

Pioneer

Service Manual

ORDER NO.
RRV4271

Blu-ray 3D™ PLAYER

BDP-440

BDP-52FD

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	DVD Region No.	BD Region No.	Serial No.	Remarks
BDP-440	YXCN5	AC 100 V to 240 V	2	B	&&&#####YY	YY : Europe
BDP-440	VXCN5	AC 100 V to 240 V	2	B	&&&#####GB	GB : U.K
BDP-52FD	UCXCN	AC 120 V	1	A	&&&#####UC	UC : NORTH AMERICA

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
BDP-140/YXCN5	RRV4263	

For SPECIFICATIONS and PANEL FACILITIES, refer to the operating instructions.

PIONEER CORPORATION 1-1, Shin-ogura, Saiwai-ku, Kawasaki-shi, Kanagawa 212-0031, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
©PIONEER CORPORATION 2011

K-ZZZ OCT. 2011 Printed in Japan

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ∇ mark on product are used for disassembly.

● For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

● Nos. indicate the pages and Nos. in the service manual for the base model.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56 x 10¹ \rightarrow 561 RD1/4PU **5** **6** **1** J
 47k Ω \rightarrow 47 x 10³ \rightarrow 473 RD1/4PU **4** **7** **3** J
 0.5 Ω \rightarrow R50 RN2H **5** **0** K
 1 Ω \rightarrow 1R0 RS1P **1** **R** **0** K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 x 10¹ \rightarrow 5621 RN1/4PC **5** **6** **2** **1** F

CONTRAST TABLE

BDP-140/YXCN5, BDP-440/YXCN5, BDP-440/VXCN5 and BDP-52FD/UCXCN are constructed the same except for the following:

Mark	No.	Symbol and Description	BDP-140/YXCN5	BDP-440/YXCN5	BDP-440/VXCN5	BDP-52FD/UCXCN	Remarks
		PCB ASSEMBLIES					
	P37-1	MAIN BOARD ASSY	08-BDP140-MA0/Y-TL	08-BDP440-MA0/Y-TL	08-BDP440-MA0/Y-TL	08-BDP440-MA1/U-TL	*1
	P37-2	POWER BOARD ASSY	08-BDP140-PW0-TL	08-BDP140-PW0-TL	08-BDP140-PW0-TL	08-BDP440-PW2-TL	*2
	P37-3	FRONT BOARD ASSY	08-BDP140-FV0-TL	08-BDP440-FV0-TL	08-BDP440-FV0-TL	08-BDP440-FV2-TL	*3
	P37-4	SWITCH BOARD ASSY	08-BDP140-SW0-TL	08-BDP440-SW0-TL	08-BDP440-SW0-TL	08-BDLX55-SW0-TL	*4
	P37-5	AV BOARD ASSY	08-BDP130-AV0-TL	Not used	Not used	Not used	
		RS-232C BOARD ASSY	Not used	Not used	Not used	08-BDP440-RS0-TL	No.26
		PACKING SECTION					
	P35-1	Remote Control Unit (RC-2930)	06-RC2930-A000-TL	06-RC2930-A000-TL	06-RC2930-A000-TL	Not used	
	P35-1	Remote Control Unit (RC-2920)	Not used	Not used	Not used	06-RC2920-A000-TL	
	P35-2	Video Audio Cable	41-UH1200-0KK8A-TL	41-UH1500-0KK8A-TL	41-UH1500-0KK8A-TL	41-UH1500-0KK8A-TL	
	P35-3	AC Power Cord	51-DC0120-0CRA3-TL	51-DC0120-0CRA3-TL	51-DC0120-0CRD4-TL	51-BC0150-0LSA9-TL	
	P35-4	Operating Instructions (En)	72-BDP140-EN0B1-TL	72-BDP140-EN0B1-TL	72-BDP140-EN0B1-TL	Not used	
	P35-5	Operating Instructions (Fr/De/It/Ni/Es)	72-BDP140-YX0B1-TL	72-BDP140-YX0B1-TL	Not used	Not used	
	P35-6	Operating Instructions (En/Frca)	Not used	Not used	Not used	72-DP52FD-UC0B1-TL	
	P35-7	Polyethylene Bag	74-053035-50GB1-TL	74-056045-50HB1-TL	74-056045-50HB1-TL	74-056045-50HB1-TL	
	P35-9	Packing Case	76-104520-0ATB1-TL	76-106630-0ATB1-TL	76-106630-0ATB5-TL	76-106630-0ATB9-TL	
	P35-10	Right Card	76-104530-0AP-TL	Not used	Not used	Not used	
	P35-11	Left Card	76-104540-0AP-TL	Not used	Not used	Not used	
	P35-13	Pad	76-984950-0AP-TL	Not used	Not used	Not used	
		EXTERIOR SECTION					
	P37-7	Top Cover	67-BD14T1-0E0B1-TL	67-BD44T1-0E0B1-TL	67-BD44T1-0E0B1-TL	67-BD44T1-0E0B1-TL	
	P37-8	Back Plate	67-BD14B1-0E0B1-TL	67-BD44B1-0E0B1-TL	67-BD44B1-0E0B1-TL	67-BD44B1-1E0B1-TL	
	P37-9	Bottom Cabinet	67-BD14R1-0E0-TL	67-BD14R1-1E0-TL	67-BD14R1-1E0-TL	67-BD14R1-1E0-TL	
	P37-10	Front Cabinet ASSY	08-BDP140-FA1-TL	08-BDP440-FA1-TL	08-BDP440-FA1-TL	08-BDP440-FA5-TL	
	P37-11	Rubber Pad	54-907220-000-TL	54-106480-000-TL	54-106480-000-TL	54-106480-000-TL	
	P37-12	ST Screw B 3.0 x 7	63-B30080-BF4-TL	Not used	Not used	Not used	
		S/T Screw B 3x8 BF	Not used	63-B30080-BF3-TL	63-B30080-BF3-TL	63-B30080-BF3-TL	
	P37-16	ST Screw B 3 x 6 B	64-B30060-303-TL	Not used	Not used	Not used	
		Trianglem/C Screw B 3x4	Not used	64-B30040-3H8-TL	64-B30040-3H8-TL	64-B30040-3H8-TL	

Mark	No.	Symbol and Description	BDP-140/YXCN5	BDP-440/YXCN5	BDP-440/VXCN5	BDP-52FD/UCXCN	Remarks
	P37-21	Cable 6pin 400mm	46-CC040T-06K-TL	Not used	Not used	Not used	
	P37-21	Cable 6pin 360mm	Not used	46-CC036T-06K-TL	46-CC036T-06K-TL	46-CC036T-06K-TL	
	P37-22	Cable 2pin 140mm	46-FH014T-02P-TL	Not used	Not used	Not used	
	P37-22	Cable 2pin 100mm	Not used	46-FH010T-02P-TL	46-FH010T-02P-TL	Not used	
	P37-22	Cable 3pin 100mm	Not used	Not used	Not used	46-FH010T-03P-TL	
	P37-23	Cable 9pin 140mm	46-FG022T-09S-TL	Not used	Not used	Not used	
	P37-23	Cable 11pin 180mm	Not used	46-FH022T-11S-TL	46-FH022T-11S-TL	46-FH022T-11S-TL	
	P37-25	Tray Panel	08-BDP140-DA1-TL	08-BDP440-DA1-TL	08-BDP440-DA1-TL	08-BDP440-DA1-TL	
		Cable 4pin 60mm	Not used	Not used	Not used	46-FH006T-04SA-TL	No.27

Notes : For PCB ASSEMBLIES, Refer to "2. SCHEMATIC DIAGRAM" and "3 PCB CONNECTION DIAGRAM".

*1 MAIN BOARD ASSY has no service parts.

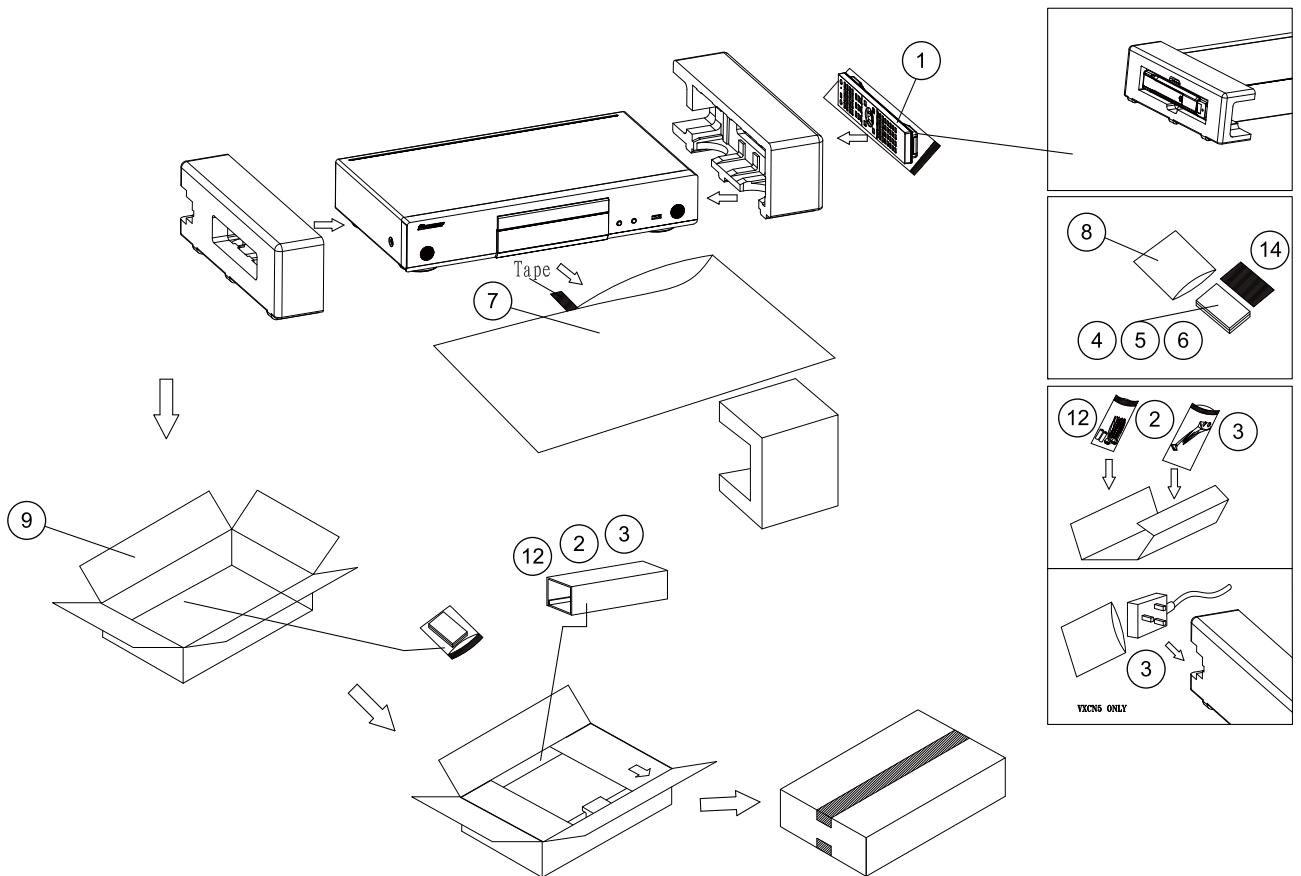
*2 POWER BOARD ASSY has no service parts.

*3 Although 08-BDP140-FV0-TL and 08-BDP440-FV0-TL are different in part number, they consist of the same service components.

*4 SWITCH BOARD ASSY has no service parts.

EXPLODED VIEWS

PACKING SECTION



1 ■ 2 ■ 3 ■ 4 ■
EXTERIOR SECTION

A

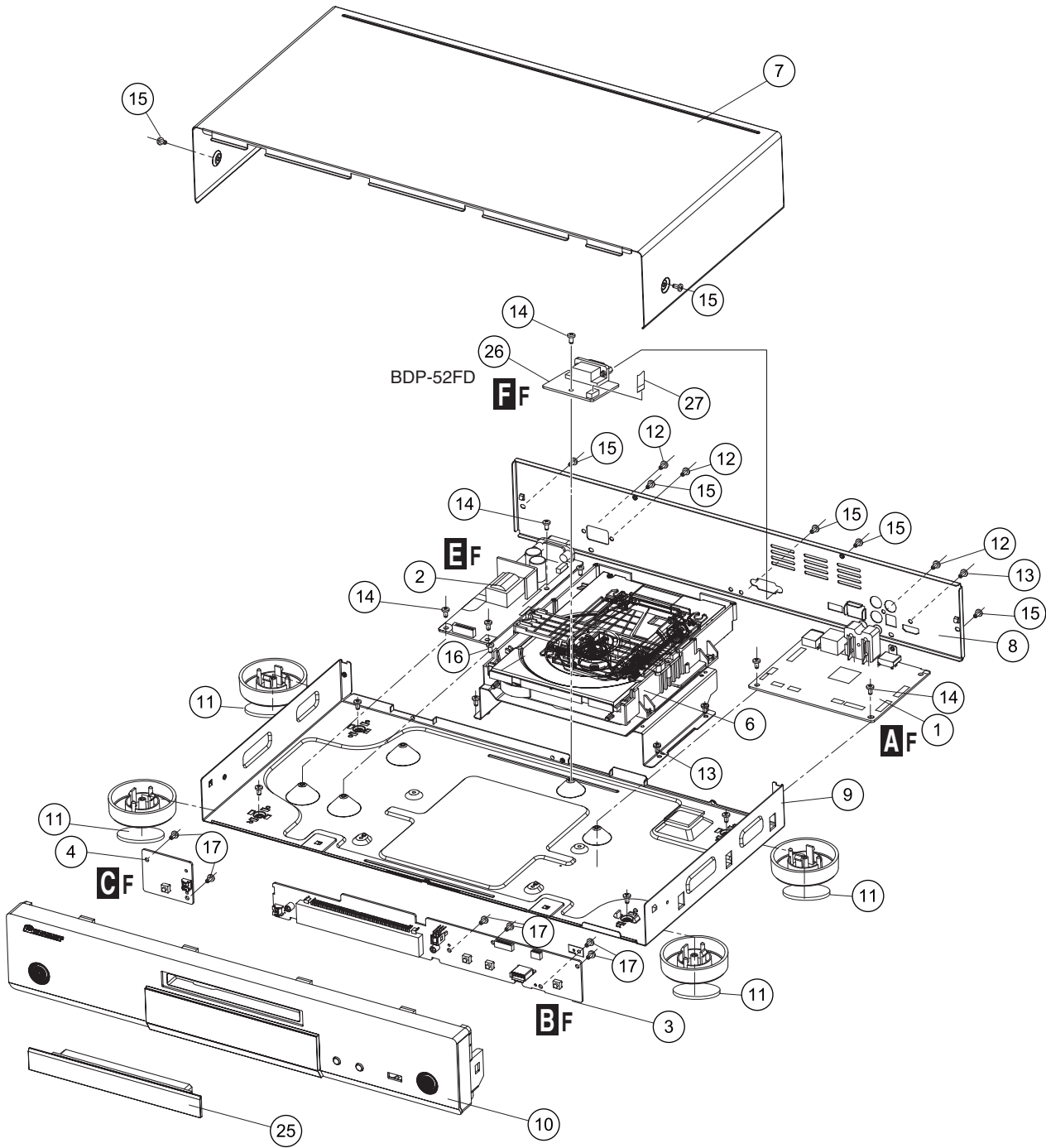
B

C

D

E

F



■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

BDP-440

■

7

■

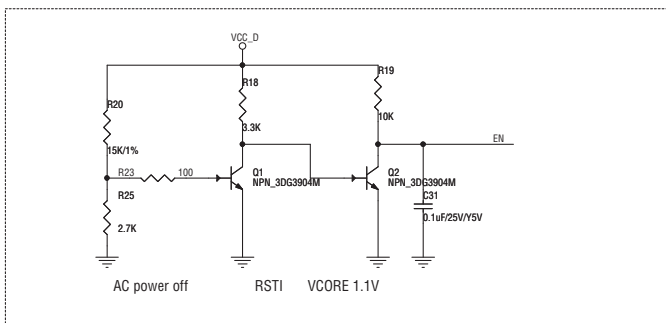
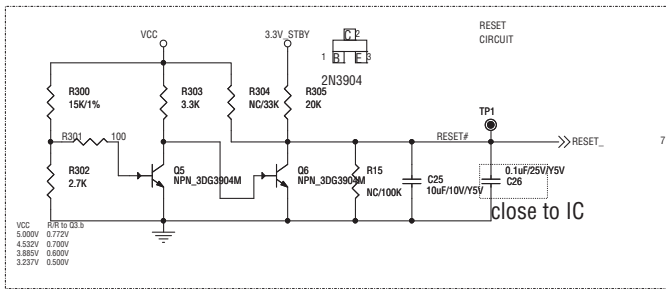
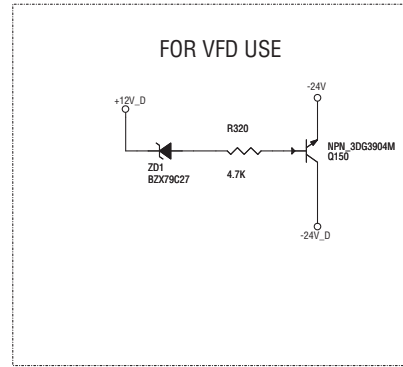
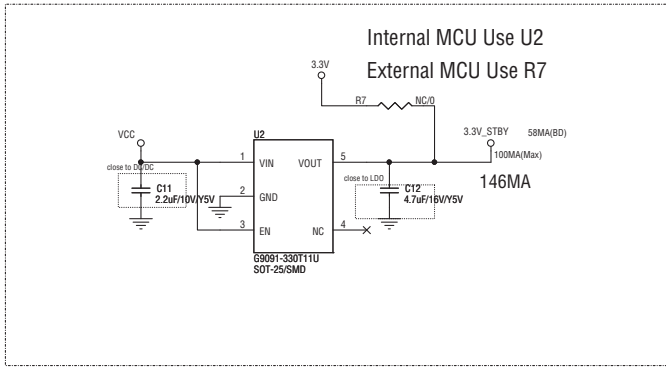
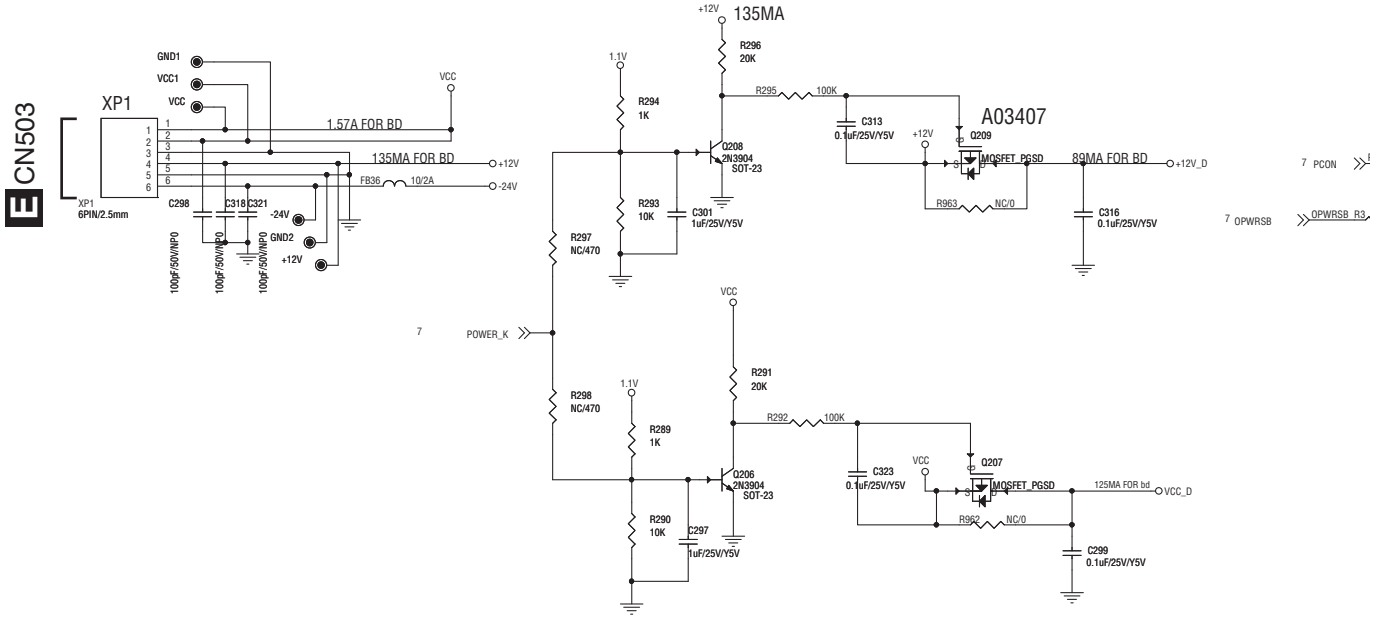
8

5

■

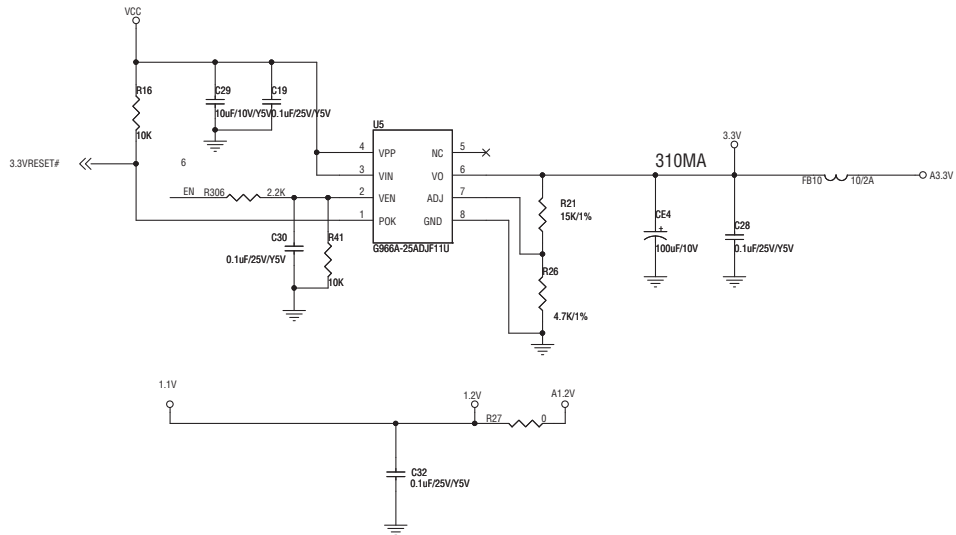
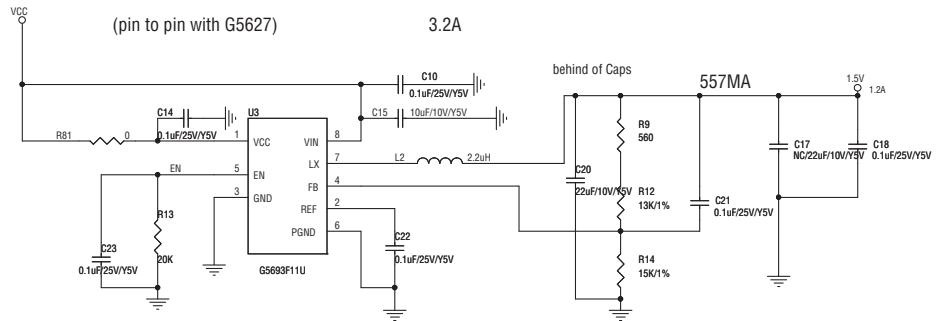
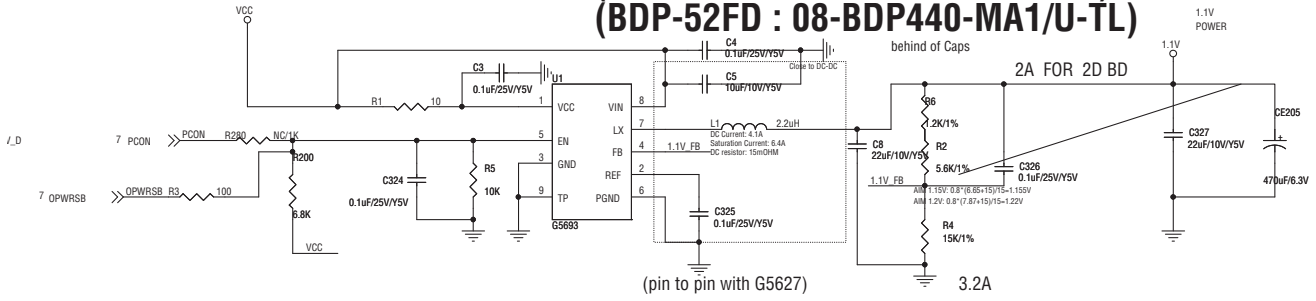
2. SCHEMATIC DIAGRAM

2.1 MAIN BOARD ASSY (1/10) : POWER

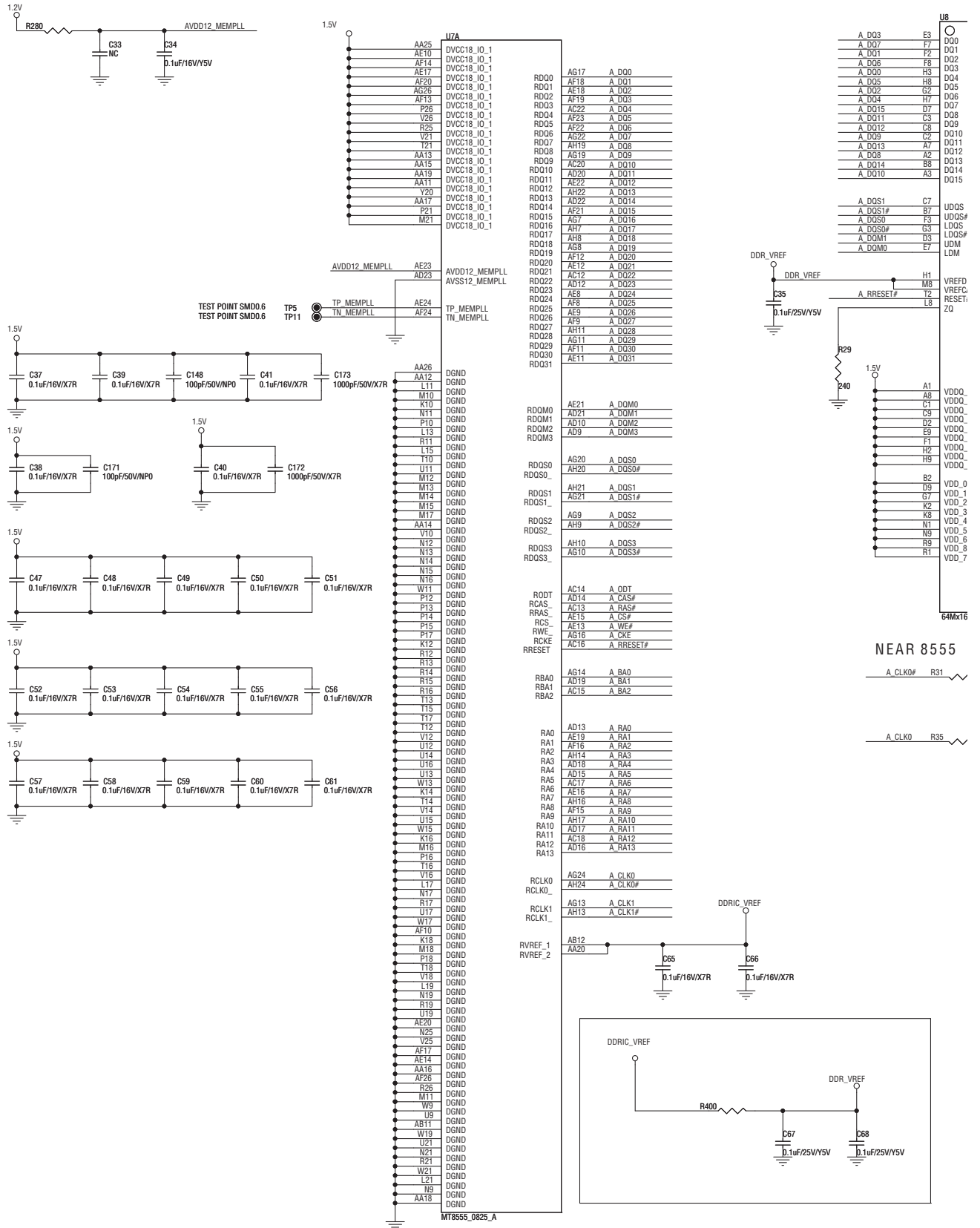


A1/10F MAIN BOARD ASSY (1/10)

(BDP-440 : 08-BDP440-MA0/Y-TL)
(BDP-52FD : 08-BDP440-MA1/U-TL)



2.2 MAIN BOARD ASSY (2/10) : DDR3-1

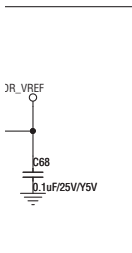
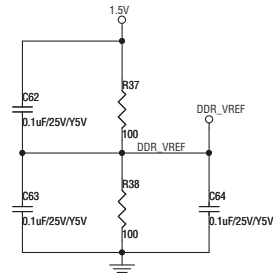
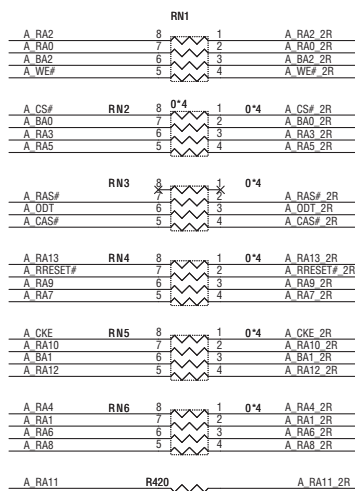
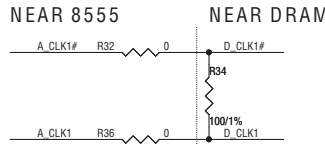
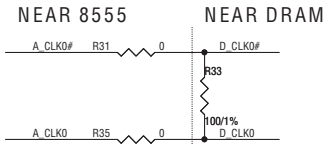
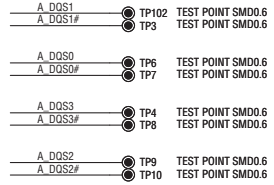
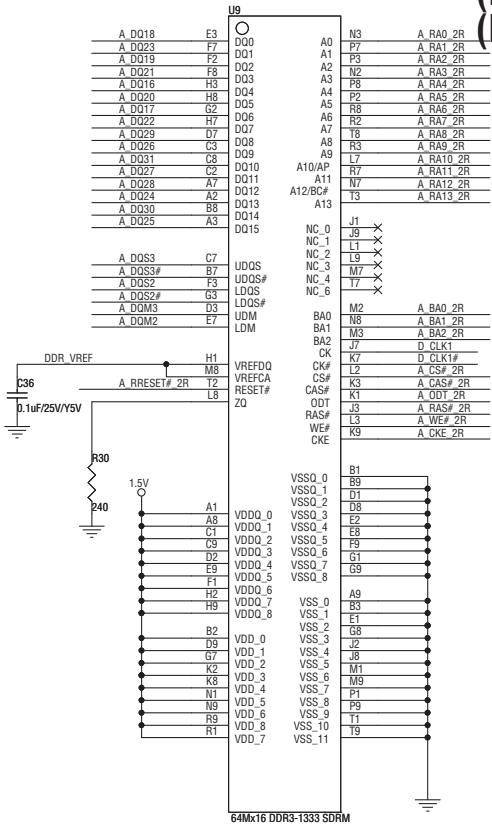
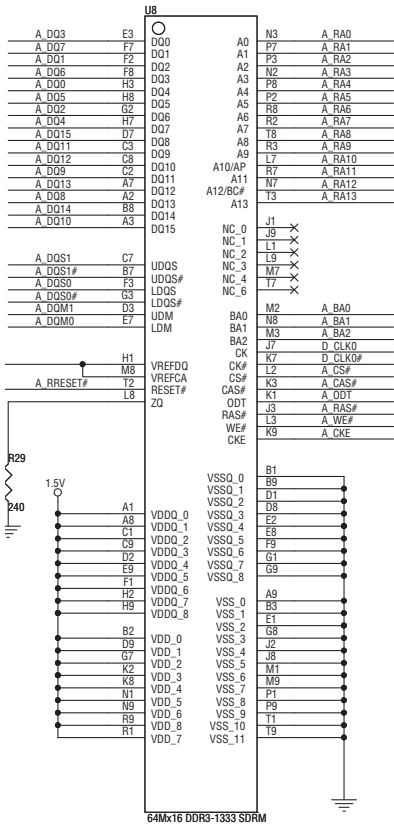


A2/10F

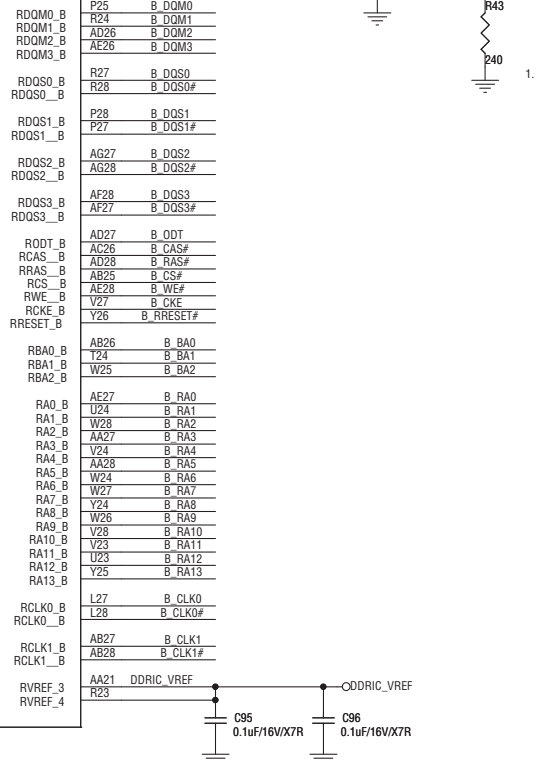
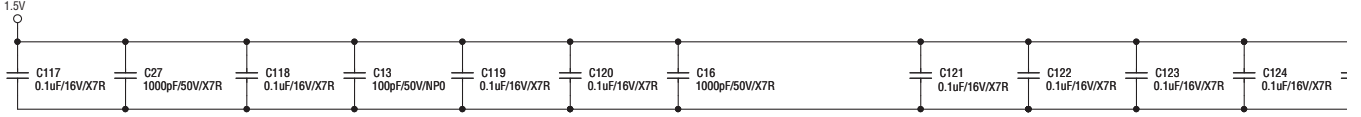
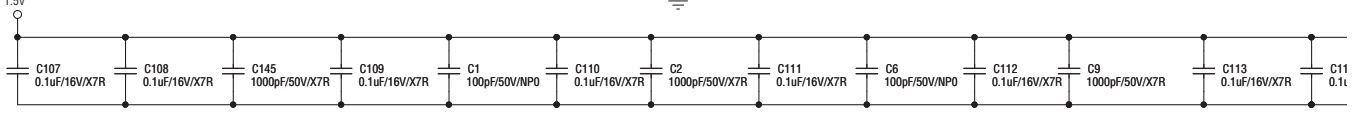
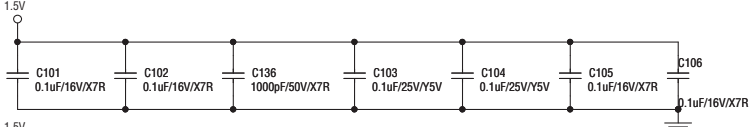
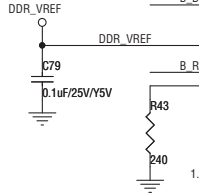
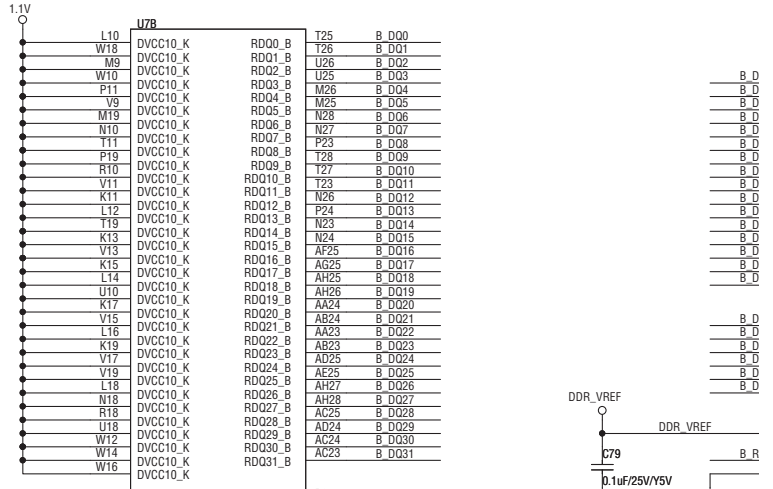
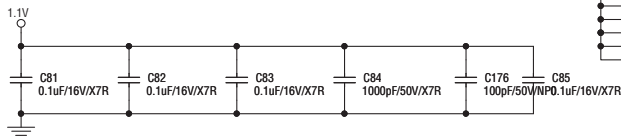
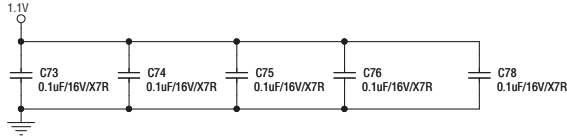
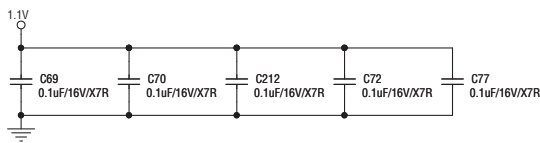
BDP-440

A2/10F MAIN BOARD ASSY (2/10)

(BDP-440 : 08-BDP440-MA0/Y-TL)
(BDP-52FD : 08-BDP440-MA1/U-TL)

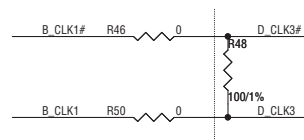
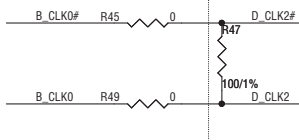
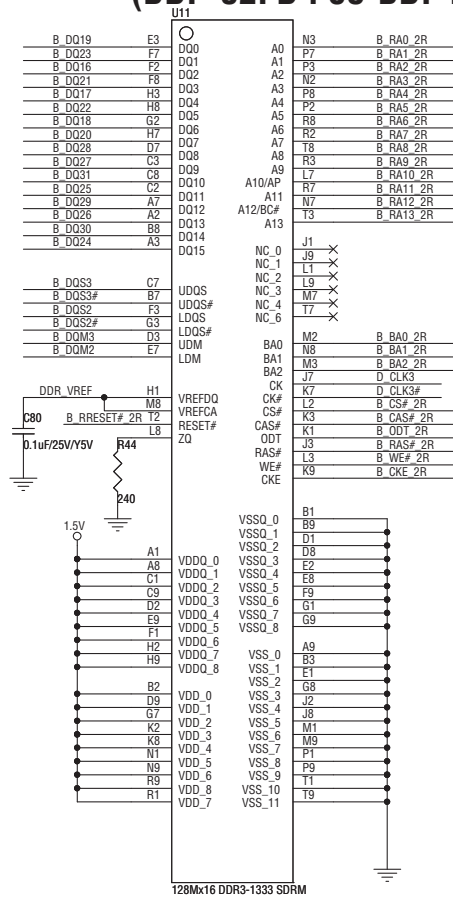
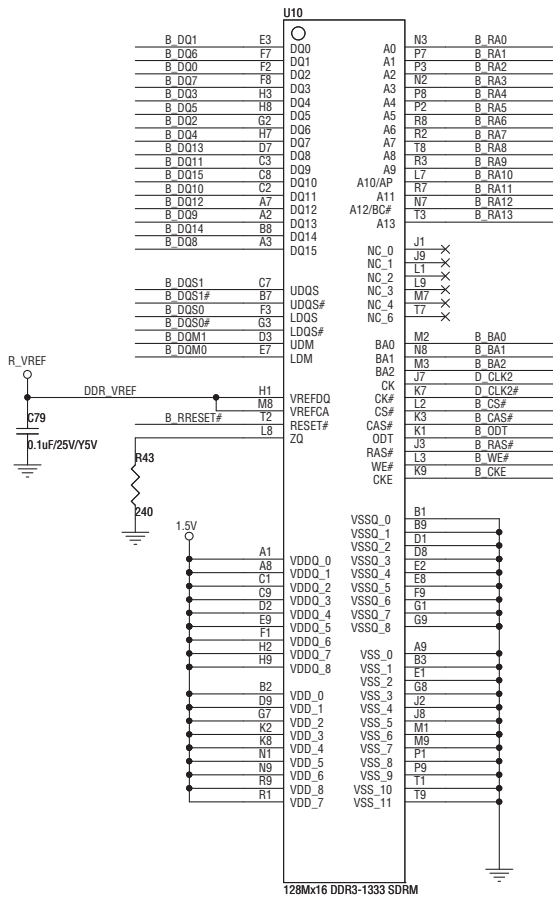


2.3 MAIN BOARD ASSY (3/10) : DDR3-2

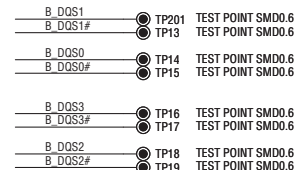
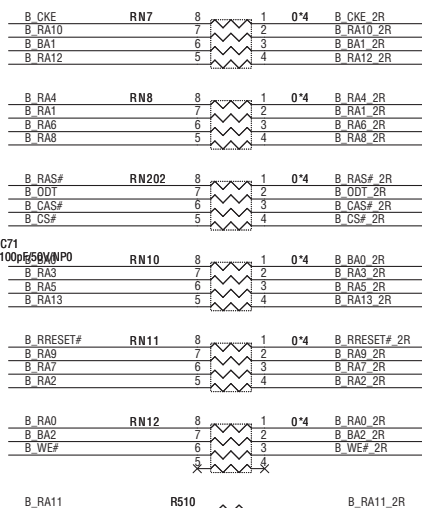
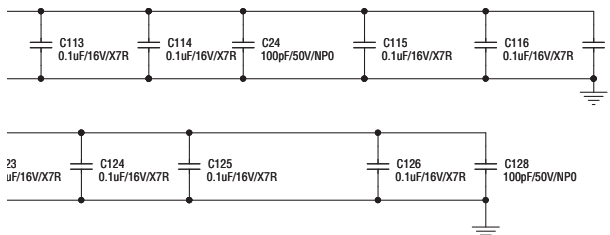


A3/10F MAIN BOARD ASSY (3/10)

(BDP-440 : 08-BDP440-MA0/Y-TL)
 (BDP-52FD : 08-BDP440-MA1/U-TL)

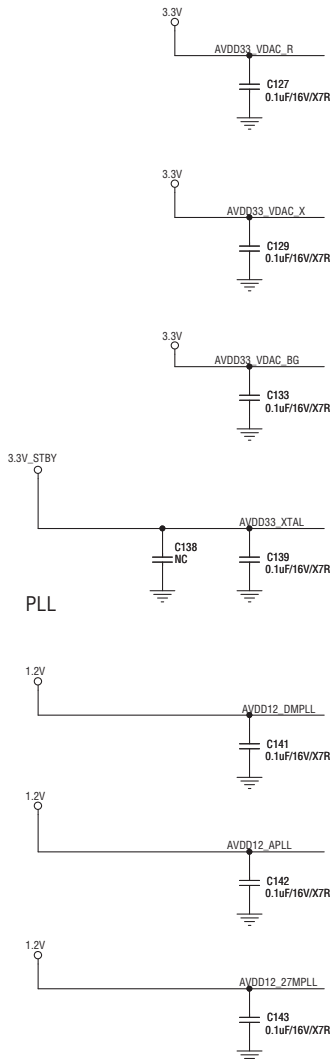


DRIC_VREF
 3
 uF/16V/X7R



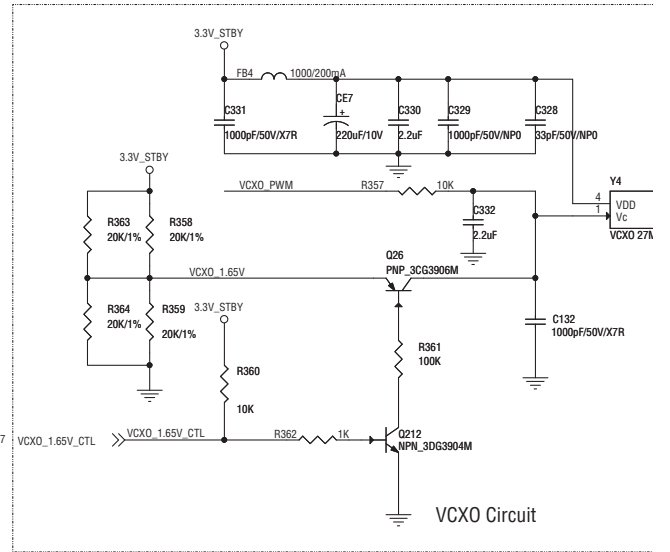
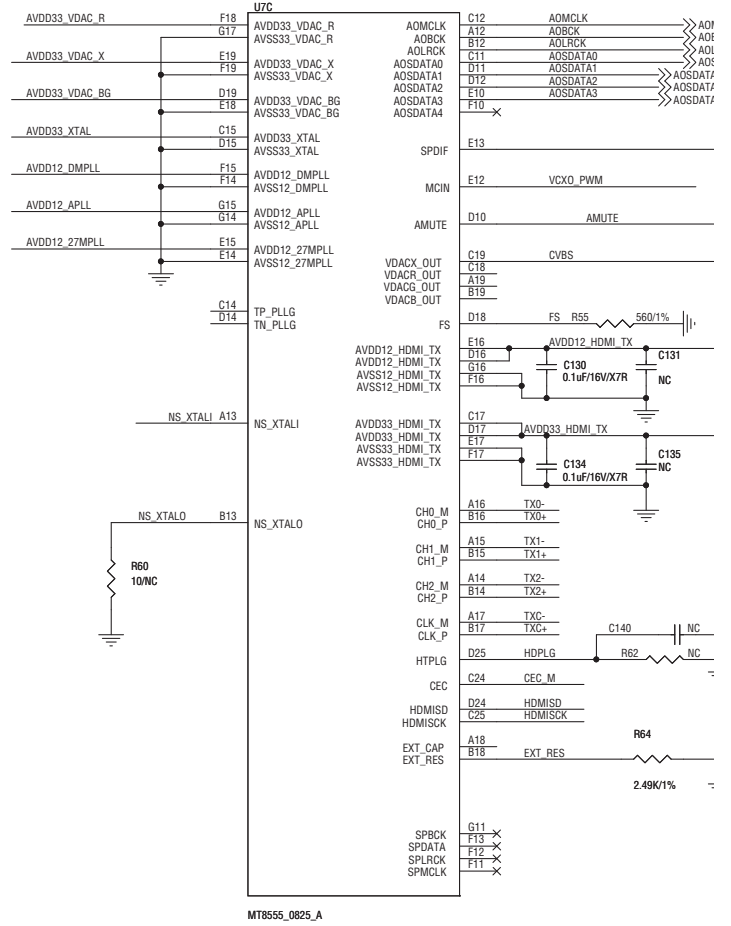
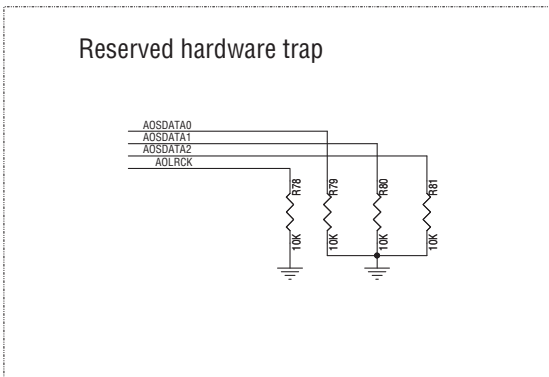
2.4 MAIN BOARD ASSY (4/10) : HDMI

3.3V Analog Power



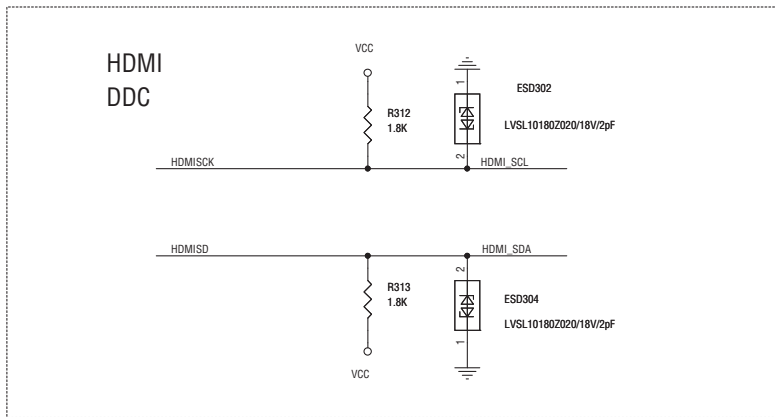
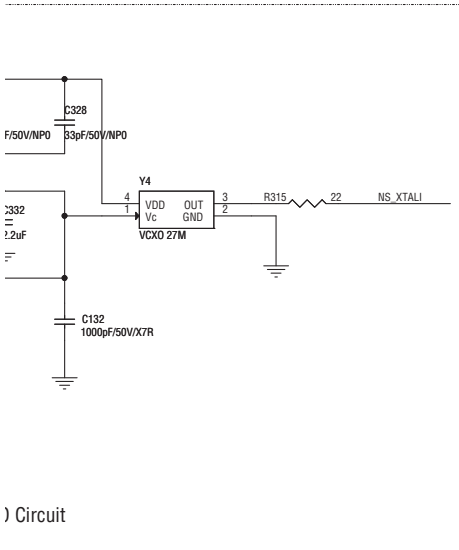
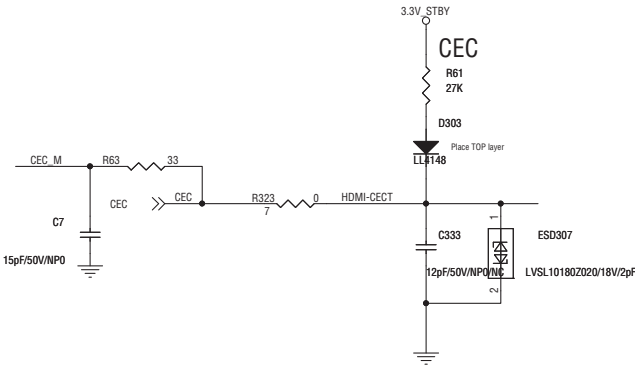
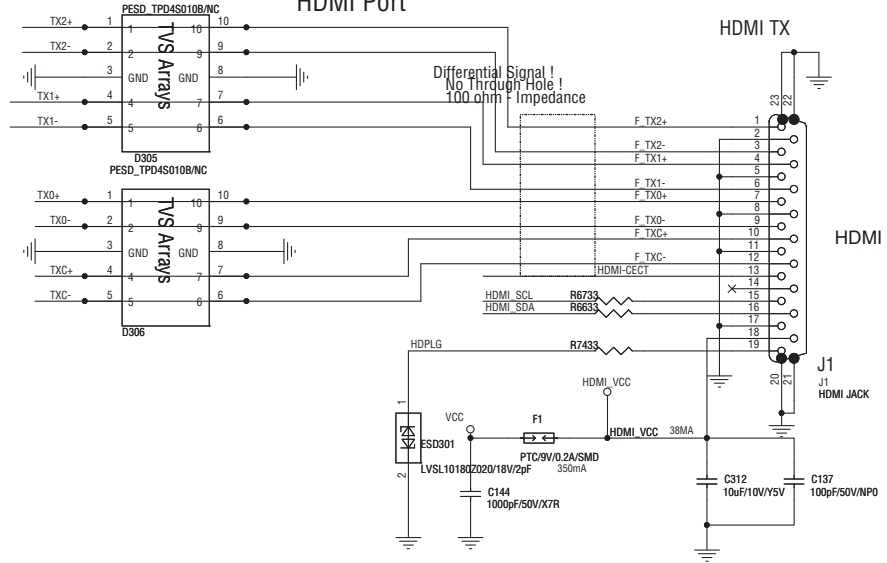
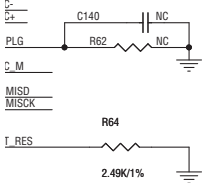
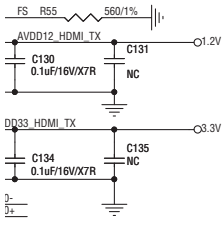
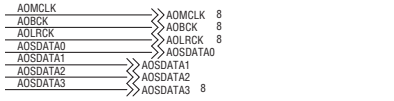
PLL

For PLL testing



A4/10F MAIN BOARD ASSY (4/10)

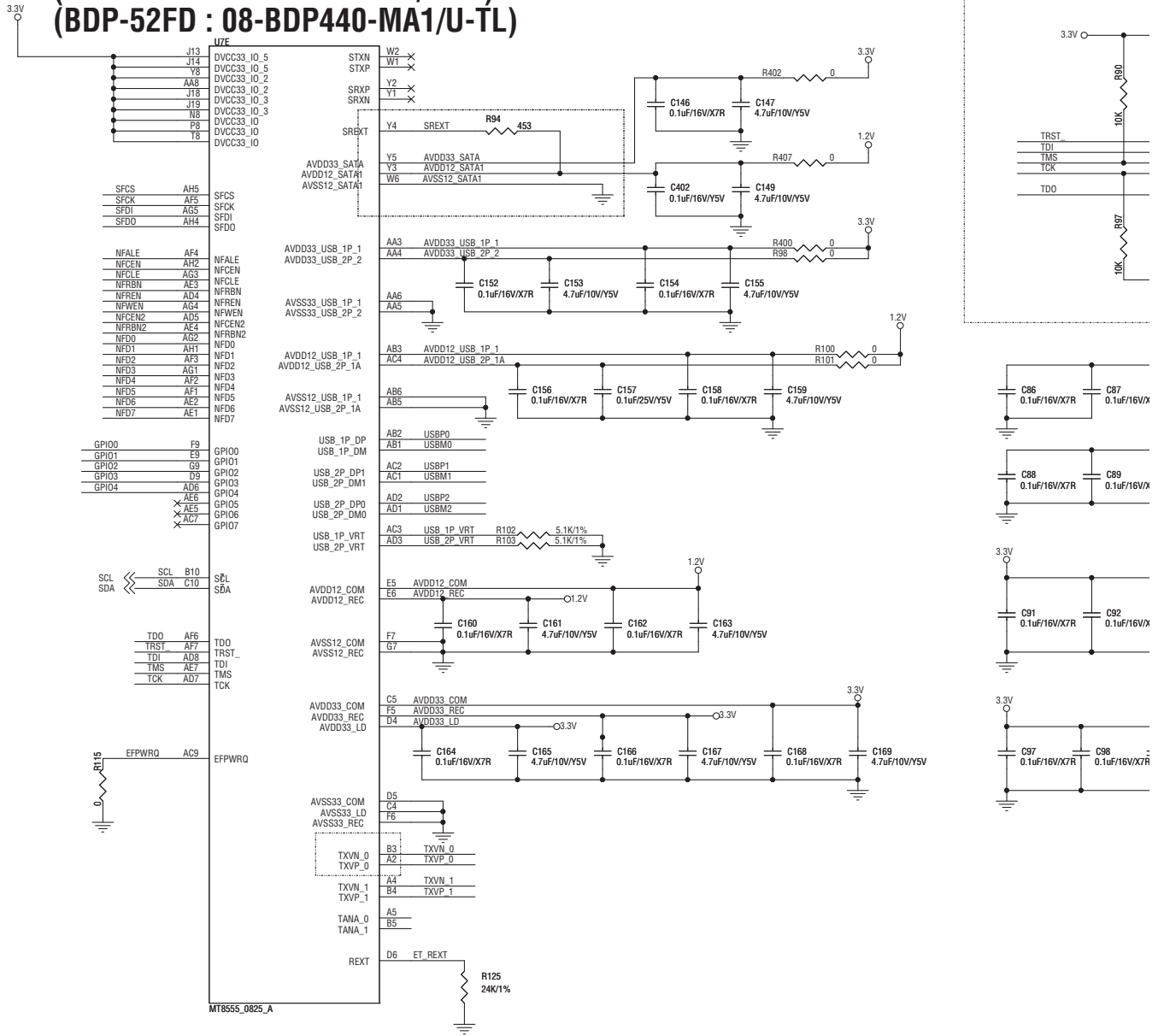
(BDP-440 : 08-BDP440-MA0/Y-TL)
 (BDP-52FD : 08-BDP440-MA1/U-TL)



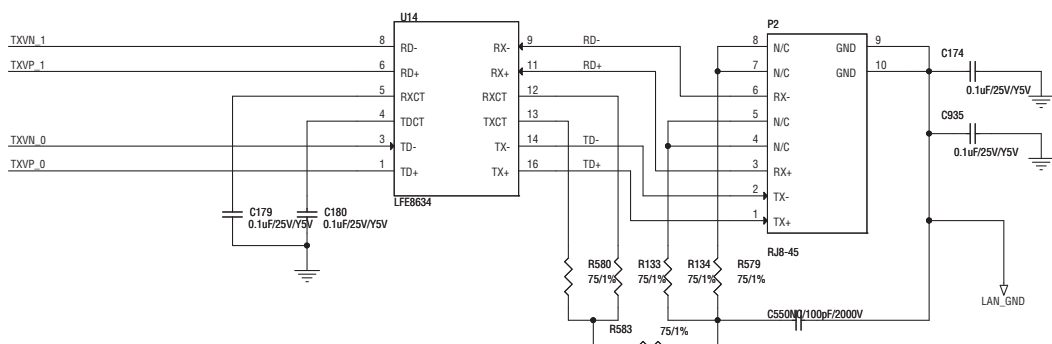
) Circuit

2.5 MAIN BOARD ASSY (5/10) : FLASH

A5/10F MAIN BOARD ASSY (5/10) (BDP-440 : 08-BDP440-MA0/Y-TL) (BDP-52FD : 08-BDP440-MA1/U-TL)



ETHERNET PHY



PCB TOP I

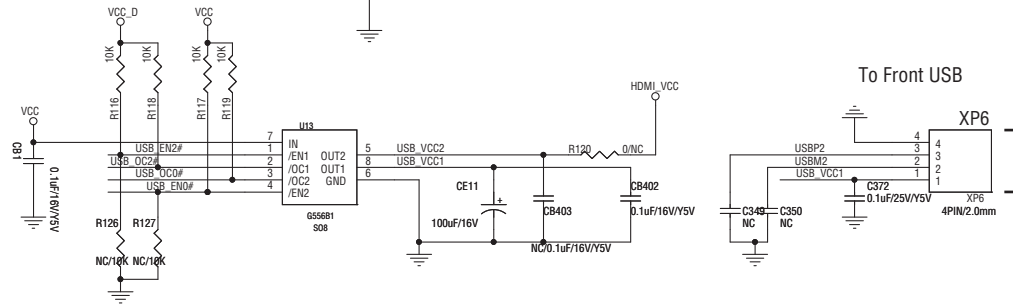
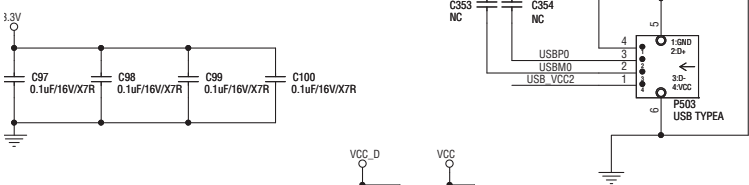
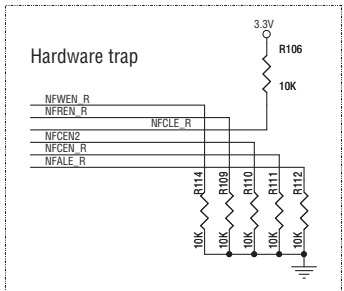
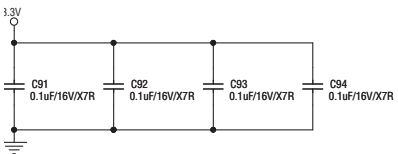
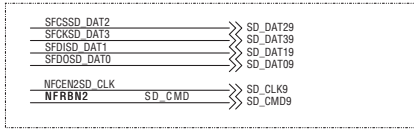
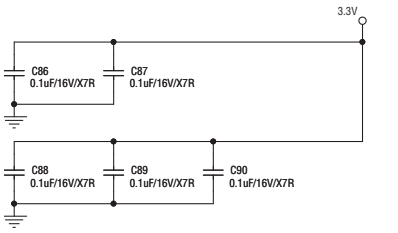
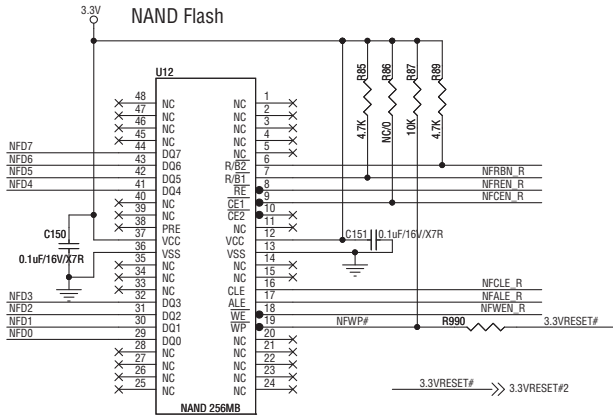
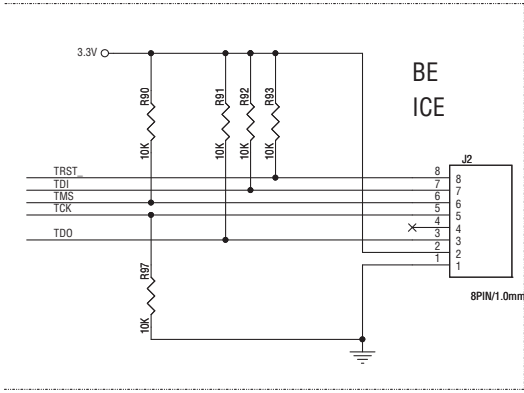
US1
US1
US1

PCB BTM F

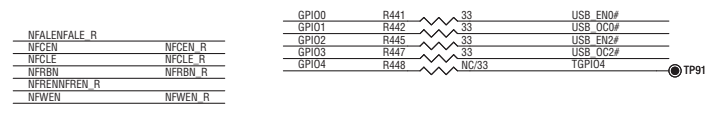
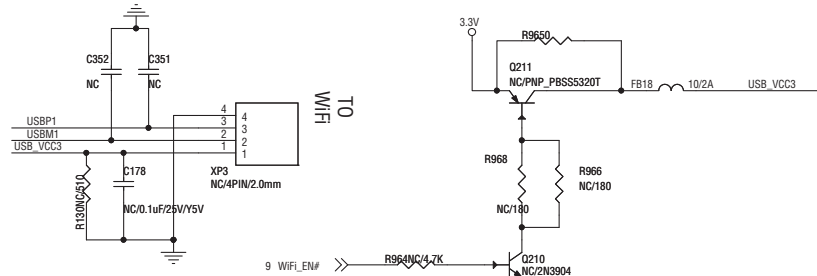
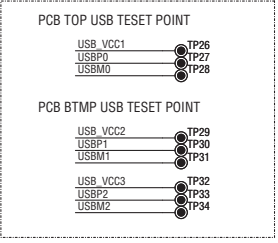
US1
US1
US1

US1
US1
US1

NFALENFALE I
NFCEN
NFCLE
NFRBN
NFRFN
NFRNEN
NFRN2



BF XS221



2.6 MAIN BOARD ASSY (6/10) : VFD/IR

A

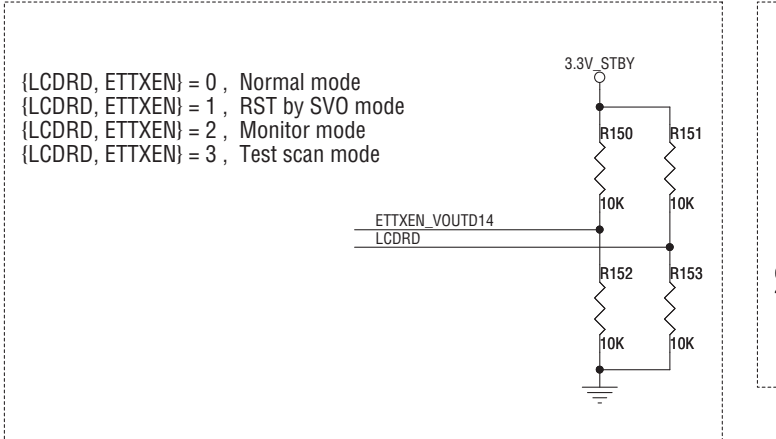
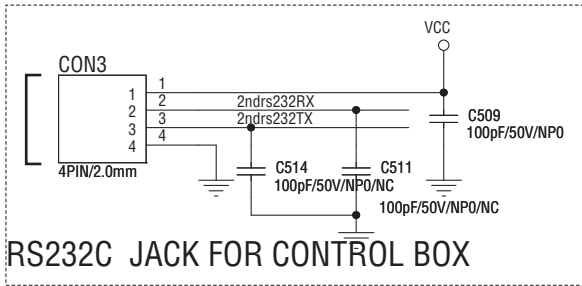
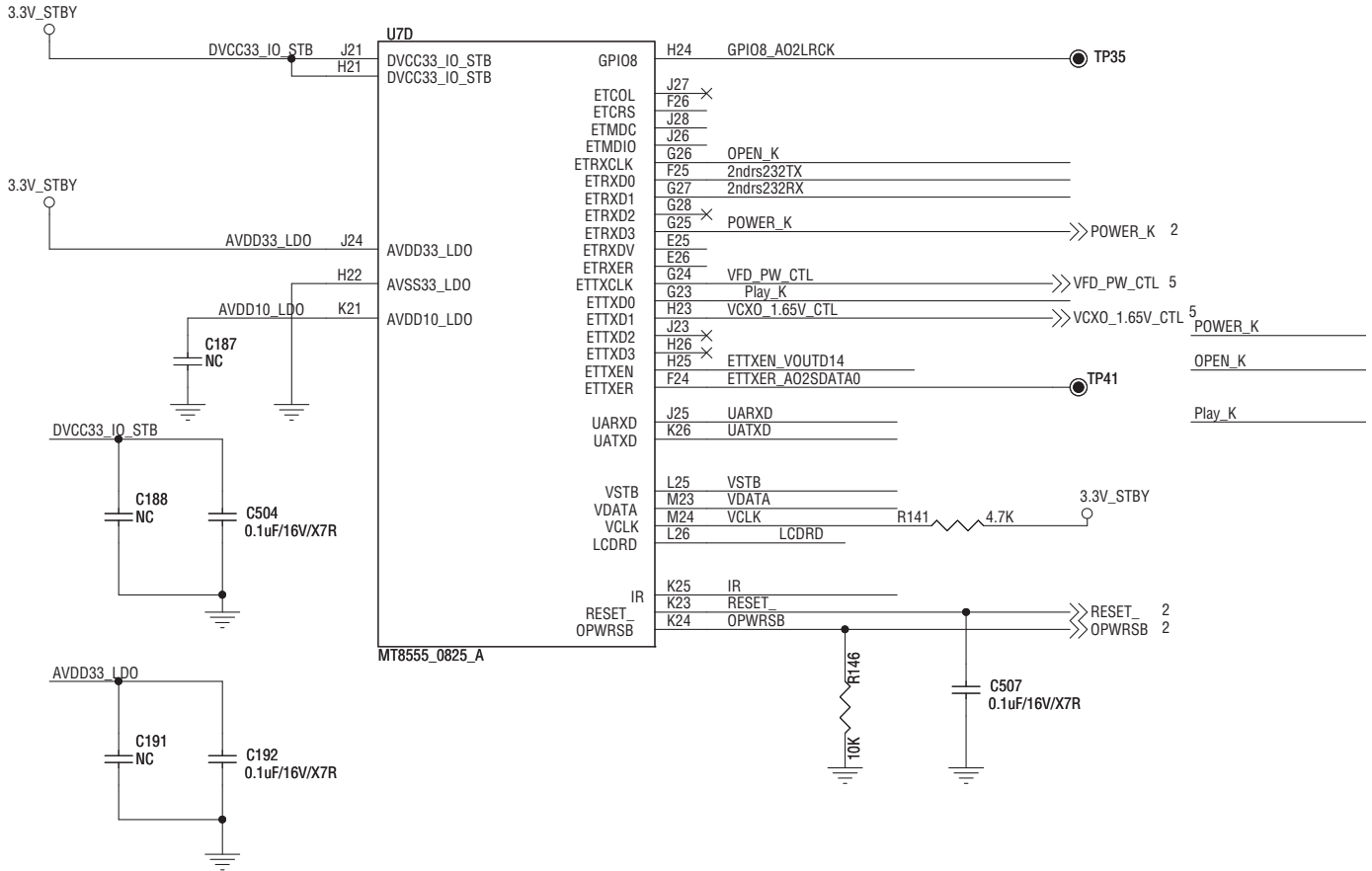
B

C

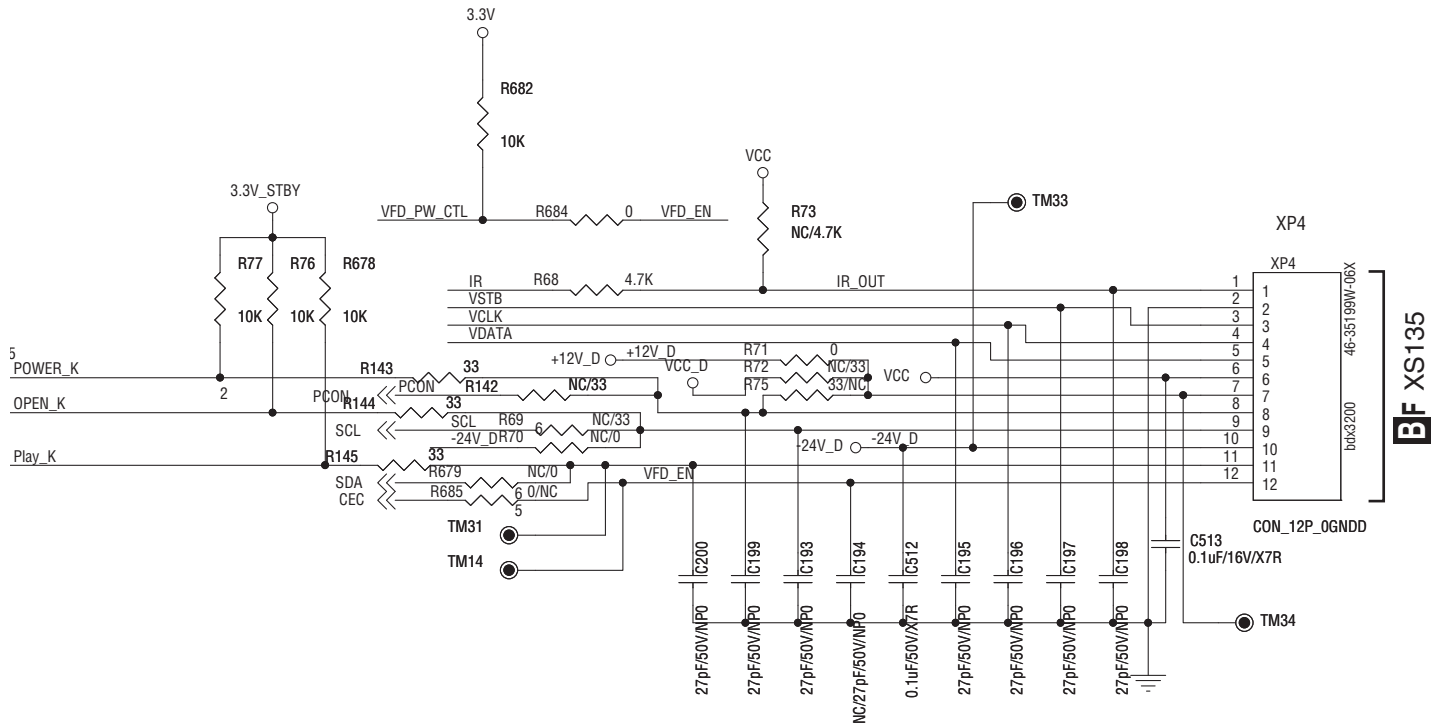
D

E

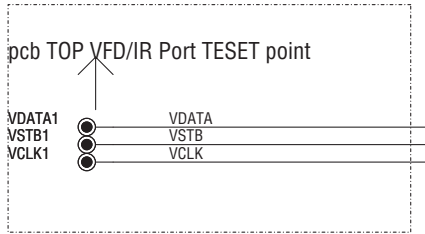
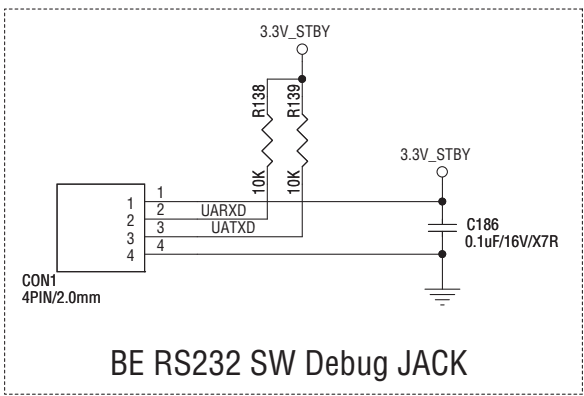
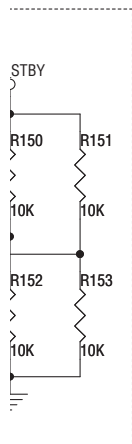
F



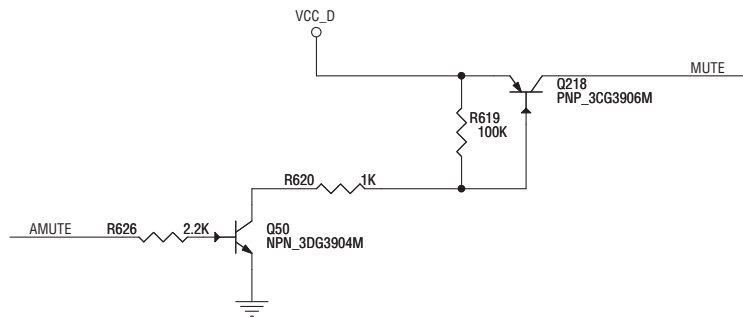
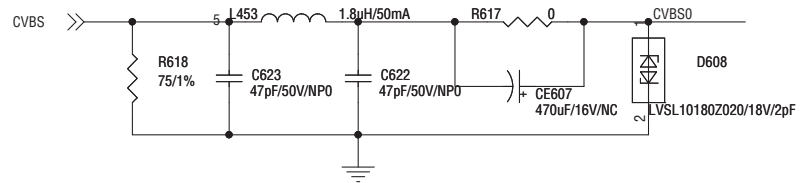
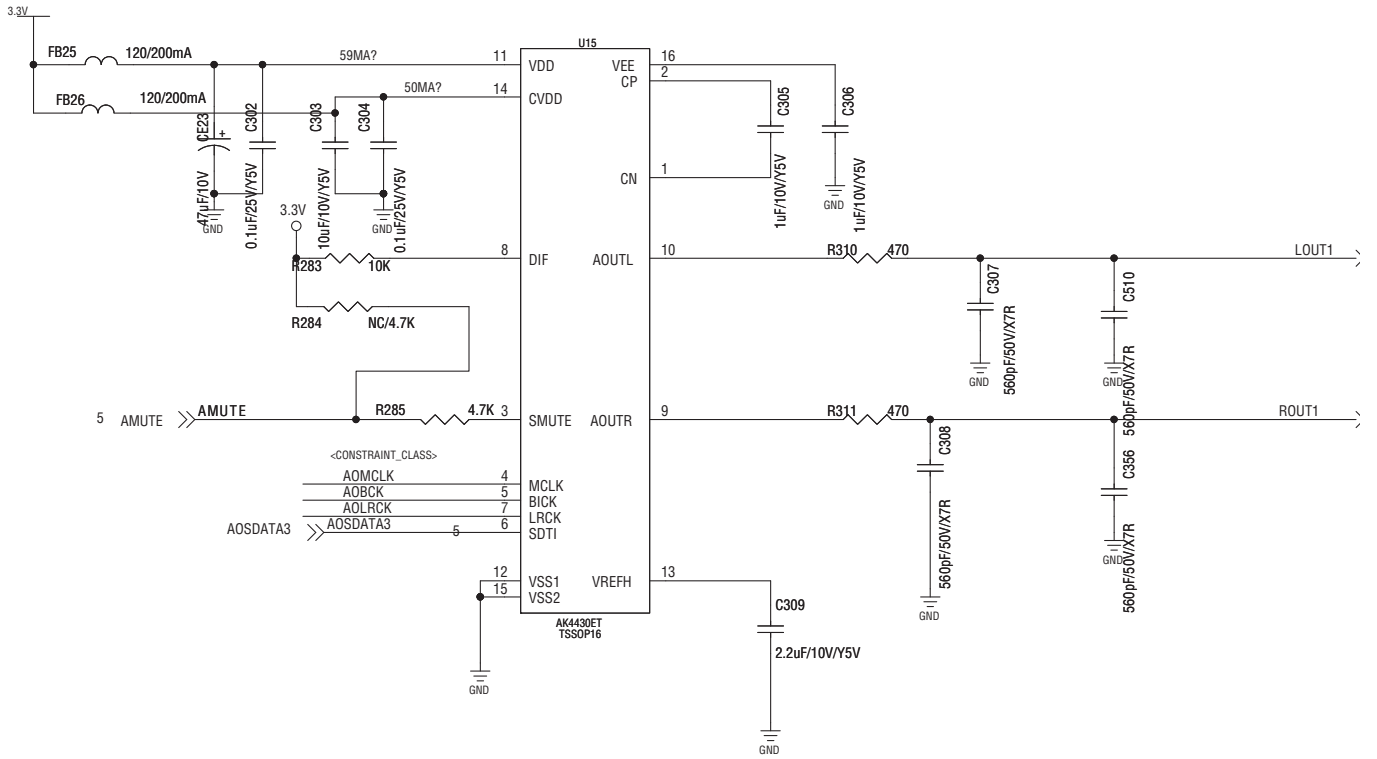
A 6/10F MAIN BOARD ASSY (6/10) (BDP-440 : 08-BDP440-MA0/Y-TL) (BDP-52FD : 08-BDP440-MA1/U-TL)



TO VFD BOARD



2.7 MAIN BOARD ASSY (7/10) : AUDIO DAC



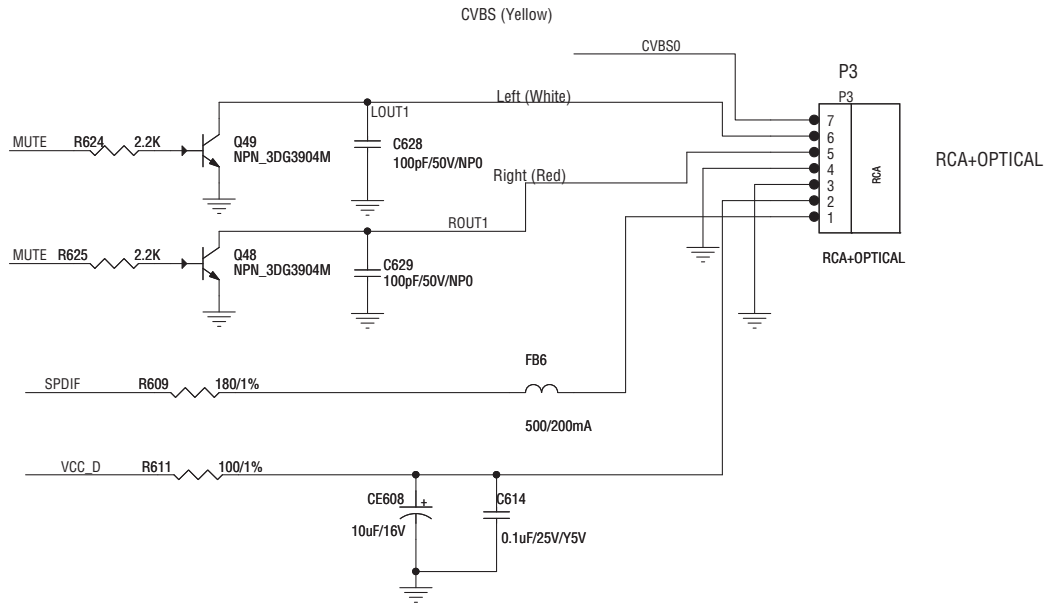
A7/10F MAIN BOARD ASSY (7/10)

(BDP-440 : 08-BDP440-MA0/Y-TL)
 (BDP-52FD : 08-BDP440-MA1/U-TL)

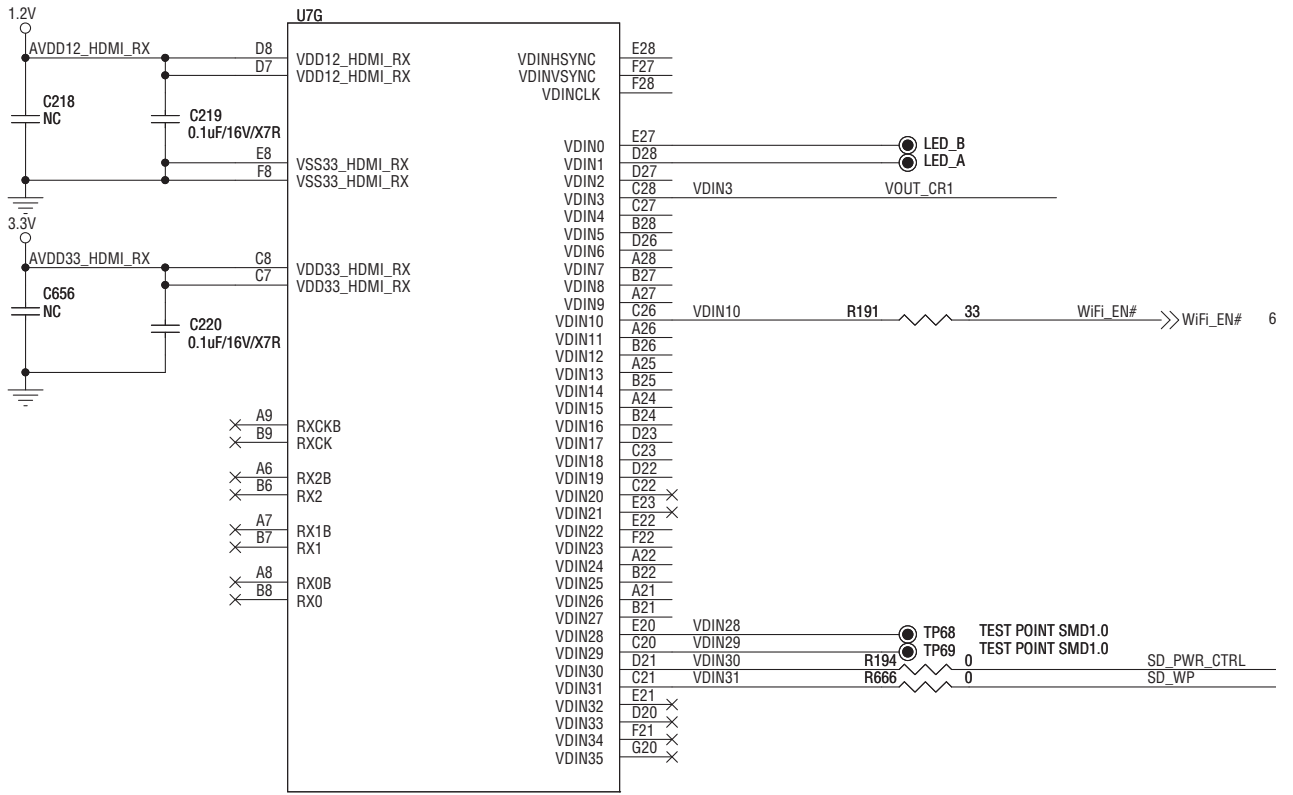
AOMCLK	5
AOBCK	5
AOSDATA0	5
AOLRCK	5
SPDIF	5

LOUT1 >> LOUT1

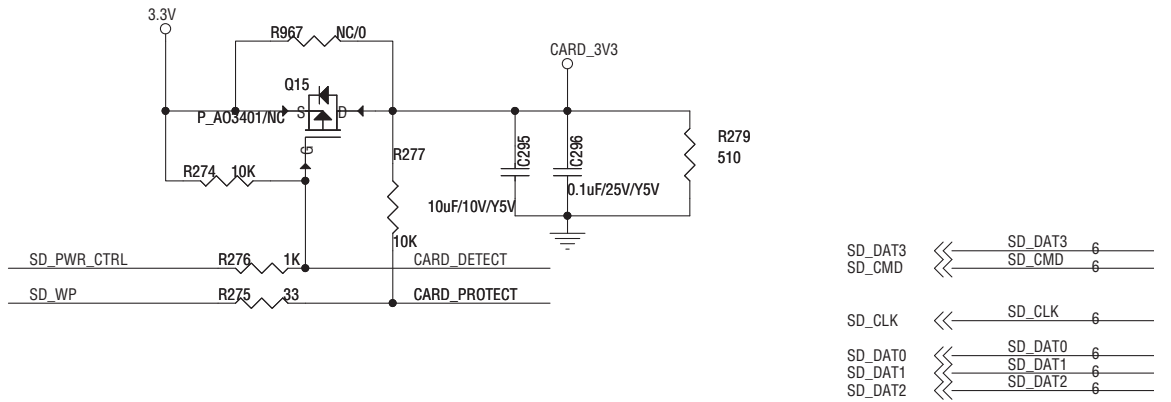
ROUT1 >> ROUT1



2.8 MAIN BOARD ASSY (8/10) : VIDEO/SD OUTPUT

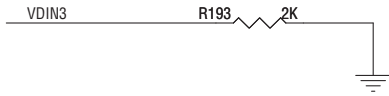


MT8555_0825_A



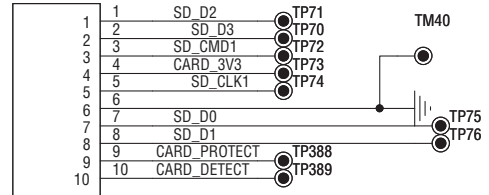
A 8/10F MAIN BOARD ASSY (8/10)

(BDP-440 : 08-BDP440-MA0/Y-TL)
 (BDP-52FD : 08-BDP440-MA1/U-TL)

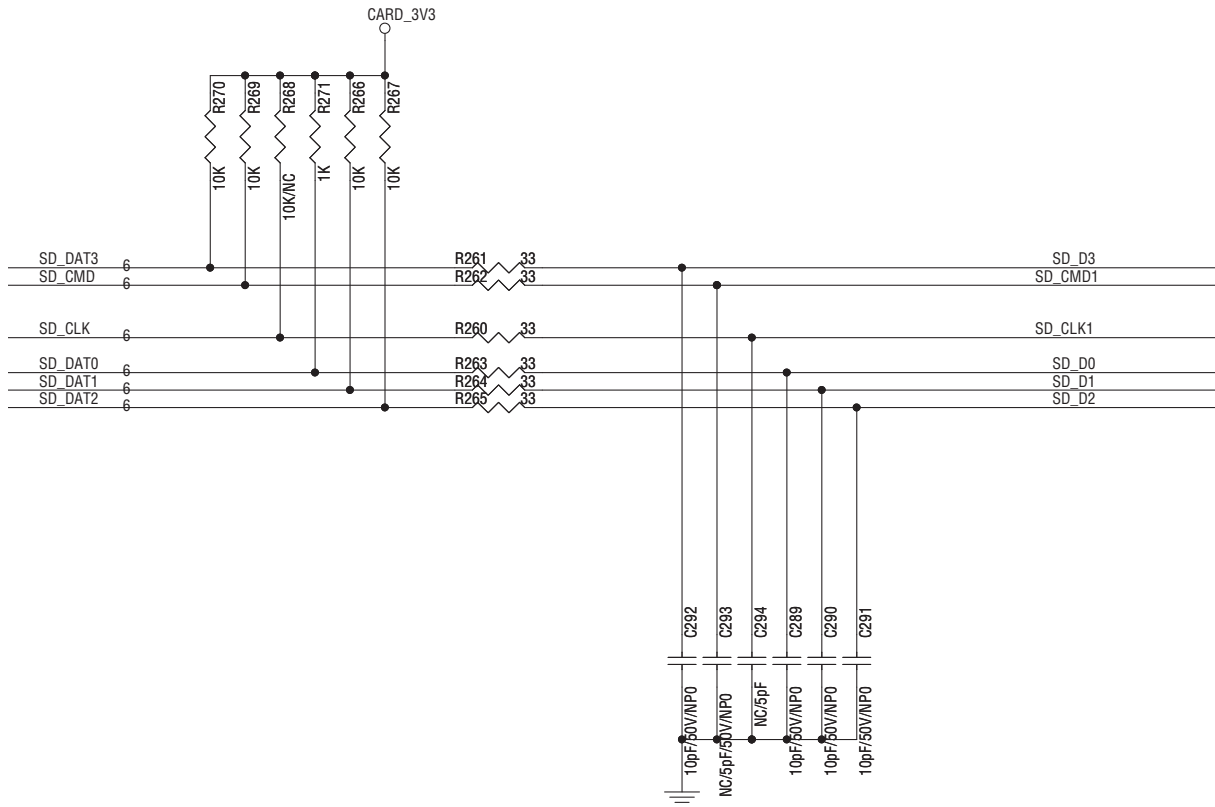


i_EN# >>> WiFi_EN# 6

0
 0
 SD_PWR_CTRL
 SD_WP

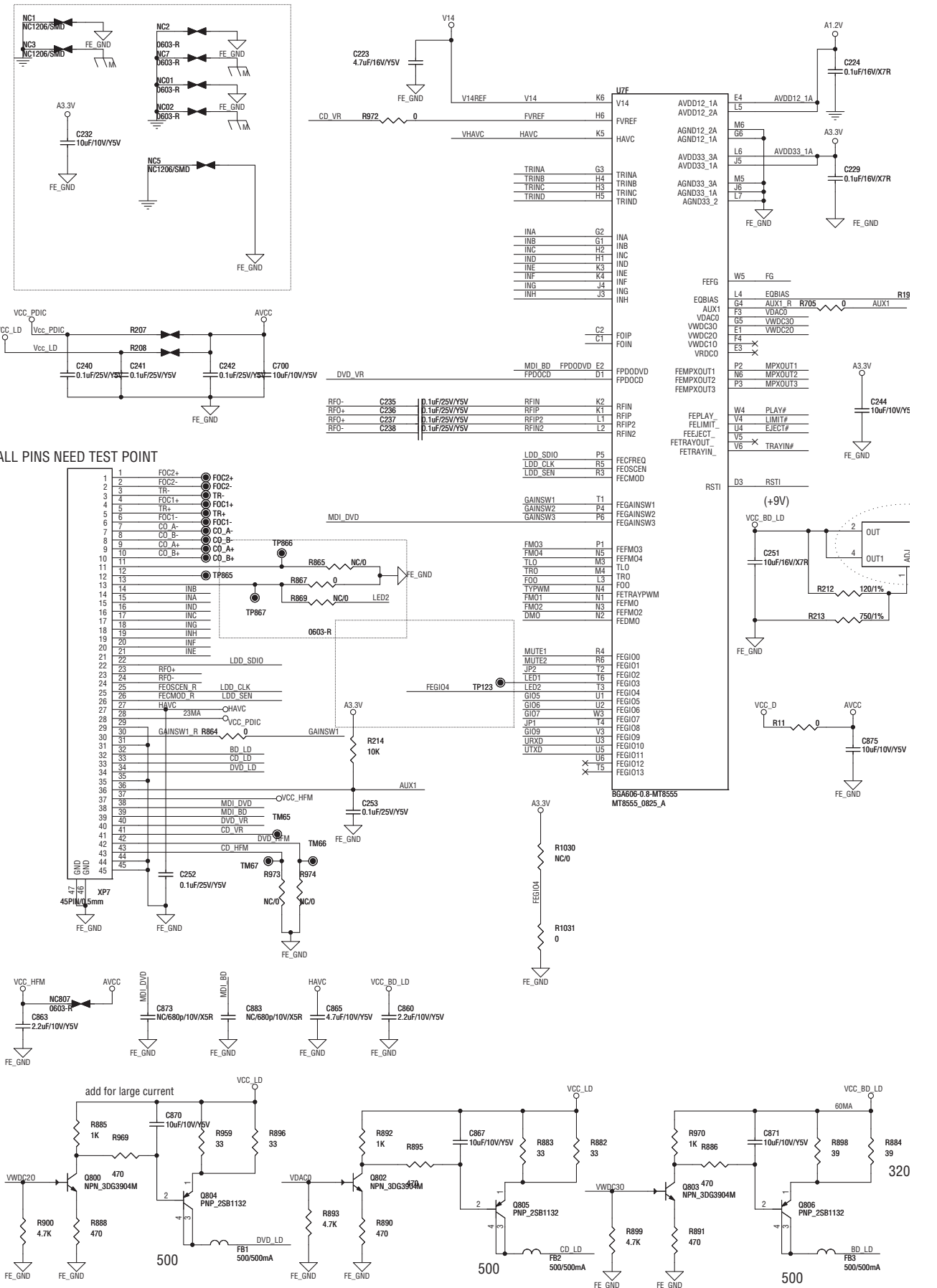


J502
 10PIN/2.0mm

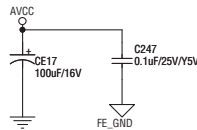
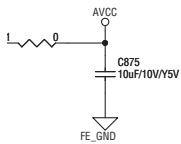
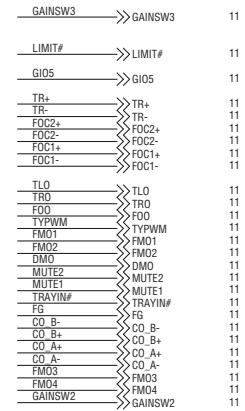
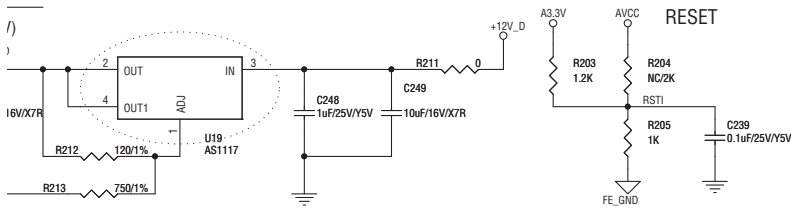
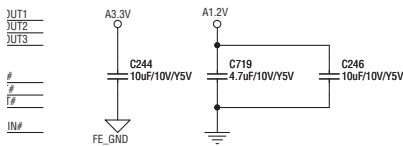
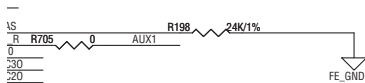
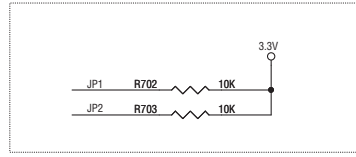
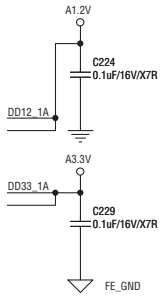
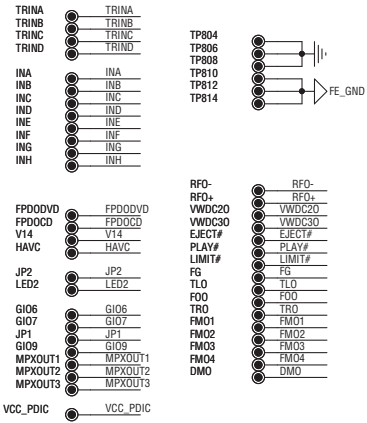
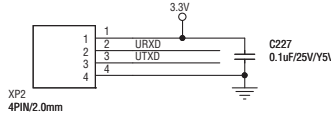


2.9 MAIN BOARD ASSY (9/10) : FE

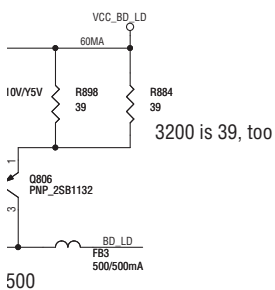
A
B
C
D
E
F



FE RS232 Port



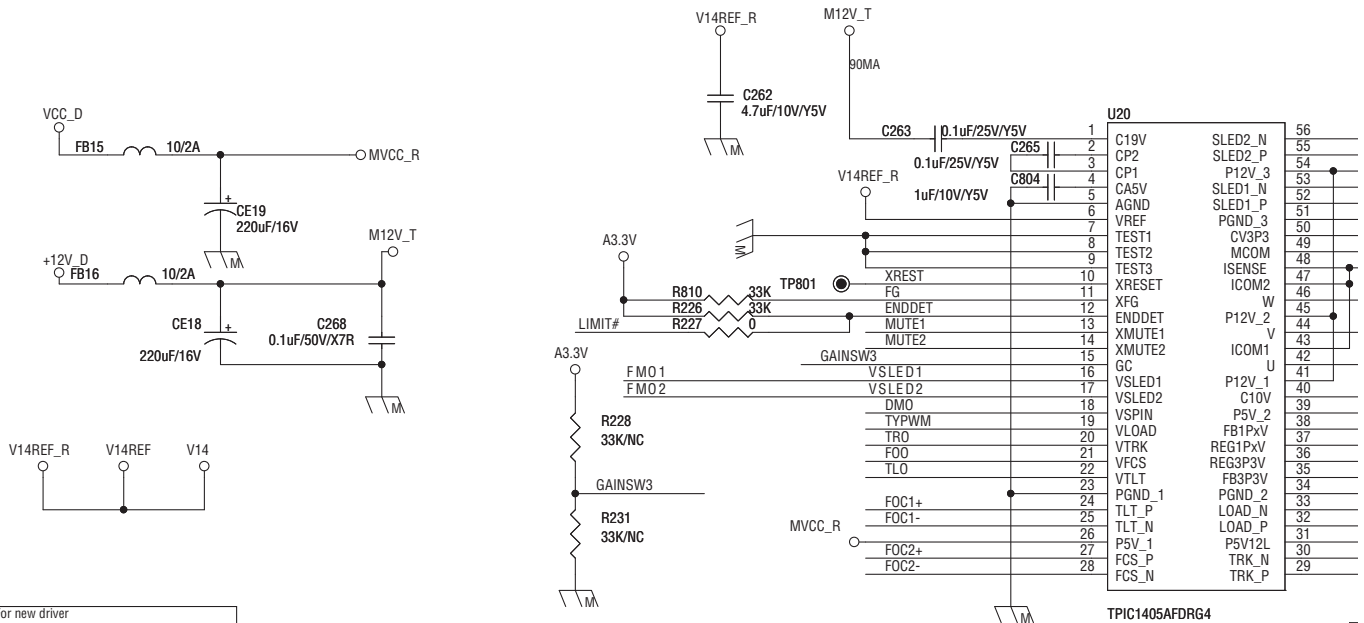
Reserved for FE POWER



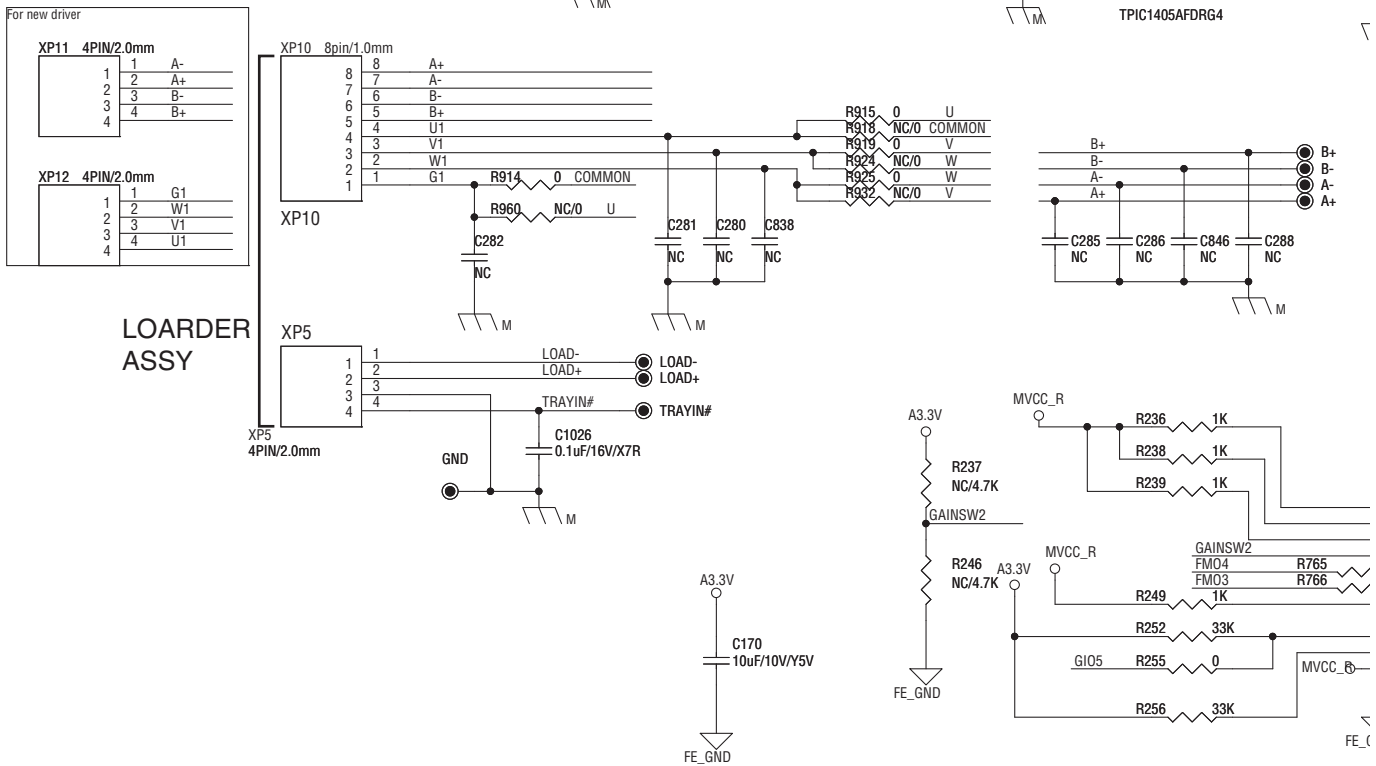
A9/10F MAIN BOARD ASSY (9/10)
(BDP-440 : 08-BDP440-MA0/Y-TL)
(BDP-52FD : 08-BDP440-MA1/U-TL)

2.10 MAIN BOARD ASSY (10/10) : MOTOR DRIVER

A



B



C

D

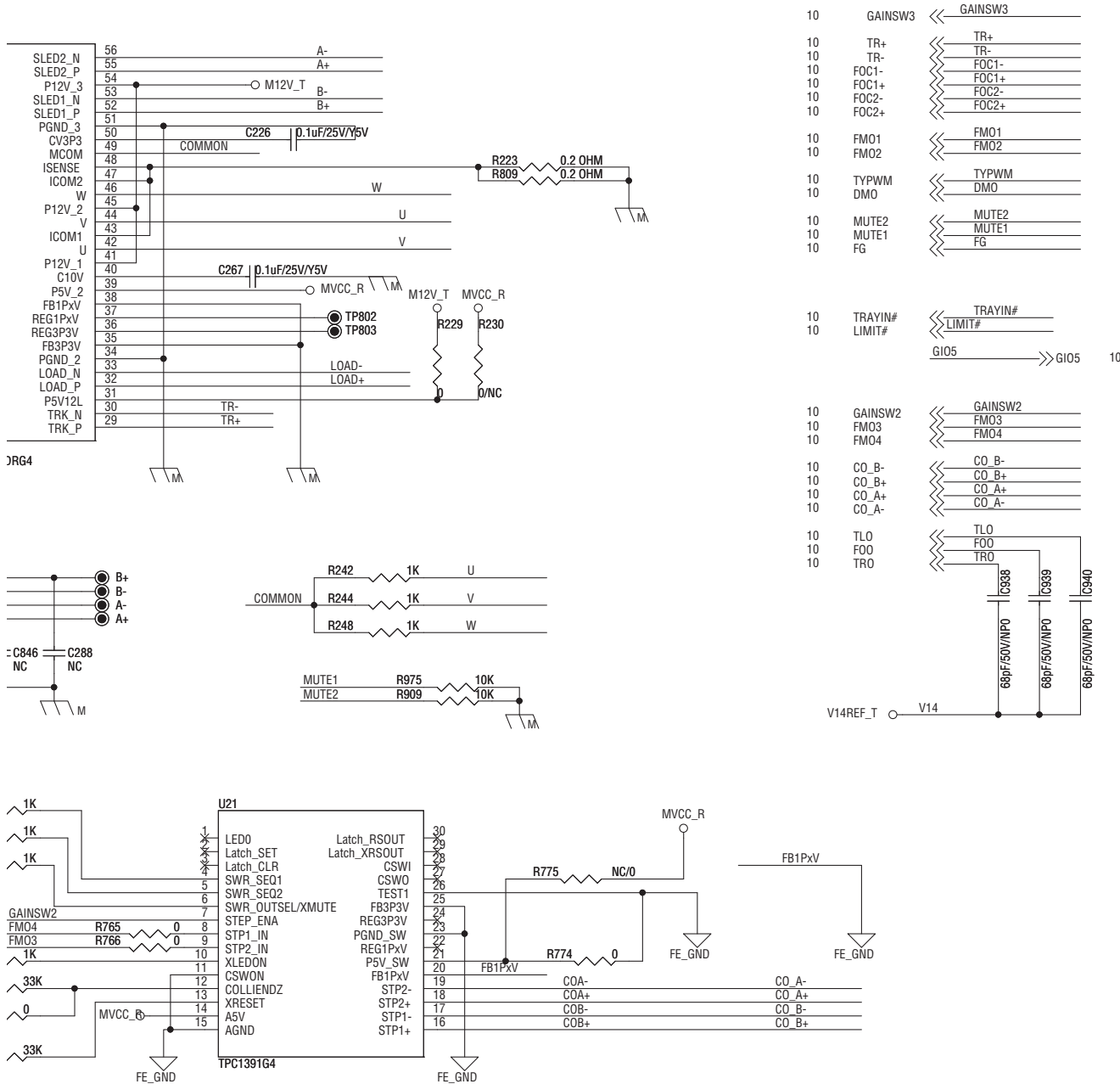
E

sanyo 414H08	R915	R919	R925	R914	0 R
	R918	R924	R932	R960	NC
Hitach HOP-B1350	R918	R924	R932	R960	NC
	R915	R919	R925	R914	0 R

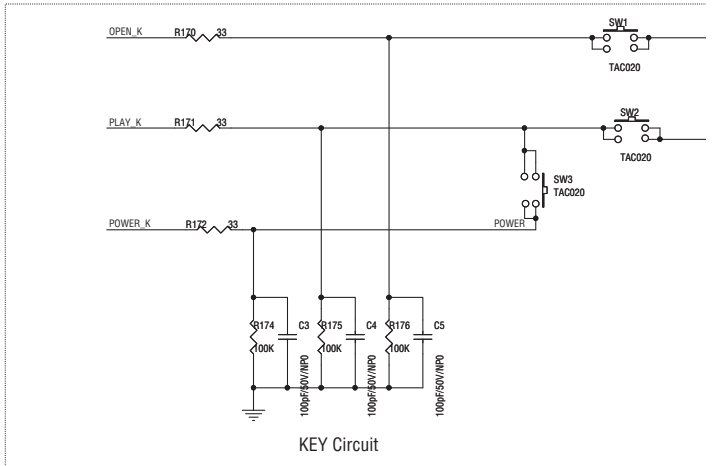
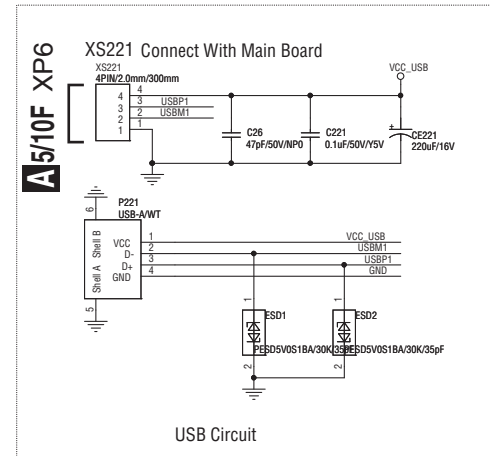
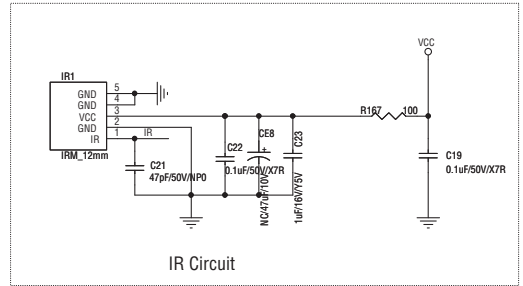
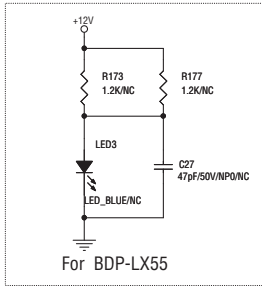
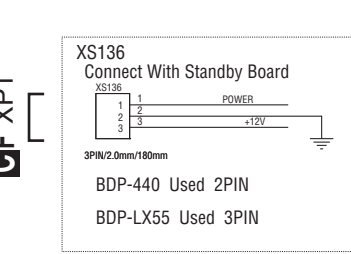
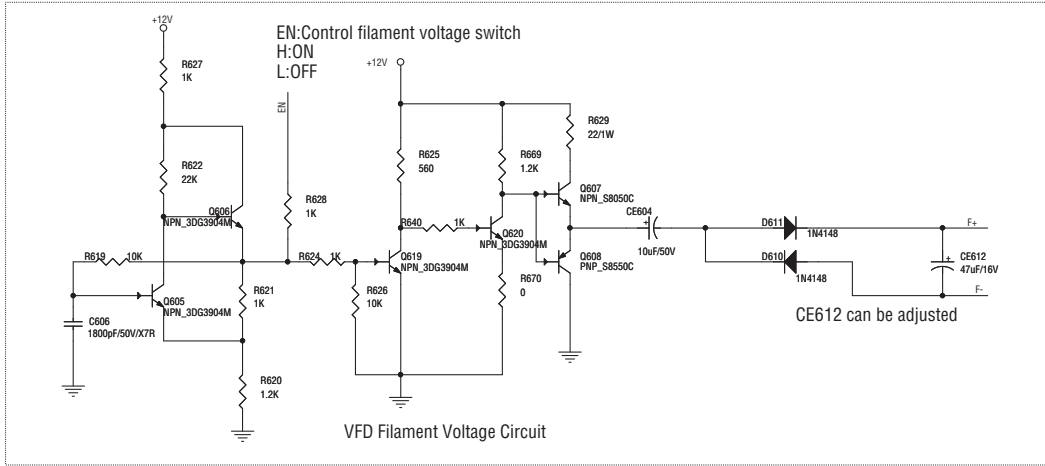
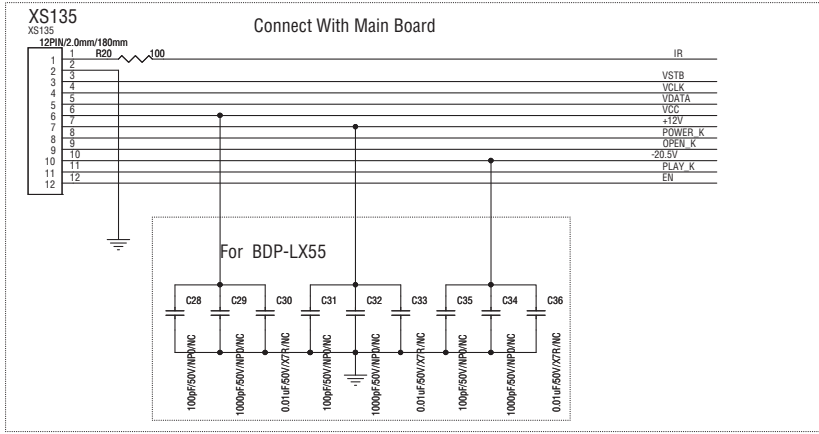
When use Hitach OPU R863 is 10K

A10/10F MAIN BOARD ASSY (10/10)

(BDP-440 : 08-BDP440-MA0/Y-TL)
 (BDP-52FD : 08-BDP440-MA1/U-TL)

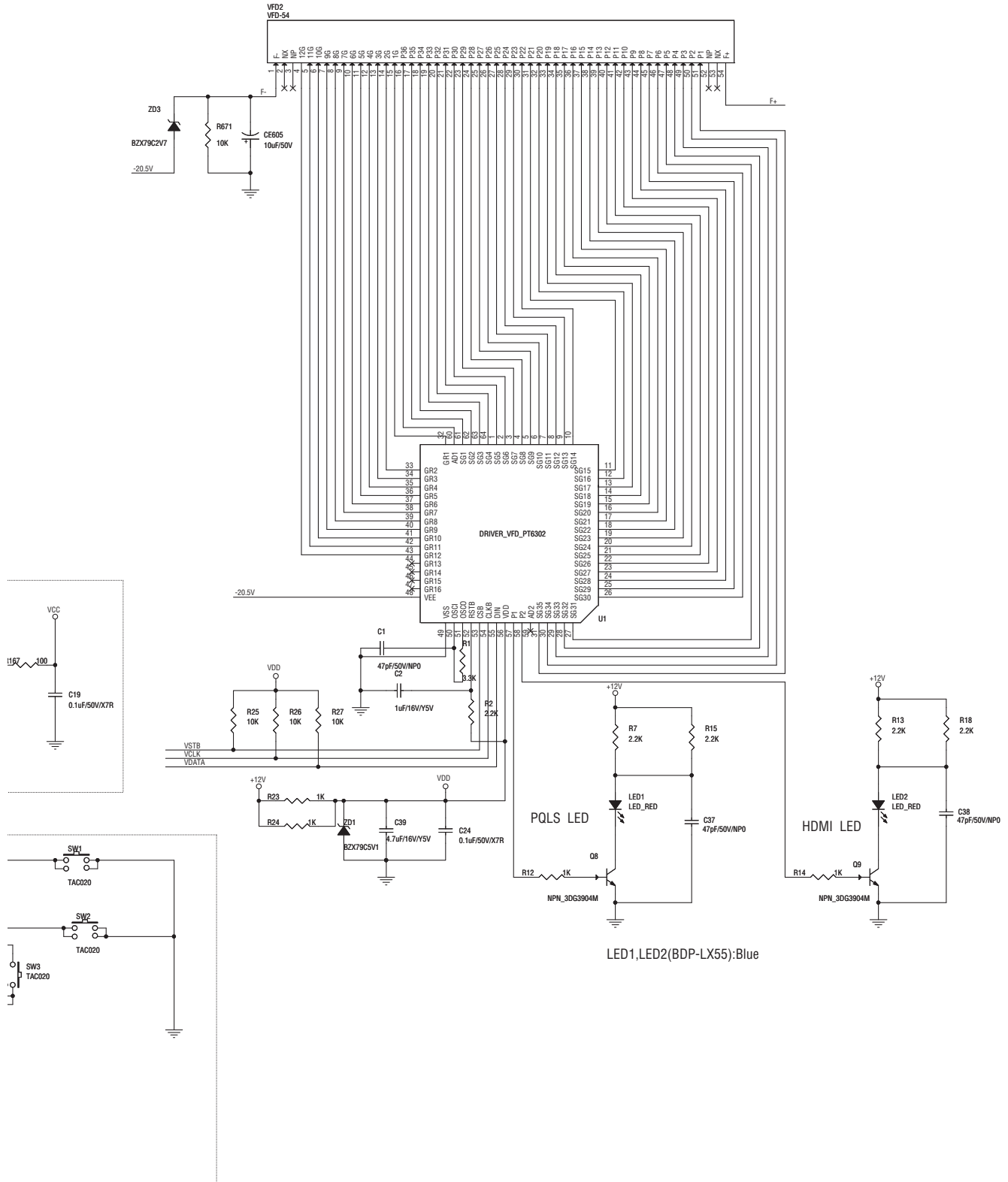


2.11 FRONT BOARD ASSY



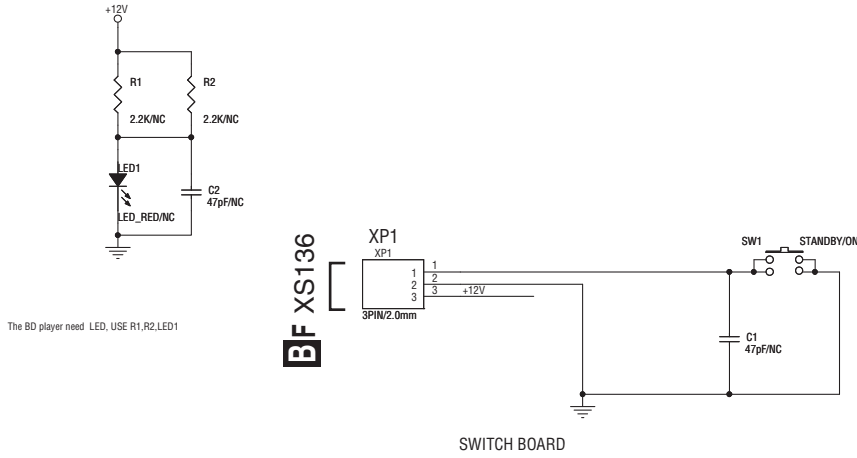
BF FRONT BOARD ASSY (BDP-440 : 08-BDP440-FV0-TL) (BDP-52FD : 08-BDP440-FV2-TL)

A
B
C
D
E
F

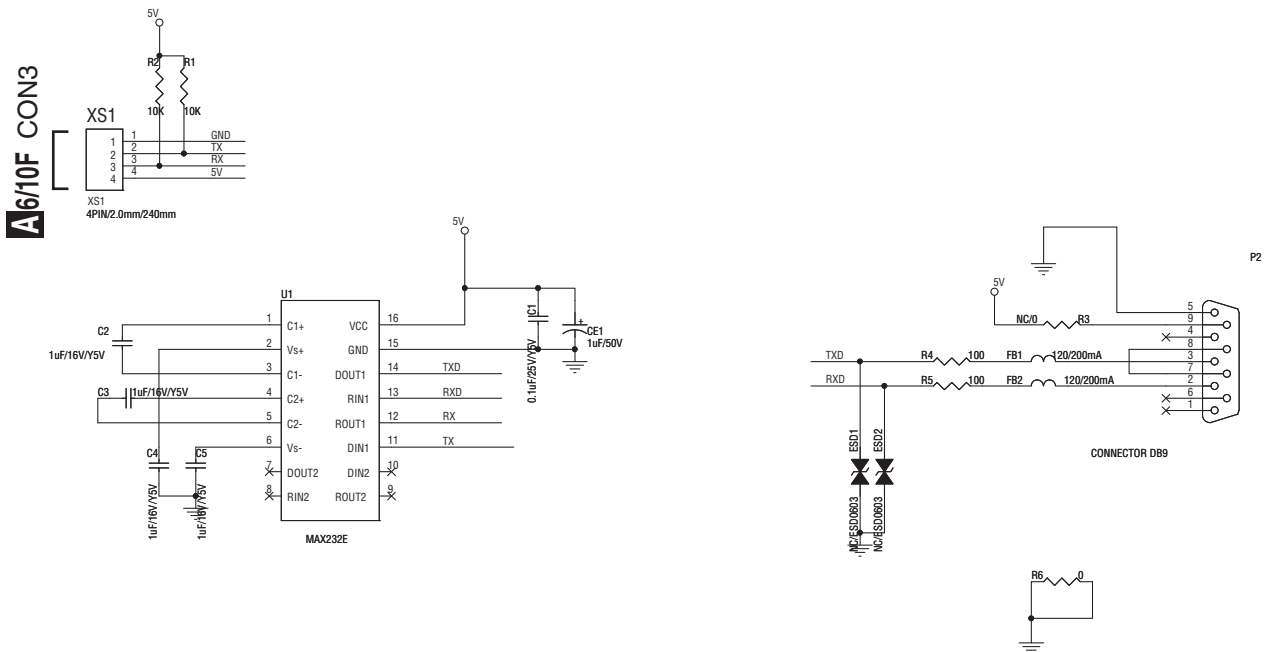


2.12 SWITCH BOARD and RS-232C BOARD ASSYS

CF SWITCH BOARD ASSY (BDP-440 : 08-BDP440-SW0-TL) (BDP-52FD : 08-BDLX55-SW0-TL)



FF RS-232C BOARD ASSY (BDP-52FD : 08-BDP440-RS0-TL)



■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

BDP-440

■

7

■

8

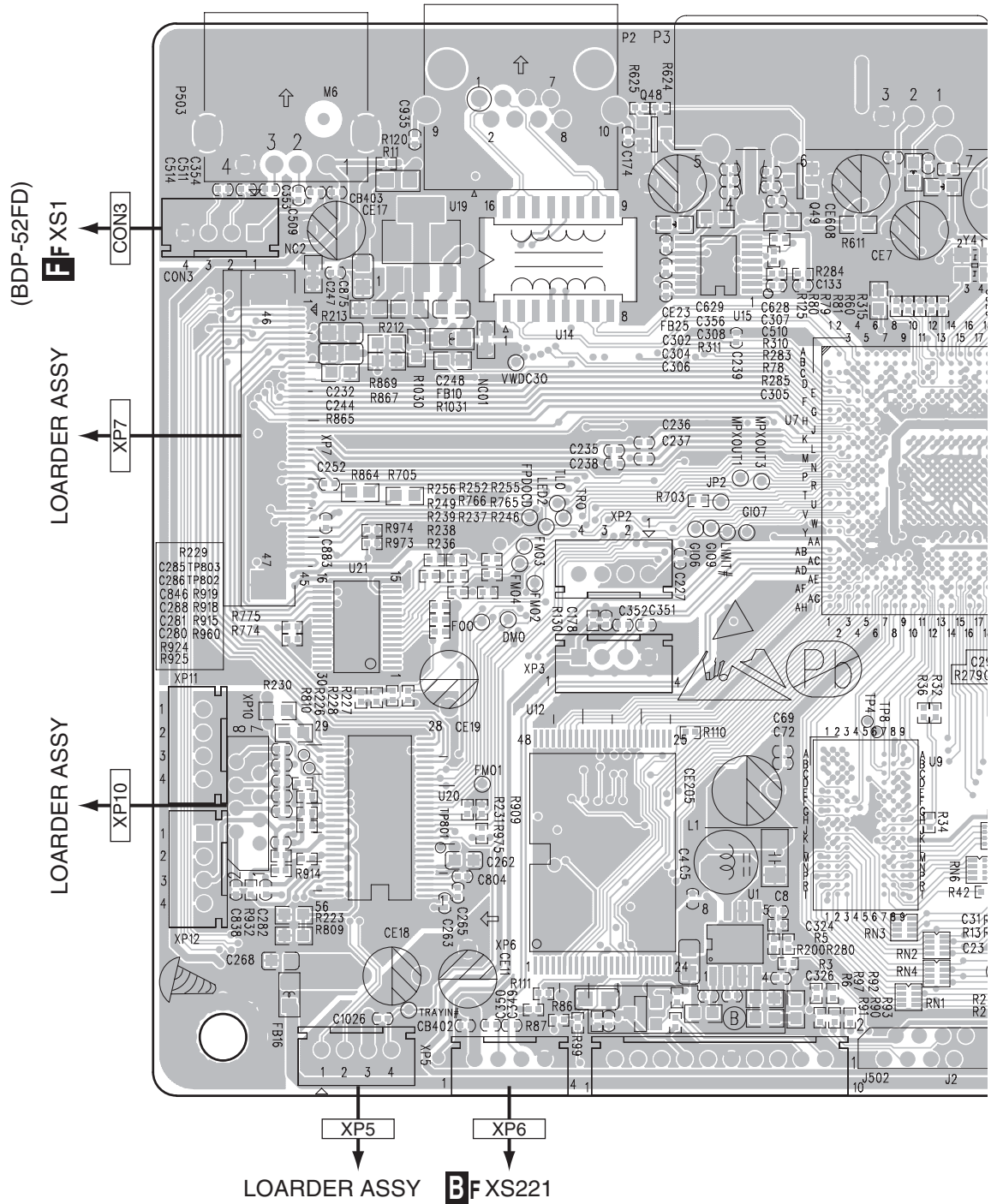
■

3. PCB CONNECTION DIAGRAM

3.1 MAIN BOARD ASSY

SIDE A

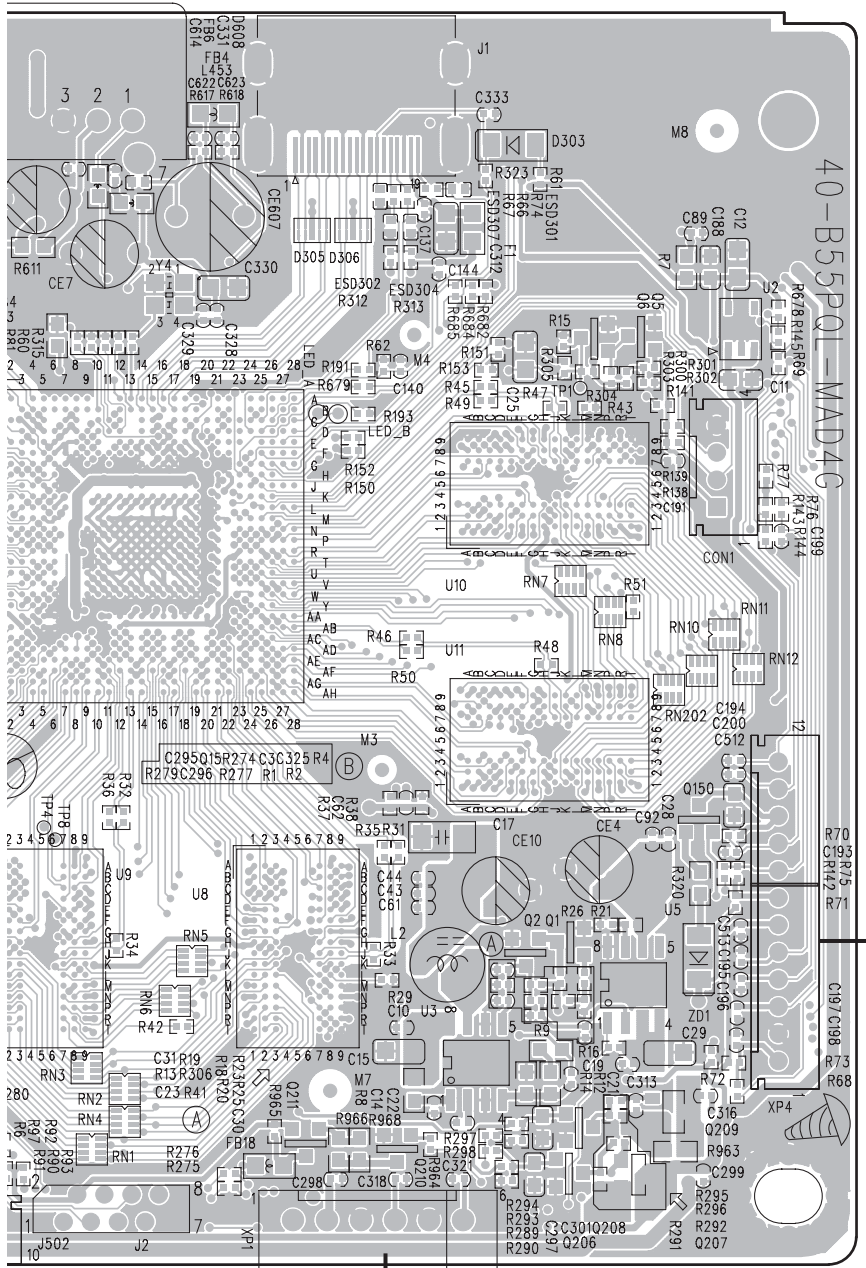
AF MAIN BOARD ASSY



AF

SIDE A

A
B
C
D
E
F



40-B55POL-MAD4C

XP1
E CN503

XP4
B FXS135

BDP-440

AF

SIDE B

A

B

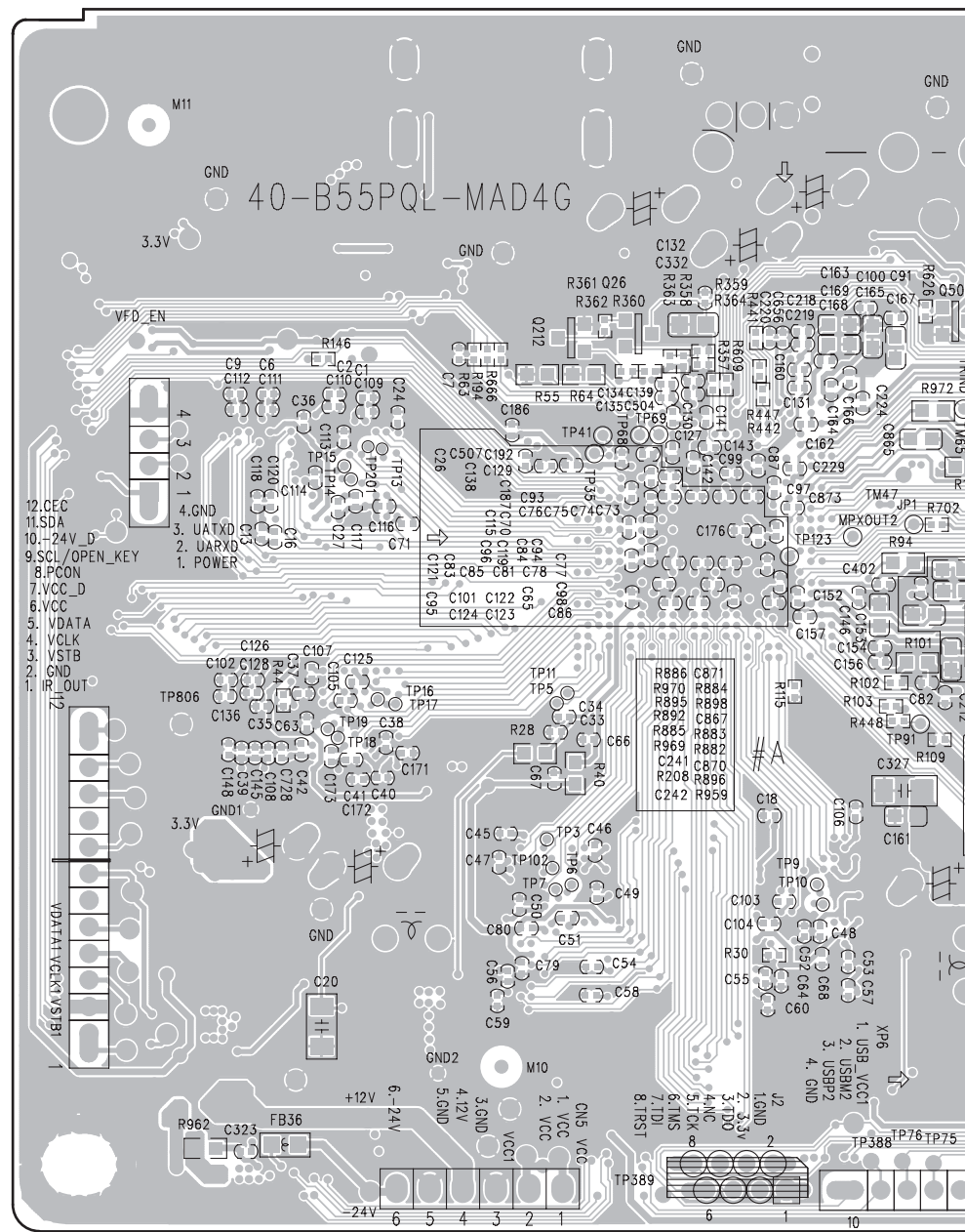
C

D

E

F

AF MAIN BOARD ASSY



XP4

XP1



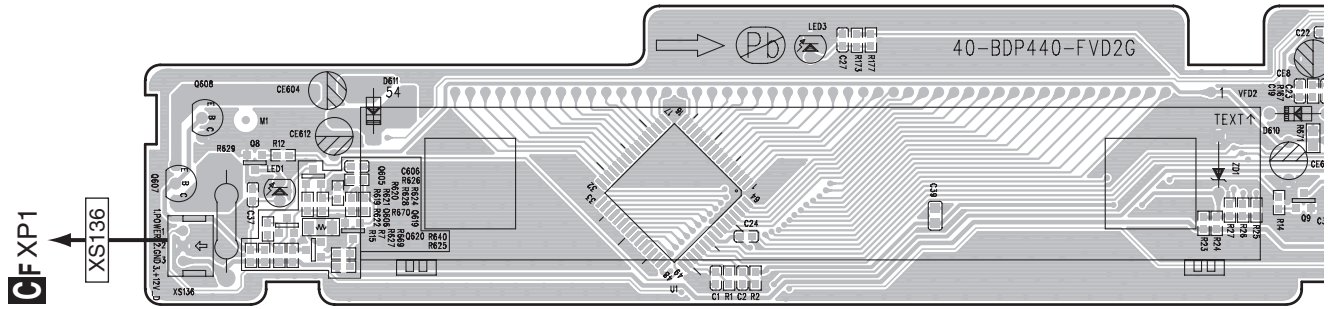
3.2 FRONT BOARD ASSY

SIDE A

A

BF FRONT BOARD ASSY

B



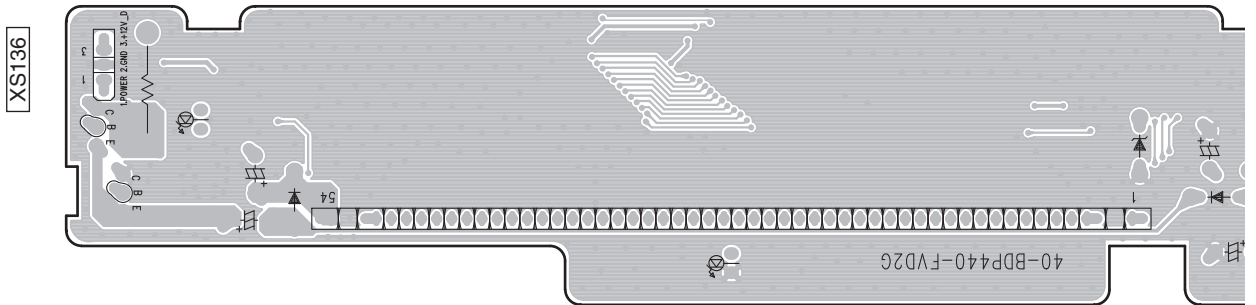
C

SIDE B

D

BF FRONT BOARD ASSY

E



F

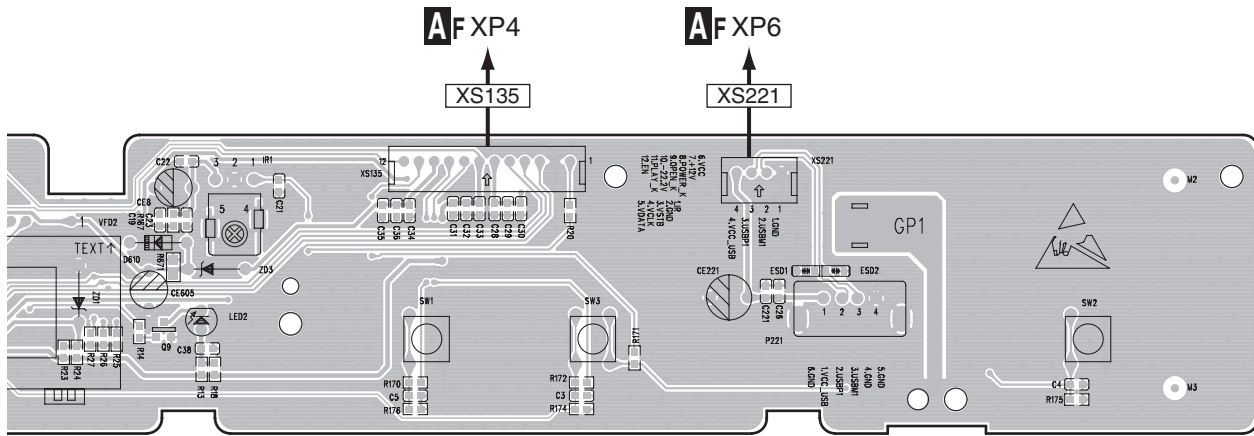


SIDE A

A

B

C

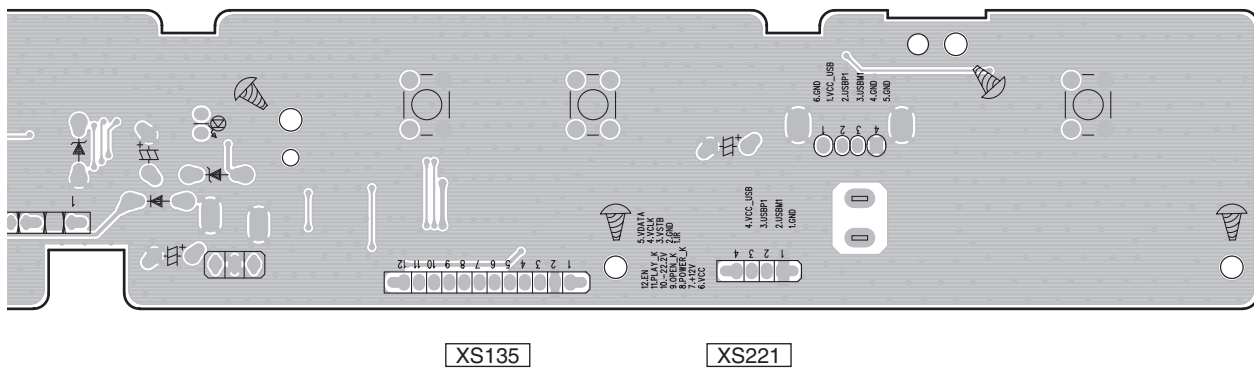


SIDE B

D

E

F

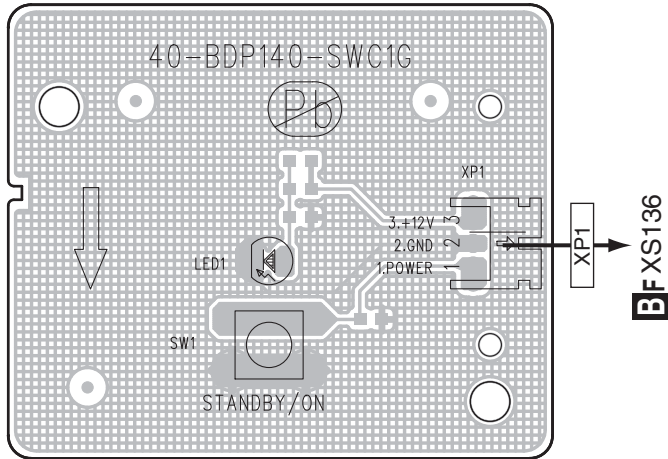


3.3 SWITCH BOARD and RS-232C BOARD ASSYS

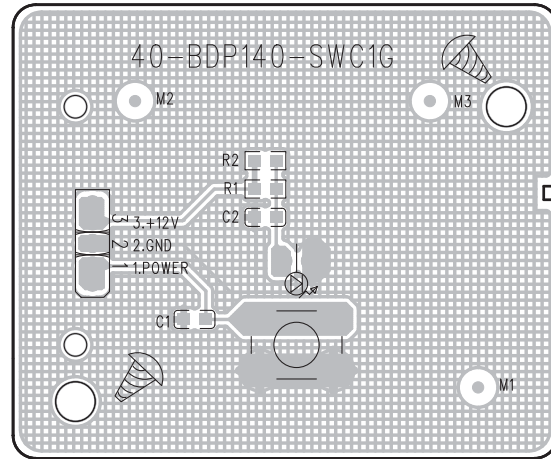
SIDE A

SIDE B

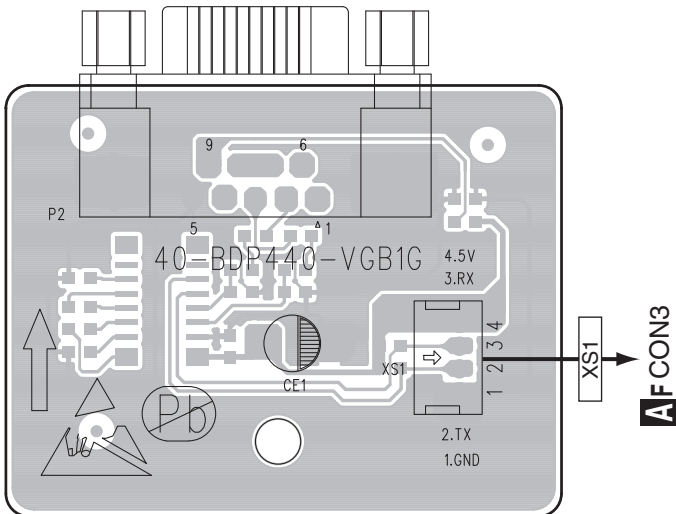
CF SWITCH BOARD ASSY



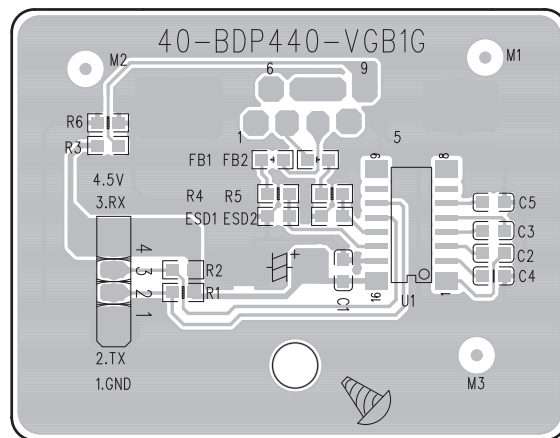
CF SWITCH BOARD ASSY



FF RS-232C BOARD ASSY (BDP-52FD)



FF RS-232C BOARD ASSY (BDP-52FD)



CF FF

CF FF