283	1-218-957-11	RES-CHIP	2.2K	5%	1/16W						
	R2097	1-208-911-11	METAL CHIP	10K	0.5%	1/16W						
	R2098	1-208-911-11	METAL CHIP	10K	0.5%	1/16W						

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

⚠印の部品，または⚠印付の点線で囲まれた部品は，安全性を維持するために，重要な部品です。
従って交換時は，必ず指定の部品を使用してください。

Note: Replace the battery holder (BH3001) together when replacing the lithium battery (BT901) on the AM-013 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: AM-013基板のリチウム電池（BT901）を交換する場合はバッテリホルダ（BH3001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着してください。

: Points changed portion.

- **Change of Board's Suffix No.**

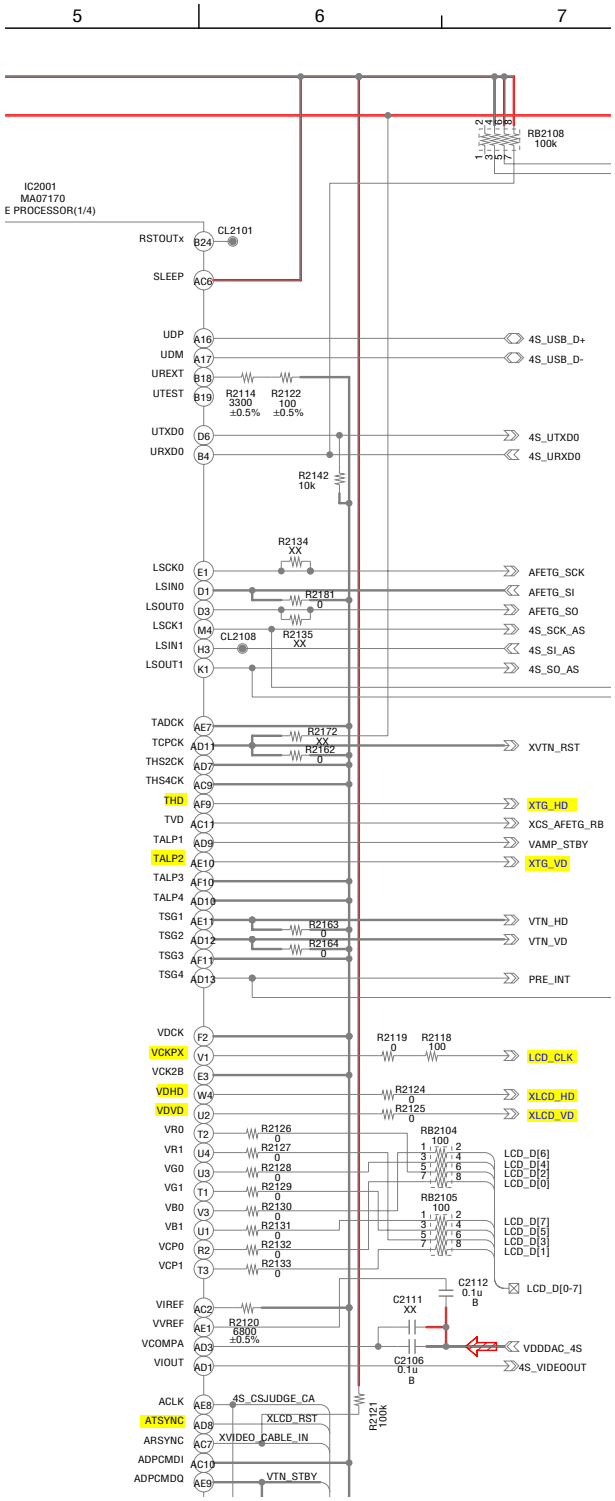
4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

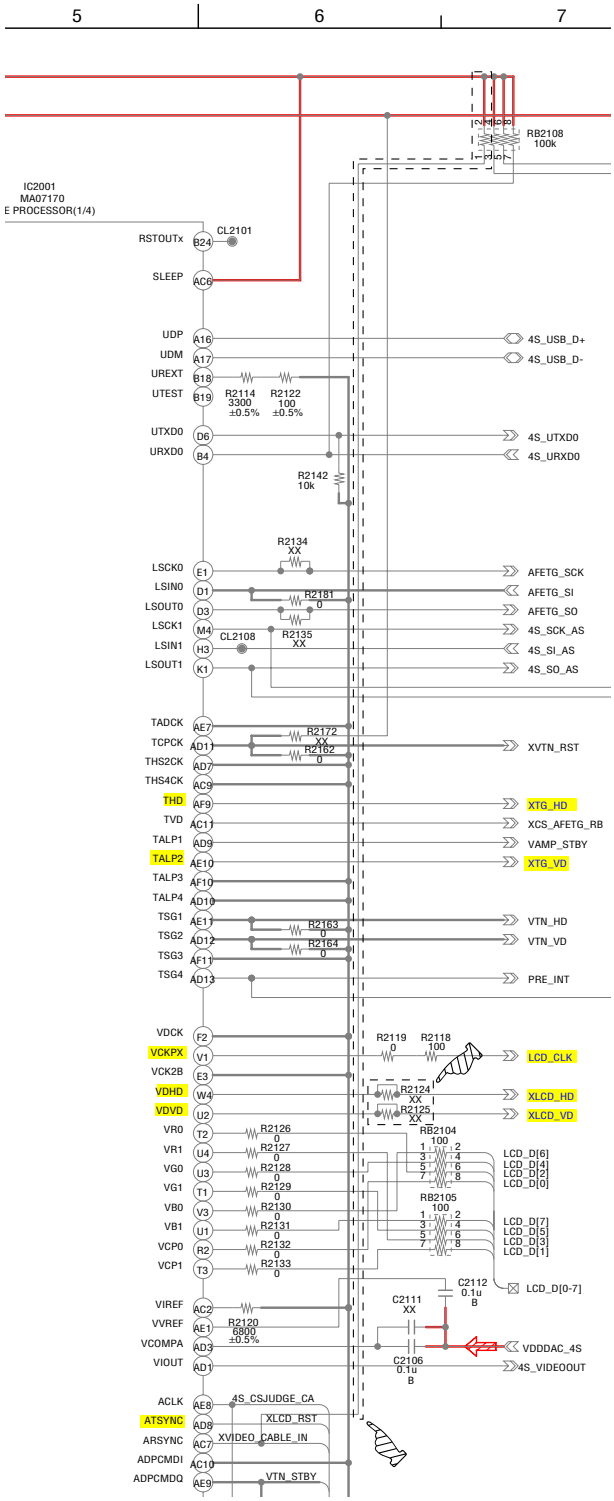
AM-013 BOARD (2/19) (IMAGE PROCESSOR)

(Service manual page 4-8, Location A-5 to G-7)

Suffix: -13, -23



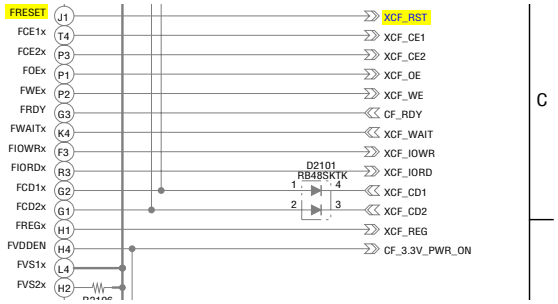
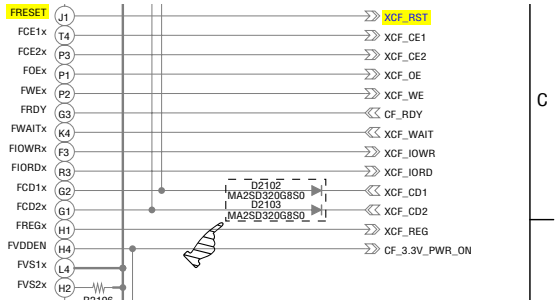
Suffix: -25



: Points changed portion.

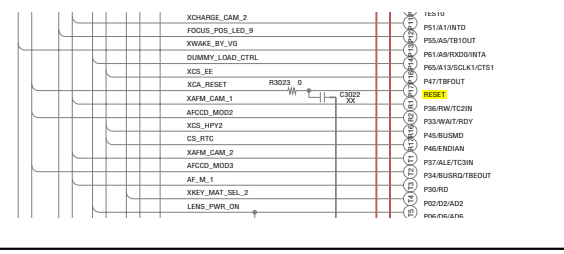
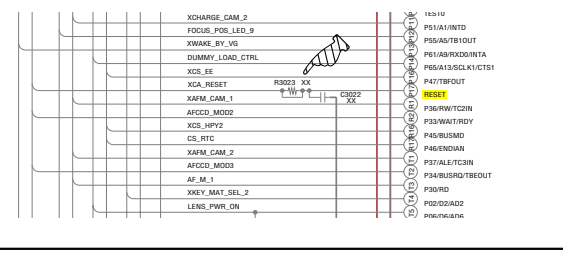
AM-013 BOARD (2/19) (IMAGE PROCESSOR)

(Service manual page 4-8, Location C-10 to D-12)

Suffix: -13, -23	Suffix: -25
	

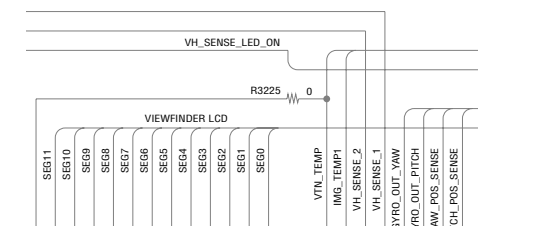
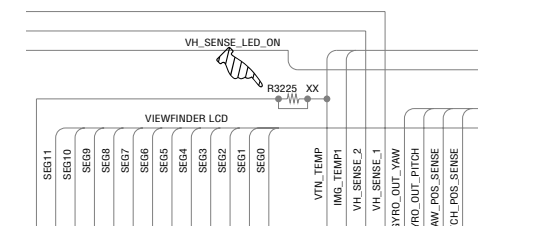
AM-013 BOARD (6/19) (MAIN CPU)

(Service manual page 4-12, Location E-4 to E-6)

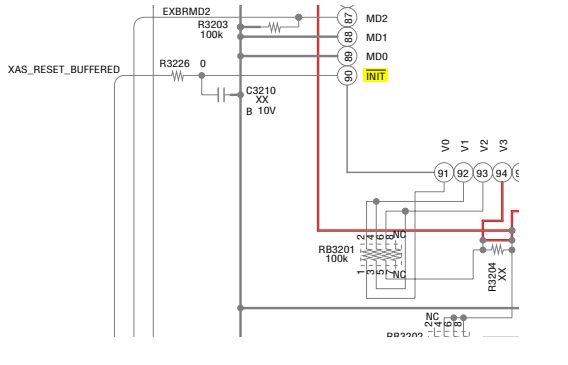
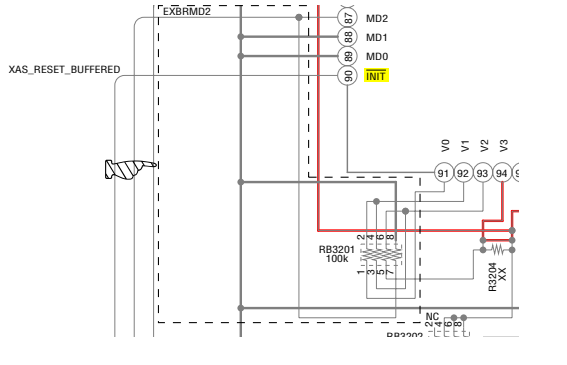
Suffix: -13, -23	Suffix: -25
	

AM-013 BOARD (9/19) (ANTI-SHAKE CONTROL, SUB CPU)

(Service manual page 4-15, Location A-7 to A-9)

Suffix: -13, -23	Suffix: -25
	

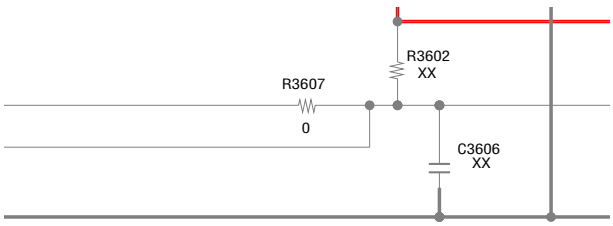
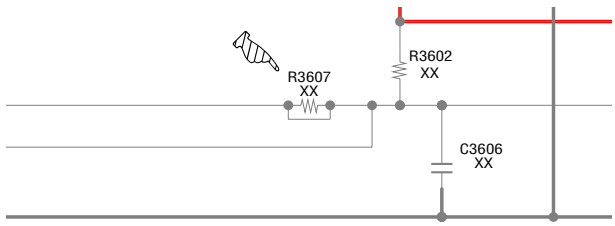
(Service manual page 4-15, Location E-6 to F-7)

Suffix: -13, -23	Suffix: -25
	

: Points changed portion.

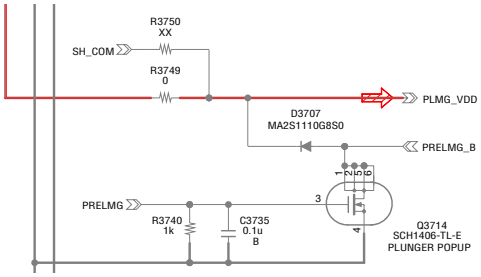
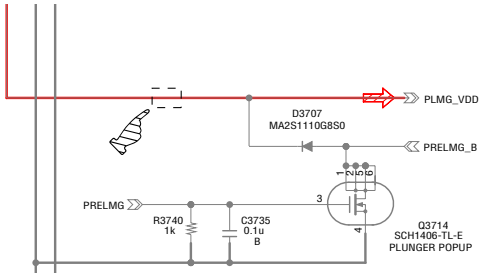
AM-013 BOARD (12/19) (BATTERY AUTHENTICATION)

(Service manual page 4-18, Location D-4 to D-5)

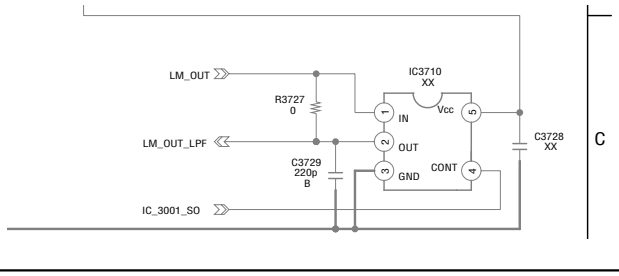
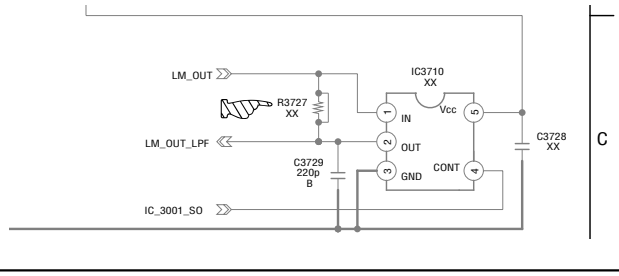
Suffix: -13, -23	Suffix: -25
	

AM-013 BOARD (13/19) (REGULATOR)

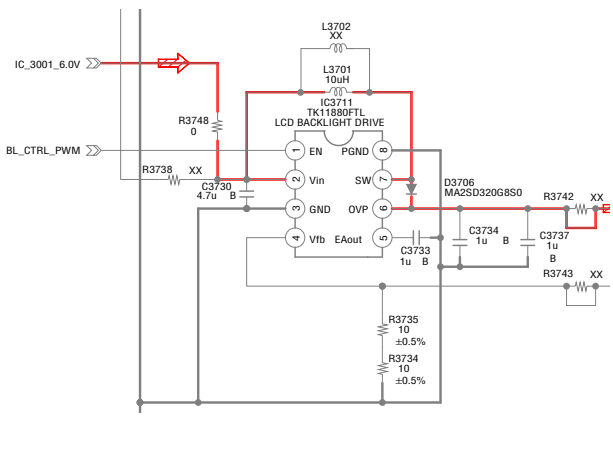
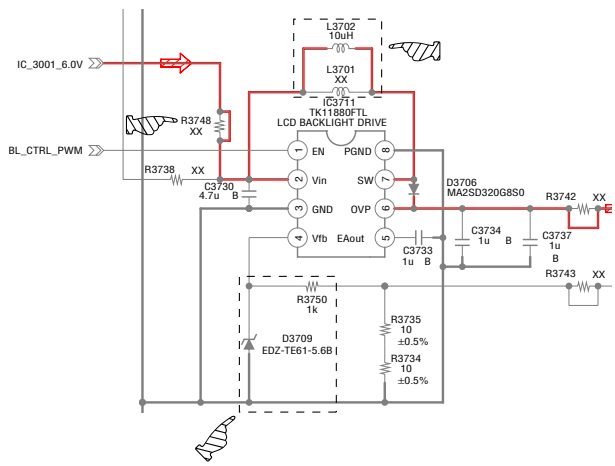
(Service manual page 4-19, Location C-7 to D-9)
(Service manual supplement-1 page 3)

Suffix: -13, -23	Suffix: -25
	

(Service manual page 4-19, Location C-10 to C-12)

Suffix: -13, -23	Suffix: -25
	

(Service manual page 4-19, Location D-9 to F-12)
(Service manual supplement-1 page 3)

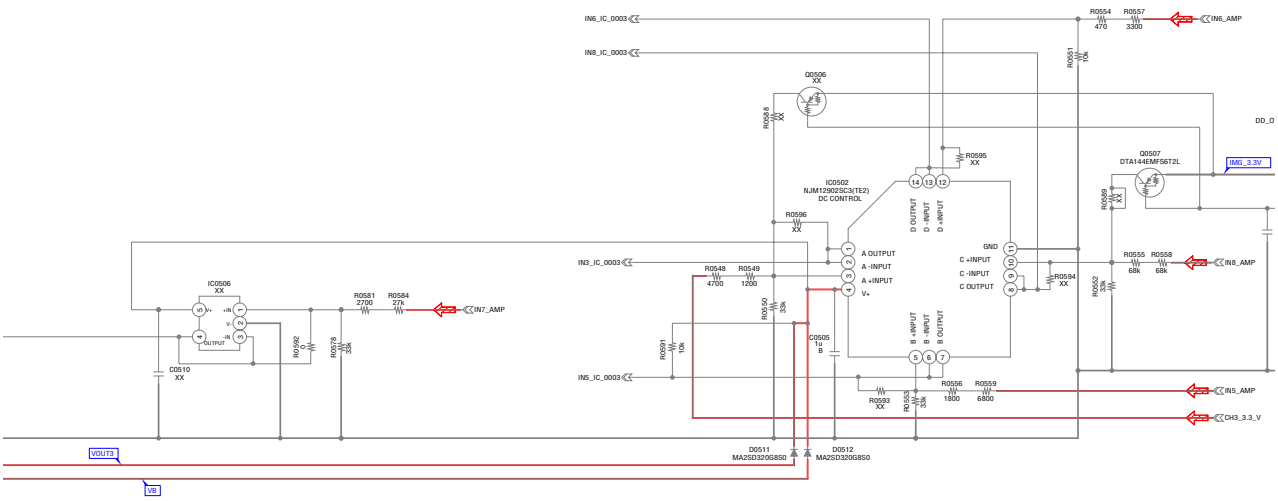
Suffix: -13, -23	Suffix: -25
	

: Points changed portion.

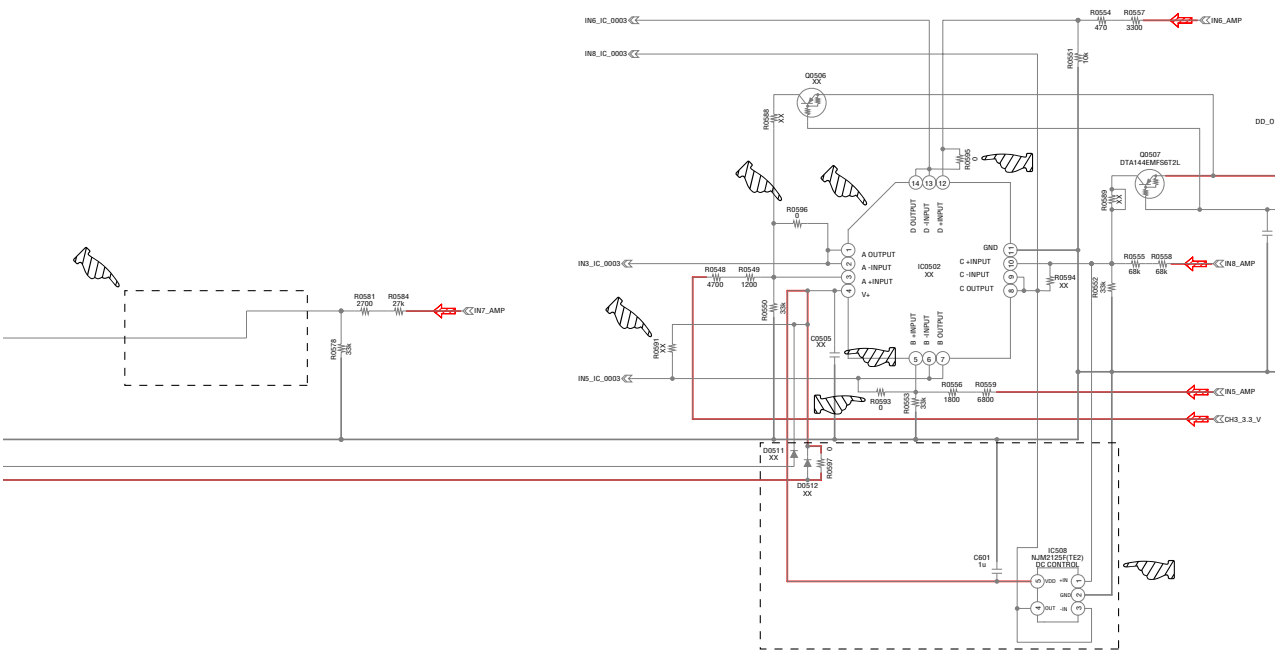
AM-013 BOARD (14/19) (DC IN)

(Service manual page 4-20, Location B-4 to D-11)
(Service manual supplement-1 page 9)

Suffix: -13, -23



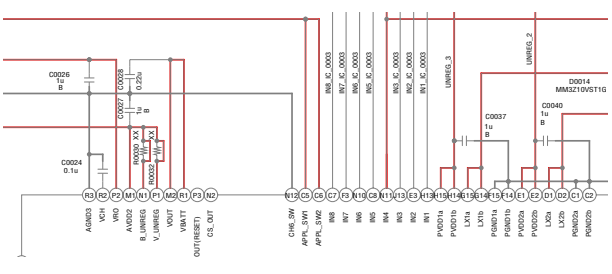
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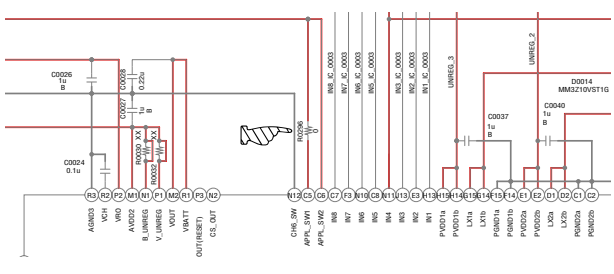
AM-013 BOARD (15/19) (DC/DC CONVERTER)

(Service manual page 4-21, Location C-4 to E-7)

Suffix: -13, -23



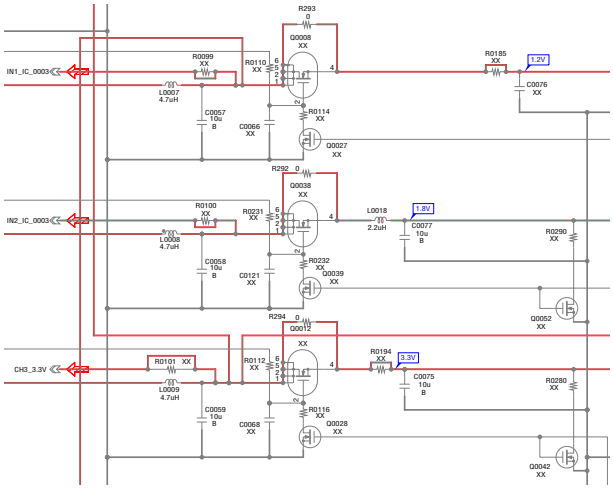
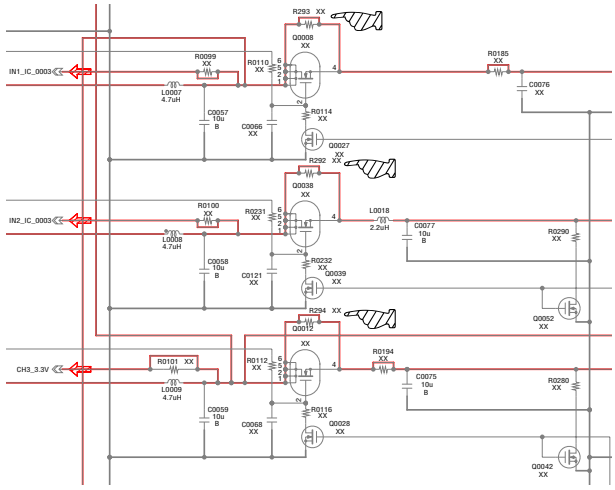
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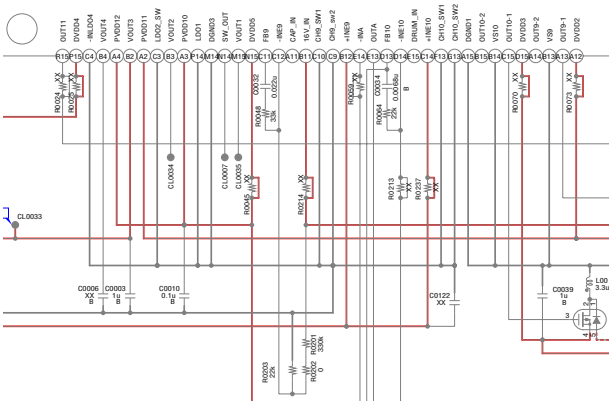
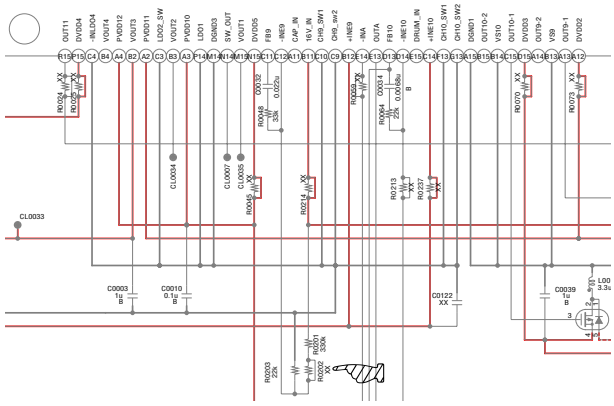
: **Points changed portion.**

AM-013 BOARD (15/19) (DC/DC CONVERTER)

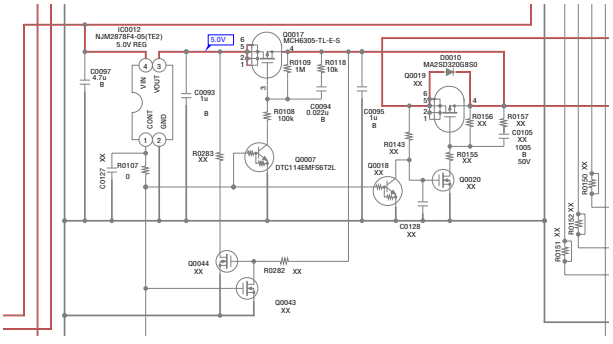
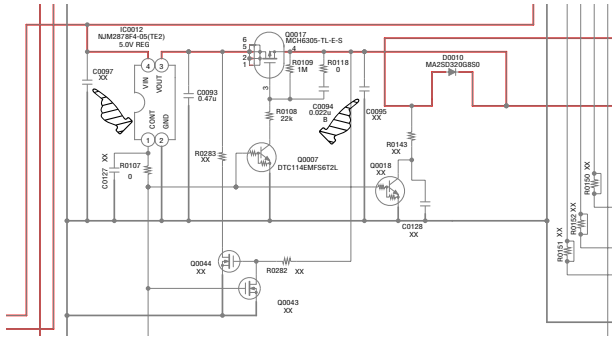
(Service manual page 4-21, Location C-12 to E-14)

Suffix: -13, -23	Suffix: -25
	

(Service manual page 4-21, Location H-4 to J-8)

Suffix: -13, -23	Suffix: -25
	

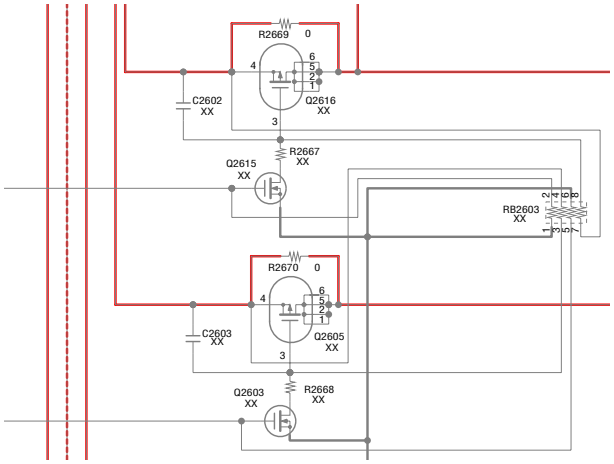
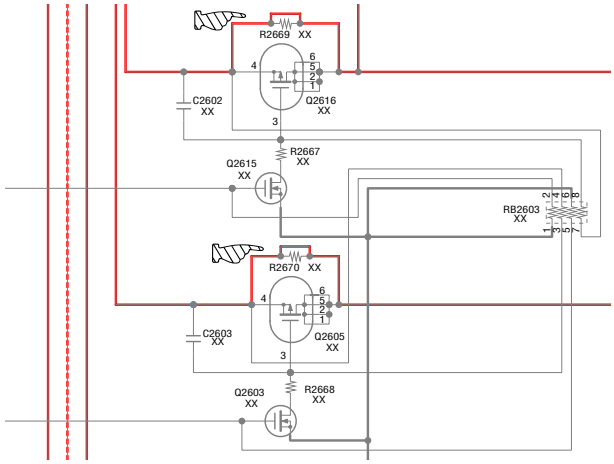
(Service manual page 4-21, Location I-12 to J-15)

Suffix: -13, -23	Suffix: -25
	

: **Points changed portion.**

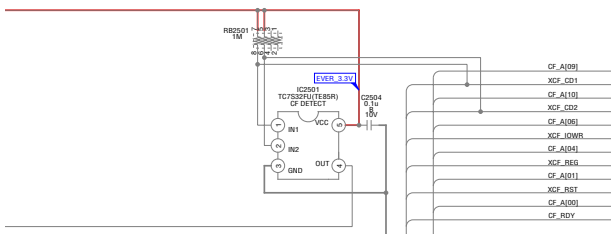
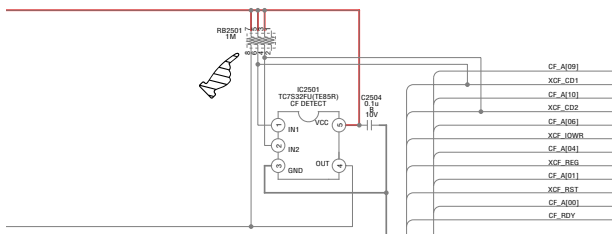
AM-013 BOARD (16/19) (CONNECTOR)

(Service manual page 4-22, Location D-5 to F-7)

Suffix: -13, -23	Suffix: -25
	

AM-013 BOARD (17/19) (CONNECTOR)

(Service manual page 4-23, Location D-10 to E-12)

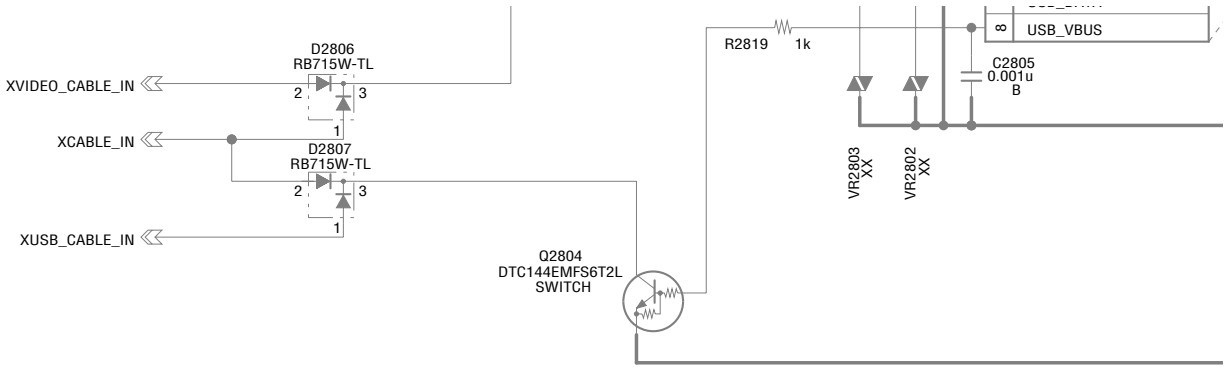
Suffix: -13, -23	Suffix: -25
	

: **Points changed portion.**

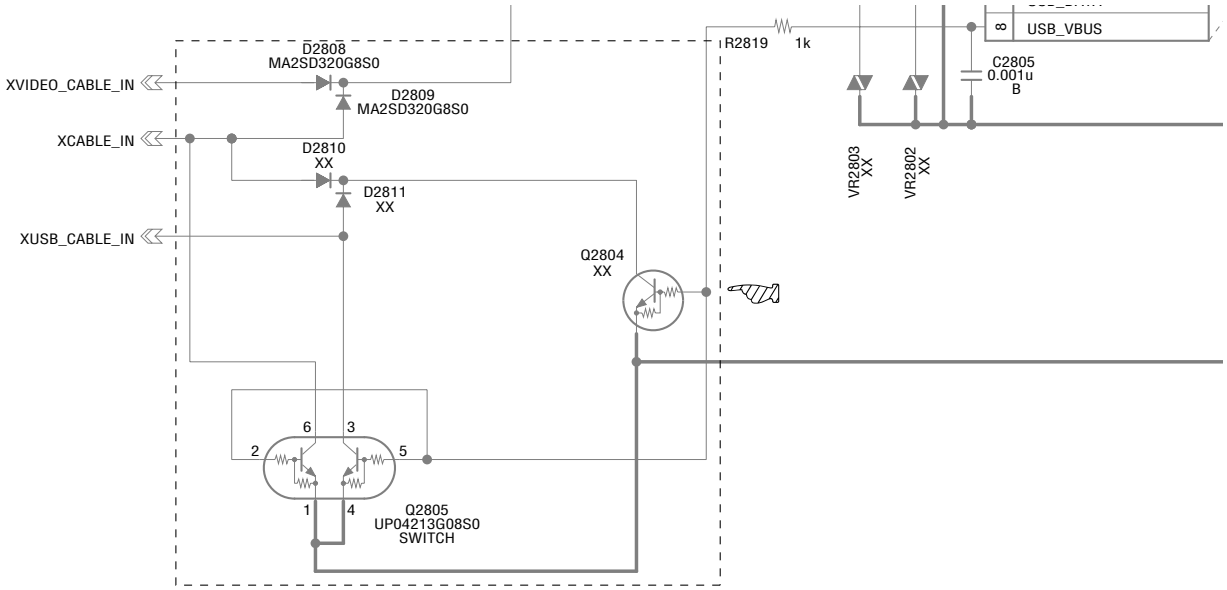
AM-013 BOARD (18/19) (CONNECTOR)

(Service manual page 4-24, Location B-4 to C-7)

Suffix: -13, -23



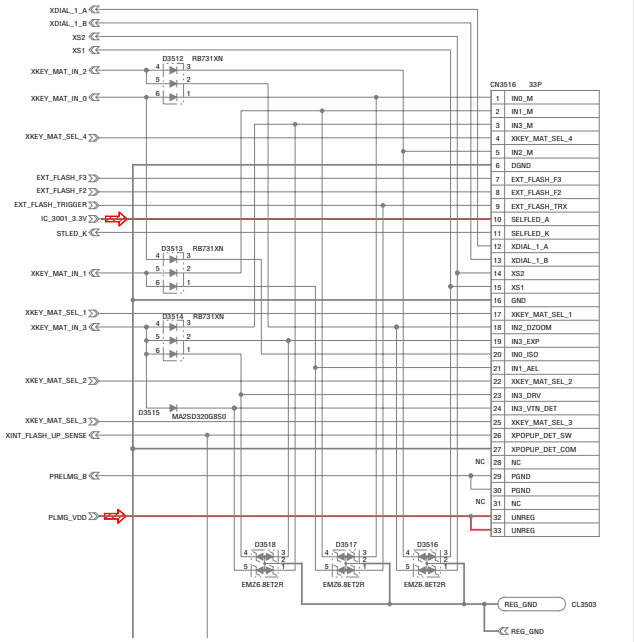
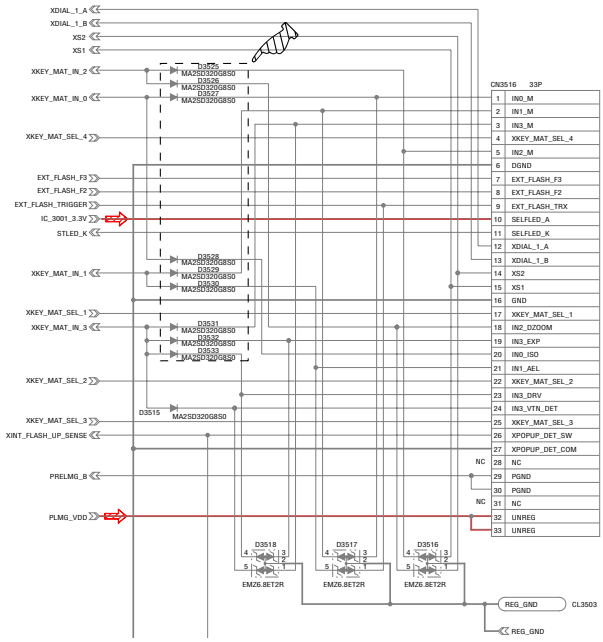
Suffix: -25



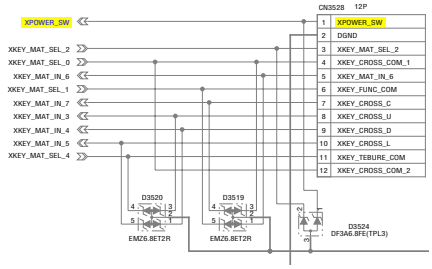
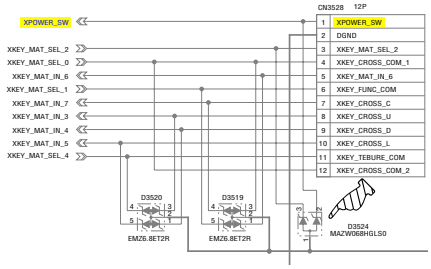
: Points changed portion.

AM-013 BOARD (19/19) (CONNECTOR)

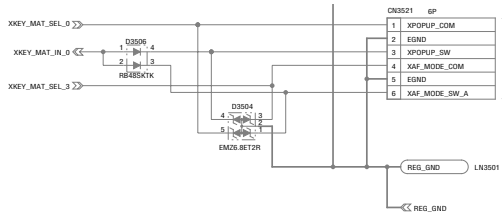
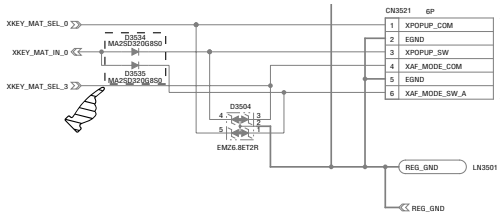
(Service manual page 4-25, Location B-1 to E-5)
(Service manual supplement-1 page 5)

Suffix: -13, -23	Suffix: -25
	

(Service manual page 4-25, Location B-6 to C-8)

Suffix: -13, -23	Suffix: -25
	

(Service manual page 4-25, Location I-13 to J-16)

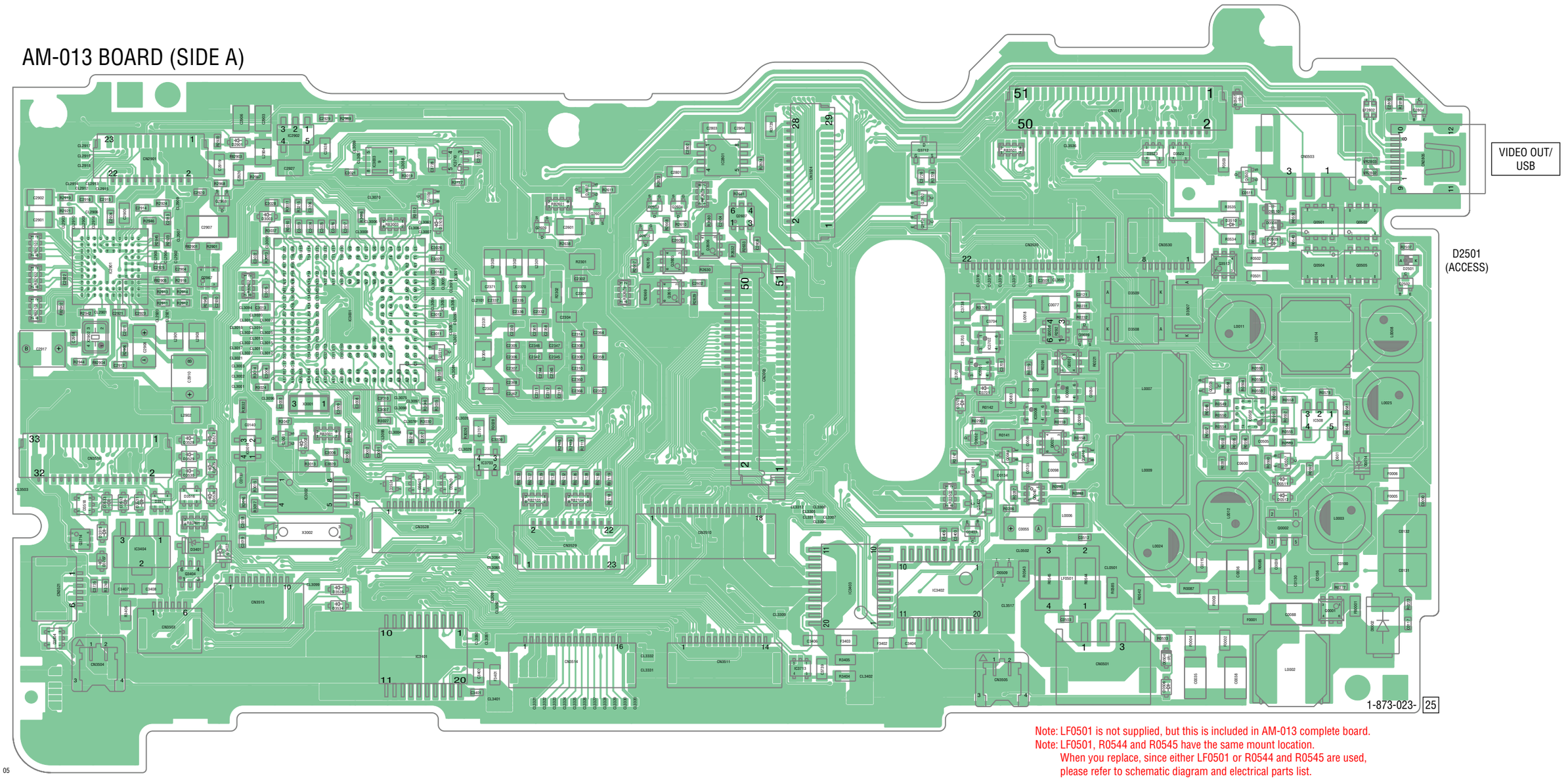
Suffix: -13, -23	Suffix: -25
	

4-3. PRINTED WIRING BOARDS

AM-013 (8 layers)

: Uses unleaded solder.

AM-013 BOARD (SIDE A)

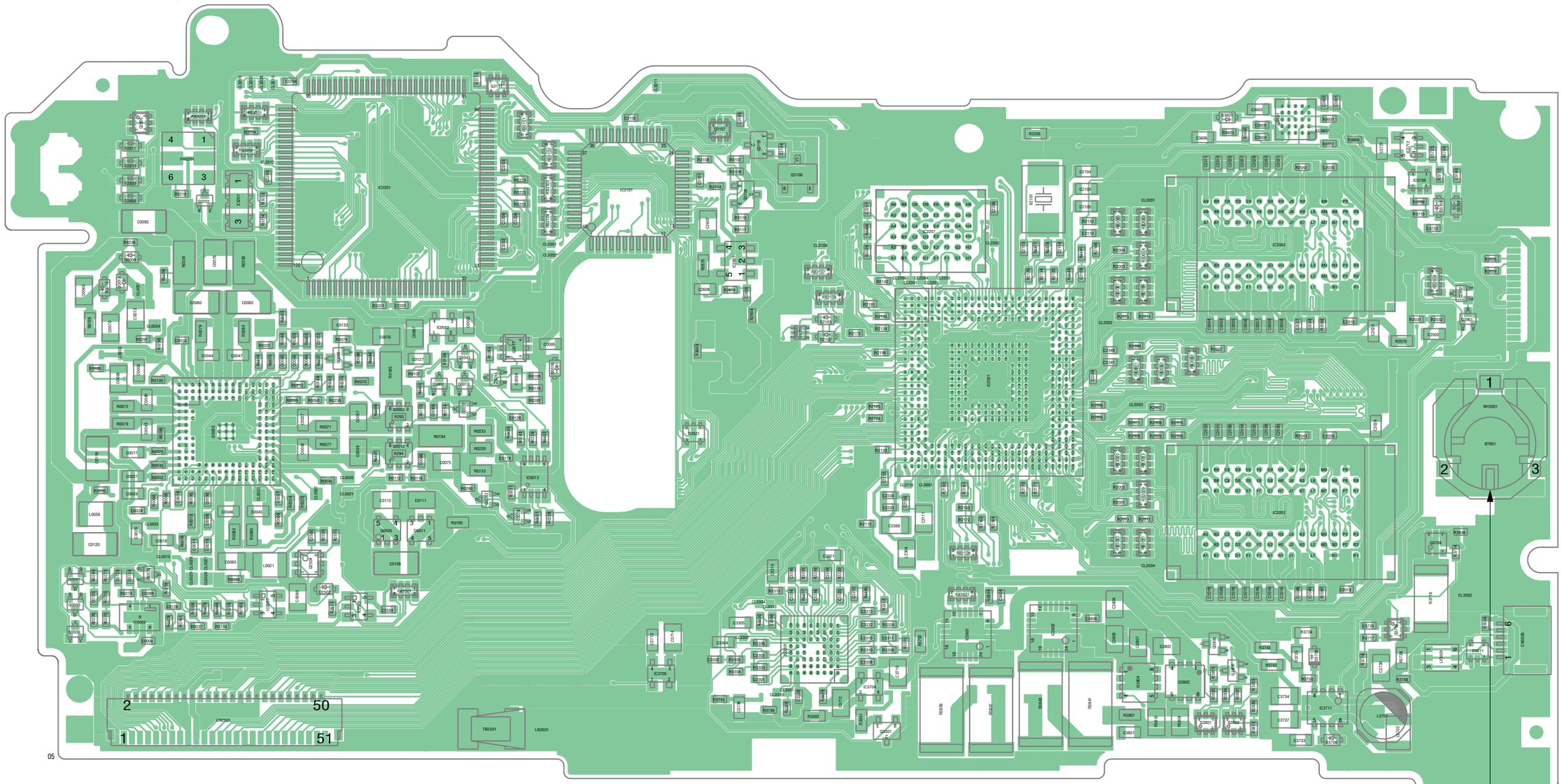


Note: LF0501 is not supplied, but this is included in AM-013 complete board.
Note: LF0501, R0544 and R0545 have the same mount location.
When you replace, since either LF0501 or R0544 and R0545 are used, please refer to schematic diagram and electrical parts list.

AM-013 (8 layers)

: Uses unleaded solder.

AM-013 BOARD (SIDE B)



Note: L3701 and L3702 have the same mount location.
When you replace, since either L3701 or L3702 are used, please refer to schematic diagram and electrical parts list.

1-873-023-25

BT901
BATTERY,
LITHIUM SECONDARY

Note: BT901 (litium battery) is not included in AM-013 complete board.

Note: Replace the battery holder (BH3001) together when replacing the lithium battery (BT901) on the AM-013 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: AM-013基板のリチウム電池（BT901）を交換する場合はバッテリホルダ（BH3001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着してください。

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

Page	Suffix: -13, -23						Suffix: -25					
	Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
	AM-013 Board						**AM-013 Board**					
			< CAPACITOR >						< CAPACITOR >			
5-16	C0090	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	* C0090	1-114-582-11	CERAMIC CHIP	0.1uF	10%	16V
	C0093	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C0093	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
	C0095	1-165-908-11	CERAMIC CHIP	1uF	10%	10V						
	C0097	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V						
	C0505	1-165-908-11	CERAMIC CHIP	1uF	10%	10V						
							C601	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
5-17	C3315	1-165-887-91	CERAMIC CHIP	0.22uF	10%	6.3V	C3315	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
	C3321	1-165-887-91	CERAMIC CHIP	0.22uF	10%	6.3V	C3321	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
			< CONNECTOR >						< CONNECTOR >			
5-18	* CN2602	1-819-860-51	CONNECTOR, FPC (ZIF) 51P				* CN2602	1-821-501-11	CONNECTOR, FPC (ZIF) 51P			
			< DIODE >						< DIODE >			
	D0511	6-500-813-01	DIODE	MA2SD32008S0								
	D0512	6-500-813-01	DIODE	MA2SD32008S0								
	D2101	8-719-074-08	DIODE	MA4ZD03001S0								
							* D2102	6-502-150-01	DIODE	MA2SD320G8S0		
							* D2103	6-502-150-01	DIODE	MA2SD320G8S0		
	D2806	8-719-082-45	DIODE	RB715W-TL								
	D2807	8-719-082-45	DIODE	RB715W-TL								
							* D2808	6-502-150-01	DIODE	MA2SD320G8S0		
							* D2809	6-502-150-01	DIODE	MA2SD320G8S0		
	D3506	8-719-074-08	DIODE	MA4ZD03001S0								
	D3512	6-500-115-01	DIODE	RB731XN								
	D3513	6-500-115-01	DIODE	RB731XN								
	D3514	6-500-115-01	DIODE	RB731XN								
	D3524	8-719-081-73	DIODE	DF3A6.8FE (TPL3)			* D3524	6-501-930-01	DIODE	MAZW068HGLS0		
							* D3525	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3526	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3527	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3528	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3529	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3530	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3531	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3532	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3533	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3534	6-502-150-01	DIODE	MA2SD320G8S0		
							* D3535	6-502-150-01	DIODE	MA2SD320G8S0		
							D3709	8-719-074-67	DIODE	EDZ-TE61-5.6B		
			< IC >						< IC >			
5-19	IC0502	6-702-523-01	IC	NJM12902SC3 (TE2)			IC508	8-759-581-11	IC	NJM2125F (TE2)		
			< COIL >						< COIL >			
	L3701	1-456-500-11	INDUCTOR	10uH			L3702	1-400-785-21	INDUCTOR	10uH		
			< TRANSISTOR >						< TRANSISTOR >			
	Q2804	6-550-119-01	TRANSISTOR	DTC144EMFS6T2L								
							* Q2805	6-551-868-01	TRANSISTOR	UP04213G08S0		
	Q3107	6-550-807-01	TRANSISTOR	EMH11T2R			* Q3107	6-551-867-01	TRANSISTOR	UP04211G08S0		

Page	Suffix: -13, -23						Suffix: -25					
	Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
			< RESISTOR >						< RESISTOR >			
5-20	R0108	1-218-977-11	RES-CHIP	100K	5%	1/16W	R0108	1-218-969-11	METAL CHIP	22K	5%	1/16W
	R0118	1-218-965-11	RES-CHIP	10K	5%	1/16W	R0118	1-218-990-81	SHORT CHIP	0		
	R0202	1-218-990-81	SHORT CHIP	0								
	R292	1-218-990-81	SHORT CHIP	0								
	R293	1-218-990-81	SHORT CHIP	0								
	R294	1-218-990-81	SHORT CHIP	0								
	R0591	1-208-911-11	METAL CHIP	10K	0.5%	1/16W	R0296	1-218-990-81	SHORT CHIP	0		
	R0592	1-218-990-81	SHORT CHIP	0 (Note)								
							R0593	1-218-990-81	SHORT CHIP	0		
							R0595	1-218-990-81	SHORT CHIP	0		
							R0596	1-218-990-81	SHORT CHIP	0		
							R0597	1-218-990-81	SHORT CHIP	0		
	R2121	1-218-977-11	RES-CHIP	100K	5%	1/16W						
	R2124	1-218-990-81	SHORT CHIP	0								
	R2125	1-218-990-81	SHORT CHIP	0								
5-21	R2669	1-216-864-11	SHORT CHIP	0								
	R2670	1-216-864-11	SHORT CHIP	0								
	R3023	1-218-990-81	SHORT CHIP	0								
	R3203	1-218-977-11	RES-CHIP	100K	5%	1/16W						
	R3225	1-218-990-81	SHORT CHIP	0								
	R3226	1-218-990-81	SHORT CHIP	0								
	R3607	1-218-990-81	SHORT CHIP	0								
	R3727	1-218-990-81	SHORT CHIP	0								
	R3748	1-218-990-81	SHORT CHIP	0 (Note)								
	R3749	1-218-990-81	SHORT CHIP	0 (Note)			R3750	1-218-953-11	METAL CHIP	1K	5%	1/16W

Note: These parts have been changed in the supplement-1 (9-852-244-82).

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2007.12	Official Release	—	—
1.1	2008.05	Supplement-1 (S1 DI08-082)	• Addition of Korea Model • Change of Board's Suffix No. • Change of Repair Parts • Correction of Schematic Diagram • Correction of Printed Wiring Board S.M. correction: Page 4-19, Page 4-44	Yes
1.2	2008.09	Supplement-2 (S2 DI08-256)	• Change of Repair Parts • Change of Board's Suffix No.	No
1.3	2008.10	Supplement-3 (S3 DI08-272)	• Change of Repair Parts • Change of Board's Suffix No. This SUPPLEMENT-3 is the revised version of SUPPLEMENT-2. Replace the SUPPLEMENT-2 (9-852-244-85) with the SUPPLEMENT-3. Please discard the SUPPLEMENT-2.	No