

1

Audio Section Block Diagram



- See page 95-104 →
CIRCUIT DIAGRAM

See page 105-112 →
CIRCUIT DIAGRAM

B Remote Sensor

Standby LED

Rotary Encoder(Net selector

(PureDirect SW)

Head Phone _____

Speaker A OUT Rch

Speaker B OUT

Out

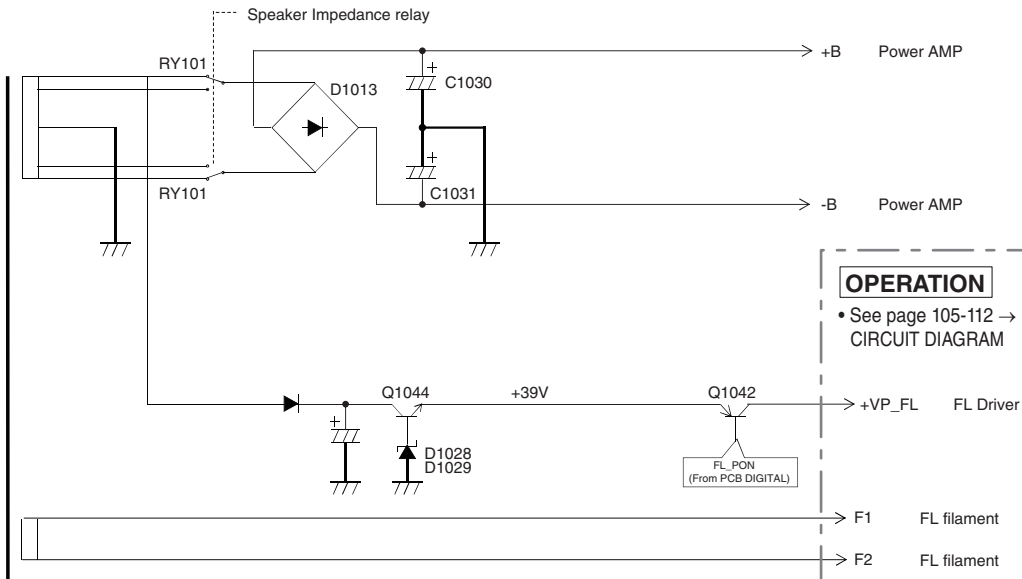
- See page 113-116 →
CIRCUIT DIAGRAM

See page 95-104 →
CIRCUIT DIAGRAM

See page 105-112 —
CIRCUIT DIAGRAM

3

Power Supply Section Block Diagram



OPERATION

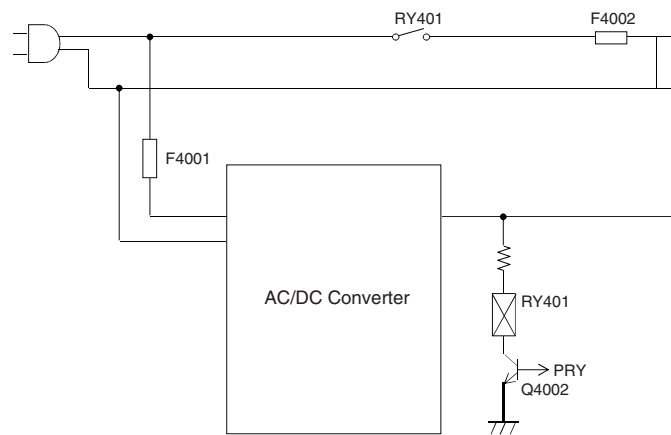
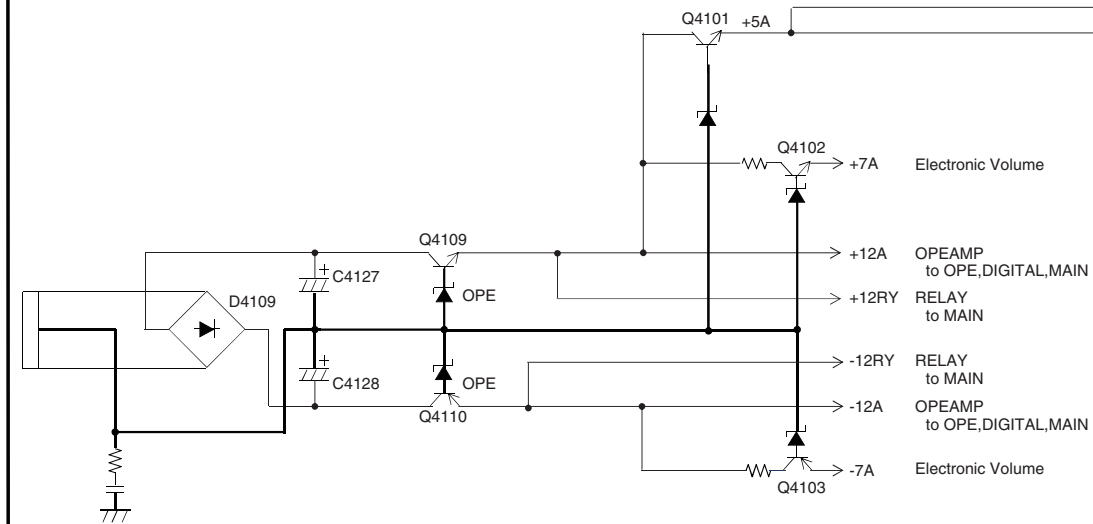
- See page 105-112 →
CIRCUIT DIAGRAM

MAIN

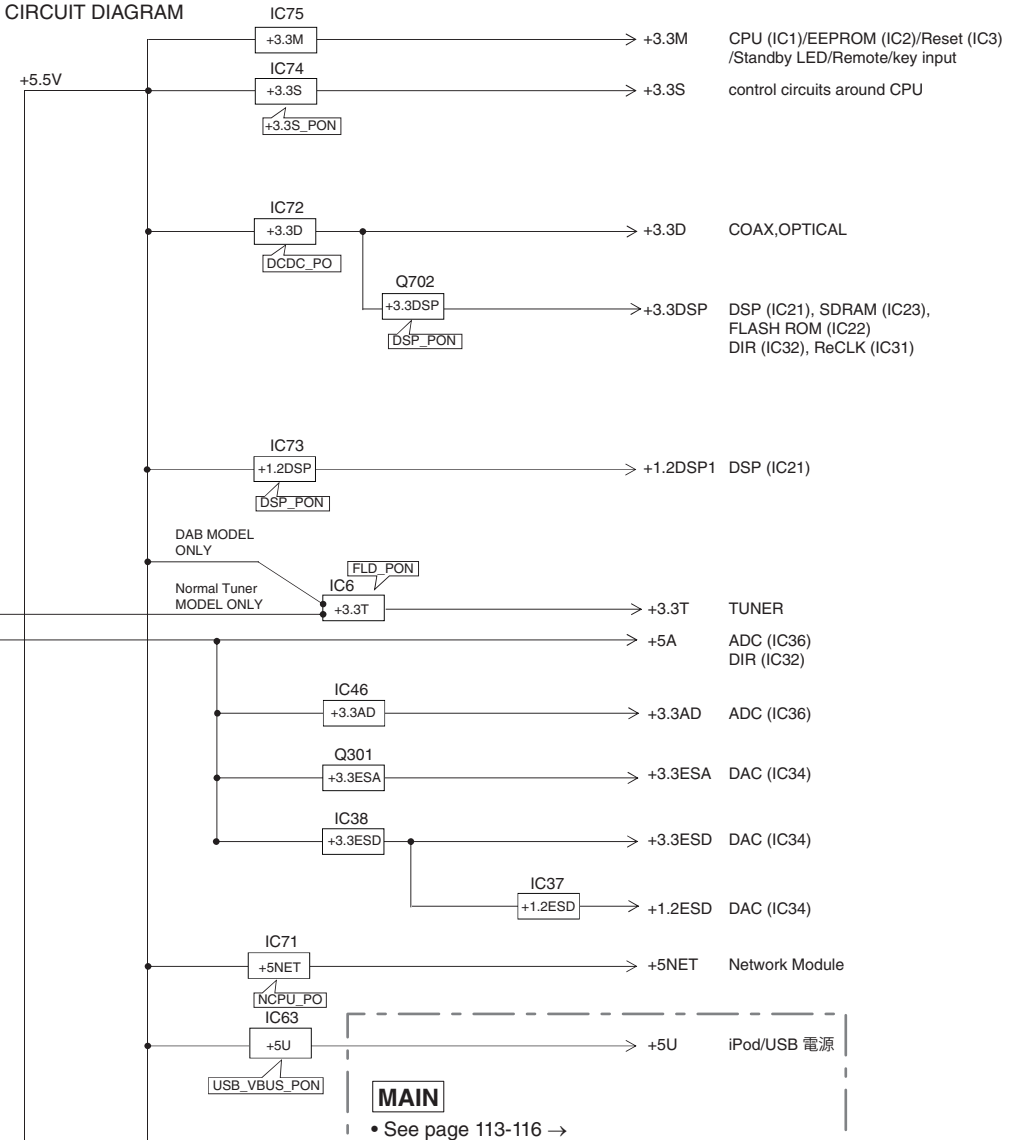
- See page 113-116 →
CIRCUIT DIAGRAM

OPERATION

- See page 105-112 →
CIRCUIT DIAGRAM

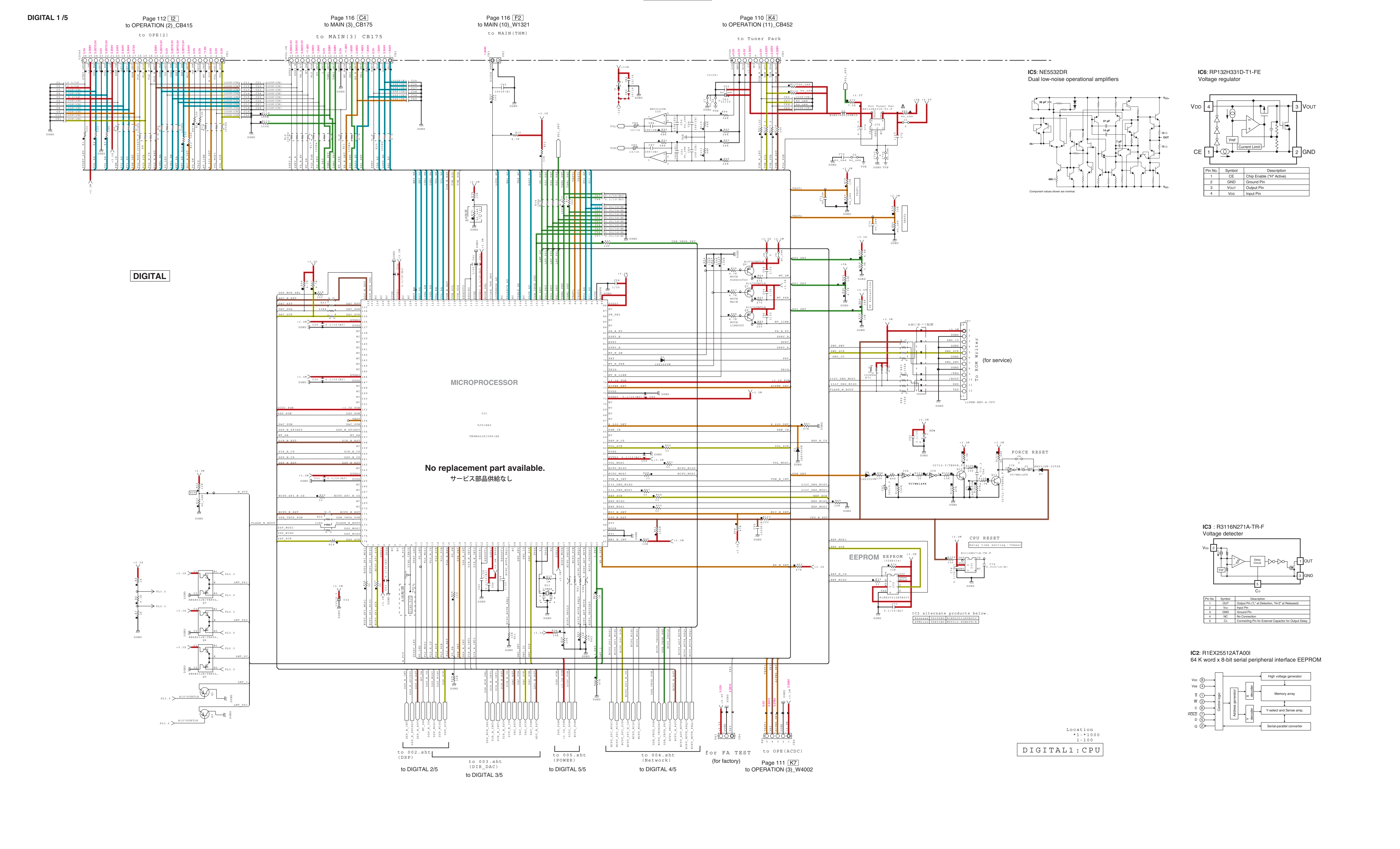
**DIGITAL**

- See page 95-104 →
CIRCUIT DIAGRAM



MAIN

- See page 113-116 →
CIRCUIT DIAGRAM



NOTICE (model)

(2)..... JAPAN
(1)..... U.S.A
(3)..... CANADA
(8)..... GENERAL
(7)..... CHINA
(1)..... KOREA
(1)..... AUSTRALIA
(8)..... BRITISH
(1)..... STANDARD
(1)..... SINGAPORE
(8)..... SOUTH EUROPE
(7)..... TAIWAN
(7)..... RUSSIAN
(2)..... LATIN AMERICA
(8)..... BRAZIL
(8)..... THAI

RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P-5)
□	CARBON FILM RESISTOR (P-10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
□	METAL PLATE RESISTOR
□	FILM PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
□	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
□	TANTALUM CAPACITOR
●	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	WICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR
⊙	POLYPROPYLENE SULFIDE FILM CAPACITOR

IC5: NE5532DR
Dual low-noise operational amplifiers

IC6: RP132H331D-T1-FE
Voltage regulator

IC3: R3116N271A-TR-F
Voltage detector

IC2: R1EX25512A001
64 K word x 8-bit serial peripheral interface EEPROM

DIGITAL1: CPU

Location
*1-1000
1-100

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● 本回路図は標準回路図です。改良のため予告なく変更することがあります。

Details of colored lines

Red / full line:	Power supply (+)
Red / dashed line:	Power supply (-)
Orange:	Signal detect
Yellow:	Clock
Green:	Protection detect
Brown:	Reset signal
Blue:	Panel key input

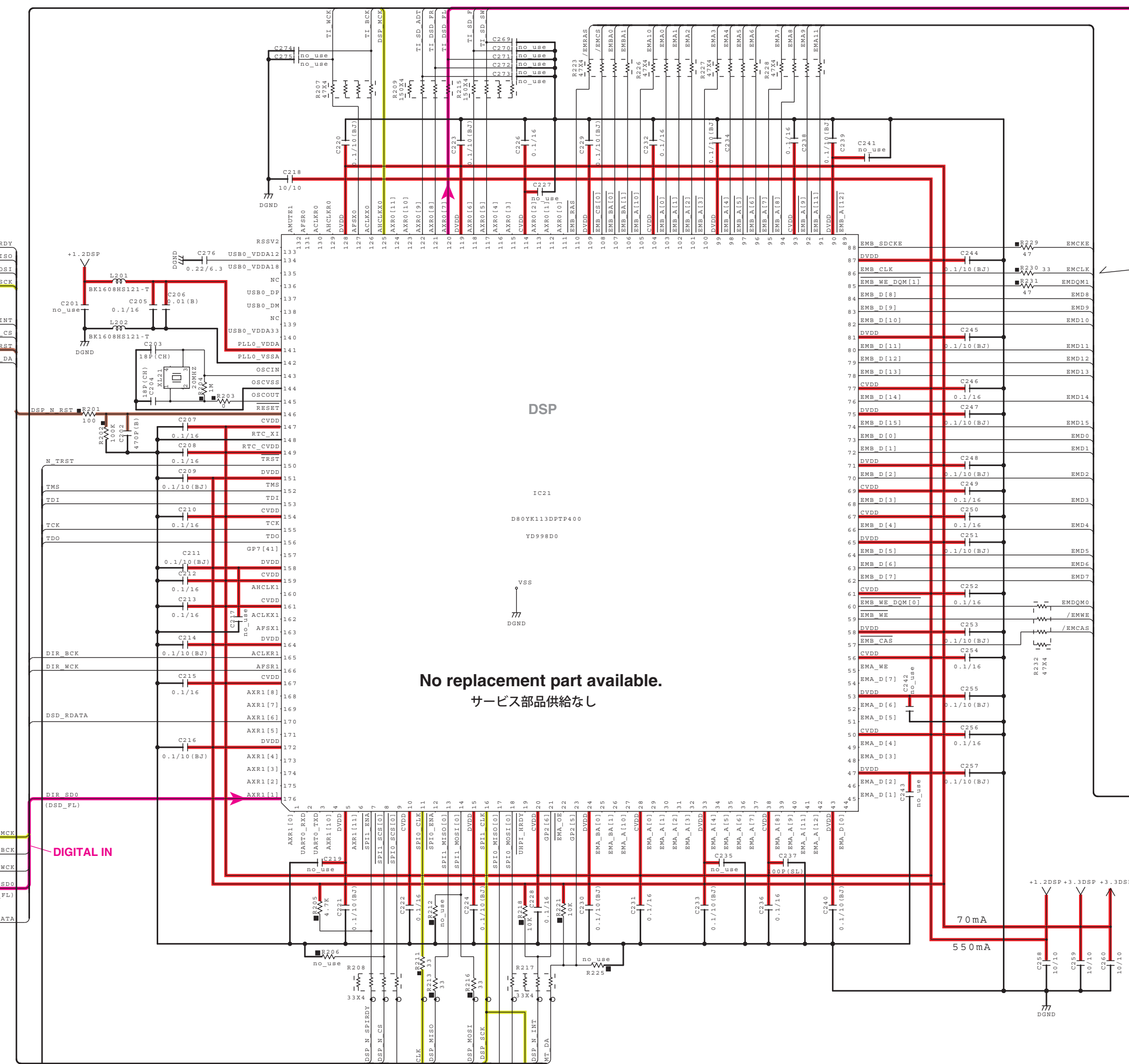
Location
*201-300
21-30
DIGITAL2:DSP

DIGITAL

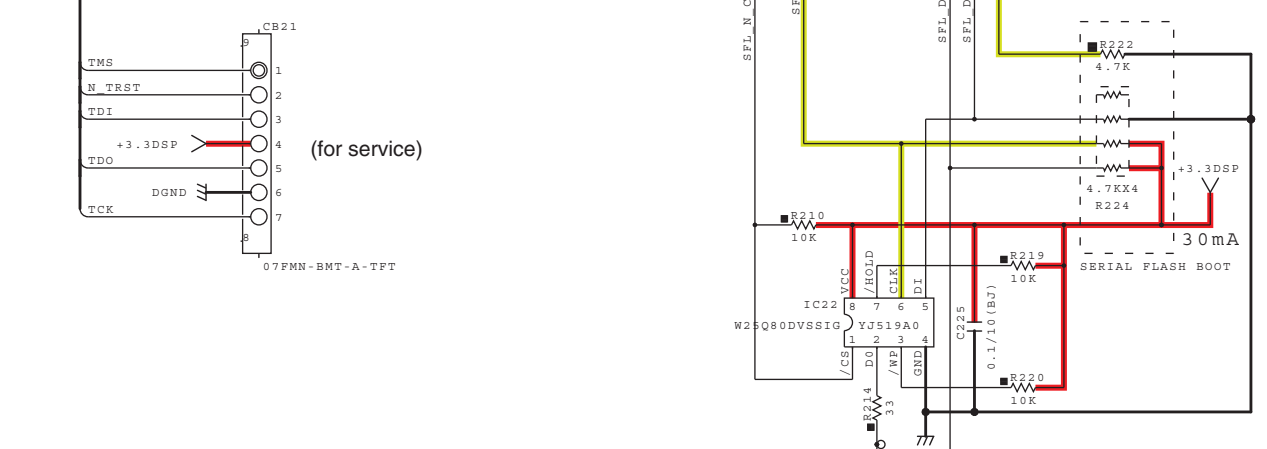
to DIGITAL 1/5 From 001.sht (CPU)

to DIGITAL 3/5 From 003.sht (DIR)

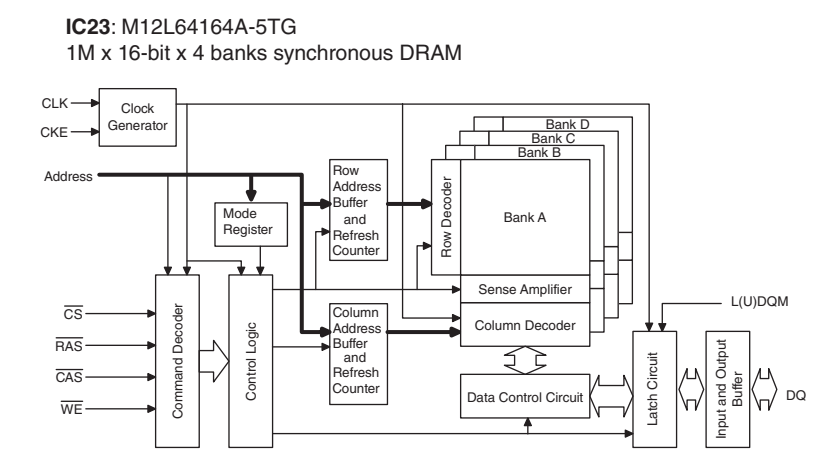
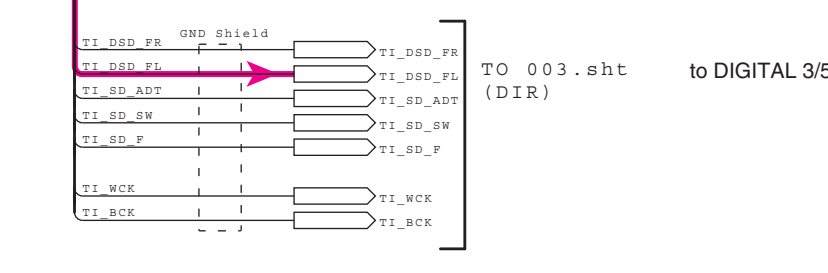
to DIGITAL 4/5 From 004.sht (NET)



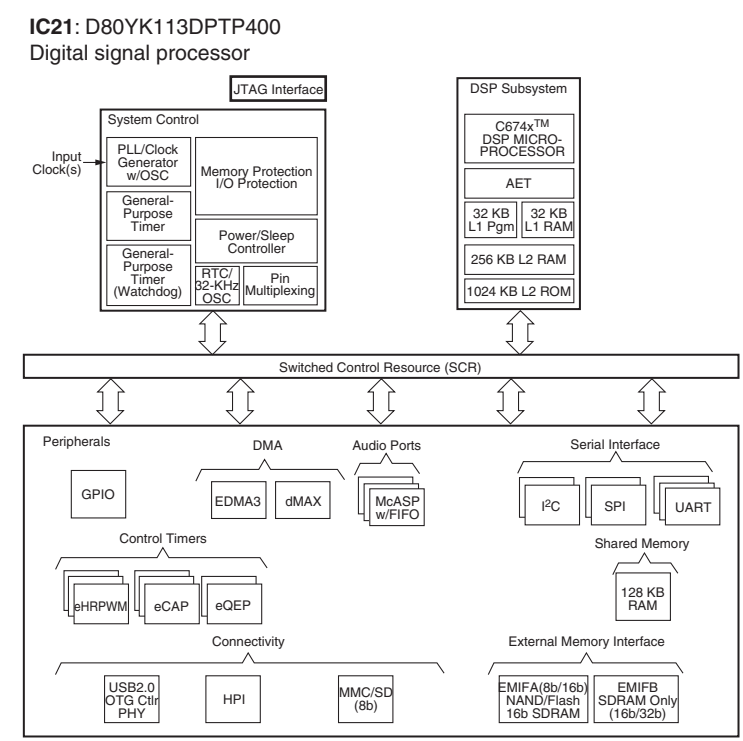
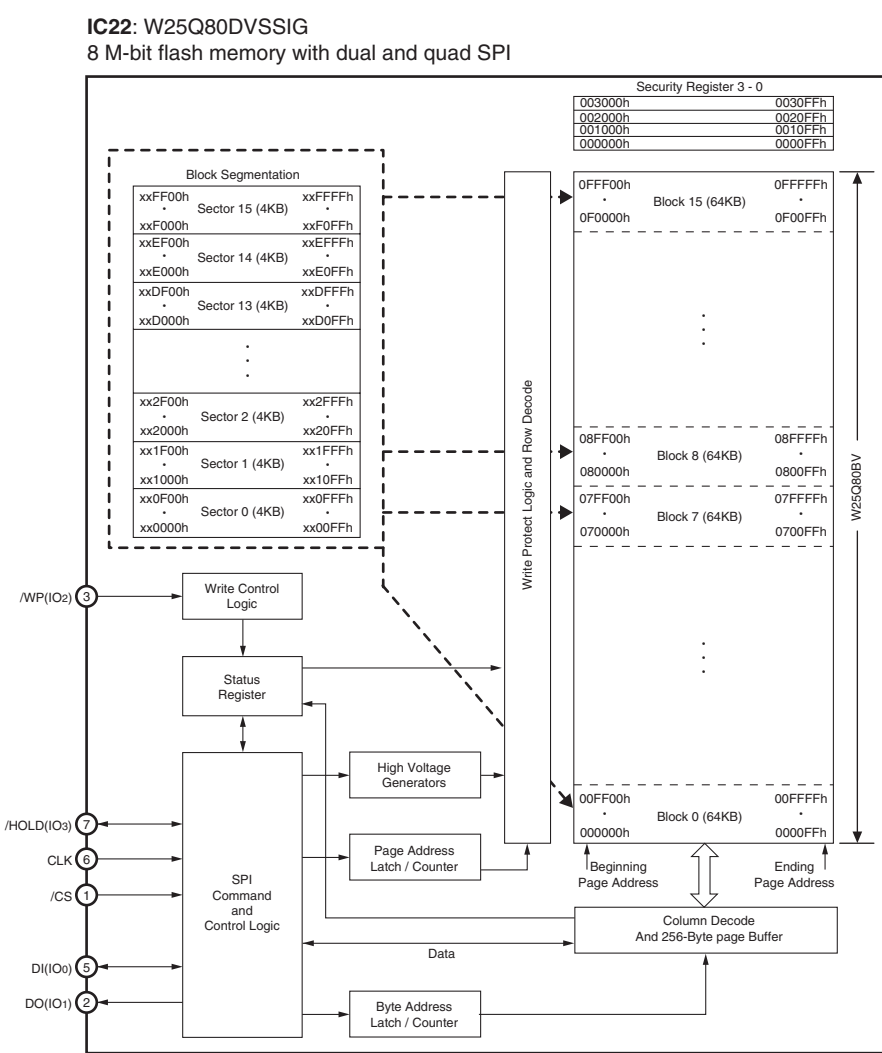
No replacement part available.
サービス部品供給なし



Serial Flash Memory (8Mbits)



Part No.	Vender	Part Type
YD487C0	ZENTBL	A3V64S40QTP-60
X9625C0	ESMT	M12L64164A-5TG2Y
YF587A0	ETRON	EM638165TSD-6G



NOTICE (model)
(J)..... JAPAN
(U)..... U.S.A
(C)..... CANADA
(S)..... GENERAL
(T)..... CHINA
(K)..... KOREA
(A)..... AUSTRALIA
(B)..... BRITISH
(G)..... STANDARD
(L)..... SINGAPORE
(S)..... SOUTH EUROPE
(V)..... TAIWAN
(P)..... RUSSIAN
(P)..... LATIN AMERICA
(S)..... BRAZIL
(H)..... THAI

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
△	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
△	METAL FILM RESISTOR
△	METAL PLATE RESISTOR
△	FIRE PROOF CARBON FILM RESISTOR
△	CEMENT MOLDED RESISTOR
△	SEMI VARIABLE RESISTOR
△	CHIP RESISTOR

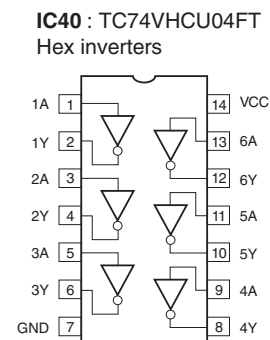
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
△	TANTALUM CAPACITOR
△	CERAMIC CAPACITOR
△	CERAMIC TUBULAR CAPACITOR
△	POLYESTER FILM CAPACITOR
△	POLYETHYLENE FILM CAPACITOR
△	MICA CAPACITOR
△	POLYPROPYLENE FILM CAPACITOR
△	SEMI-CONDUCTIVE CERAMIC CAPACITOR
△	POLYPROPYLENE SULFIDE FILM CAPACITOR

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★ Circuit diagram is subject to change without notice.

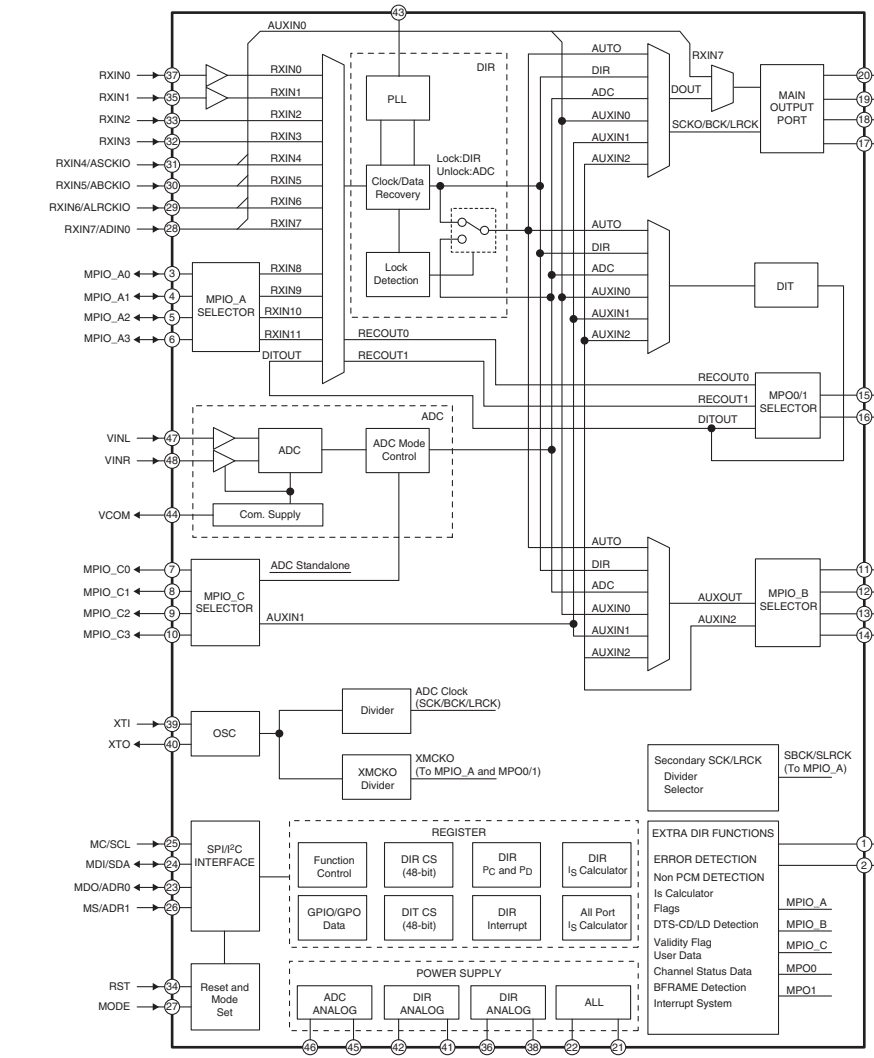
Details of colored lines
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Yellow: Clock
Green: Protection detect
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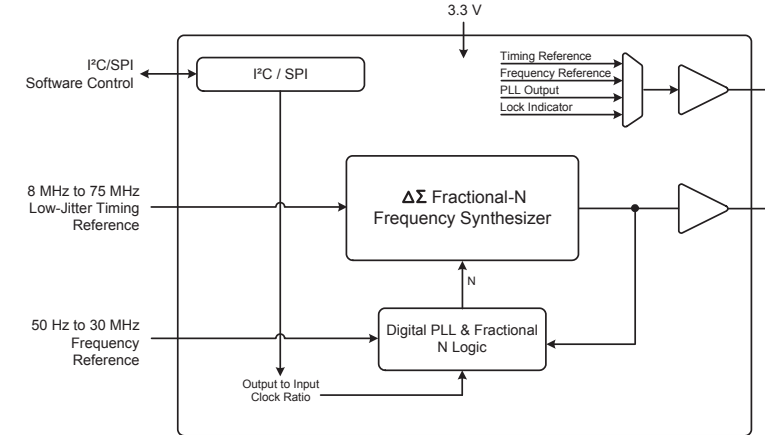
DIGITAL



IC32: PCM9211PTR
216-kHz digital audio interface transceiver (DIX) with stereo ADC and routing

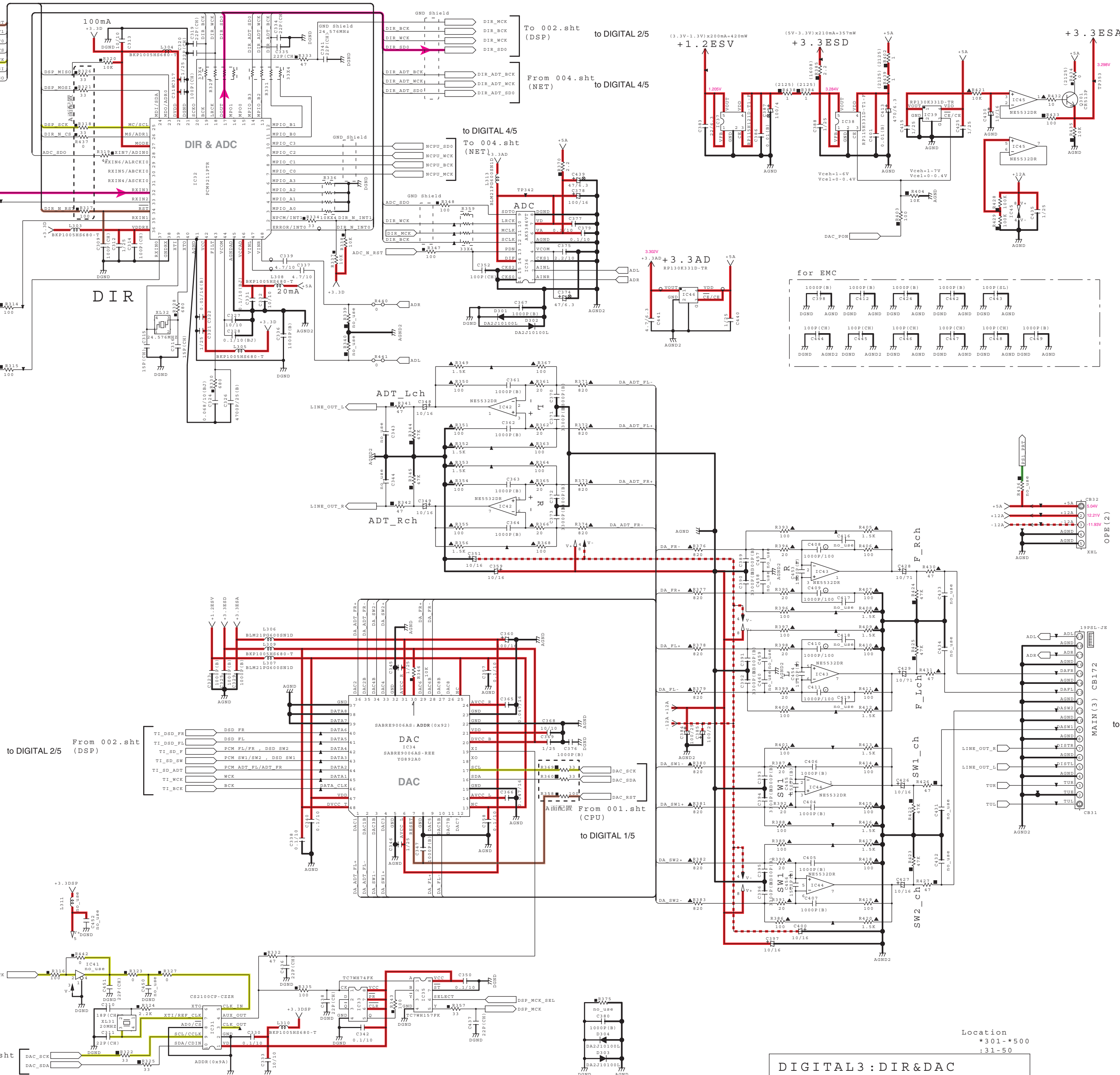


IC31: CS2100CP-CZZR
Fractional-N clock multiplier

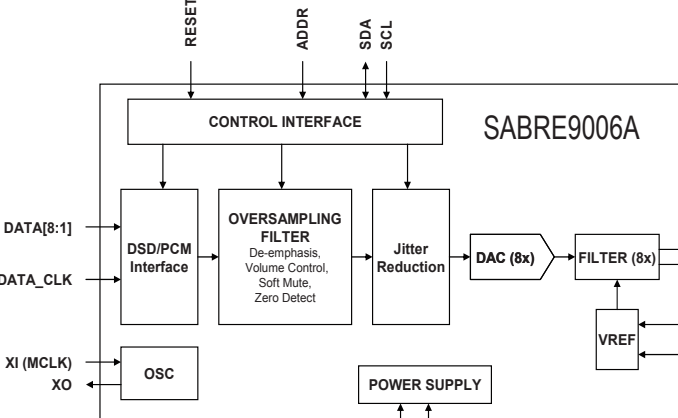


NOTICE (model)
(1) 1999-1999

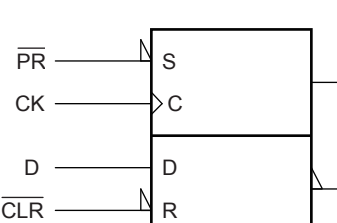
(V)	U.S.A	NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
(C)	CANADA	⊙	CARBON FILM RESISTOR (P=10)	⊙	TANTALUM CAPACITOR
(V)	U.S.S.R.	⊙	METAL OXIDE FILM RESISTOR	NO MARK	CERAMIC CAPACITOR
(V)	CHINA	⚠	METAL FILM RESISTOR	⊙	CERAMIC TUBULAR CAPACITOR
(V)	KOREA	⊙	METAL PLATE RESISTOR	⊙	POLYESTER FILM CAPACITOR
(V)	AUSTRALIA	⊙	FIRE PROOF CARBON FILM RESISTOR	⊙	POLYESTER FILM CAPACITOR
(V)	BRITISH	⊙	CEMENT WOUND RESISTOR	⊙	MICA CAPACITOR
(V)	STANDARD	⊙	SEMI VARIABLE RESISTOR	⊙	POLYPROPYLENE FILM CAPACITOR
(V)	SINGAPORE	⊙	CHIP RESISTOR	⊙	BIPHENOL A CERAMIC CAPACITOR
(V)	SOUTH EUROPE	⊙		⊙	POLYPHENYLENE SULFIDE FILM CAPACITOR
(V)	TAIWAN			⊙	CAPACITOR
(V)	RUSSIAN				
(V)	LATIN AMERICA				
(V)	BRAZIL				
(V)	THAI				



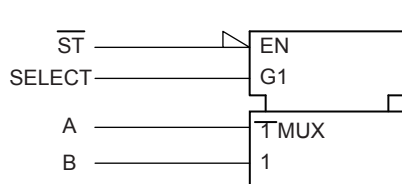
DIGITAL3 : DIR&DAC



IC33: TC7WH74FK
CMOS Digital Integrated Circuit

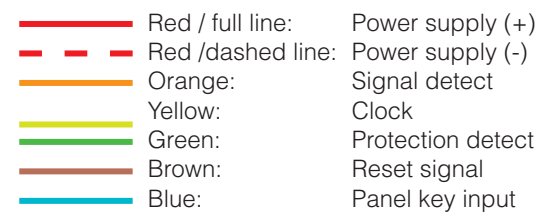


IC35: TC7WH157F
CMOS Digital Integr

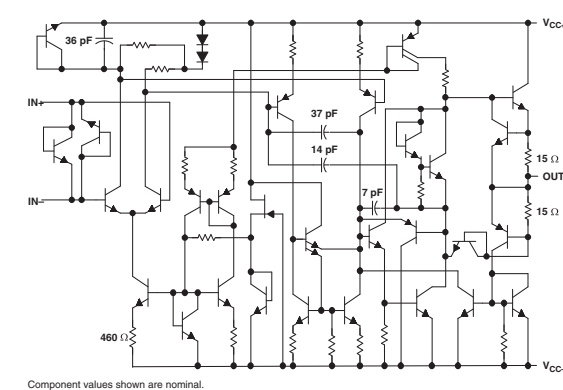


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- ★ Circuit diagram is subject to change without notice.

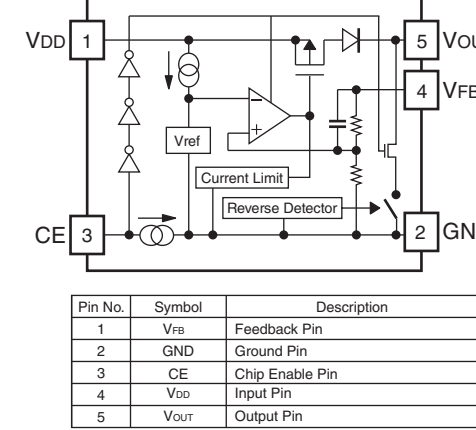
Details of colored lines



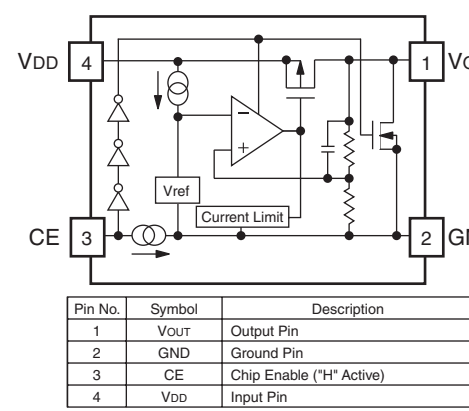
IC42, 43, 44, 45: NE5532DR
Dual low-noise operational amplifier



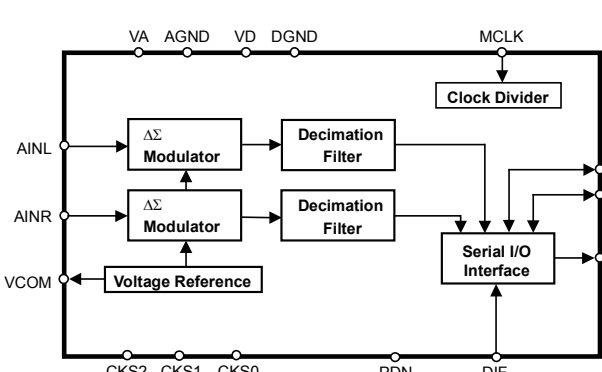
IC38: RP115H331D-T1-F
Low On Resistance/ Low Voltage 1ch 500mA/ 1.0A Alternative LDC



IC39, 46: RP130K331D-TR
Voltage regulator



IC36: AK5386VT
Stereo A/D converter

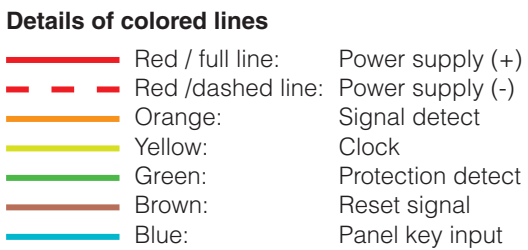


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Details of colored lines

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	Red /dashed line:	Power supply (-)
	Orange:	Signal detect
	Yellow:	Clock
	Green:	Protection detect
	Brown:	Reset signal
	Blue:	Panel key input

DIGITAL

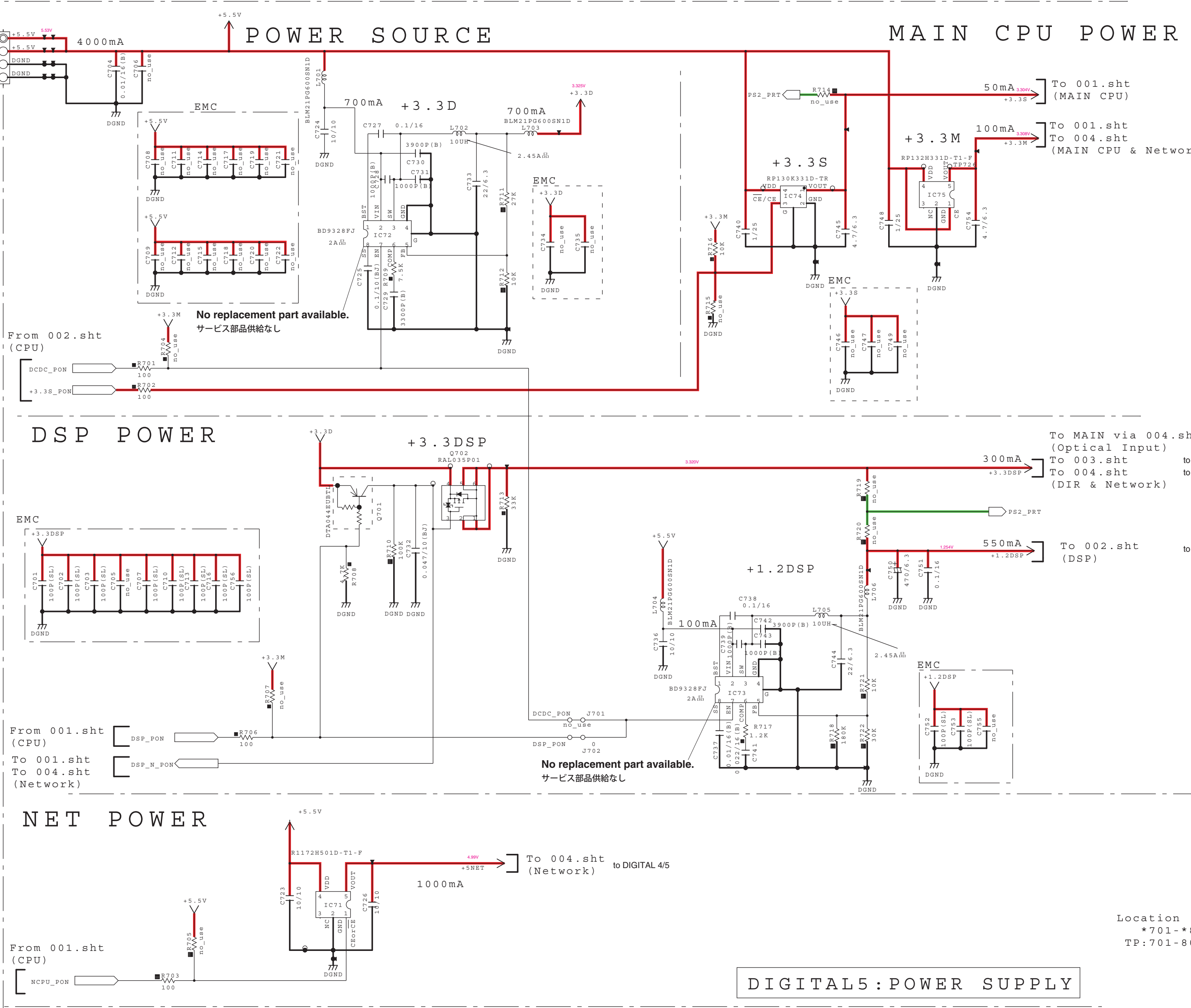


CAPACITOR		
REMARKS	PARTS NAME	
NO MARK	ELECTROLYTIC CAPACITOR	72
⊗	TANTALUM CAPACITOR	
NO MARK	CERAMIC CAPACITOR	41
●	CERAMIC TUBULAR CAPACITOR	
⊙	POLYESTER FILM CAPACITOR	
⊙	POLYSTYRENE FILM CAPACITOR	
①	MICA CAPACITOR	
⊙	POLYPROPYLENE FILM CAPACITOR	
●	SEMICONDUCTIVE CERAMIC CAPACITOR	
⊙	POLYPHENYLENE SULFIDE FILM CAPACITOR	

DIGITAL

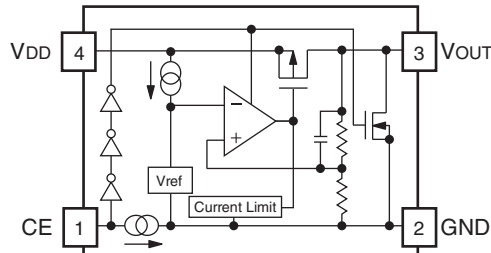
Page 111 [K5]
to OPERATION (3)_W4001

From 002.sht
(CPU)
<A CDCC>
to DIGITAL 2/5



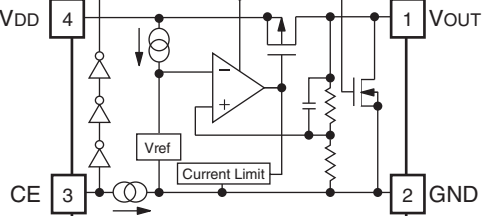
DIGITAL5: POWER SUPPLY

IC75: RP132H331D-T1-FE
Voltage regulator



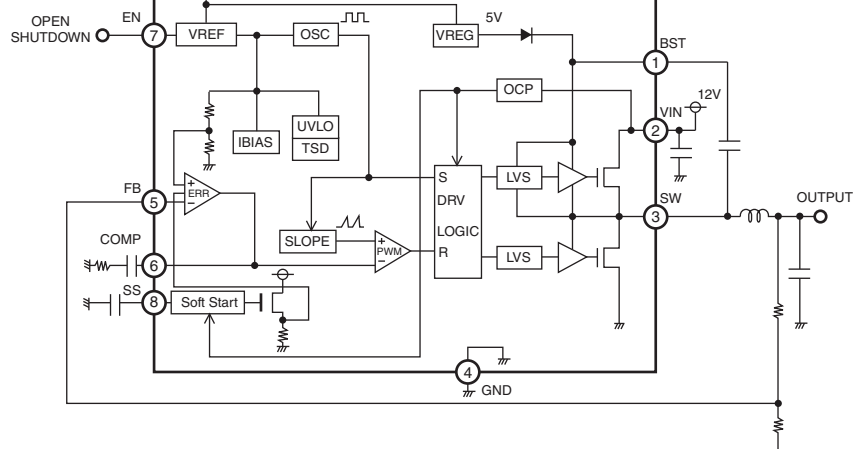
Pin No.	Symbol	Description
1	CE	Chip Enable ("H" Active)
2	GND	Ground Pin
3	Vout	Output Pin
4	Vin	Input Pin

IC74: RP130K331D-TR
Voltage regulator

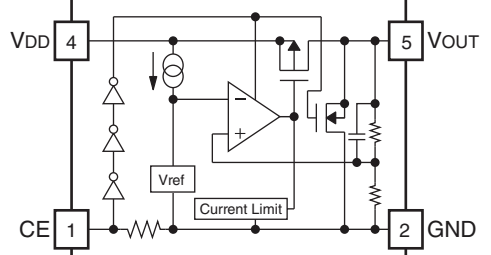


Pin No.	Symbol	Description
1	Vout	Output Pin
2	GND	Ground Pin
3	CE	Chip Enable ("H" Active)
4	Vin	Input Pin

IC72, 73: BD9328FJ
1ch step-down DC/DC converter



IC71: R1172H501D-T1-F
Voltage regulator



Pin No.	Symbol	Description
1	CE	Chip Enable Pin ("H" Active)
2	GND	Ground Pin
4	Vin	Input Pin
5	Vout	Output Pin

Location
*701-~*800
TP: 701-800

NOTICE (model)
(2)..... JAPAN
(3)..... U.S.A
(4)..... CANADA
(5)..... GENERAL
(6)..... CHINA
(7)..... KOREA
(8)..... AUSTRALIA
(9)..... BRITISH
(10)..... STANDARD
(11)..... SINGAPORE
(12)..... SOUTH EUROPE
(13)..... TAIWAN
(14)..... RUSSIAN
(15)..... LATIN AMERICA
(16)..... BRAZIL
(17)..... THAI

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P-5)
□	CARBON FILM RESISTOR (P-10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
⊙	CEMENT MOLDED RESISTOR
⊚	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊞	POLYESTER FILM CAPACITOR
⊚	POLYESTER FILM CAPACITOR
⊙	WICA CAPACITOR
⊞	POLYPROPYLENE FILM CAPACITOR
⊚	SEMICONDUCTIVE CERAMIC CAPACITOR
⊙	POLYBUTYLENE SULFIDE FILM CAPACITOR

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Orange: Signal detect
Yellow: Clock
Green: Protection detect
Brown: Reset signal
Blue: Panel key input

1

2

3

4

5

6

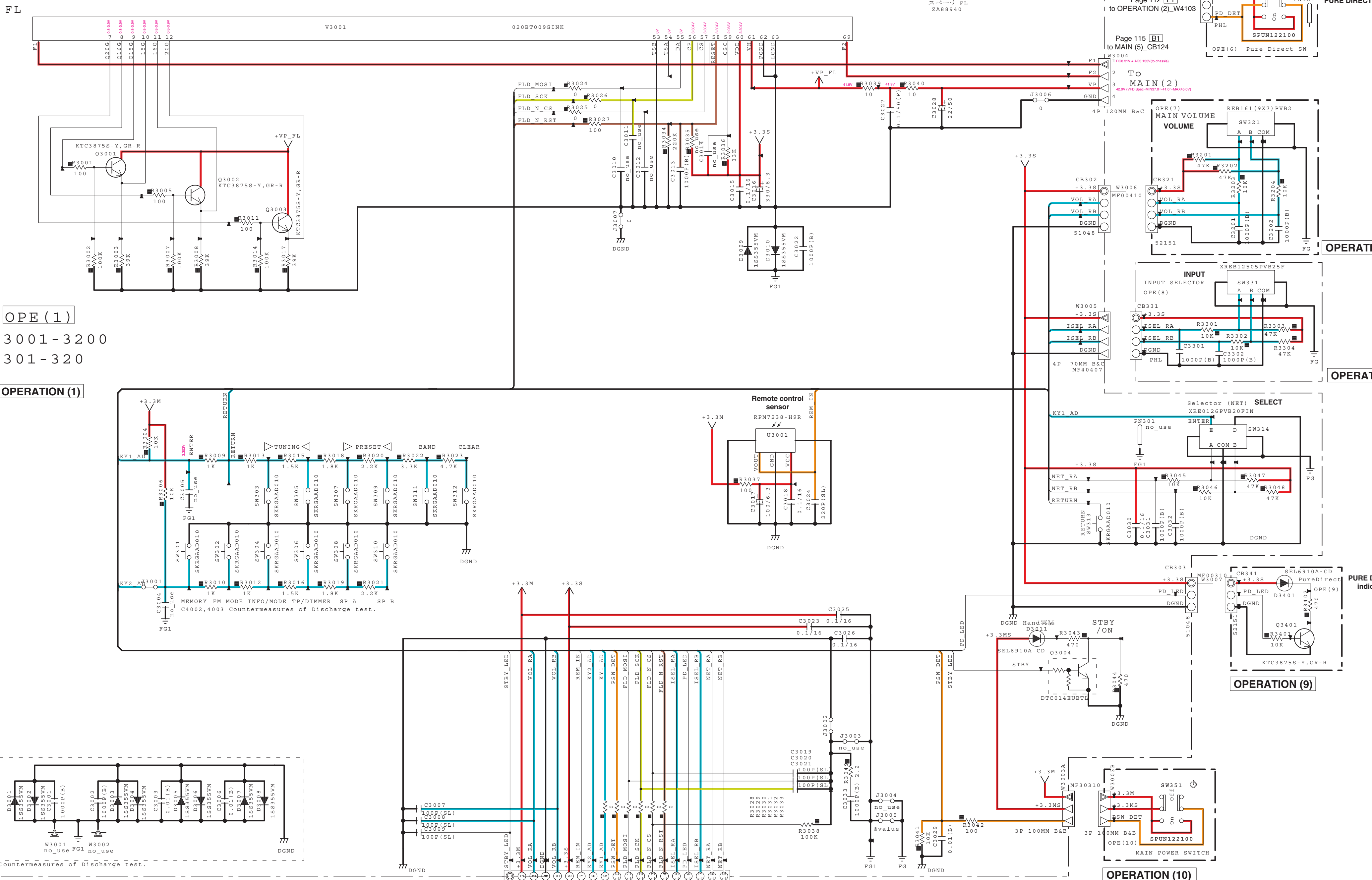
7

8

9

10

OPERATION 1/4



Key detection for A/D port
Key input (A/D) pull-up resistance: 10 k-ohms

	0 Ω	+1 k Ω	+1 k Ω	+1.5 k Ω	+1.8 k Ω	+2.2 k Ω	+3.3 k Ω	+4.7 k Ω
Detected voltage value at 91 pin	0 - 0.14 V	0.16 - 0.41 V	0.43 - 0.7 V	0.71 - 1 V	1.01 - 1.27 V	1.28 - 1.55 V	1.57 - 1.85 V	1.86 - 2.14 V
A/D value (3.3 V=255)	000 - 011	012 - 032	033 - 054	055 - 077	078 - 098	099 - 120	121 - 143	144 - 165
KEY1	SELECT PUSH - ENTER	RETURN / CONNECT	TUNING >>	TUNING <<	PRESET >	PRESET <	BAND	CLEAR

	0 Ω	+1 k Ω	+1 k Ω	+1.5 k Ω	+1.8 k Ω	+2.2 k Ω
Detected voltage value at 92 pin	0 - 0.14 V	0.16 - 0.41 V	0.43 - 0.7 V	0.71 - 1 V	1.01 - 1.27 V	1.28 - 1.55 V
A/D value (3.3 V=255)	000 - 011	012 - 032	033 - 054	055 - 077	078 - 098	099 - 120
KEY2	MEMORY	MODE	DISPLAY	DIMMER	SPEAKERS A	SPEAKERS B

NOTICE (model)
(J)..... JAPAN
(U)..... U.S.A
(C)..... CANADA
(S)..... GENERAL
(P)..... CHINA
(K)..... KOREA
(A)..... AUSTRALIA
(B)..... BRITISH
(S)..... STANDARD
(L)..... SINGAPORE
(S)..... SOUTH EUROPE
(V)..... TAIWAN
(F)..... RUSSIAN
(P)..... LATIN AMERICA
(S)..... BRAZIL
(B)..... TWA1

RESISTOR	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
●	METAL FILM RESISTOR
■	METAL PLATE RESISTOR
□	FIRE PROOF CARBON FILM RESISTOR
△	CERMET MOLDED RESISTOR
□	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

CAPACITOR	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
□	TANTALUM CAPACITOR
□	CERAMIC CAPACITOR
□	CERAMIC TUBULAR CAPACITOR
○	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
○	MICA CAPACITOR
○	POLYPROPYLENE FILM CAPACITOR
○	SEMICONDUCTIVE CERAMIC CAPACITOR
○	POLYPHENYLENE SULFIDE FILM CAPACITOR

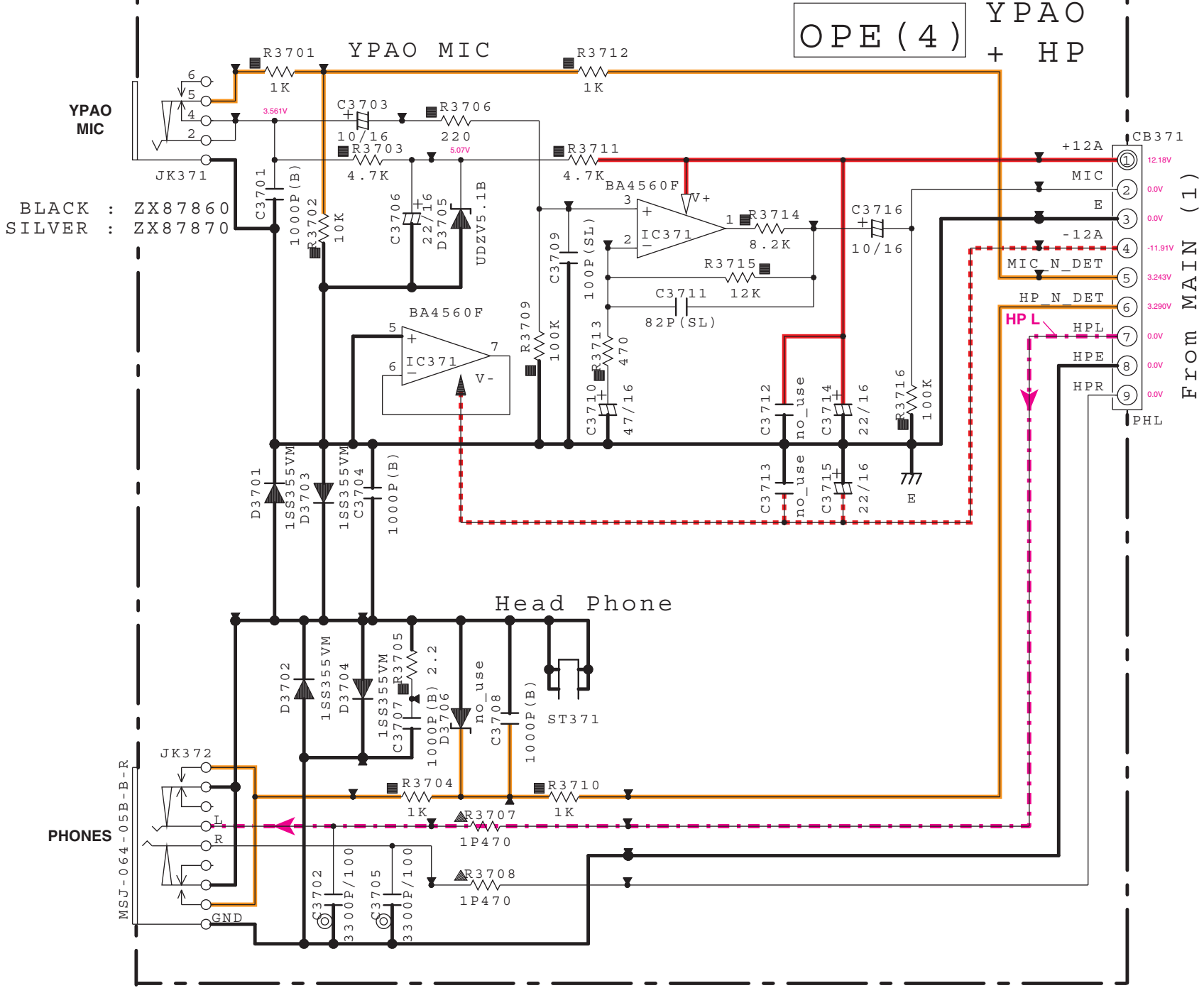
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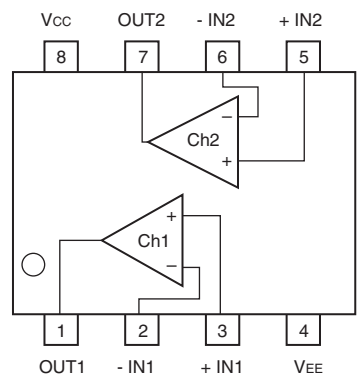
OPERATION 2/4

R-N803D

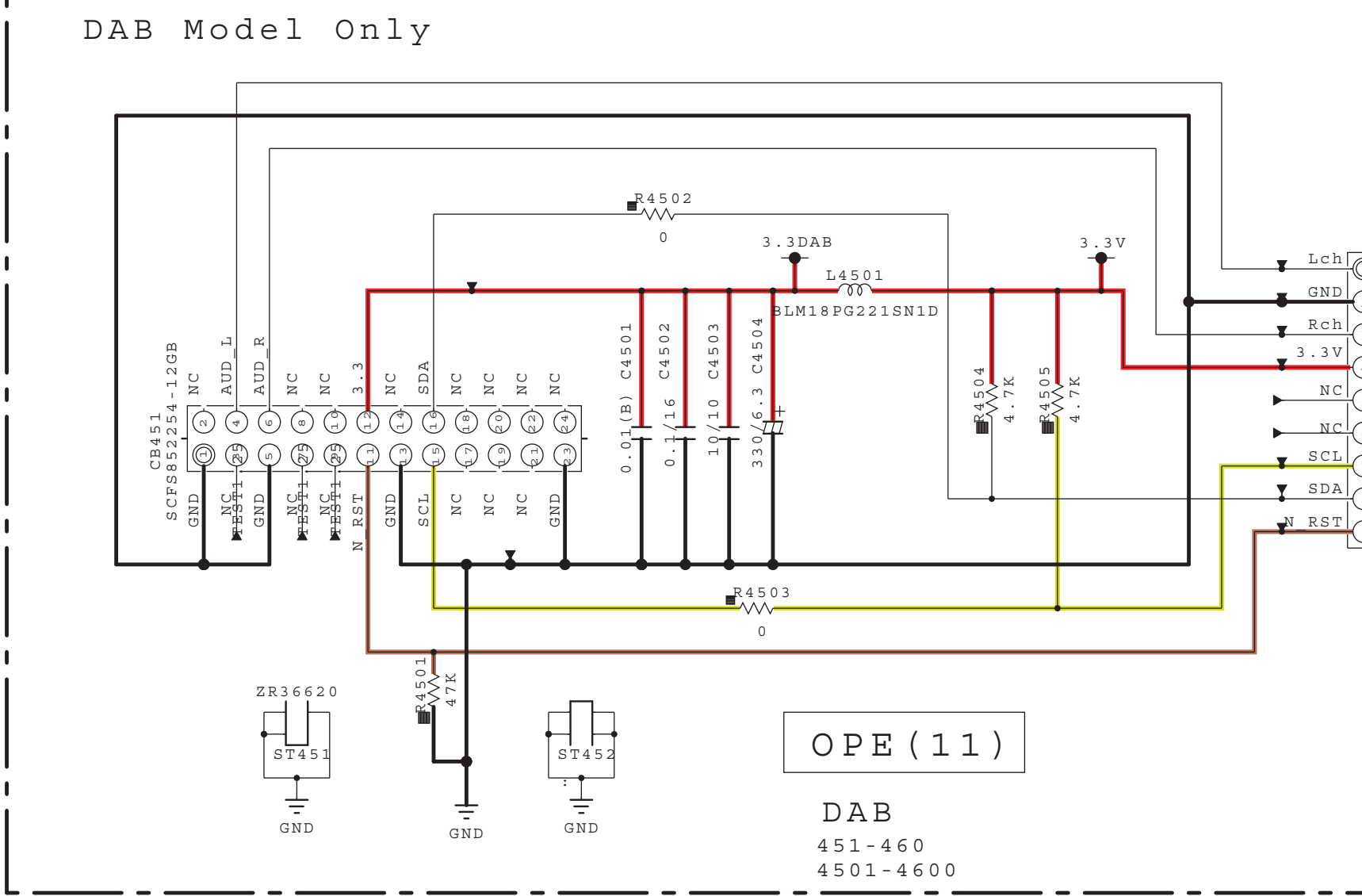
OPERATION (4)



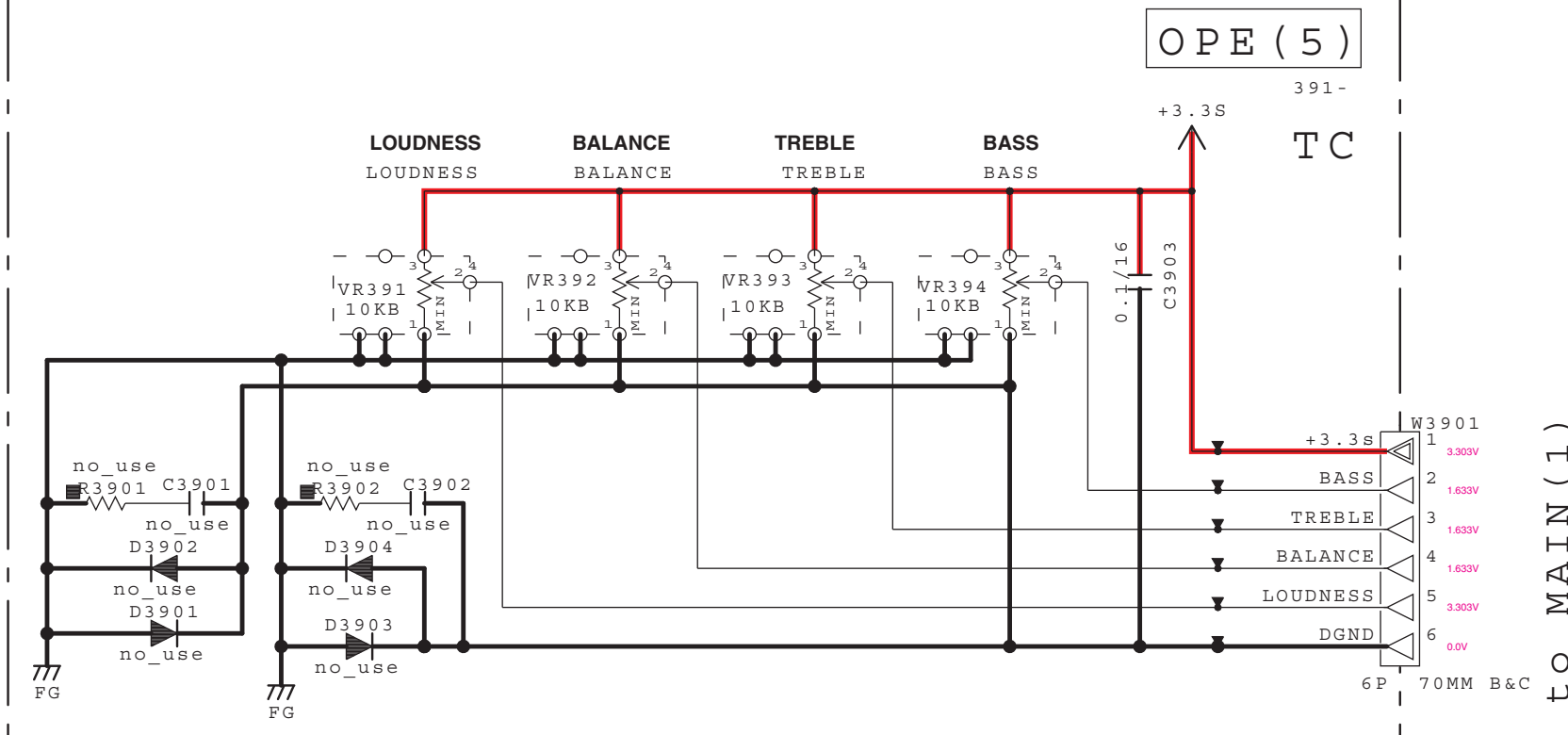
IC371: BA4560F
Low noise dual operational amplifier



OPERATION (11)



OPERATION (5)



NOTICE (model)

- (2)..... JAPAN
- (U)..... U.S.A
- (C)..... CANADA
- (S)..... GENERAL
- (7)..... CHINA
- (K)..... KOREA
- (A)..... AUSTRALIA
- (B)..... BRITISH
- (S)..... STANDARD
- (L)..... SINGAPORE
- (E)..... SOUTH EUROPE
- (V)..... TAIWAN
- (F)..... RUSSIAN
- (P)..... LATIN AMERICA
- (B)..... BRAZIL
- (H)..... THAI

RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P-5)
□	CARBON FILM RESISTOR (P-10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
□	METAL PLATE RESISTOR
□	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
□	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
□	TANTALUM CAPACITOR
●	CERAMIC TUBULAR CAPACITOR
□	POLYESTER FILM CAPACITOR
□	POLYESTER FILM CAPACITOR
□	WICA CAPACITOR
□	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR
□	POLYBUTYLENE SULFIDE FILM CAPACITOR

- ★ All voltages are measured with a 10M Ω /V DC electronic voltmeter.
- ★ Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.
- ★ Circuit diagram is subject to change without notice.
- 電圧は、内部抵抗 10M Ω の電圧計で測定したものです。
- △印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- 本回路図は標準回路図です。改良のため予告なく変更することがあります。

Details of colored lines

- Red / full line: Power supply (+)
- Red / dashed line: Power supply (-)
- Orange: Signal detect
- Yellow: Clock
- Green: Protection detect
- Brown: Reset signal
- Blue: Panel key input

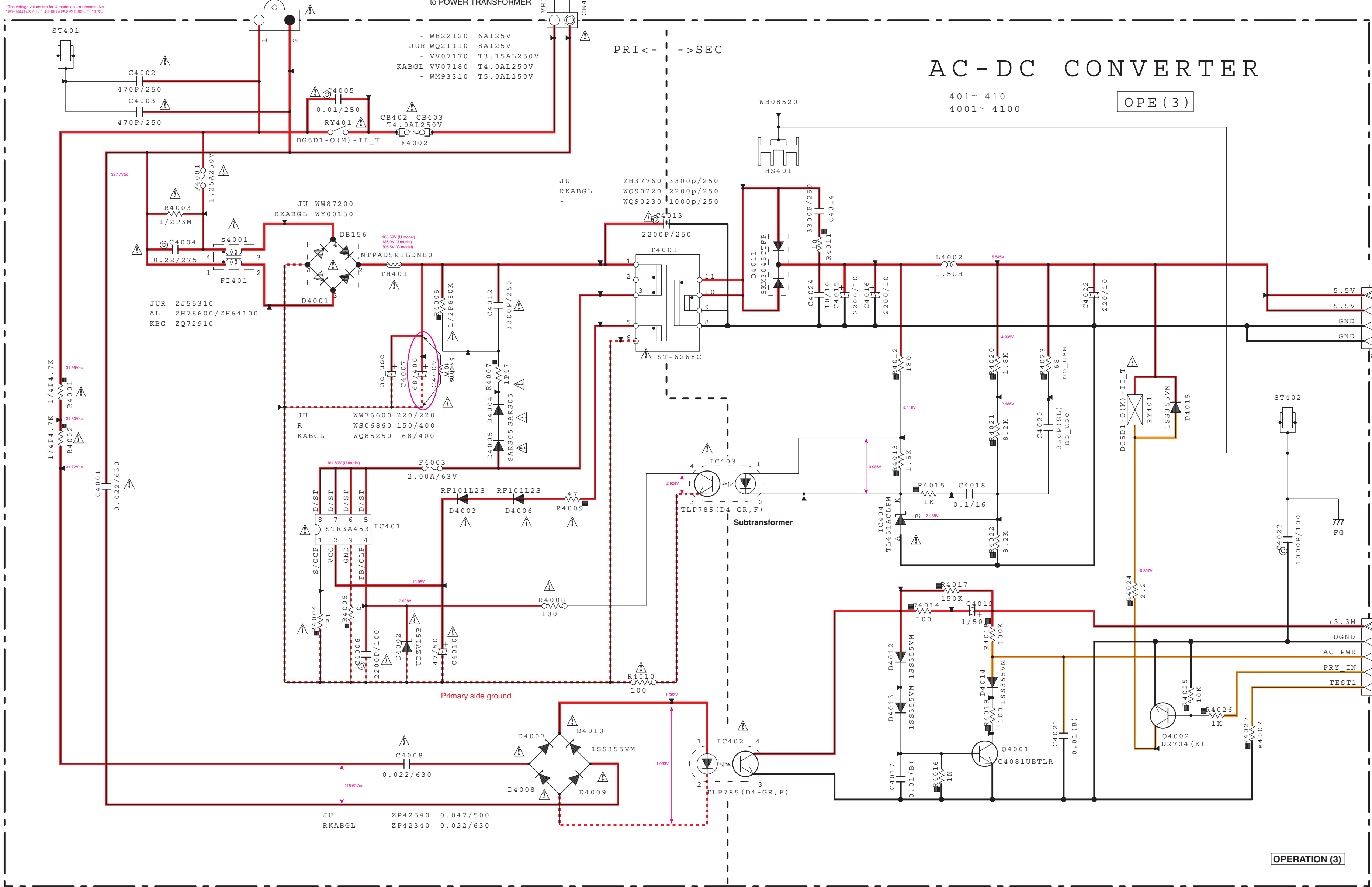
1
2
3
4
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6
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10

OPERATION 3/4

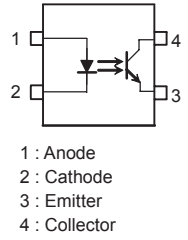
R-N803D

R-N803/R-N803D

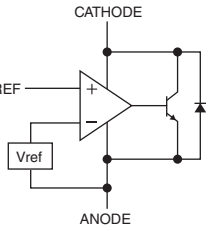
Destination Part List				
sxx	LOCATION	A	B	G
s4001	FI401	ZH76600 ZH76600	ZQ72910 60MH	ZQ72910 60MH



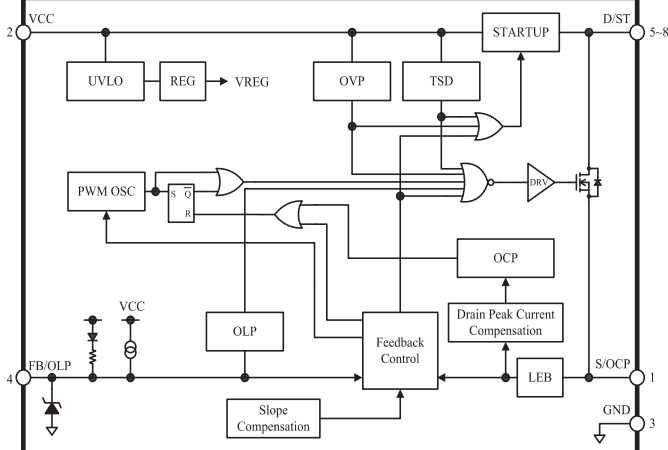
IC402, 403: TLP785(D4-GR,F)
Photocopier GaAs IRED & Photo-Transistor



IC404: TL431ACLPM
Adjustable precision shunt regulators



IC401: STR3A453
Power ICs for switching power supplies



NOTICE (model)
(J)..... JAPAN
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(A)..... AUSTRALIA
(B)..... BRITISH
(G)..... STANDARD
(L)..... SINGAPORE
(S)..... SOUTH EUROPE
(Y)..... TAIWAN
(F)..... RUSSIAN
(P)..... LATIN AMERICA
(B)..... BRAZIL
(H)..... THAI

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
□	METAL PLATE RESISTOR
■	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
□	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
●	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
○	POLYETHYLENE FILM CAPACITOR
○	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR
⊙	POLYPROPYLENE SULFIDE FILM CAPACITOR

Safety measures

- Some internal parts in this product contain high voltages and are dangerous. Be sure to take safety measures during servicing, such as wearing insulating gloves.
- Note that the capacitors indicated below are dangerous even after the power is turned off because an electric charge remains and a high voltage continues to exist there. Before starting any repair work, connect a discharging resistor (5 k-ohms/10 W) to the terminals of each capacitor indicated below to discharge electricity. The time required for discharging is about 30 seconds per each.
- C4009 on OPERATION (3) P.C.B.

安全対策

- この製品の内部には高電圧部分があり危険です。修理の際は、絶縁性の手袋を使用するなどの安全対策を行ってください。
- 下記のコンデンサには電源を OFF にした後も電荷が残り、高電圧が維持されており危険です。修理作業前に放電用抵抗 (5 k Ω /10 W) を下記の各コンデンサの端子間に接続して放電してください。放電所用時間は各々約 30 秒間です。
- OPERATION (3) P.C.B. の C4009

★ All voltages are measured with a 10M Ω /V DC electronic voltmeter.

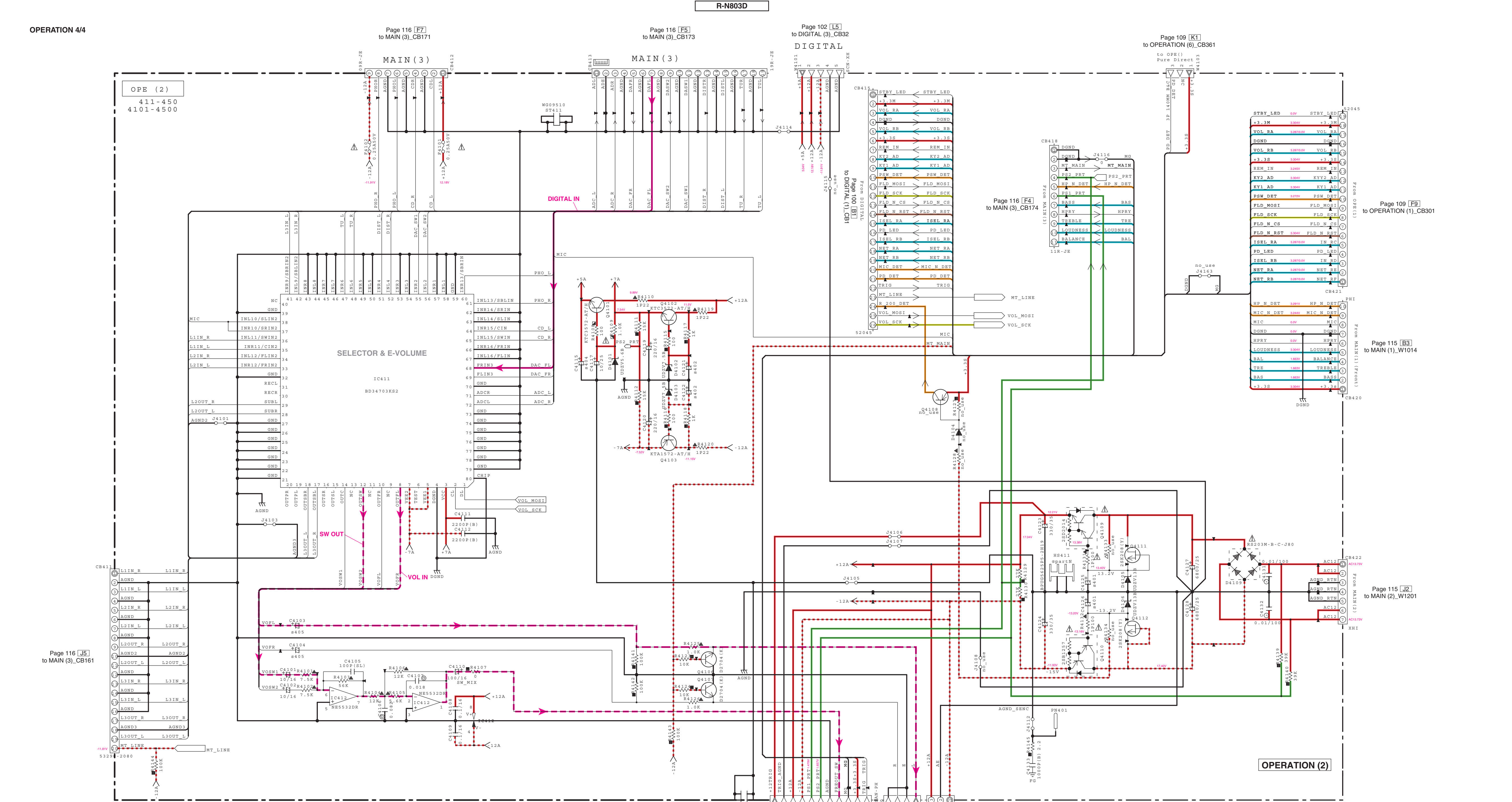
★ Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.

★ Circuit diagram is subject to change without notice.

- 電圧は、内部抵抗 10M Ω の電圧計で測定したものです。
- △印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- 本回路図は標準回路図です。改良のため予告なく変更することがあります。

Details of colored lines

- Red / full line: Power supply (+)
- Red / dashed line: Power supply (-)
- Orange: Signal detect
- Yellow: Clock
- Green: Protection detect
- Brown: Reset signal
- Blue: Panel key input



IC411 : BD34703KS2
7.1ch Sound Processor for High-Quality Audio with Built-in Micro-step Volume

IC412 : NE5532DR
Dual low-noise operational amplifiers

Destination Part List

Part No.	Location	Part Name	Value
4101	C4126	U23710	10/16
4102	C4121	U26747	47/50
4103	C4115	U23810	100/16
4104	C4103	U23710	10/16

NOTICE (model)

(2)..... JAPAN
(3)..... U.S.A
(4)..... CANADA
(5)..... GENERAL
(6)..... CHINA
(7)..... KOREA
(8)..... AUSTRALIA
(9)..... BRITISH
(10)..... STANDARD
(11)..... SINGAPORE
(12)..... SOUTH EUROPE
(13)..... TAIWAN
(14)..... RUSSIAN
(15)..... LATIN AMERICA
(16)..... BRAZIL
(17)..... THAI

RESISTOR

REMARKS: NO MARK, CARBON FILM RESISTOR (P-5), CARBON FILM RESISTOR (P-10), METAL OXIDE FILM RESISTOR, METAL FILM RESISTOR, METAL PLATE RESISTOR, FINE PRINT CARBON FILM RESISTOR, CEMENT MOLDED RESISTOR, SEMI VARIABLE RESISTOR, CHIP RESISTOR

CAPACITOR

REMARKS: NO MARK, ELECTROLYTIC CAPACITOR, TANTALUM CAPACITOR, CERAMIC TUBULAR CAPACITOR, POLYESTER FILM CAPACITOR, POLYETHYLENE FILM CAPACITOR, WICA CAPACITOR, POLYPROPYLENE FILM CAPACITOR, SEMI CONDUCTIVE CERAMIC CAPACITOR, POLYPROPYLENE SULFIDE FILM CAPACITOR

Details of colored lines

Red / full line: Power supply (+)
Red / dashed line: Power supply (-)
Orange: Signal detect
Yellow: Clock
Green: Protection detect
Brown: Reset signal
Blue: Panel key input

★ All voltages are measured with a 10M Ω /V DC electronic voltmeter.
★ Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
★ Circuit diagram is subject to change without notice.

● 電圧は、内部抵抗 10M Ω の電圧計で測定したものです。
● Δ印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
● 本回路図は標準回路図です。改良のため予告なく変更することがあります。

MAIN 1/2

Page 109 [J2]
to OPERATION (1)_W3004

Page 110 [F3]
to OPERATION (4)_CB371

Page 112 [J8]
to OPERATION (2)_CB417

Page 112 [M4]
to OPERATION (2)_CB420

Page 110 [K7]
to OPERATION (5)_W3901

Page 112 [I8]
to OPERATION (2)_W4102

MAIN (1)

MAIN (1)

NOTICE (model)
(J)..... JAPAN
(U)..... U.S.A.
(C)..... CANADA
(B)..... GENERAL
(T)..... CHINA
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(A)..... AUSTRALIA
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(B)..... SOUTH EUROPE
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(P)..... LATIN AMERICA
(B)..... BRAZIL
(H)..... THAI

REMARKS	PARTS NAME	REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
△	CARBON FILM RESISTOR (P=10)	NO MARK	TANTALUM CAPACITOR
△	METAL OXIDE FILM RESISTOR	●	CERAMIC TUBULAR CAPACITOR
△	METAL FILM RESISTOR	⊙	POLYESTER FILM CAPACITOR
△	METAL PLATE RESISTOR	⊙	POLYESTER FILM CAPACITOR
△	FIRE PROOF CARBON FILM RESISTOR	⊙	MICA CAPACITOR
△	CEMENT MOLDED RESISTOR	⊙	POLYPROPYLENE FILM CAPACITOR
△	SEMI VARIABLE RESISTOR	⊙	SEMI CONDUCTIVE CERAMIC CAPACITOR
■	CHIP RESISTOR	⊙	POLYPROPYLENE SULFIDE FILM CAPACITOR

Note: Those parts marked with “#” are not included in the P.C.B. assembly. / マーク#の部品は、P.C.B.に含まれません。

Safety measures

- Some internal parts in this product contain high voltages and are dangerous. Be sure to take safety measures during servicing, such as wearing insulating gloves.
- Note that the capacitors indicated below are dangerous even after the power is turned off because an electric charge remains and a high voltage continues to exist there. Before starting any repair work, connect a discharging resistor (5 k-ohms/10 W) to the terminals of each capacitor indicated below to discharge electricity. The time required for discharging is about 30 seconds per each. C1030 and C1031 on MAIN (1) P.C.B.

安全対策

- この製品の内部には高電圧部分があり危険です。修理の際は、絶縁性の手袋を使用するなどの安全対策を行ってください。
- 上記のコンデンサには電源を OFF にした後も電荷が残り、高電圧が維持されており危険です。修理作業前に放電用抵抗 (5 k Ω / 10 W) を下記の各コンデンサの端子間に接続して放電してください。放電用時間は各々約 30 秒間です。

MAIN (1) P.C.B.の C1030、C1031

Page 116 [H8]
to OPERATION (2)_W4104

Page 116 [F3]
to MAIN (3)_W1701

to POWER TRANSFORMER

Page 112 [M6]
to OPERATION (2)_CB422

to POWER TRANSFORMER

A/B SPEAKERS

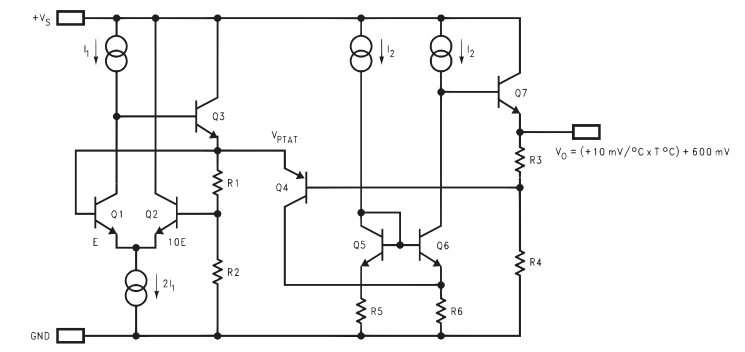
CONTROL OUT
+12V
MSJ-035-12APC

SUBWOOFER OUT

MAIN (8)

MAIN (9)

IC131, 132: LM61C1Z
Temperature sensor

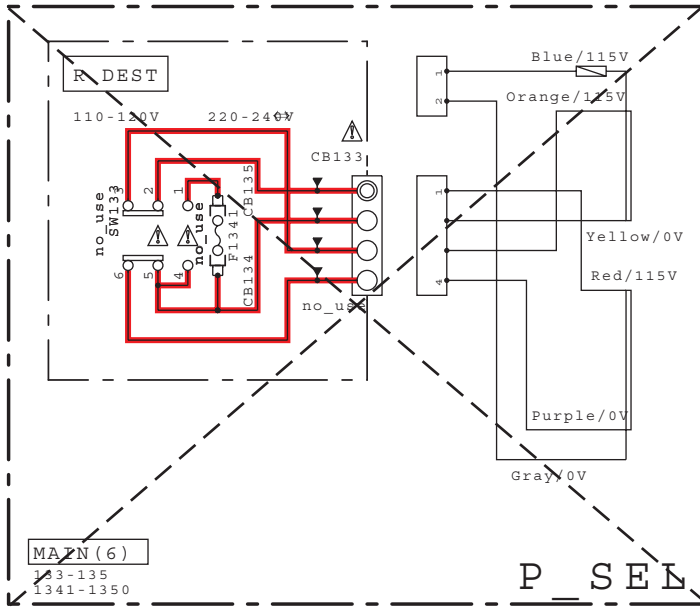
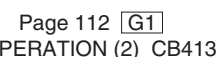
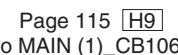


- All voltages are measured with a 10M Ω / V DC electronic voltmeter.
- Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.
- Circuit diagram is subject to change without notice.

Details of colored lines

- Red / full line: Power supply (+)
- Red / dashed line: Power supply (-)
- Orange: Signal detect
- Yellow: Clock
- Green: Protection detect
- Brown: Reset signal
- Blue: Panel key input

- 電圧は、内部抵抗 10M Ω の電圧計で測定したものです。
- △印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- 本回路図は標準回路図です。改良のため予告なく変更することがあります。

Page 100 D1
to DIGITAL_CB2

- ★ All voltages are measured with a 10M Ω V DC electronic voltmeter.
- ★ Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- ★ Circuit diagram is subject to change without notice.

● 電圧は、内部抵抗 10M Ω の電圧計で測定したものです。		Red / full line:	Power supply (+)
● 安全な商品品は、安全な商品品を示す「安全」の品目の交換が必要な場合、		Red / dashed line:	Power supply (-)
・パーツリストに記載されている部品を使用してください。		Orange:	Signal detect
● 本回路図は回路図で示す。改良のため予告なく変更することがあります。		Yellow:	Clock
		Green:	Protection detect
		Brown:	Reset signal
		Blue:	Panel key input