

VESTAX

SERVICE NOTE

MODEL : PMC-580

- 1. SPECIFICATIONS P. 2 - P. 19**
- 2. CIRCUIT DIAGRAM P. 20 - P. 45**
- 4. COMPONENTS LIST P. 46 - P. 54**

Vestax Corporation Service Department

(2008-08-03)

VESTAX CORP. TOKYO
info@vestax.com
VESTAX SERVICE EUROPE
RHEinstr. 213
53332 BORNHEIM/GERMANY
Tel. +49 2222 952372
Fax +49 2222 952374
tech@vestax.com

PMC-580

A scion of the PMC-50, the 24bit full digital mixer of the next generation is now here. A multi effecter and LOOP control individually equipped on each program channel along with an effect unit for the MASTER and MIC channel section. The significant layout of the buttons and knobs of the PMC-580Pro enable DJs to control 6 different effects and different parameters all at once. The PMC-580Pro also comes with USB connection, SPDIF digital IO, a new AD/DA analog circuit and 2 band EQ for monitor/booth output as an answer to the demands of NEXT STYLE DJs in the scene.

FEATURES

● 6 program multi effecters to garnish the mix and DJ performance.

Each program channel has a 6 effect multi effecter with simple controllability, in addition to effects equipped in the MIC and MASTER section. A maximum of 6 different effects can be applied to the sound at the same time, powered by 5 DSP's (Digital Signal Processor) and 3 CPU's, the core parts which make such features possible to be performed.

<MIC EFFECTER / 3 EFFECTS>

- Pitch Shift
- Distortion
- MIC Echo

<PGM CH EFFECTER / 6 EFFECTS>

- LOOP
- DELAY
- LOW CUT DELAY
- REVERB
- FLANGER
- FILTER SWEEP

<MASTER EFFECTER / 11 EFFECTS>

- AUTO LPF (Low Pass Filter)
- AUTO BPF (Band Pass Filter)
- AUTO HPF (High Pass Filter)
- FLANGER
- PHASER
- DELAY
- REVERB
- AUTO PAN
- PITCH SHIFT
- TREMOLO
- PANNING DELAY

● Intuitive effect operation

-The PMC-580Pro's effects can be operated with 2 different effect switch modes.

<MOMENTARY MODE>

Useful for when you want instant effects on short phrases. The effect will be applied to the sound only while the effect button is pushed.

<ALTERNATE MODE>

-Useful for when you want to apply effects in to a long mix. The effect will be applied to the sound once the effect button is pushed, and will continue to be until the effect button is pushed again.

* Some effects apply to the sound differently regarding the selected effect switch mode.

● High quality design for supreme CLUB sound

-The PMC-580Pro is loaded with 5 high spec DSP chips. 3 to process effects and 2 for mixing sound signals.

-The Enhanced Dual Bit method, a high performance chip technology of ASAHIKASEI is applied to the AD/DA section of the PMC-580Pro, where sound signals are converted between digital and analog. (48 kHz/ 24bit)

-The PMC-580Pro is generated by a high capacity institutional power adaptor, which gains the heavy low groove required for supreme CLUB sound. The internal power supply which produces the sound signal circuit runs on +/-18V. With the two combined, +/-24dB of headroom is produced (analog output), creating dynamic sound.

-HI GAIN TRIM control circuit is a new feature designed to bridge the gap between digital media, MP3s and CD source sound levels.

-EQ / ISOLATOR select switch

-An EQ/ISOLATOR select switch is located on each program channel to enable DJs to select their preference sound adjustment method in regards of the music they play.

-BEAT KEY is a feature which operates simultaneously with the auto BOOM counter and TAP BPM counter.

-BEAT KEY will control the effects BPM along with the detected BPM of the playing track, selected from: 8, 4, 2, 1, 3/4, 2/3, 1/2, 1/4 and 1/8.

●INPUT/OUTPUT

-The two 44.1k, 48kHz sampling rate digital inputs enable digital connection and provide a sound system with no sound deterioration.

-Digital music files can be played from computers and tracks can be recorded to computers via USB input/output, a standard feature for digital mixers. (The USB circuitry of the PMC-580Pro utilizes the driver device within the operating system of the computer and does not require any specific driver to be installed)

●OPERATION

-Smooth 60mm input faders for high precision mixing.

-The reliable Vestax CF-PCV is applied as the cross fader together with fader curve control, suitable for mixing and scratching.

-The top panel layout is designed considering the DJ to play intuitively without mixing up the effect section and sound control section during club performance.

-Large effect knobs for dynamic effect control.

-Input faders and the cross fader can be easily replaced by detaching the section top panel.

●OPTION

-The DX panel, an option item to increase inputs and outputs can be installed to the front panel for DJs who wish to use DJ software with the PMC-580Pro.

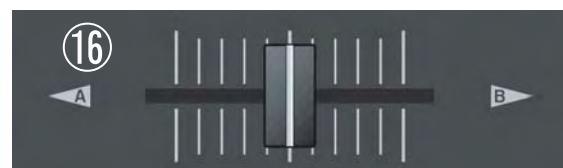
●CLUB DJ FEATURES

-2 Band EQ, STEREO / MONO, select switch and CUE / MASTER select on BOOTH OUT and headphones to support the DJ when they're in the mix.

-The MIC section comes with a 2 Band EQ and TALKOVER switch for advanced mic performance.

-Club standard XLR connection applied to MASTER // BOOTH OUT.

PGM SECTION



P-⑯ CROSS FADER VOLUME:
Mixes the sound signals assigned to the A and B side of the crossfader.

MIC / BOOTH / MONITOR SECTION



M-① MIC INPUT JACK

Input connection for microphones. XLR plugs (balanced) and 1/4inch phono plugs can be connected to the combo jack.

M-② MIC TRIM VOLUME

Adjusts the microphones input level.

M-③ MIC EQ HI

M-④ MIC EQ LOW

M-⑤ TALK OVER SWITCH

This switch lowers all PGM channels sound level in order to clearly output the mic sound.

M-⑥ MIC EFFECT SELECT SWITCH

Selects the type of effect you wish to apply to the mic sound.

M-⑦ MIC EFFECT VOLUME

Adjusts the parameters of the mic effect.
(Mic effect control ⇒ Page 16)

M-⑧ MIC LEVEL VOLUME

Adjusts the microphones sound level.

M-⑨ MIC PEAK INDICATOR

This LED blinks when the microphones sound level is too high.

B-⑩ BOOTH SELECT SWITCH

Selects the BOOTH OUT output sound. (CUE / MASTER)

B-⑪ BOOTH (MONO / STEREO) SELECT SWITCH

Selects BOOTH output from MONO and STEREO.

B-⑫ BOOTH EQ HI

B-⑬ BOOTH EQ LOW

B-⑭ BOOTH OUT LEVEL VOLUME

Adjusts the output sound level sent to BOOTH OUT.

Mo-⑮ MONITOR EQ HI

Mo-⑯ MONITOR EQ LOW

Mo-⑰ MONITOR SELECT VOLUME

Selects the sound you wish to monitor via headphones. (CUE / MASTER)

Mo-⑱ MONITOR VOLUME

Adjusts the output sound level sent to the headphones.

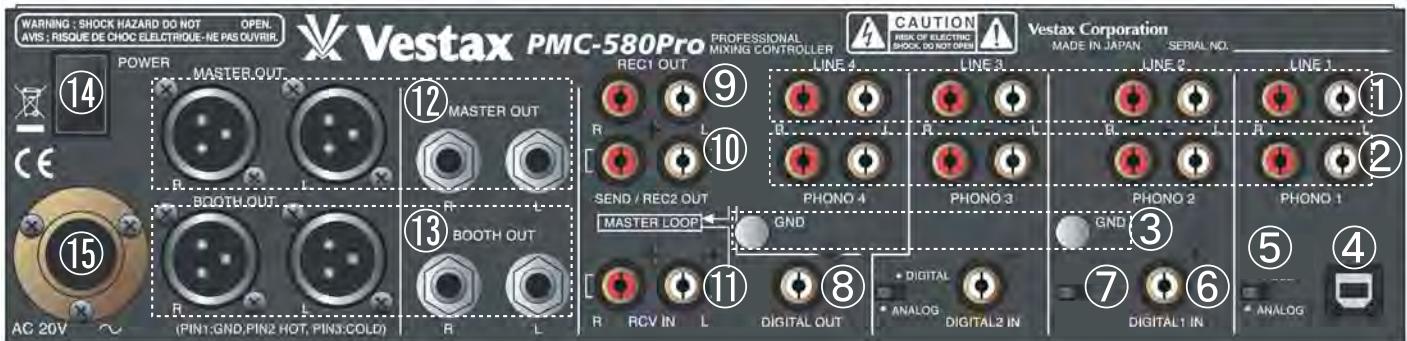
Mo-⑲ MONITOR (MONO / STEREO) SELECT SWITCH

Selects headphone output from MONO and STEREO.

Mo-⑳ MONITOR OUTPUT JACK

Connection for headphones.

REAR PANEL SECTION



R-① LINE INPUT JACK

LINE Input connection for each PGM channel. Connect devices such as CD players, MD Players, DAT, VTR Sound cables, MP3 Players and Audio interfaces.

R-② PHONO INPUT JACK

Phono input connection for each PGM channel. Connect turntables with MM cartridges.

NOTE: Amplifiers and Transformers are required if using MC cartridges.

R-③ GND TERMINAL

Connect the turntables ground cable to this terminal.

R-④ USB IN/OUT JACK

USB connection enables input sound data from computers and output the mixer's master output.

NOTE: No driver installment is required for connection with computers via USB. The computers OS will automatically run USB AUDIO DEVICE when the mixer is connected.

R-⑤ USB / ANALOG SELECT SWITCH

Selects the input source of PGM1 between analog input and USB digital input.

NOTE: GAIN control of PGM1 will be cancelled when USB is selected.

R-⑥ DIGITAL INPUT JACK

Digital input connection for PGM 2 and PGM 3. Connect devices with digital connection such as CD players.

R-⑦ DIGITAL IN / ANALOG SELECT SWITCH

Selects the input source of PGM 2 and 3 between analog input and digital input

NOTE: GAIN control of PGM 2 will be cancelled when digital is selected

R-⑧ DIGITAL OUT JACK

Digital output connection. (Outputs REC out digital signals)

R-⑨ REC1 OUTPUT JACK

Outputs REC sound signals. (REC sound is PRE Master and PRE BOOTH volume)

R-⑩ SEND / REC2 OUTPUT JACK

Output connection for AUX send. Connect to the input of devices such as external effectors. This output sends out the same signal as REC1.

R-⑪ RCV INPUT JACK

Input connection for AUX receive. Connect to the output of devices such as external effectors.

R-⑫ MASTER OUTPUT

Output connection for MASTER. Connect to devices such as amplifiers. 1/4inch phono jacks are unbalanced and XLR jacks are balanced. (HOT 2pin)

R-⑬ BOOTH OUTPUT

Output connection for BOOTH OUT. Connect to devices such as amplifiers. 1/4inch phono jacks are unbalanced and XLR jacks are balanced. (HOT 2pin)

R-⑭ POWER SWITCH

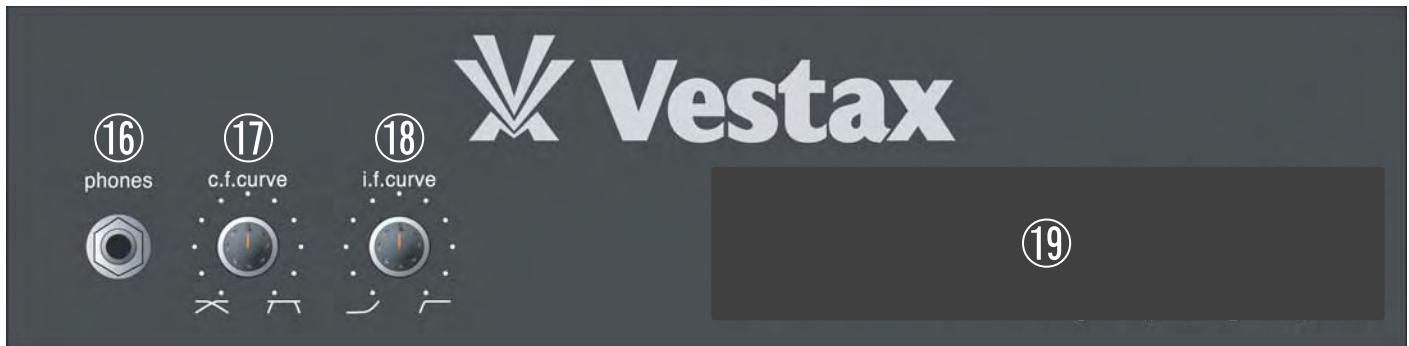
This switch turns the power off the mixer ON.

NOTE: Please make sure that all devices connected to the mixer are turned OFF or have the volume turned down when operating this switch.

R-⑮ AC ADAPTOR INPUT JACK

Connect the VESTAX AC-20 power adaptor included with the mixer. DO NOT use any other power adaptor for it may cause damage. Any damage caused by using a different power adaptor will not be warranted.

FRONT PANEL SECTION



F-⑯ MONITOR OUTPUT JACK
Connection for headphones.

F-⑰ C.F. CURVE VOLUME
Adjusts the curve characteristic of the crossfader.
MIN ⇒ Mix curve
MAX ⇒ Scratch curve

F-⑱ I.F. CURVE VOLUME
Adjusts the curve characteristic of the Input fader.

F-⑲ OPTION SLOT

PGM EFFECT FUNCTION & OPERATION

PGM EFFECT FUNCTIONS & OPERATION

Effect Switch Type Select

The effect switches on each PGM channel can be operated in 2 ways.



ALTERNATE MODE

The effect will be turned ON once the effect button is pushed and will be turned OFF by pushing the button again. This mode is suitable for when you wish to apply the effect to long mixes.



MOMENTARY MODE

The effect will be turned ON only while the effect button is pushed. This mode is suitable for when you wish to apply the effect to a short phrase/mix.

* Operation for each effect in the modes above are different

PGM EFFECT FUNCTION

Each PGM channel of the PMC-580 has an individual effect unit with 6 effects. Each channel can set a different effect at the same time. (Ex. PGM1 → delay, PGM2 → loop, PGM3 → flanger, PGM4 → reverb)

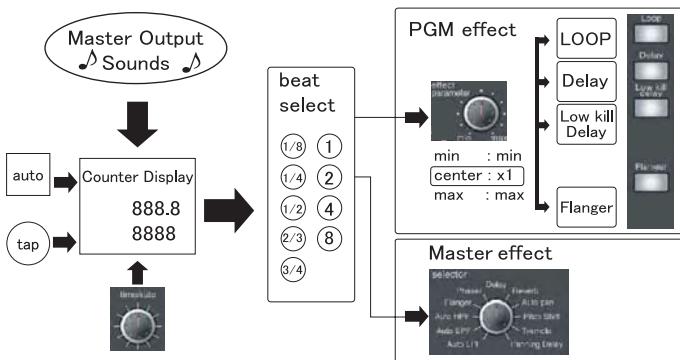
Each effect can be adjusted with the following knobs.

Effect parameter: Adjusts the parameter level of the selected effect.
Effect level: Adjusts the mix level between the effect sound and bypass sound.

* Functions of each knob change for each effect

BPM SYNC FUNCTION

Each effects time and cycle can be synchronized with the beat of the AUTO BPM / TAP BPM counter located on the right of the mixer.



The BPM of the output sound is counted with the TAP button or with the internal auto BPM counter. (Can be adjusted with the master effect time control)

The counted BPM is used to set the effect BPM, located above the BPM display. The time/cycle of each PGM and MASTER effect will be in sync with the set effect BPM.

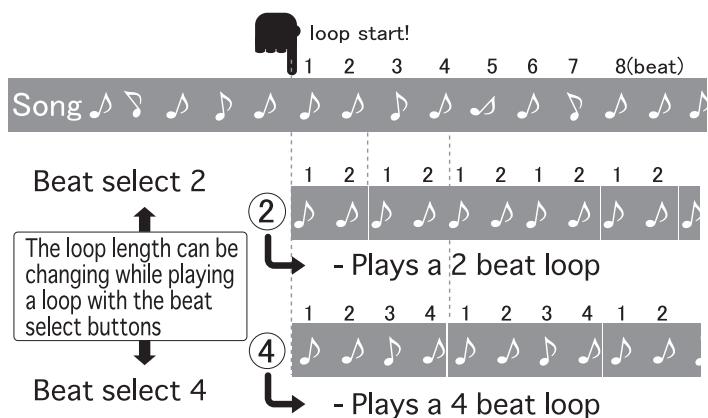
* Refer to each effects function guide for operational details



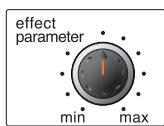
PGM EFFECT FUNCTION & OPERATION

LOOP

The length of the loop is selected with the Beat select buttons and played to the automatically/manually set BPM. Maximum length of a single loop is 5,400ms.

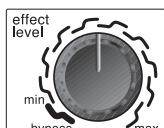


(effect parameter)



Adjusts the loop length(beats) set with the beat select button between x1/8 ~ x8. The center point value is times 1 of the selected beat select button.

(effect level)

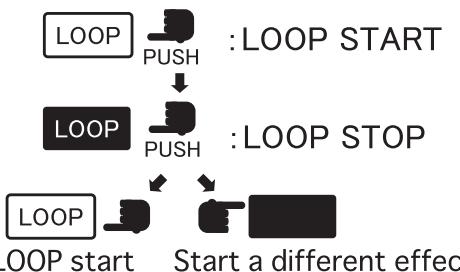


Adjusts the mix level of the LOOP sound and DRY sound.

sw type
↑↓

LOOP

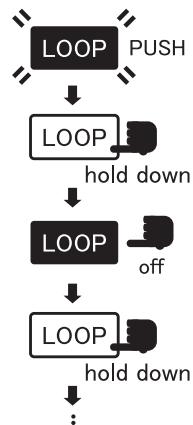
ALTERNATE MODE LOOP OPERATION



sw type
↑↓ on

LOOP

MOMENTARY MODE LOOP OPERATION
Memory the LOOP start point



NOTE: The LOOP memory can be deleted by changing the switch mode or selecting a different effect.

Delay

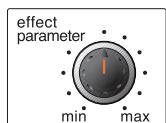
The delay time is set to the automatically/manually counted BPM and beats selected with the beat select buttons. The maximum delay time is 2,700ms at stereo.

LOW Kill Delay

The low frequency sound is masked with a filter function and the delay sound is applied only to the mid-hi frequency sound.

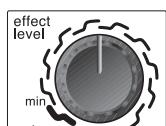
The delay time is set up to the maximum length when the delay starts and repeats in order of each parameters setting. The time parameter and beat settings can be changed while a delay effect is turned on. (The delay sound will change such like an analog delay continuously when the time parameter is changed when the delay effect is turned on)

(effect parameter)

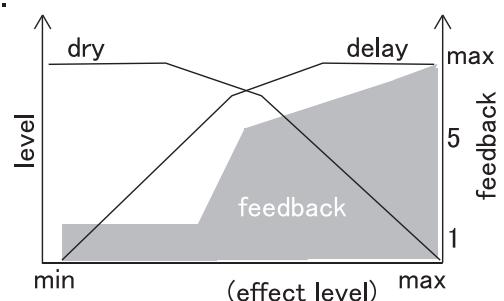


Adjusts the delay time set with the beat select button.

(effect level)

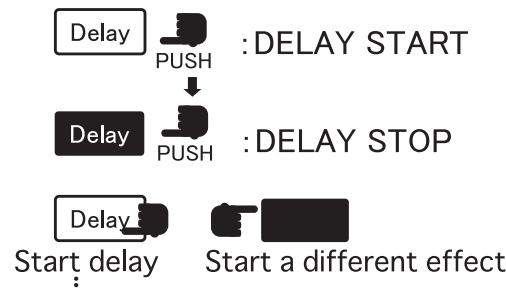


Adjusts the feedback level and the mix level of the delay sound and DRY sound.

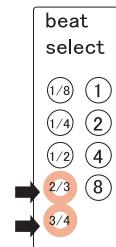


PGM EFFECT FUNCTION & OPERATION

sw type Delay LOW Kill Delay ALTERNATE MODE DELAY OPERATION

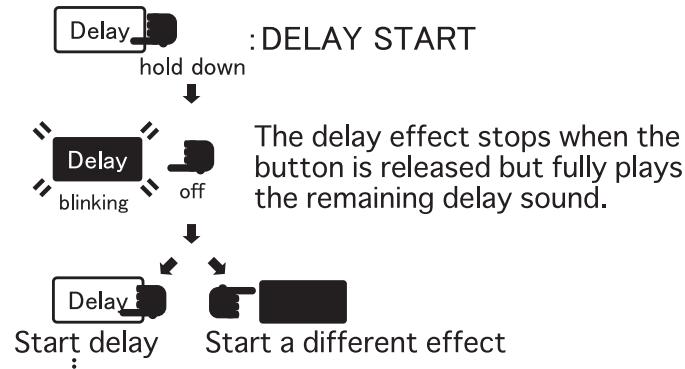


DJ technique Change the delay tempo



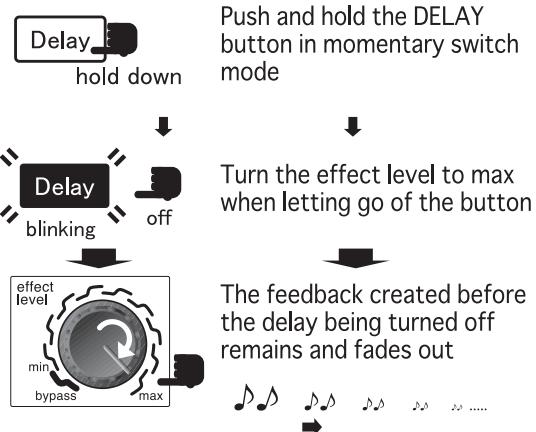
Push the 2/3 or 3/4 beat select button while a delay effect is applied to a 4 beat track and it will add an effect to the rhythm.

sw type on Delay LOW Kill Delay MOMENTARY MODE DELAY OPERATION



DJ technique Let the delay sound remain

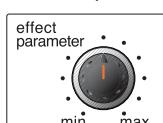
This is a technique where you let the feedback of the delay remain, very useful when switching to a different track.



Reverb

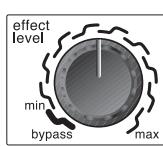
The depth of the reverb sound and the mix level with the input sound can be adjusted. As an additional function, the input sound can be cut to output the reverb sound on its own.

(effect parameter)



Sets the depth of the reverb.

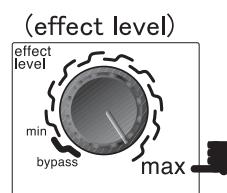
(effect level)



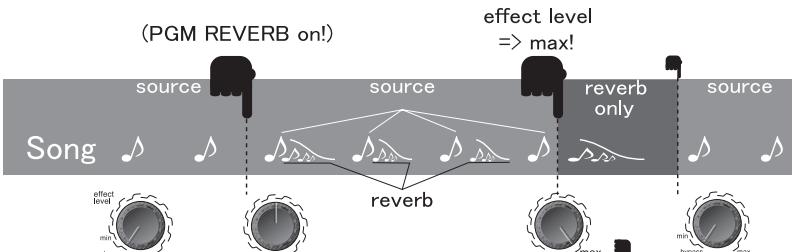
Adjusts the mix level of the reverb sound and DRY sound. The reverb sound will remain on its own when the knob is turned to max.

DJ technique Let the reverb remain

The reverb on each PGM channel has an additional effect for DJ play.



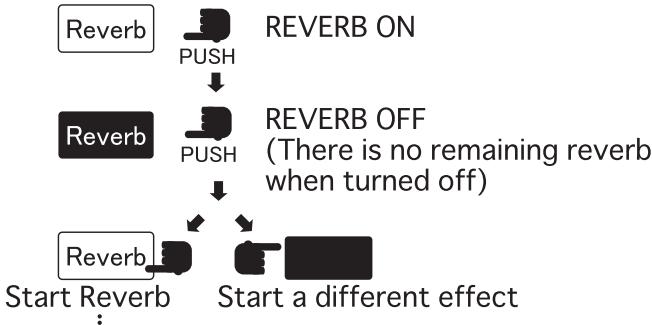
(PGM REVERB on!)



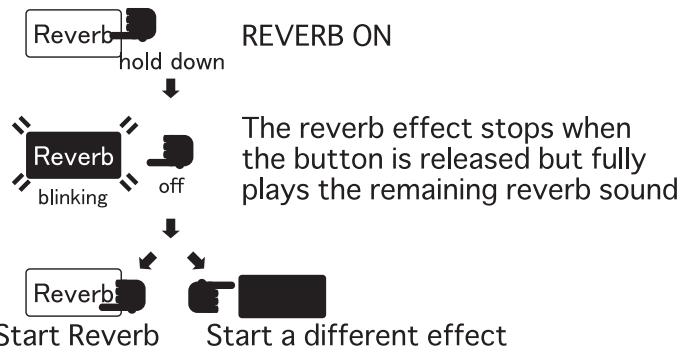
PGM EFFECT FUNCTION & OPERATION

Reverb

 **Reverb** ALTERNATE MODE REVERB OPERATION



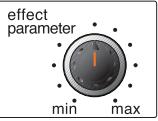
 **Reverb** MOMENTARY MODE REVERB OPERATION



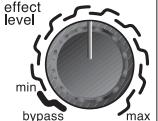
Flanger

Flanger is an effect which mixes the modulated time-delayed input sound with the original input sound, and produces an up and down sweep effect. The LFO cycle is adjusted automatically to the automatically/manually counted BPM and beats selected with the beat select buttons.

(effect parameter)

 Adjusts the LFO cycle set with the beat select button.
Min = LFO rate time x 1/8
Center = LFO rate time x 1
Max = LFO rate time x 8

(effect level)

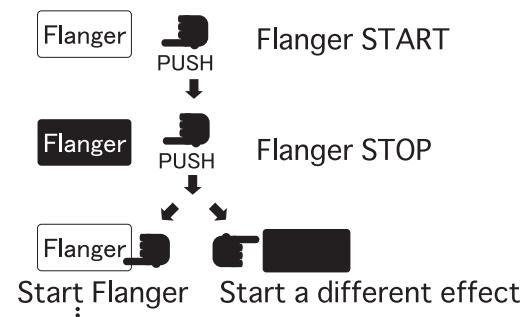
 Adjusts the mix level of the flanger sound and DRY sound.

<Effect retrigger start >

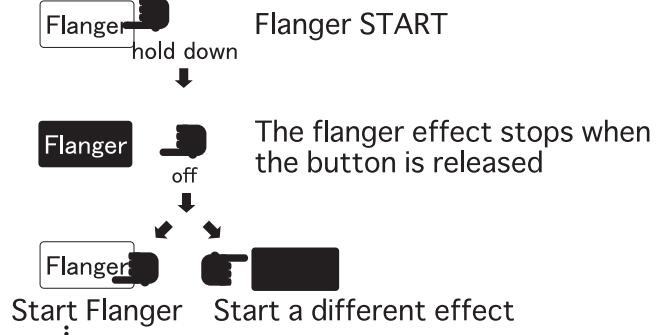
The flanger effect will start from the same modulation point when it is (re)started.

- * When the flanger button is ON in momentary mode
- * When the flanger button is ON in alternate mode
- * When the beat select button is reselected (including the same button)

 **Flanger** ALTERNATE MODE FLANGER OPERATION



 **Flanger** MOMENTARY MODE FLANGER OPERATION



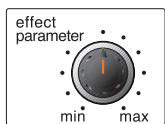
PGM EFFECT FUNCTION & OPERATION

Filter Sweep

FILTER SWEEP (HI Pass Filter / LOW Pass Filter)

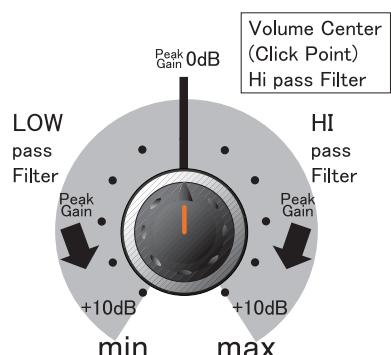
Filter sweep transforms the cut-off frequency of the input sound and gains a masking filter effect. The filter type can be selected from a HI-PASS filter and a LOW PASS filter, and the peak GAIN (resonance) is adjustable.

(effect parameter)

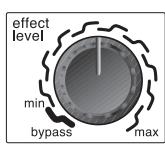


Selects the filter type from HI-PASS and LOW-PASS, and adjusts the peak GAIN (resonance)

Min = LOW PASS FILTER Max Resonance (Peak level +10dB)
Center = HI PASS FILTER Min Resonance (Peak level 0dB)
Max = HI PASS FILTER Max Resonance (Peak level+10dB)



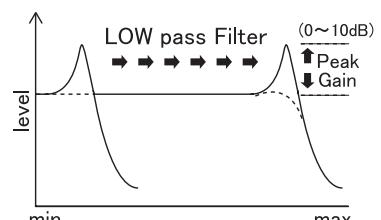
(effect level)



Adjusts the peak frequency of the filter.

LOW Pass Filter

Min=Variable to max fc
↓
Max=Outputs the DRY sound



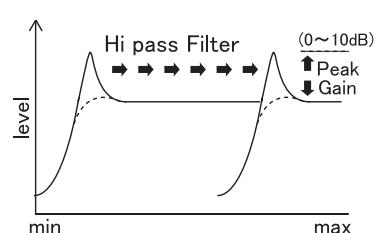
DJ technique filter/sweep



The effect parameter knob sets the effect as a peak-less HI-PASS filter when it is set to the center point. A low cut sound is created by adjusting the effect parameter knob such like an isolator.

Hi Pass Filter

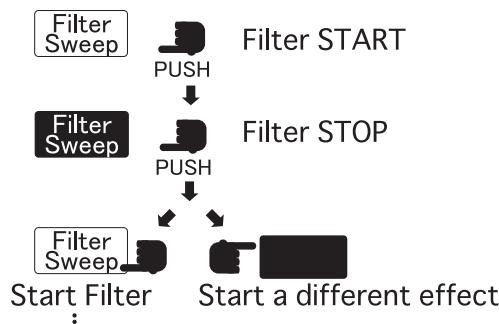
Min= Outputs the DRY sound
↓
Max=Variable to max fc



sw type

Filter Sweep

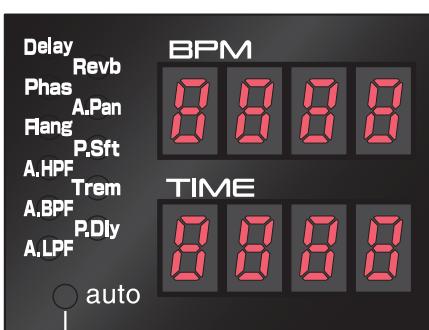
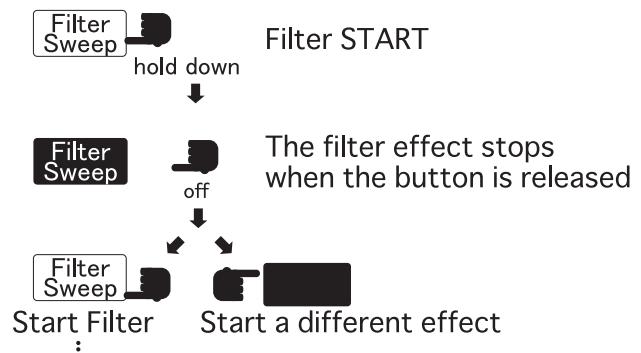
ALTERNATE MODE FILTER SWEEP OPERATION



sw type

Filter Sweep

MOMENTARY MODE FILTER SWEEP OPERATION



BPM and TIME display:

BPM synchronized effects such as Loop, Delay and Flanger (and others) have limits to their time/cycle settings. If the time/cycle is over the limit of the selected effect, the effect button will blink when it is selected and will display the limit value as shown in the picture and will run at that value.

Check the effect function chart for each limit value.

MIC EFFECT FUNCTIONS AND OPERATIONS

MIC EFFECT FUNCTIONS AND OPERATIONS

The MIC channel of the PMC-580 has 3 individual effects that operate separately from the MASTER effects and PGM channel effects.

CAUTION!!

A MASTER effect cannot be applied to the MIC effect sound.
The MIC effect sound is assigned directly to the output section and is not sent to the MASTER section.

PITCH SHIFT

Shifts the input sound within a range of 1 octave up and 1 octave down.
(The DRYT sound will not be outputted when this effect is operated)

(effect)



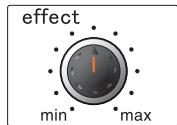
Adjusts the pitch
min = 1 octave down
center = No pitch shift
max = 1 octave up



DISTORTION

Drives the input sound and creates a distortion effect.

(effect)



Adjusts the distortion level
min = weak distortion
center = medium level distortion
max = strong distortion

CAUTION!!

Strong distortion can cause feedback noises. Please be careful with the sound and distortion levels.

MIC ECHO

Creates an echo sound. The ECHO time is fixed at 100ms.
(This effect is not affected by the BPM counter and beat select buttons)

(effect)



Adjusts the number of times the echo is repeated
min = 1 repeat
↓
max = Maximum repeat level

MASTER EFFECT FUNCTIONS AND OPERATIONS

The MASTER channel of the PMC-580 has a multi effector with 11 individual effects, which operate separately from the MIC effects and PGM channel effects.

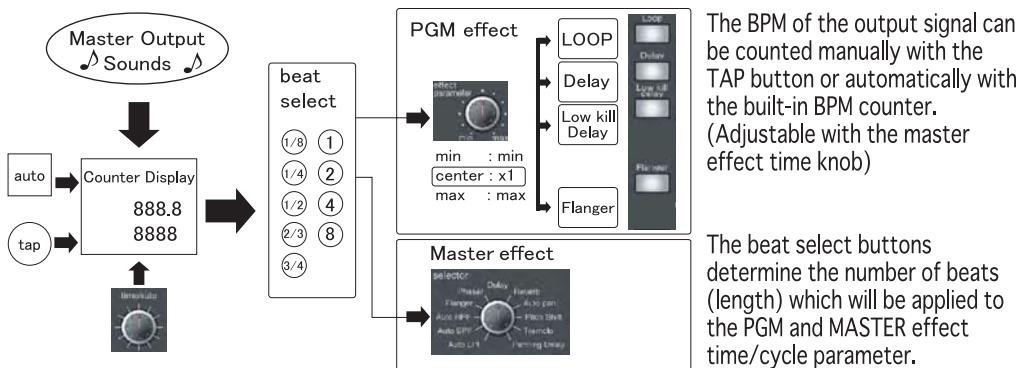
MASTER EFFECT ASSIGN



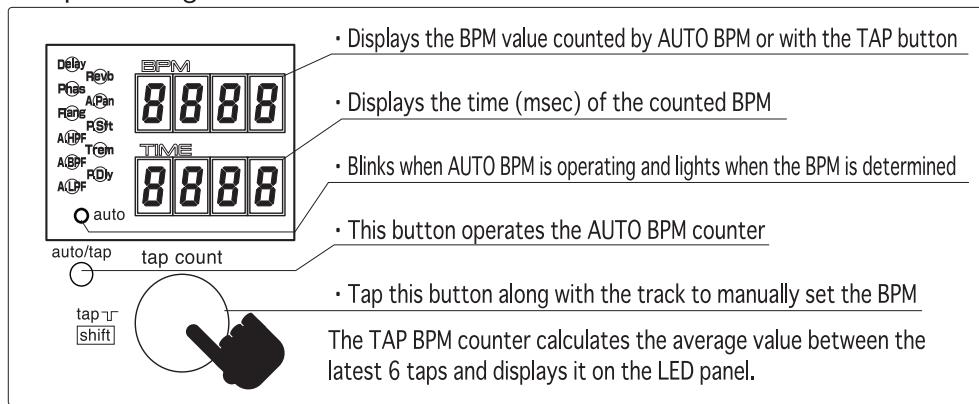
The master effect can be assigned to each side of the cross fader and the main master sound.

BPM SYNC

The time and cycle of each effect synchronizes with the AUTO/TAP BPM counter located on the right of the mixer.



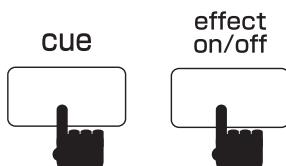
Each effect functions in a different way. Please refer to each effects operation guide.



PRE MONITOR MASTER EFFECT

The MASTER EFFECT sound can be monitored through headphones, even when the MASTER EFFECT SWITCH is turned off. (The effect will not be sent to output)

Push the cue button next by the effect on/off button and set the monitor select volume in the monitor section to cue. The effect sound can be monitored through the headphones to check before it is actually outputted.



NOTE: The MASTER cue button and each PGM cue button cannot be turned ON together

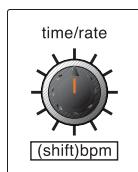


MASTER EFFECT FUNCTIONS AND OPERATIONS

AUTO LPF (LOW PASS FILTER)

Auto low pass filter is an automatic filter effect which operates in a LFO cycle set by the BPM count value and beat select button

* The peak frequency of the FILTER / SWEEP effect in the PGM effector is manually adjustable, but the filter effect in the MASTER effector fully synchronized with the BPM. Please use the filter effect whichever suits your DJ style

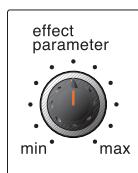


<time/rate>

The first value of the knob is set by the BPM count value and beat select button.
The LFO cycle time is adjustable by turning the knob.

:1 click → +/-10mSec
(Push and turn knob)
:1 click → +/-1mSec

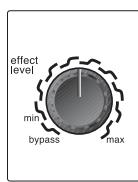
Minimum LFO rate 10mSec
Maximum LFO rate 5400mSec(LFO half cycle)



<effect parameter>

Adjusts the FILTER resonance (peak level)

Min → min resonance (peak gain 0)
Max → max resonance (peak gain +10dB)



<effect level>

Adjusts the mix level of the FILTER sound and DRY sound. The output balance of the AUTO FILTER sound and DRY sound changes by turning the knob to the right.

<Effect trigger start>

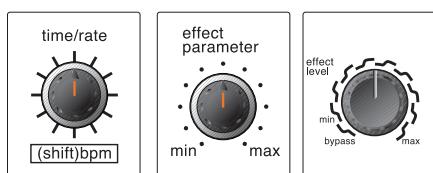
The AUTO LPF effect will start from the same modulation point when it is (re)started.

- * When the AUTO LPF button is selected
- * When the flanger effect start button is turned ON
- * When the beat select button is reselected (including the same button)

AUTO BPF (BAND PASS FILTER)

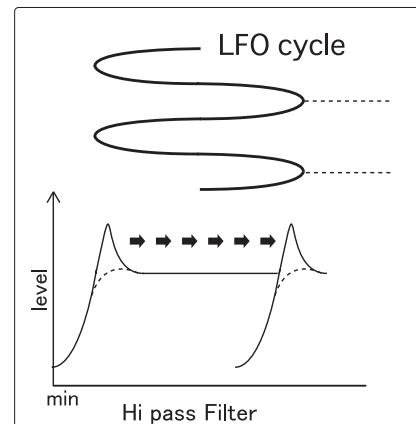
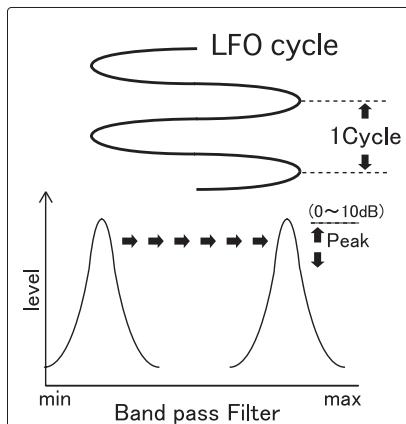
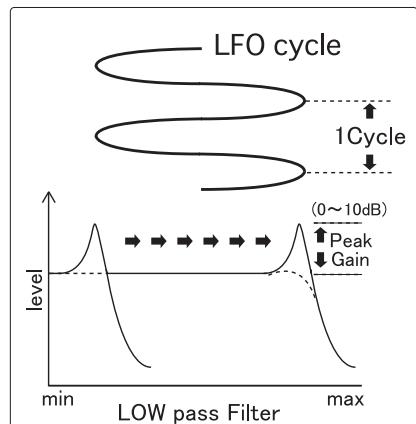
AUTO HPF (HI PASS FILTER)

Auto band pass filter and auto hi pass filter are both automatic filter effects which operate in a LFO cycle set by the BPM count value and beat select button.



:Refer to the operation guide of LPF.

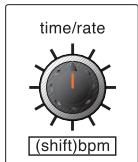
The FILTER peak frequency changes in order with the FO cycle set by the BPM count value and beat select button as shown below.



MASTER EFFECT FUNCTIONS AND OPERATIONS

FLANGER

Flanger is an effect which mixes the modulated time-delayed input sound with the original input sound, and produces an up and down sweep effect. The LFO cycle is adjusted automatically to the automatically/manually counted BPM and beats selected with the beat select buttons.

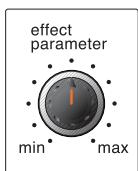


<time/rate>

The first value of the knob is set by the BPM count value and beat select button.
The LFO cycle time is adjustable by turning the knob.

:1 click ! +/-10mSec
(Push and turn knob)
:1 click ! +/-1mSec

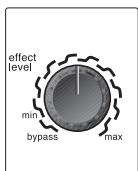
Minimum LFO rate 25mSec
Maximum LFO rate 5000mSec(LFO half cycle)



<effect parameter>

Adjusts the depth of the LFO

Min → min resonance (peak gain 0)
Max → max resonance (peak gain +10dB)



<effect level>

Adjusts the mix level of the FLANGER sound and DRY sound. The output balance of the AUTO FLANGER sound and DRY sound changes by turning the knob to the right.

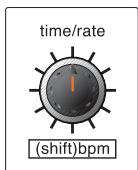
<Effect trigger start>

The AUTO FLANGER will start from the same point when it is (re)started.

- * When the FLANGER button is selected
- * When the flanger effect start button is turned ON
- * When the beat select button is reselected (including the same button)

PHASER

Phaser is an effect which continually alters the tone by altering the phase of the sound and interfering it with the DRY sound. The tone of the phaser effect alters periodically. The LFO cycle is adjusted automatically to the automatically/manually counted BPM and beats selected with the beat select buttons.

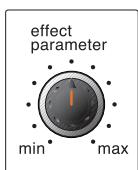


<time/rate>

The first value of the knob is set by the BPM count value and beat select button.
The LFO cycle time is adjustable by turning the knob.

:1 click → +/-10mSec
(Push and turn knob)
:1 click → +/-1mSec

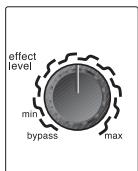
Minimum LFO rate 25mSec
Maximum LFO rate 5000mSec(LFO half cycle)



<effect parameter>

Adjusts the resonance (peak level)

Min → min resonance (peak gain 0)
Max → max resonance (peak gain +10dB)



<effect level>

Adjusts the mix level of the PHASER sound and DRY sound. The output balance of the AUTO FLANGER sound and DRY sound changes by turning the knob to the right.

<Effect trigger start>

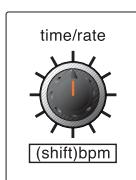
The AUTO PHASER will start from the same point when it is (re)started.

- * When the PHASER button is selected
- * When the phaser effect start button is turned ON
- * When the beat select button is reselected (including the same button)

MASTER EFFECT FUNCTIONS AND OPERATIONS

DELAY

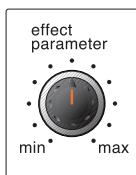
The delay time is set to the automatically/manually counted BPM and beats selected with the beat select buttons. The maximum delay time is 5,400ms at stereo.



<time/rate>

The first value of the knob is the delay time set by the BPM count value and beat select button. The delay time is adjustable by turning the knob.
 :1 click → +/-10mSec
 (Push and turn knob)
 :1 click → +/-1mSec

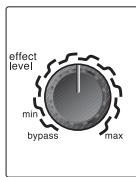
Minimum delay time : 10mSec
 Maximum delay time : 5400mSec



<effect parameter>

Adjusts the feedback level

Min → 1 FEEDBACK
 Max → Infinitive FEEDBACK (doesn't hold)

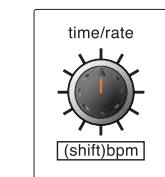


<effect level>

Adjusts the mix level of the DELAY sound and DRY sound. The delay sound increases and the DRY sound decreases by turning the knob clockwise, altering the output balance.

REVERB

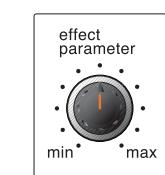
Reverb adds a reverberant effect to the input sound. The depth of the reverb sound and the mix level with the input sound can be adjusted.



<time/rate>

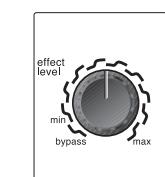
Adjusts the decay time

Min → 0
 Max → 127



<effect parameter>

Adjusts the depth of the reverb (the depth size grows continuously from ROOM→HALL→PLATE)

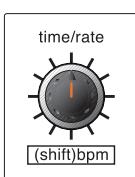


<effect level>

Adjusts the mix level of the REVERB sound and DRY sound.

AUTO PAN

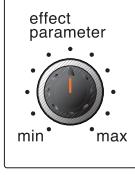
Auto pan is an effect which sends the input sound back and forth between the left and right output. The length of the interval between the left and right output is set with the automatically/manually counted BPM and beats selected with the beat select buttons.



<time/rate>

The first value of the knob is the interval time set by the BPM count value and beat select button. The interval time is adjustable by turning the knob.
 :1 click → +/-10mSec
 (Push and turn knob)
 :1 click → +/-1mSec

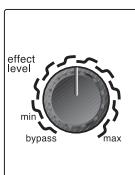
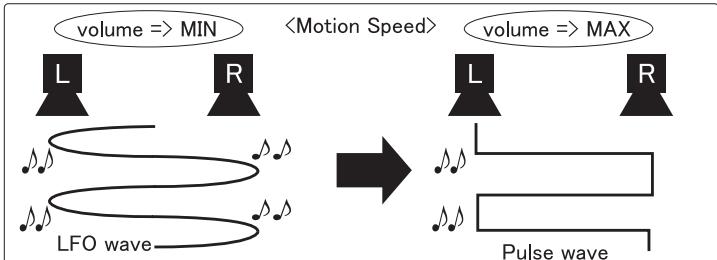
Minimum LFO rate : 10mSec
 Maximum LFO rate : 5400mSec



<effect parameter>

Adjusts the motion speed of the panning.

Min → LFO : sin wave
 Max → LFO : Pulse wave

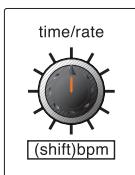


<effect level>

Adjusts the mix level of the AUTO PAN sound and DRY sound. The AUTO PAN balance increases by turning the knob clockwise.

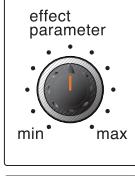
PITCH SHIFT

Pitch shift alters the pitch of the input sound between -100% and +1 octave.



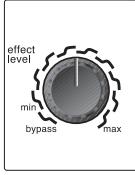
<time/rate>

Adjusts the pitch which is set with the effect parameter between +/-50%.



<effect parameter>

Adjusts the pitch.
 Min → Shifts the original pitch -100% down (more than 1 octave)
 Center → The pitch stays the same
 Max → Shifts the original pitch 1 octave up



<effect level>

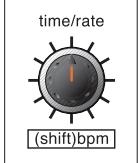
Adjusts the mix level of the PITCH SHIFT sound and DRY sound.

MASTER EFFECT FUNCTIONS AND OPERATIONS

TREMOLO

Tremolo produces a periodic variation in the volume of the inout sound. The tremolo length is set with the automatically/manually counted BPM and beats selected with the beat select buttons.

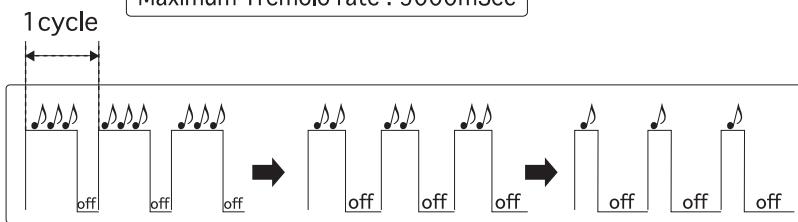
<time/rate>



The first value of the knob is the tremolo time set by the BPM count value and beat select button. The tremolo time is adjustable by turning the knob.

- :1 click → +/- 10mSec (Push and turn knob)
- :1 click → +/- 1mSec

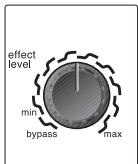
Minimum Tremolo rate : 25mSec
Maximum Tremolo rate : 5000mSec



* Duty cycle is the ON / OFF proportion of time as shown in the picture above

<effect parameter>

Adjusts the duty cycle



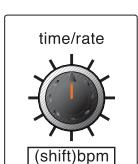
Adjusts the mix level of the tremolo sound and DRY sound. The tremolo balance increases by turning the knob clockwise, altering the output balance.

PANNING DELAY

Panning delay outputs the delay feedback between the left and right output.

The length of the interval between the left and right output is set with the automatically/manually counted BPM and beats selected with the beat select buttons.

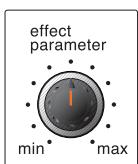
<time/rate>



The first value of the knob is the interval time set by the BPM count value and beat select button. The interval time is adjustable by turning the knob.

- :1 click → +/- 10mSec (Push and turn knob)
- :1 click → +/- 1mSec

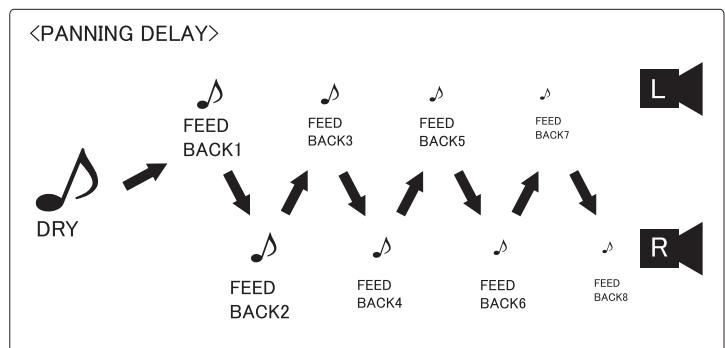
Minimum delay time : 50mSec
Maximum delay time: : 5400mSec



<effect parameter>

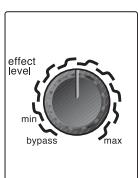
Adjusts the feedback level

Min → 1 FEEDBACK
Max → Infinitive FEEDBACK (doesn't hold)



<effect level>

Adjusts the mix level of the DELAY sound and DRY sound. The delay sound increases and the DRY sound decreases by turning the knob clockwise, altering the output balance.



Specification

- EFFECT -

<PGM>
 OLOOP
 ODELAY
 OLOW CUT DELAY
 OREVERB
 OFLANGER
 OFILTER SWEEP

<MASTER>
 OAUTO LPF
 OAUTO BPF
 OAUTO HPF
 OFLANGER
 OPHASER
 ODELAY
 OREVERB
 OAUTO PAN
 OPITCH SHIFT
 OTREMOLO
 OPANNING DELAY

<MIC>
 OPITCH SHIFT
 ODISTORTION
 OMIC ECHO

- INPUT / OUTPUT -

PHONO input	RCA PIN JACK
LINE/CD input	RCA PIN JACK
MIC input	COMBO JACK (XLR/PHONE)
DIGITAL input	RCA PIN JACK
RETURN input	RCA PIN JACK
MASTER output	(unbal.) PHONE JACK (bal.) XLR JACK
BOOTH output	(unbal.) PHONE JACK (bal.) XLR JACK
REC1/2(SEND) output	RCA PIN JACK
DIGITAL output	RCA PIN JACK
PHONES output	PHONE JACK
USB input/output	B-type USB JACK

- OPTION -

DX LINE input
 DX LINE output

- GENERAL -

Power	AC-ADAPTOR / AC-20
Power Consumption	40 W
Weight	8.5 kg
Demension	326 (W) × 406 (D) × 100 (H)
Sampling Rate	48kHz
Mixer part	full digital, 32 bit DSP
Effect part	full digital, 24 bit DSP
CPU	32 bit * 2, 16 bit * 3
ADC	24 bit E-Dual bit
DAC	DELTA-SIGMA 106dB 24 bit A-Multi bit DELTA-SIGMA 100dB
S/N Ratio	over 75 dBv (JIS-A)
Distortion	less than 0.05%
Freq response	20Hz – 20kHz ±3dB

- LEVEL -

INPUT Level / INPUT Impedance	
LINE	-10dBv / 18k ohm
MIC	-50dBv / 5.4k ohm
PHONO	-45dBv / 45k ohm
RETURN	0dBv / 32k ohm
OUTPUT Level / Impedance	
MASTER	0dBv / over 10k ohm (bal.) over 600 ohm
BOOTH	0dBv / over 10k ohm (bal.) over 600 ohm
REC	-10dBv / over 10k ohm
SEND	0dBv / over 10k ohm
PHONES	190 mW/over 8 ohm/68ohm

- CHARACTERISTIC -

PGM Equalizer / Isolator

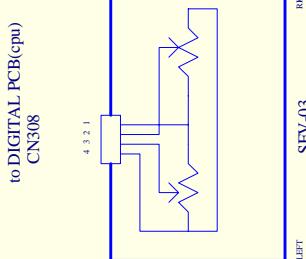
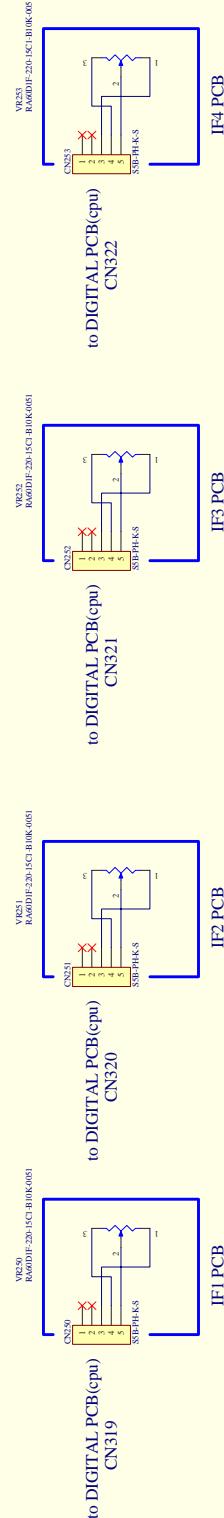
<Equalizer>			
Hi	10kHz	±12dB	
MID	100 – 10kHz	±12dB	
LOW	100Hz	±12dB	
<Isolator>			
HI	10kHz	+10dB ~ cut	
MID	100 – 10kHz	+10dB ~ cut	
LOW	100Hz	+10dB ~ cut	

MIC Equalizer

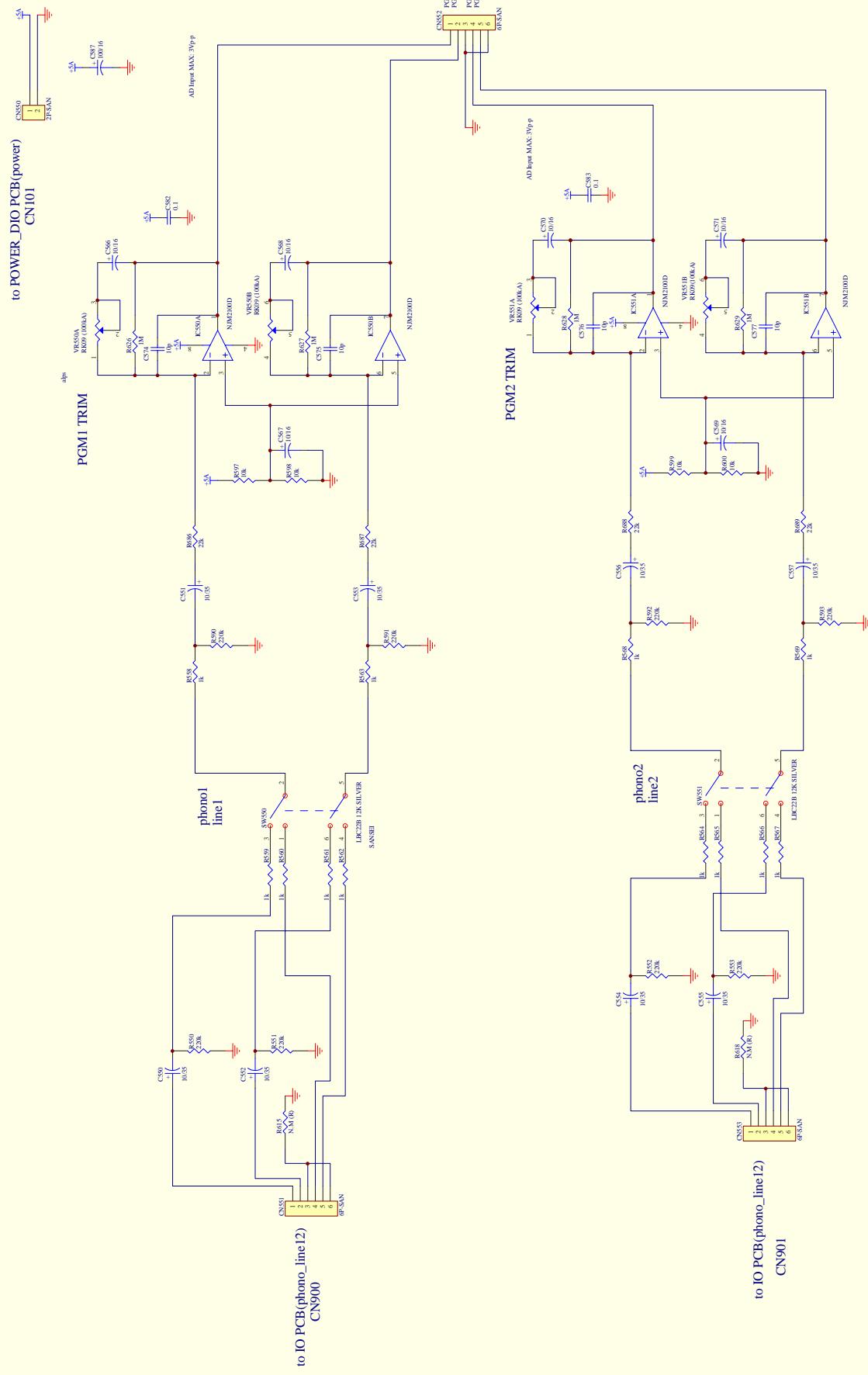
HI	3kHz	±12dB
LOW	100Hz	±12dB

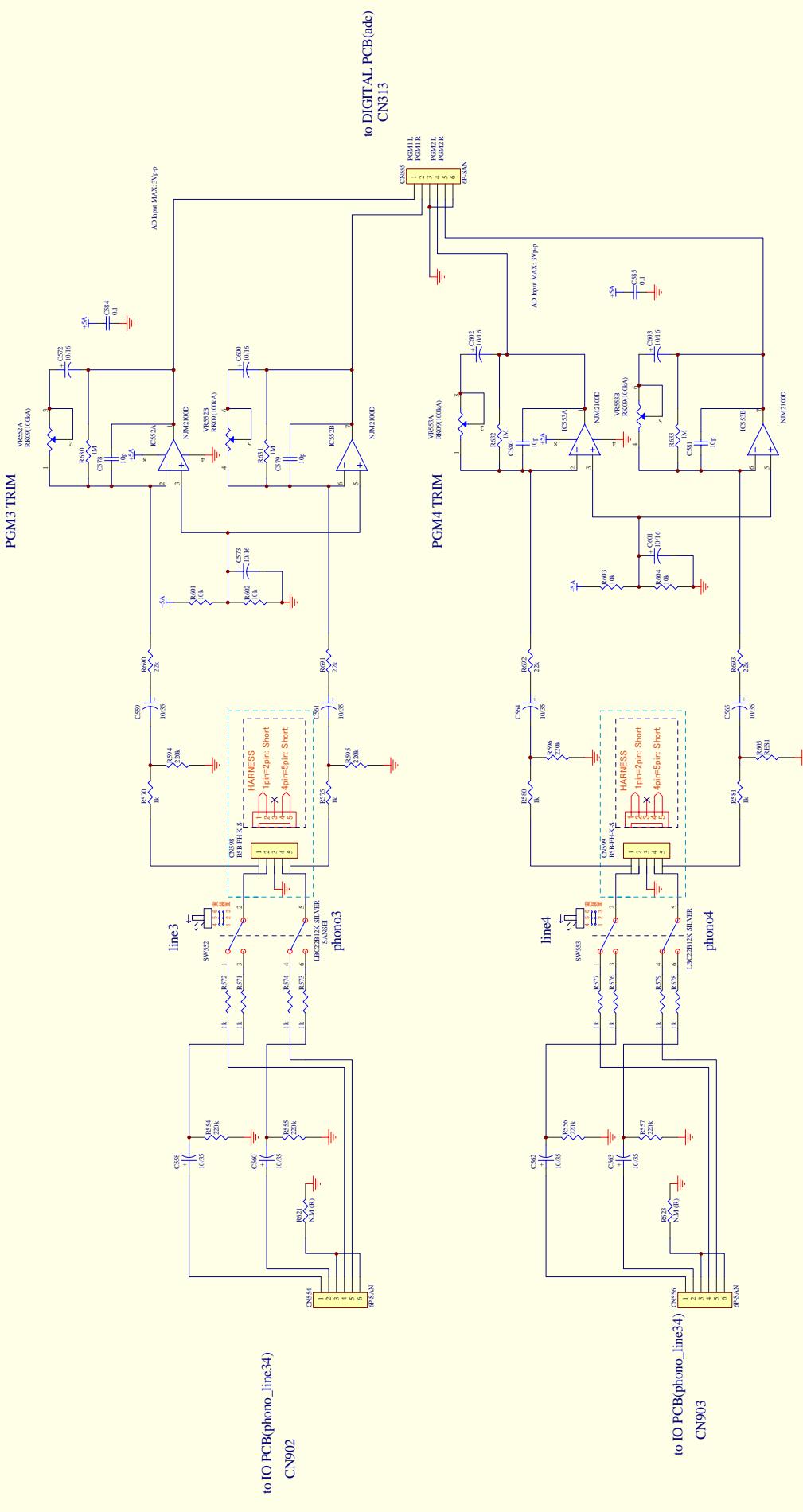
BOOTH/PHONES Equalizer

HI	10kHz	±12dB
LOW	100Hz	±12dB

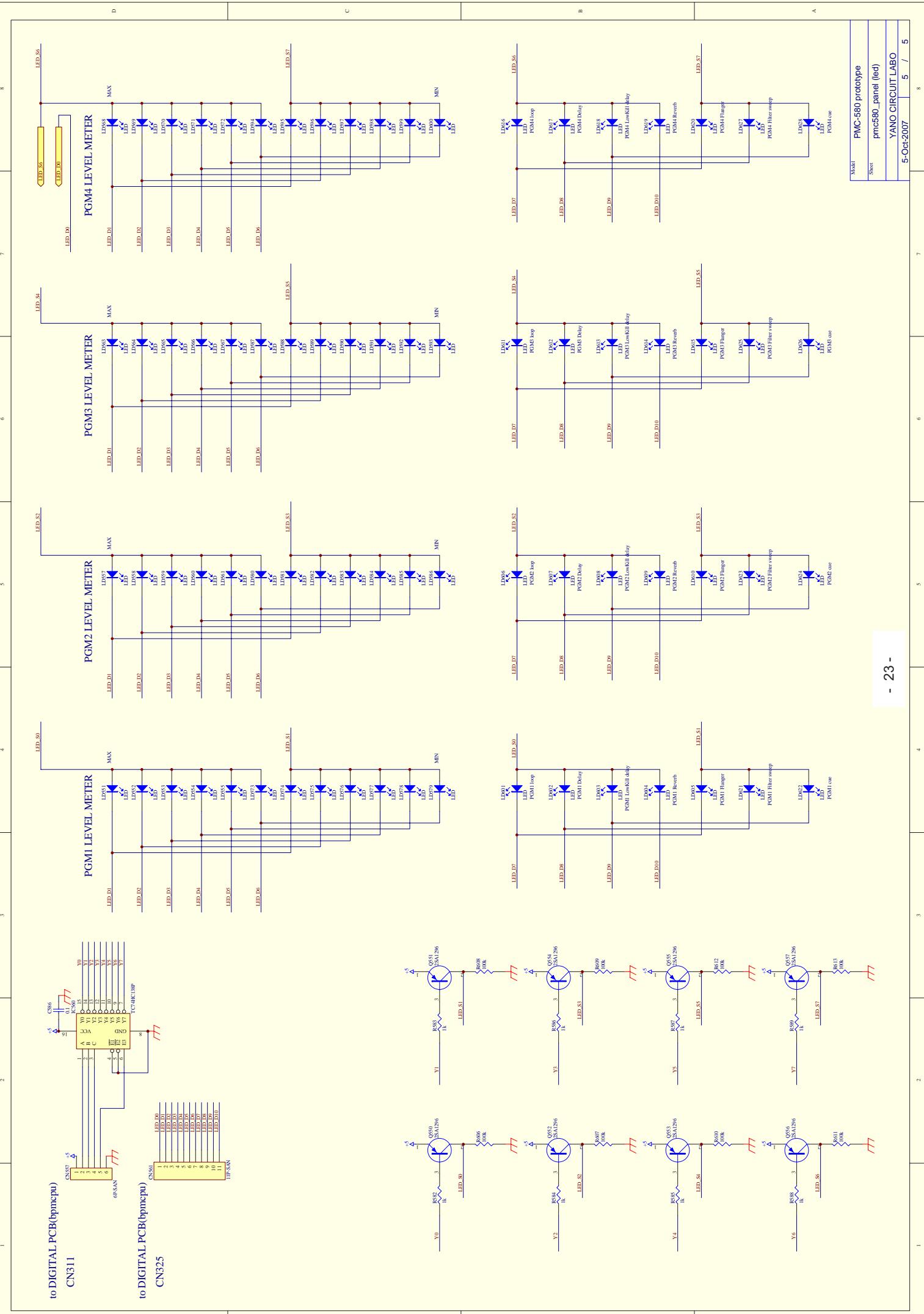


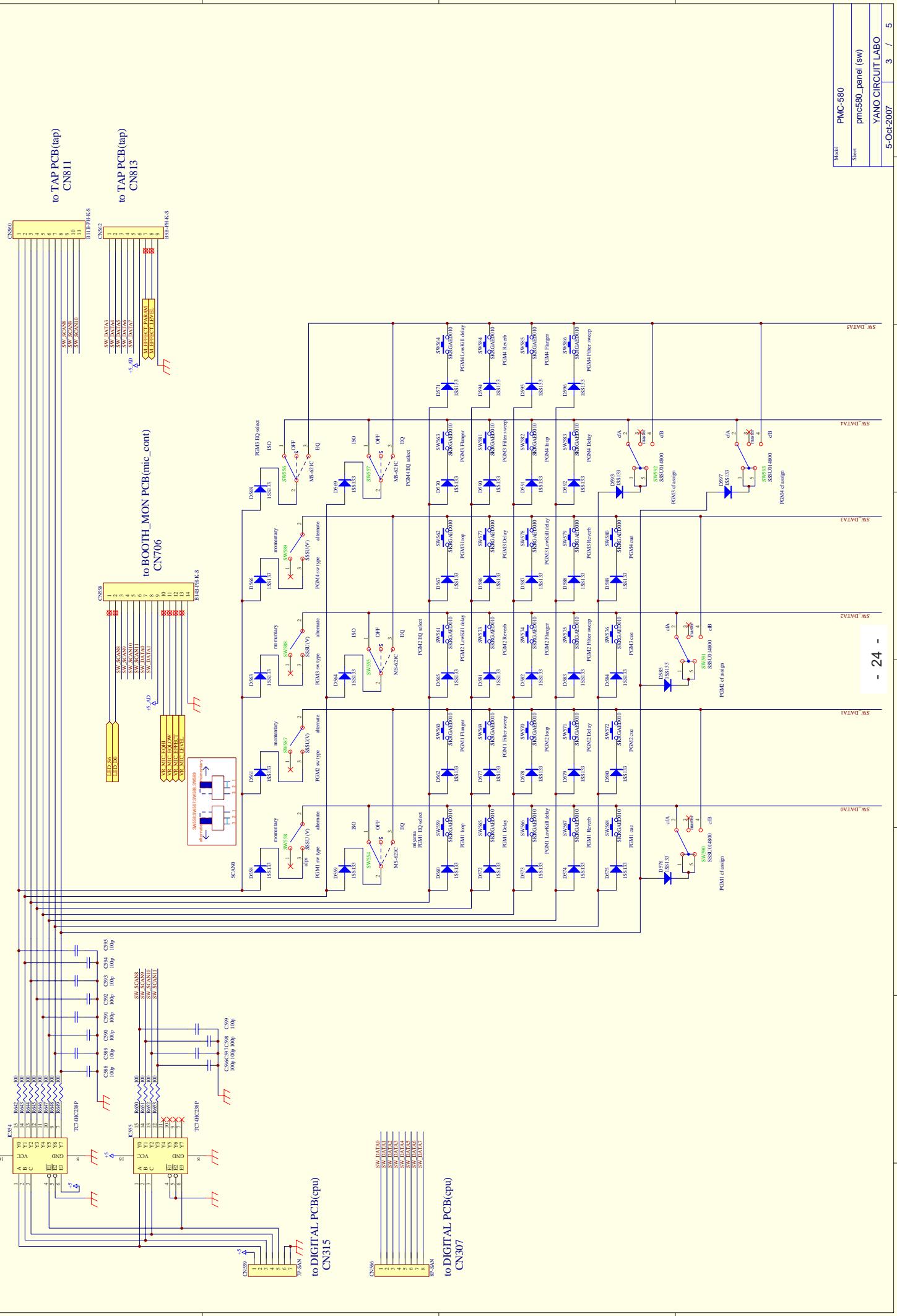
250-299(VR253,CN253)

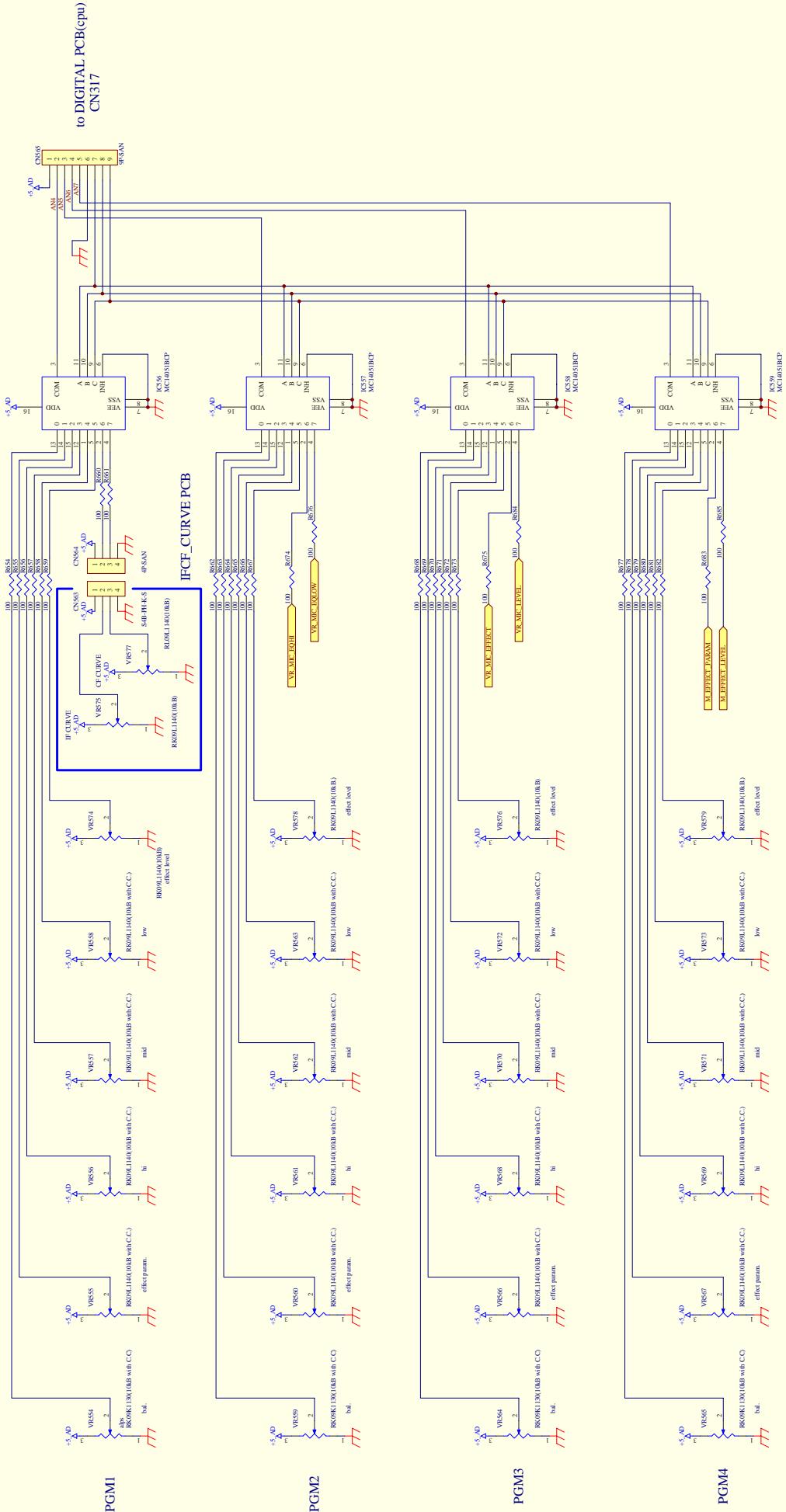




2007年2月追加
内蔵用のPCMCIAアダプタを初めて販売開始した。この内蔵用のPCMCIAアダプタは、PANASONIC PC-NETのINPUT/SW側にコネクターを用意。
このアダプタは、ノートパソコンのPCMCIAスロットに差し込むことで、ノートパソコンのINPUT/SW側に接続する。このアダプタを用いて、ノートパソコンのINPUT/SW側に接続する。このアダプタを用いて、ノートパソコンのINPUT/SW側に接続する。

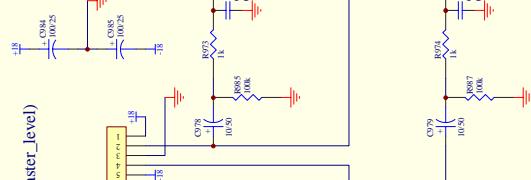






25

to TAP PCB(master_level)
CN816



D

8

7

6

5

4

3

2

1

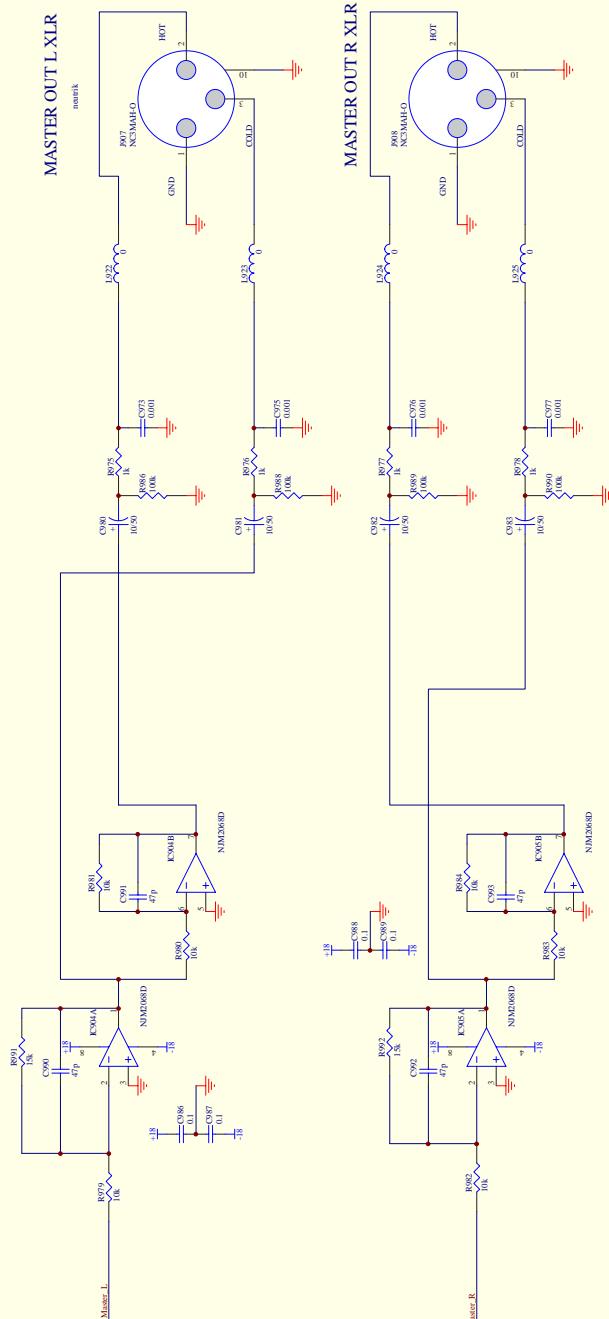
D

C

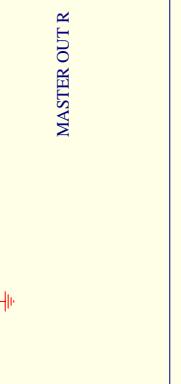
B

A

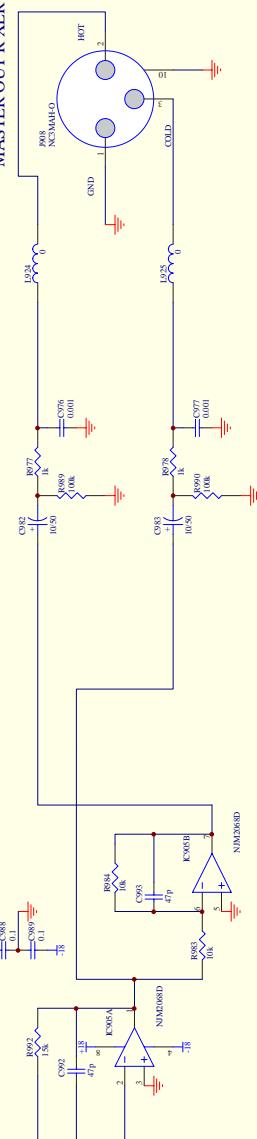
MASTER OUT L XLR



MASTER OUT R



MASTER OUT R XLR



7

6

5

4

3

1

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

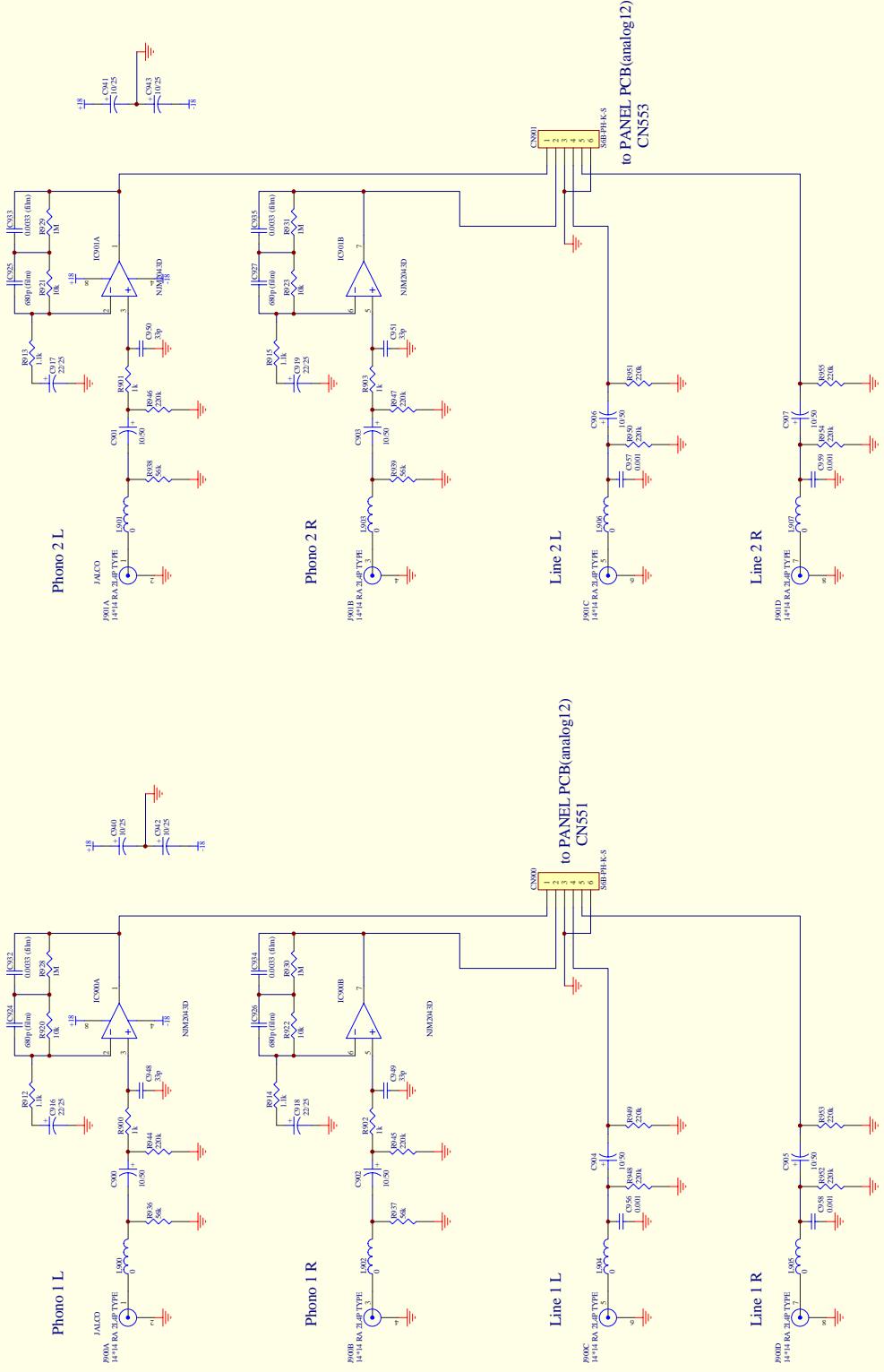
V

W

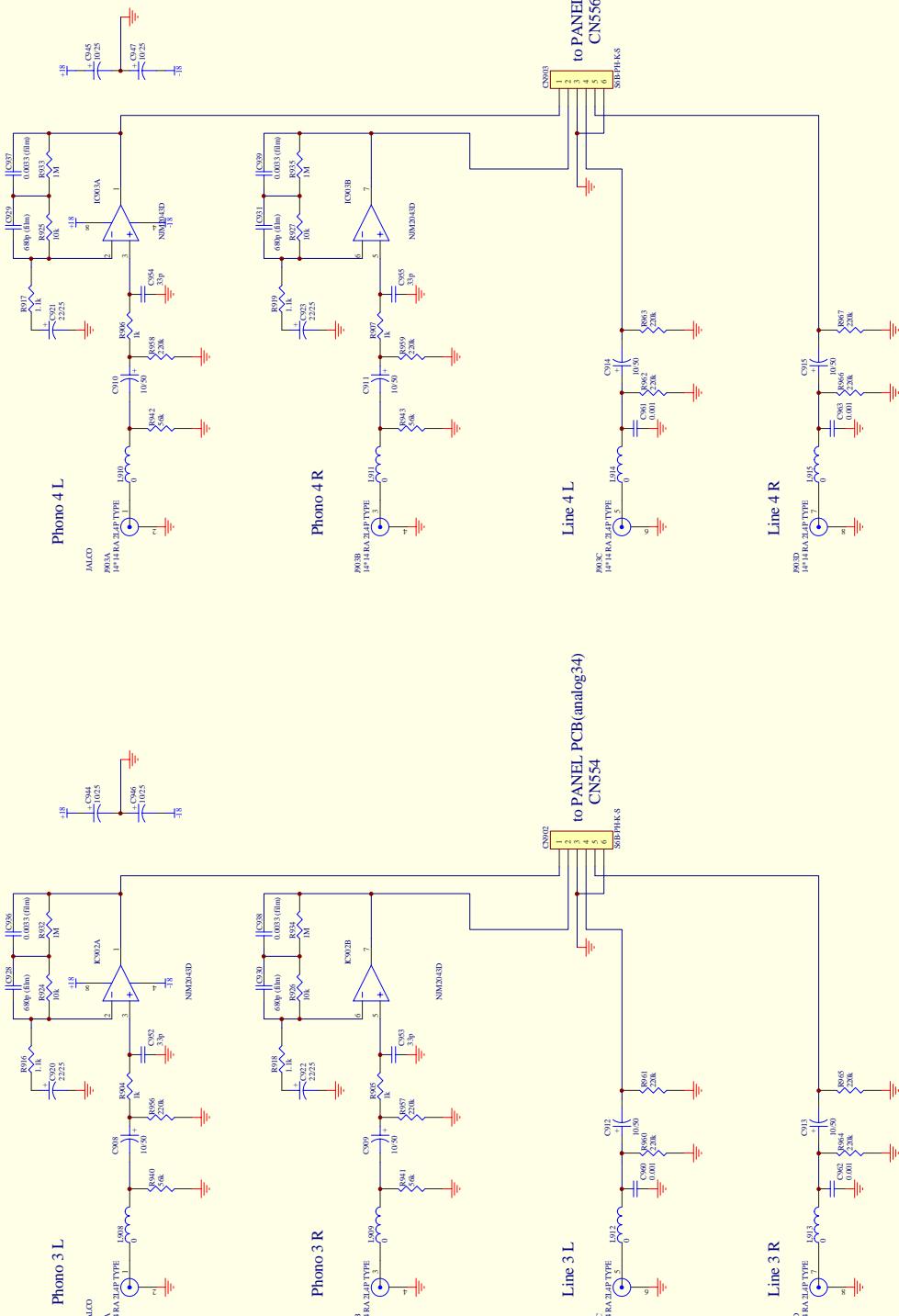
X

Y

Z



27



Makki	PMC-580 prototype
Sheet	pmc580_lo(phono_line34)
	YANO CIRCUIT LABO

Model	PMC-580 prototype
Sheet	pmc580_i0/rec_out
	YANO CIRCUIT LABO

5-Oct-2007	3 / 4
------------	-------

A

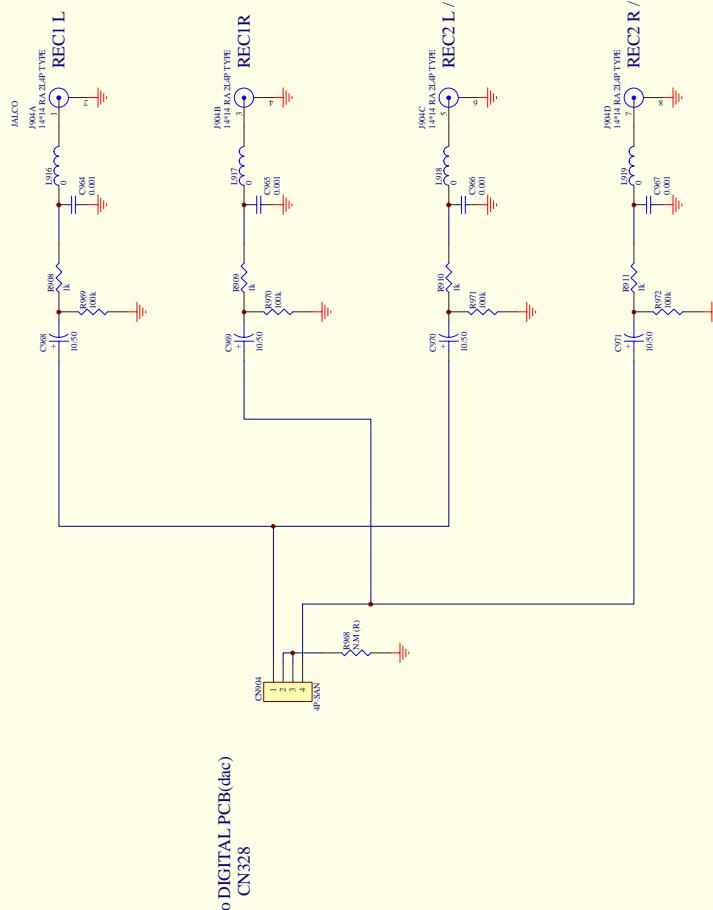
A

B

B

C

C



D

D

1

2

3

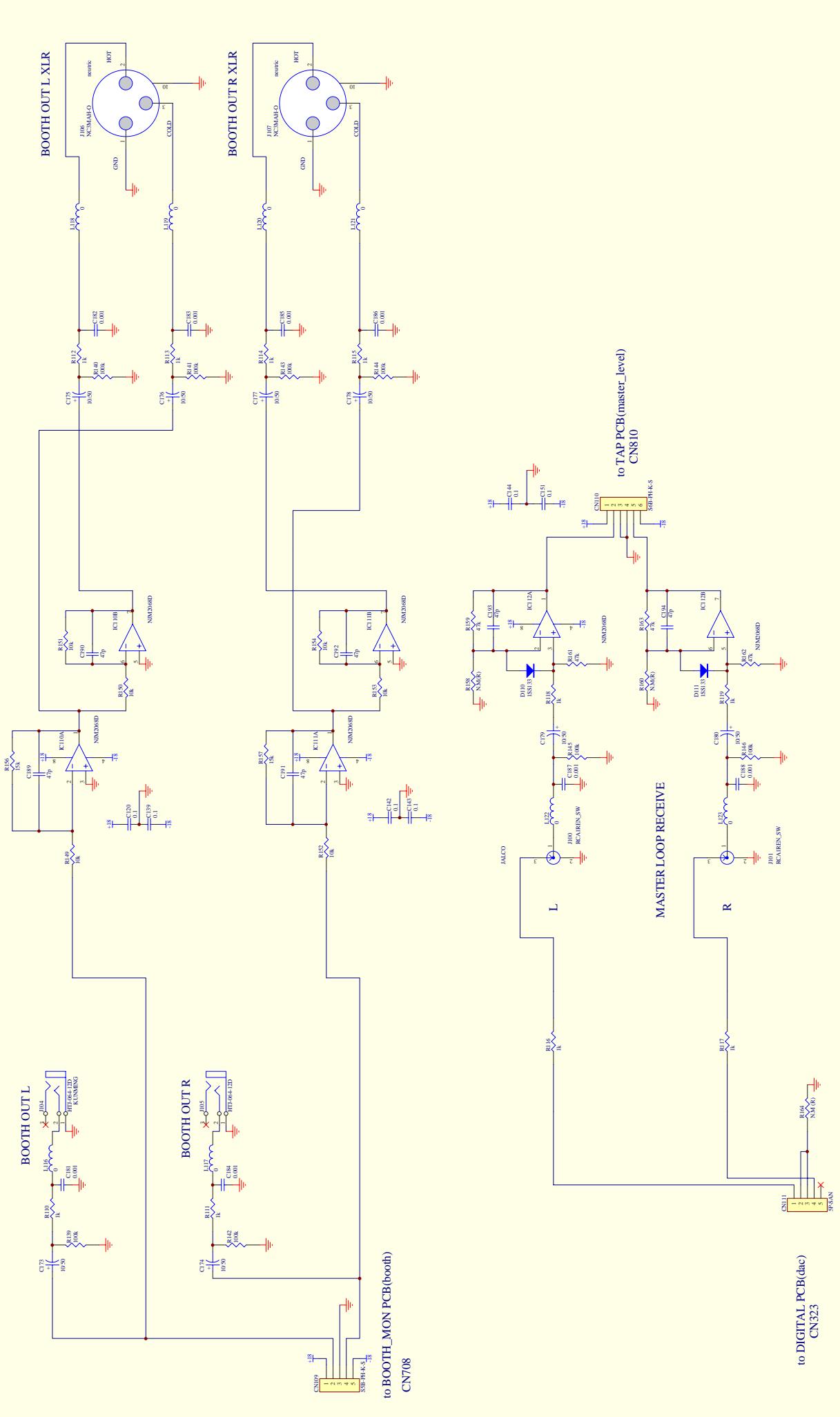
4

5

6

7

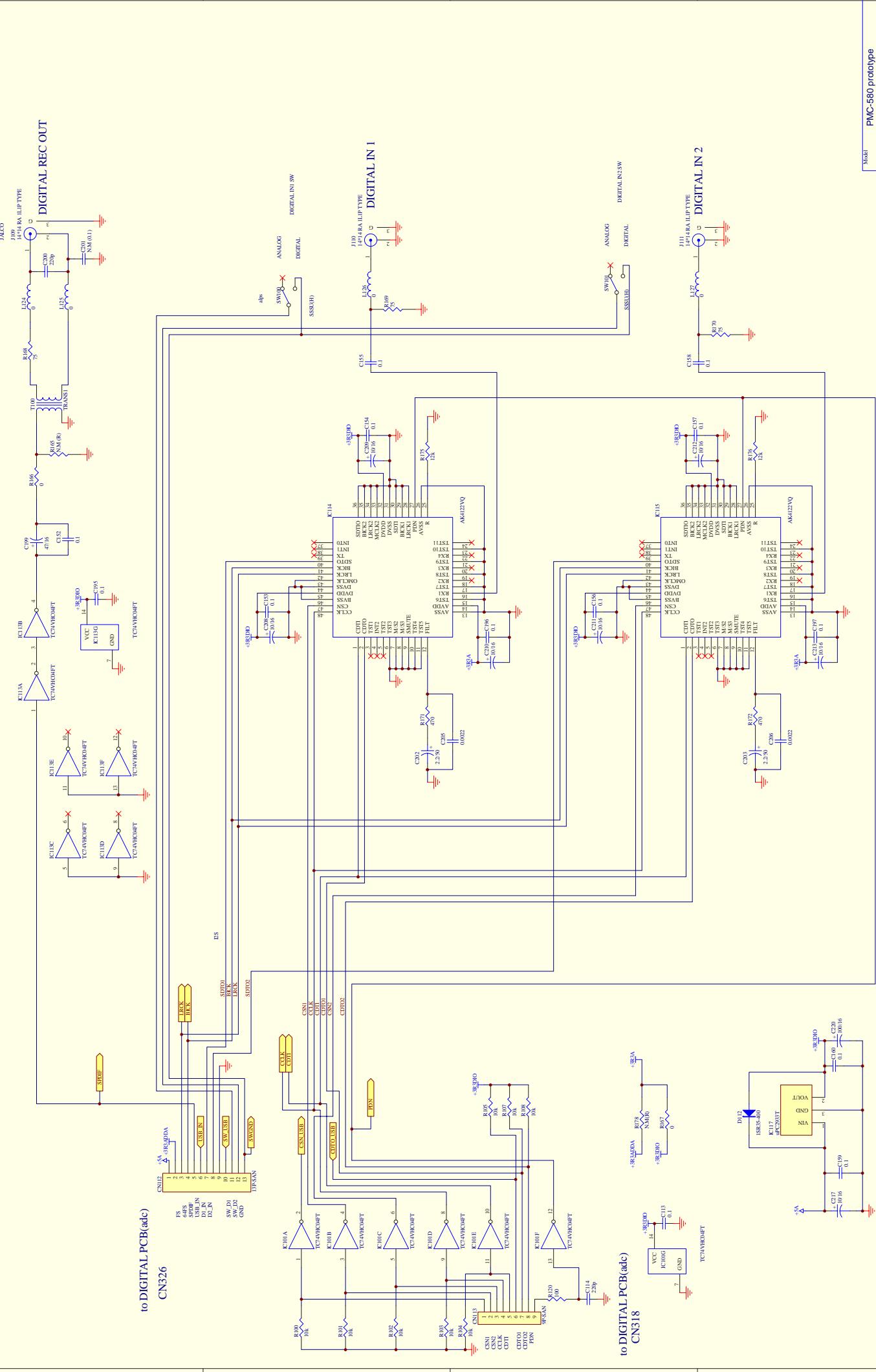
8

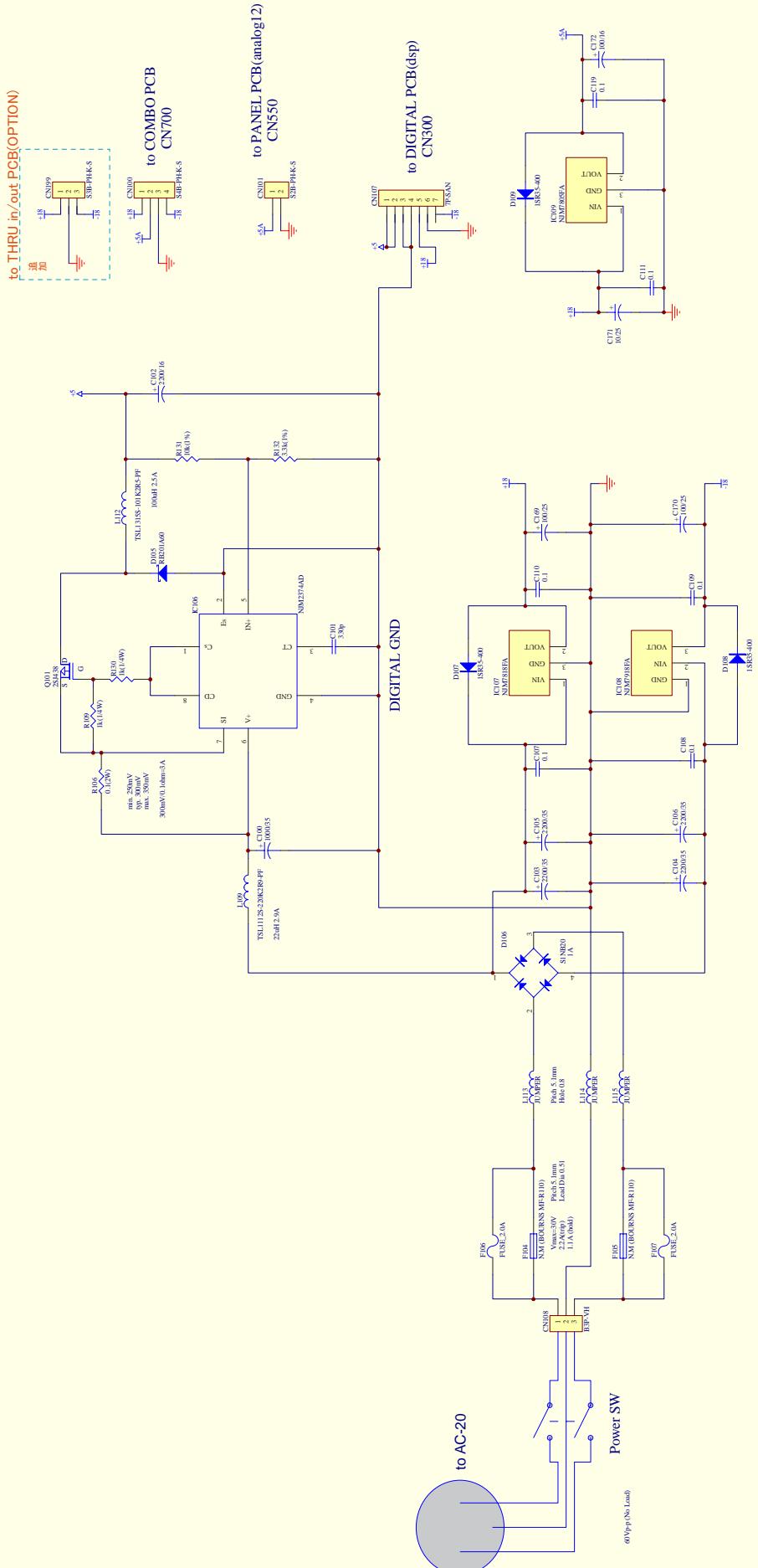


30

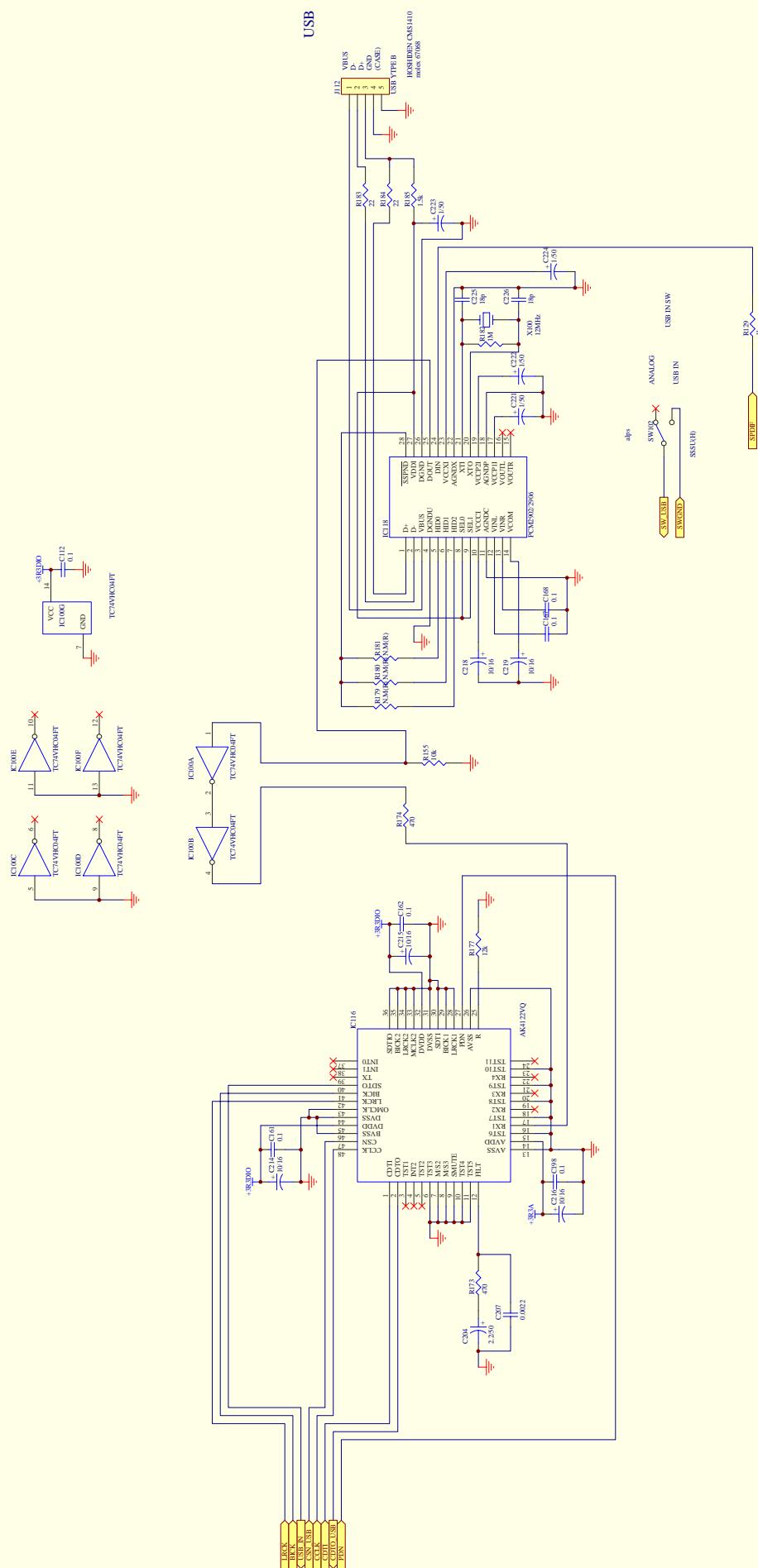
YANO CIRCUIT

YANO CIRCUIT LABO

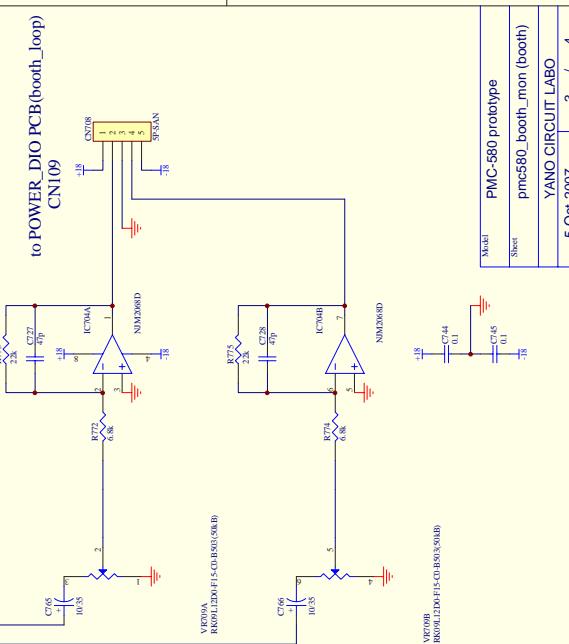
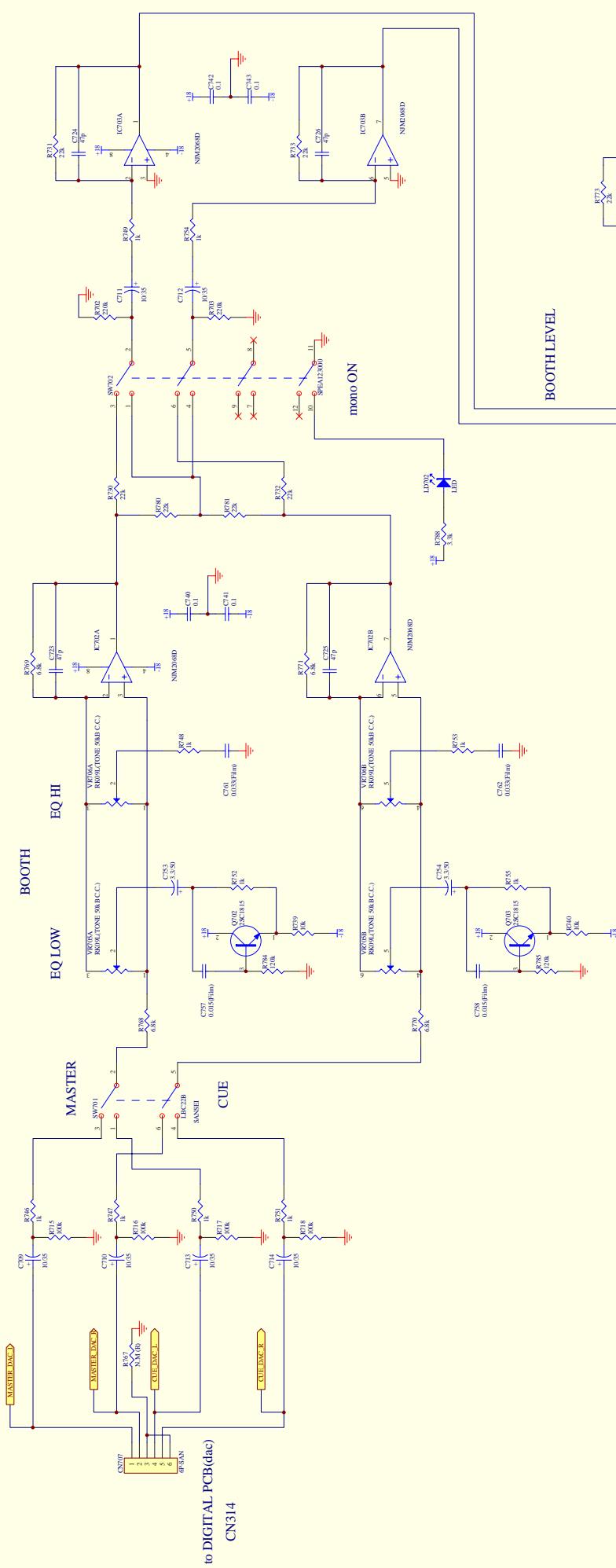




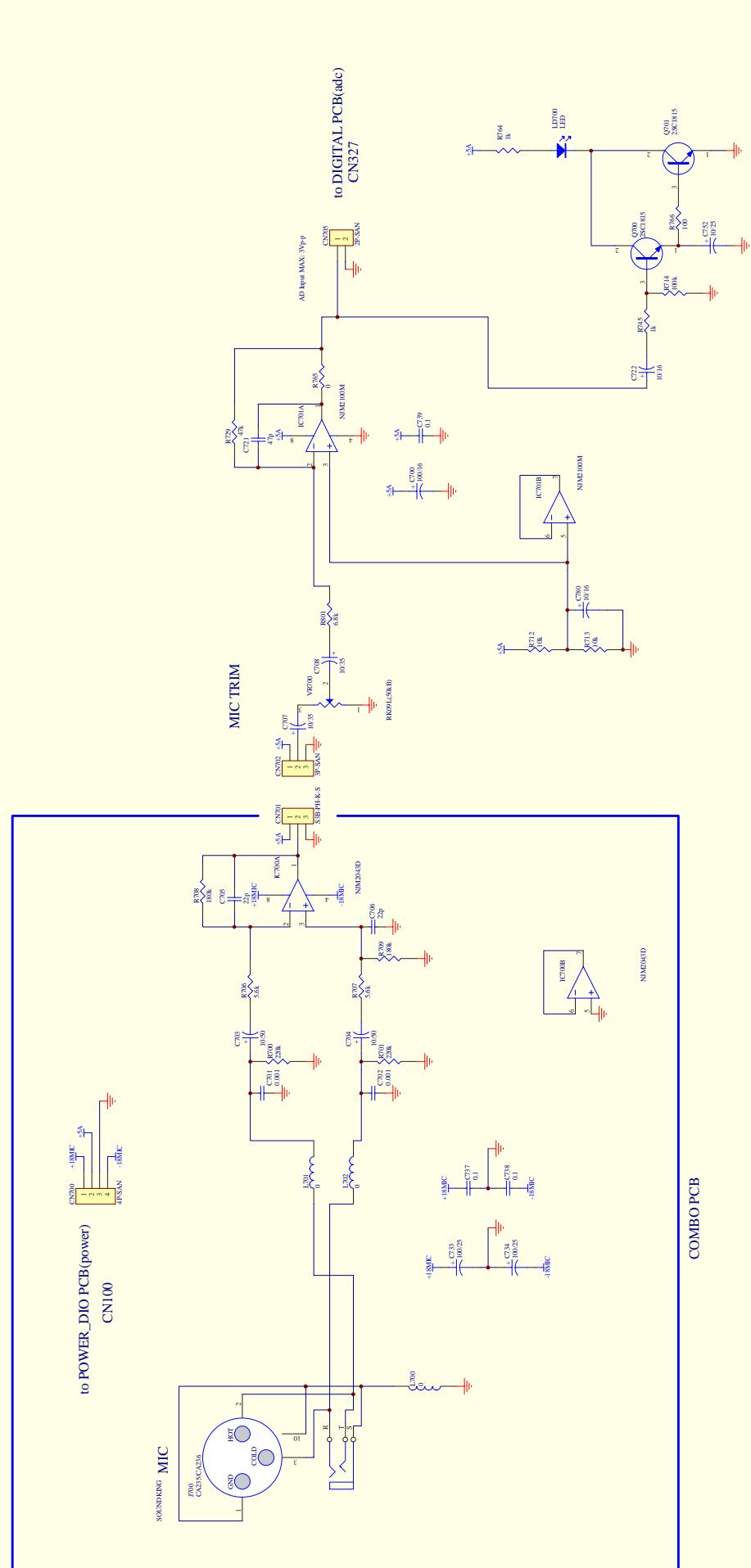
32 -



33



- 34 -



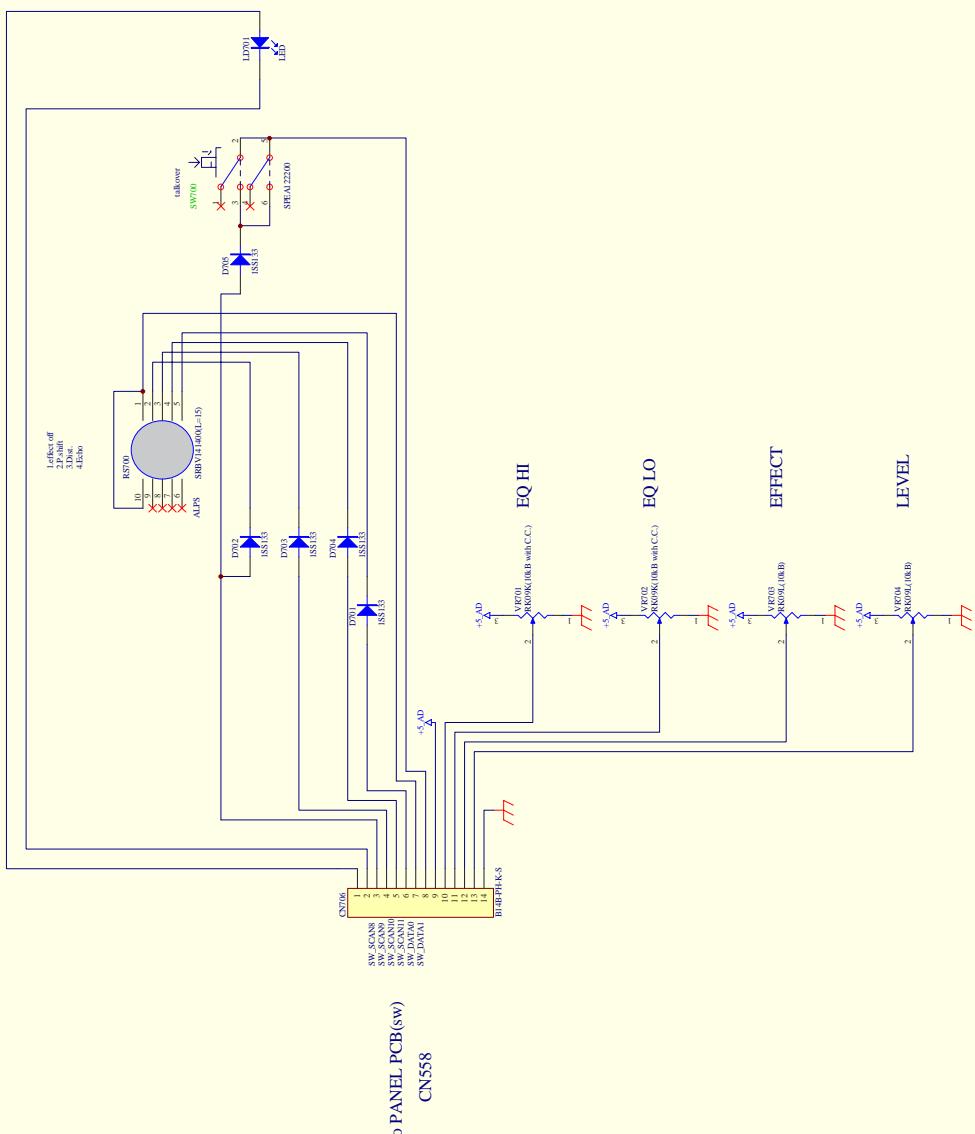
35

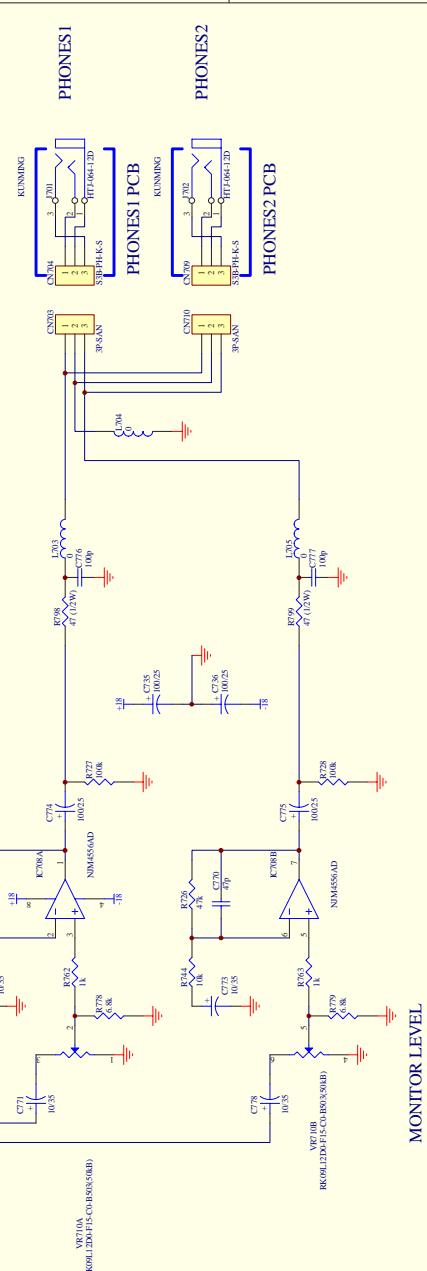
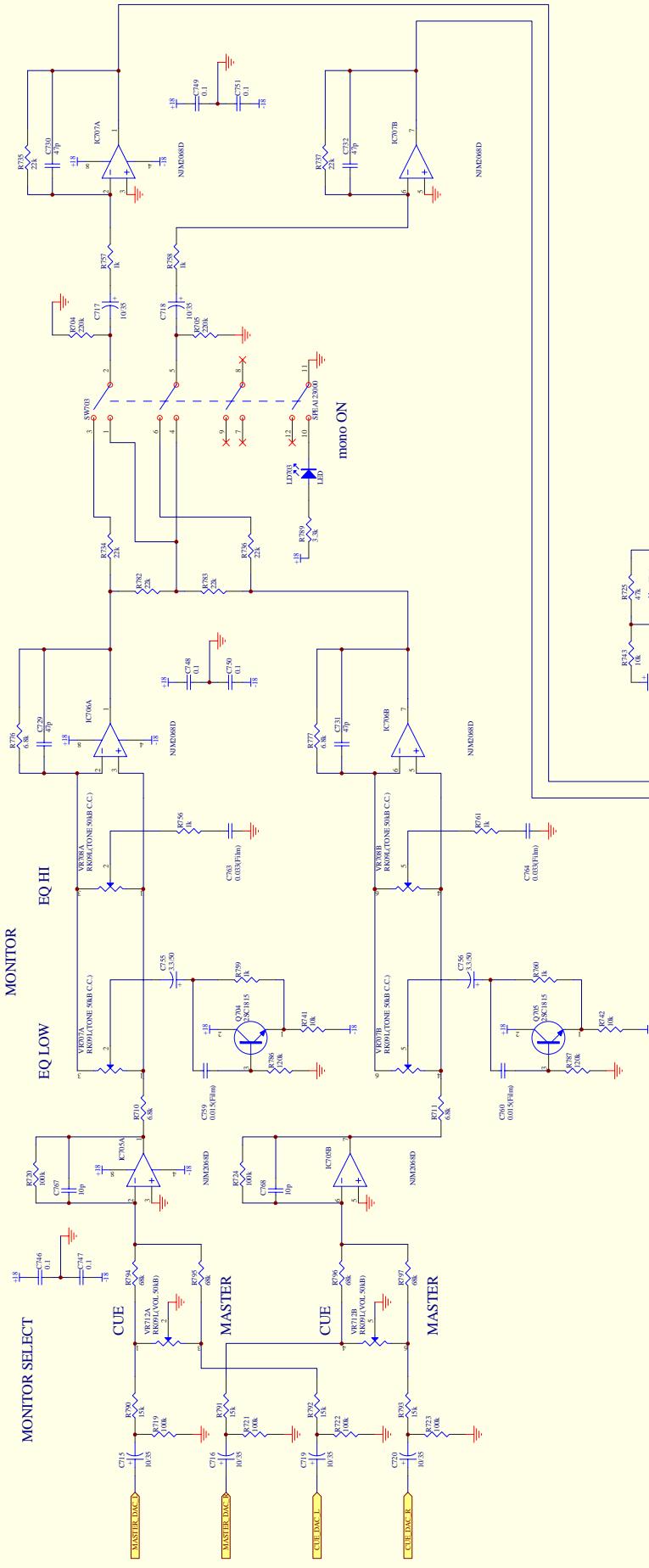
D

C

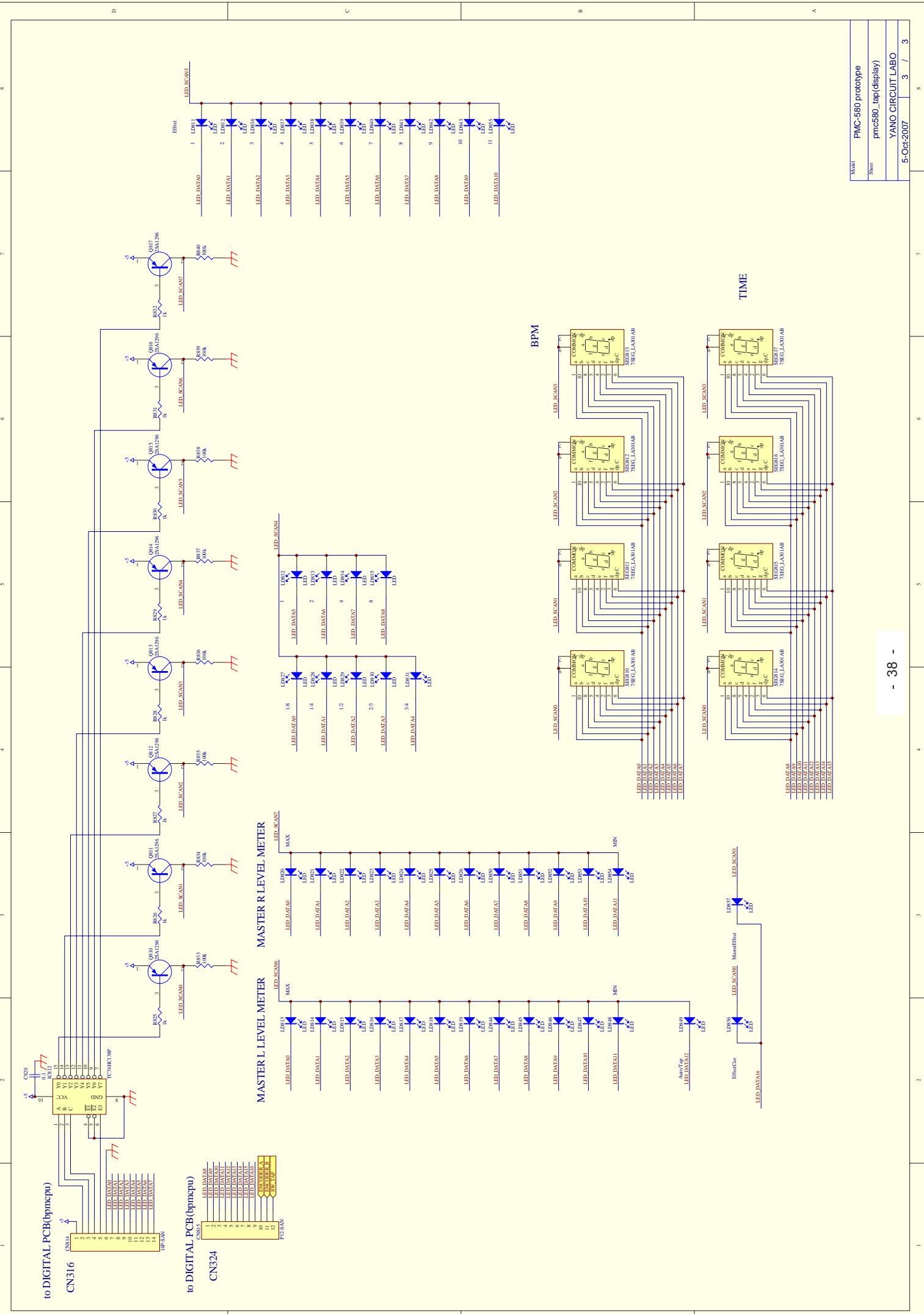
B

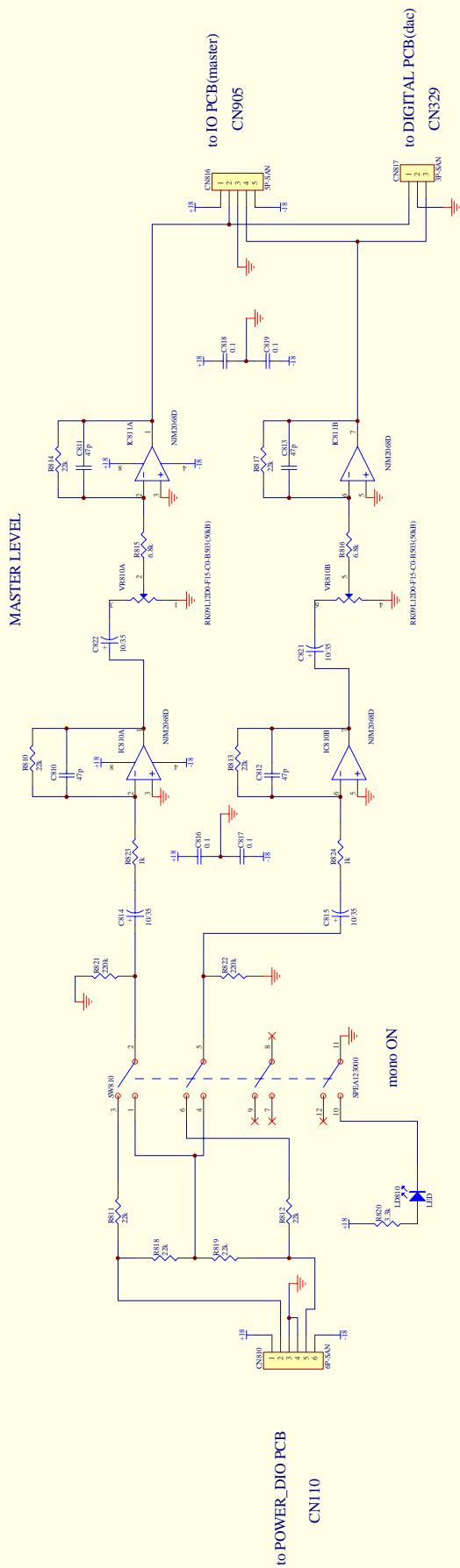
A





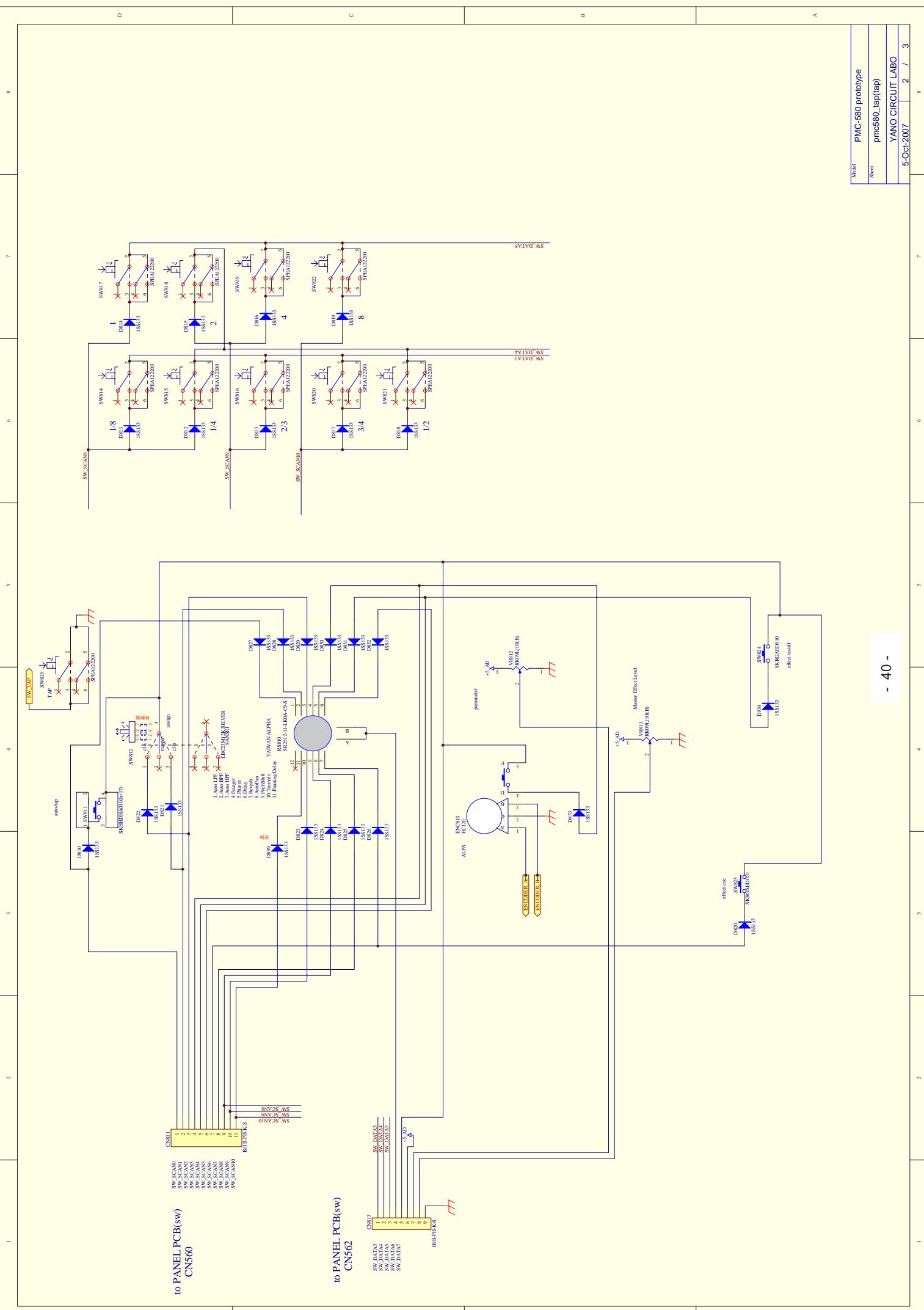
Model	PMC-580 prototype
Sheet	pmc580_booth_man (monitor)
	YANO CIRCUIT LABO

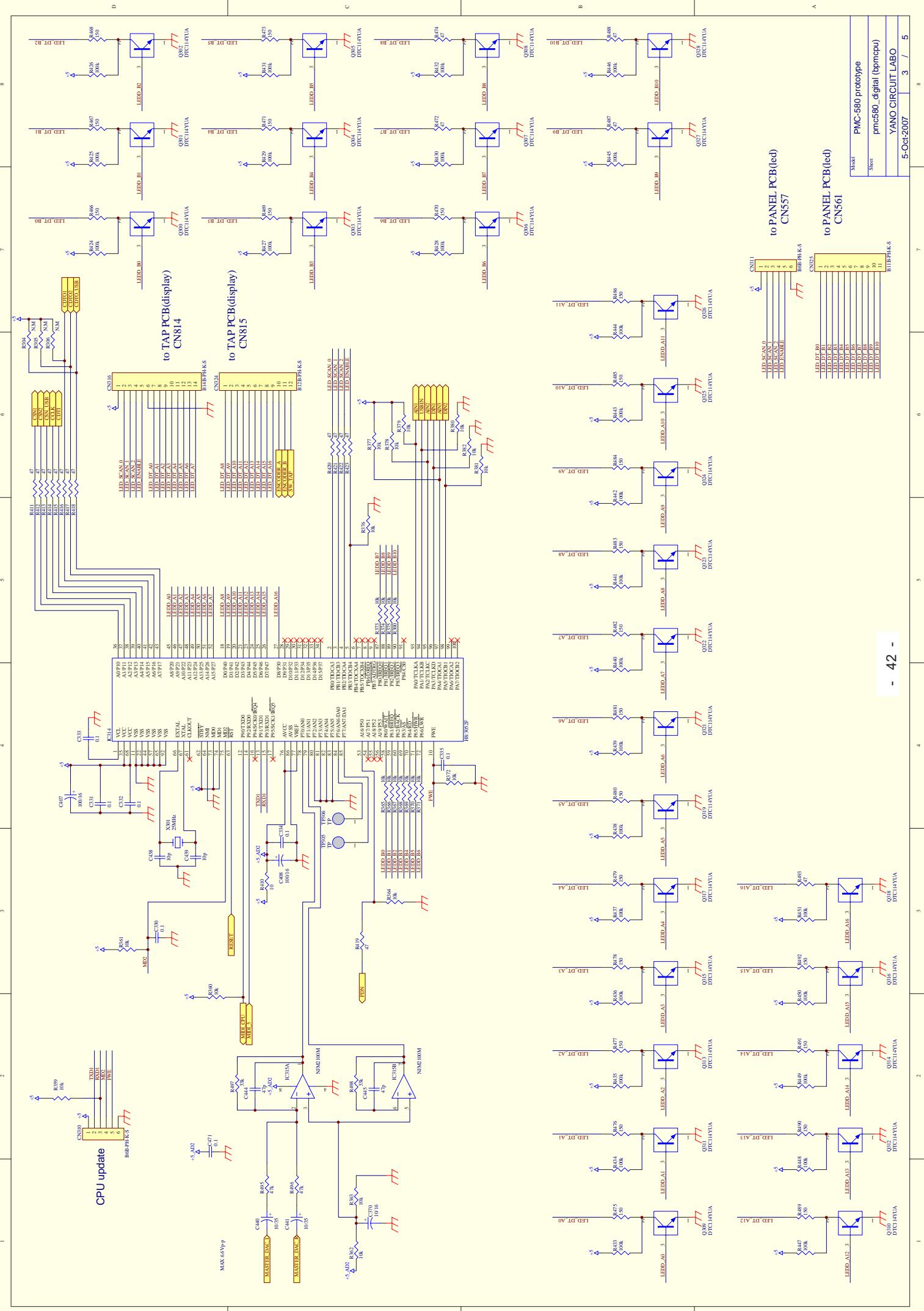


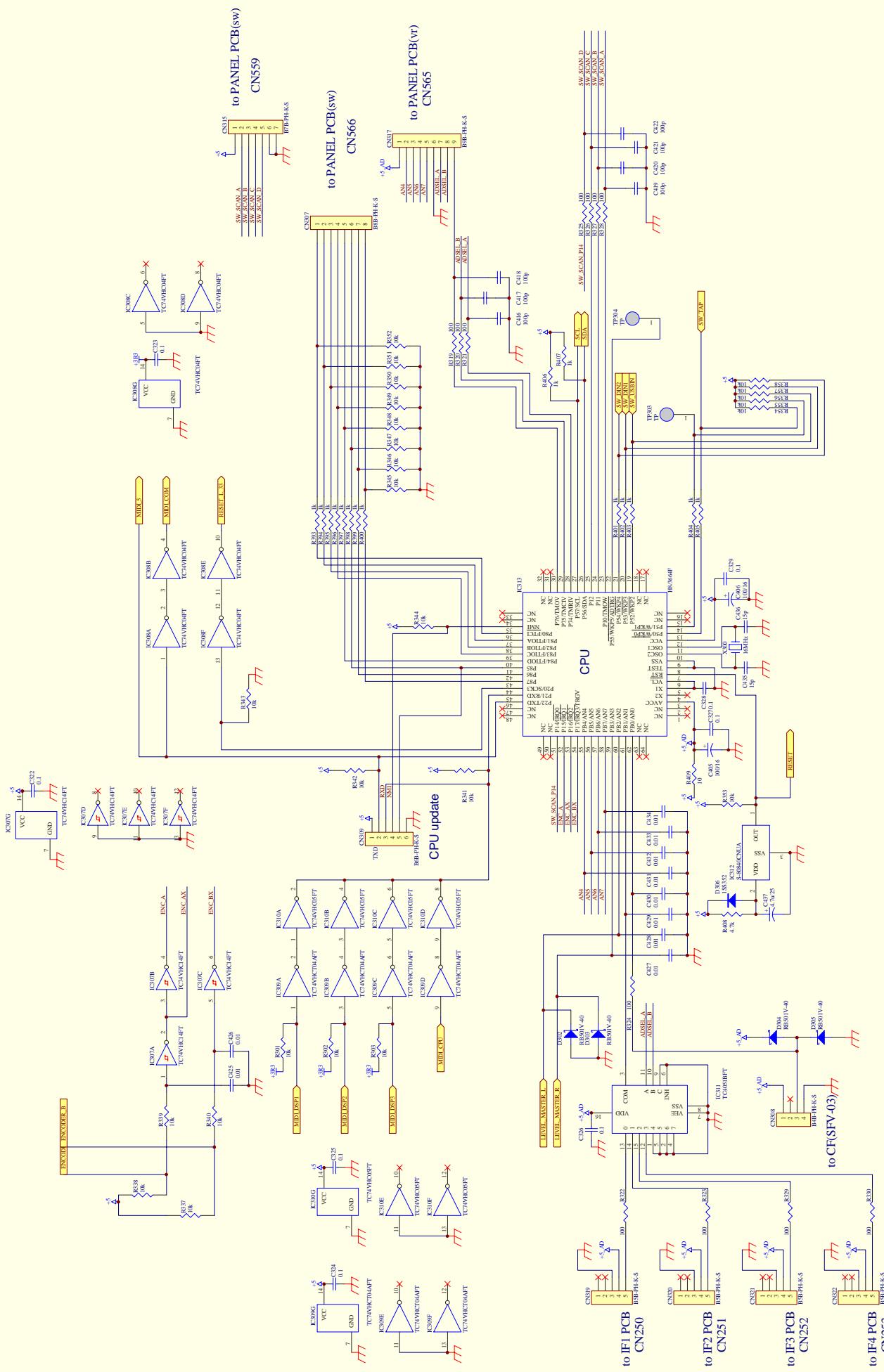


39

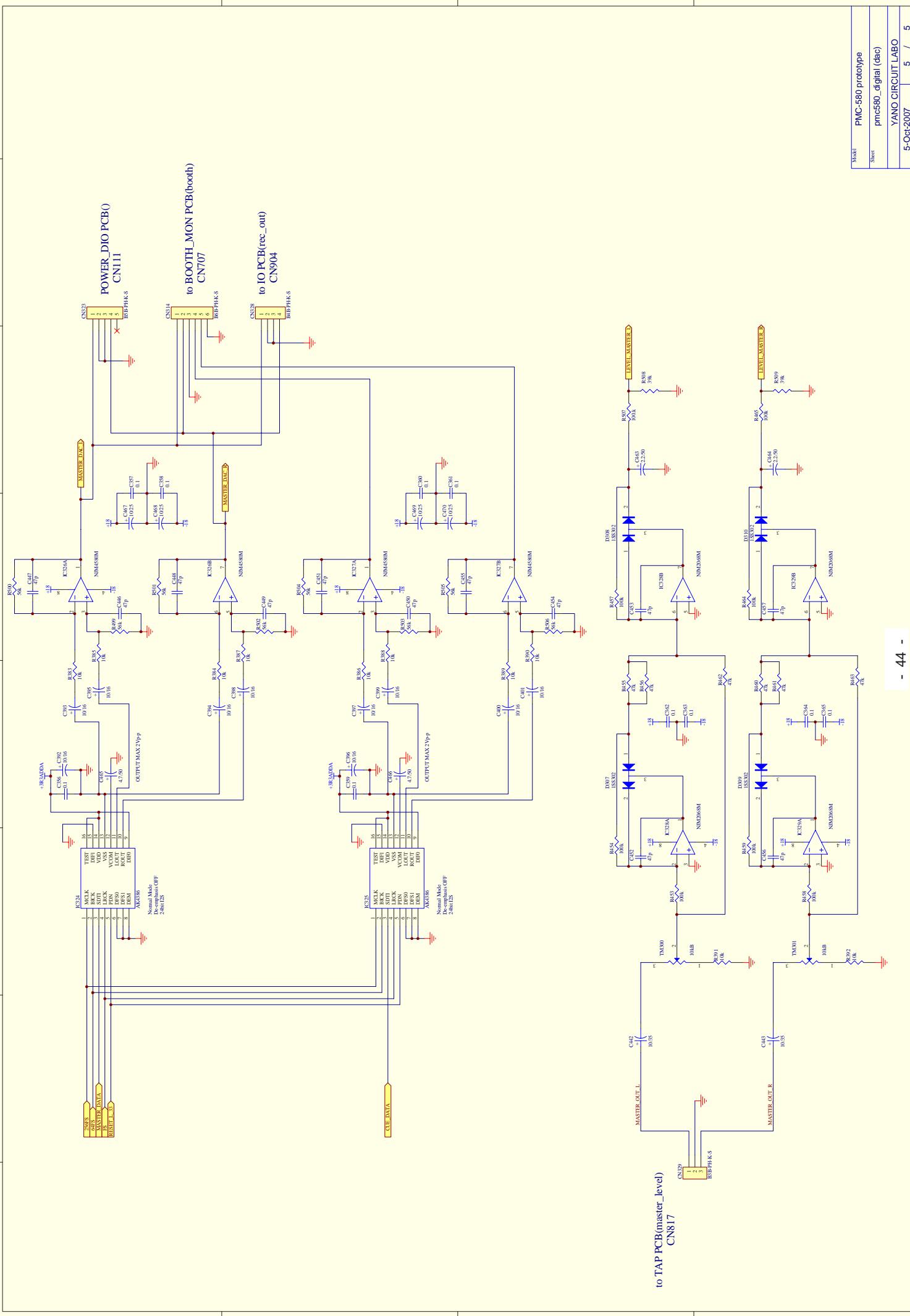
YANO CIRCUIT LABO

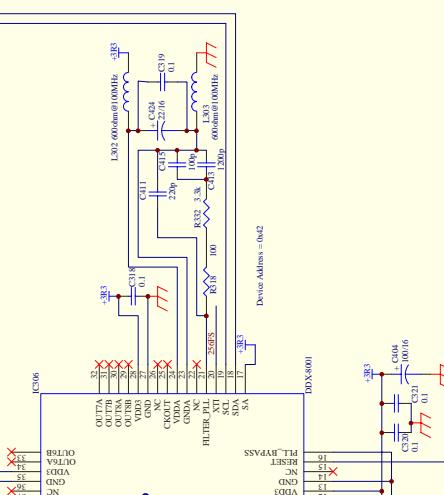
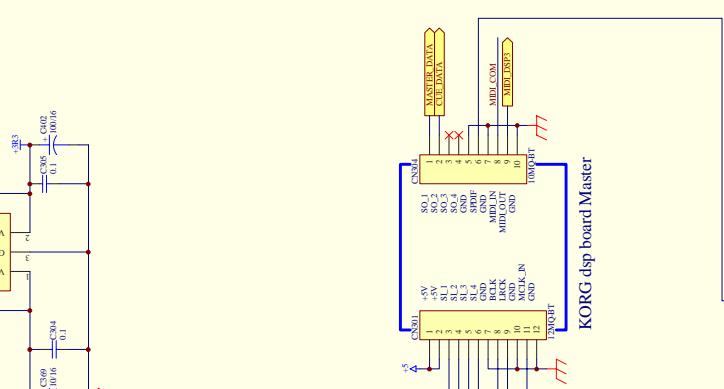
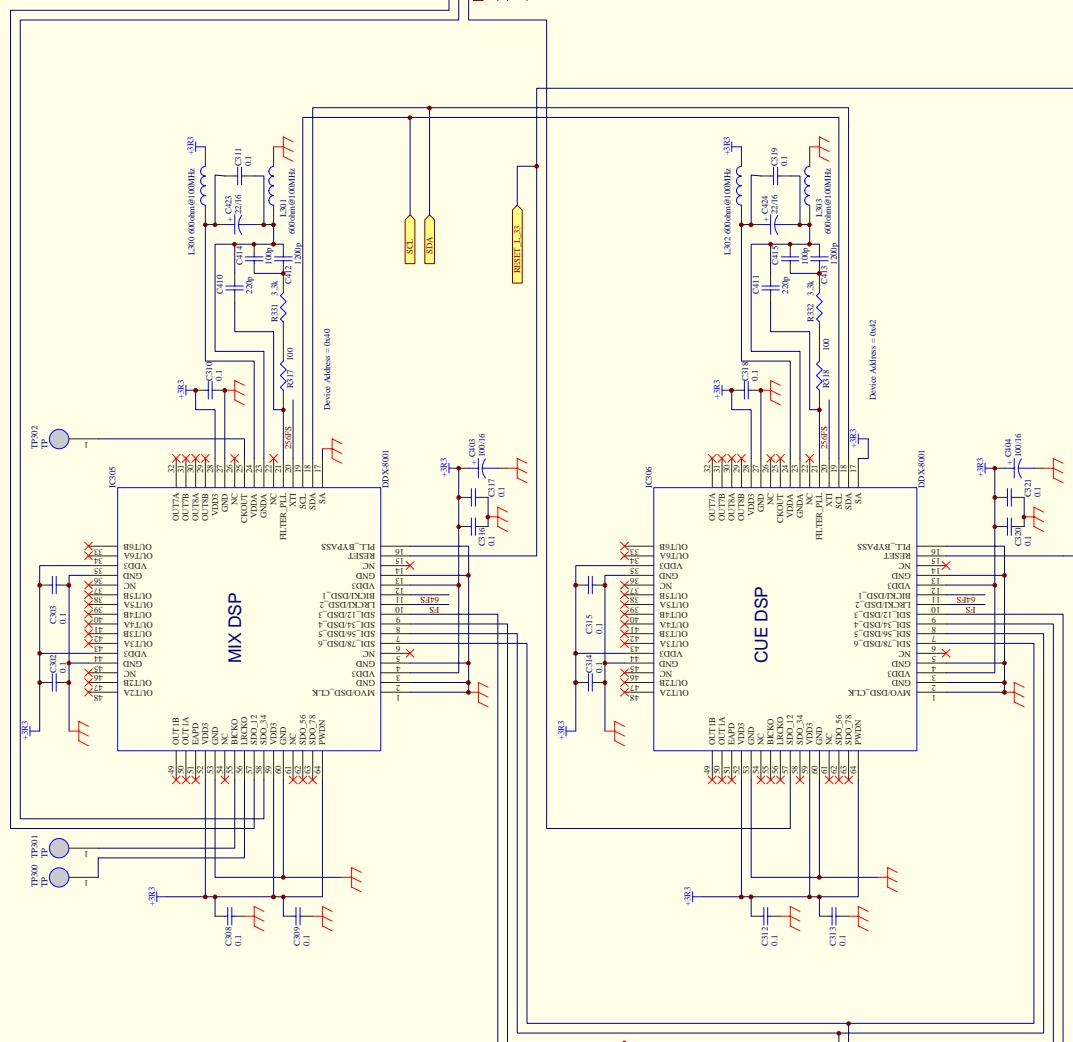
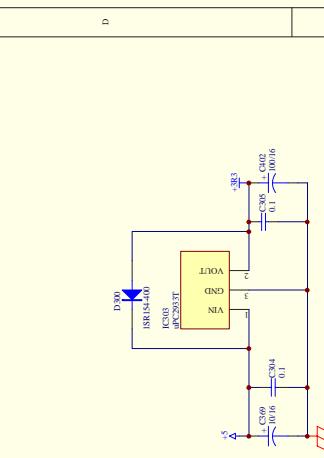
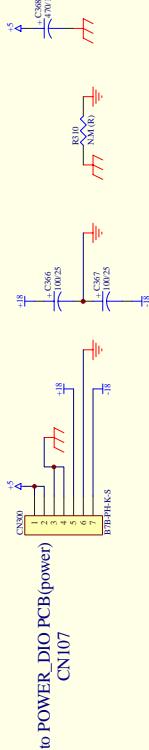
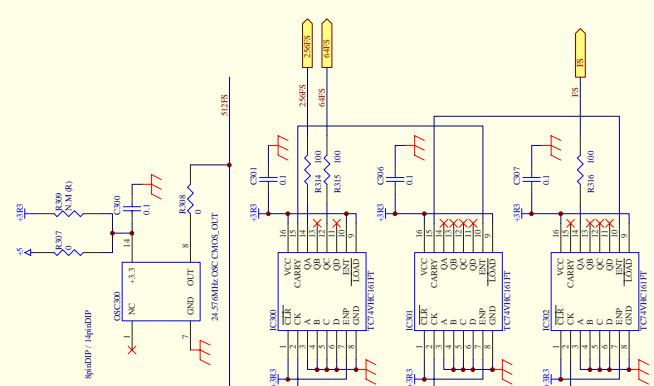






13





Model	PMC-580 prototype
Sheet	pcmc580_digital(dsp)

YANO CIRCUIT LABO
5-Oct-2007 1 / 5

PMC-580 parts list

no.	PCB	brand	description		arrangement number	Qty
26	TAP	ALPS	EC11E09244UAW		ENC010	1
42	BOOTH MON	ALPS	RK09K1130081 RK09K1130- C1-B103) VR705,VR706			2
30	PANEL	ALPS	RK09K1130081 RK09K1130- C1-B103) VR565,VR554,VR559			4
32	PANEL	ALPS	RK09K11400 RK09K1140-F15-C0-B103)	VR576,VR574,VR578,VR579		4
44	BOOTH MON	ALPS	RK09L1140 (RK09L1140-F15-C0- B503)	VR700		1
43	BOOTH MON	ALPS	RK09L1140 (RK09L1140-F15-C0-B103)	VR703,VR704		2
2	FRONT	ALPS	RK09L1140 (RK09L1140-F15-C0-B103)	VR575,VR577		2
27	TAP	ALPS	RK09L1140 (RK09L1140-F15-C0-B103)	VR811,VR812		2
31	PANEL	ALPS	RK09L1140 (RK09L1140-F15-C1-B103)	VR558,VR557,VR567,VR569,VR573,VR571,VR560,VR563,VR562,VR561,VR555,VR566,VR568,	16	
33	PANEL	ALPS	RK09L1240 (RK09L1240-F15-C0-A104)	VR550,VR551,VR552,VR553		4
46	BOOTH MON	ALPS	RK09L1240 (RK09L1240-F15-C0-B503)	VR712,VR710,VR709		3
28	TAP	ALPS	RK09L1240 (RK09L1240-F15-C0-B503)	VR810		1
45	BOOTH MON	ALPS	RK09L1240 (RK09L1240-F15-C1-B503)	VR702,VR701,VR707,VR708		4
30	TAP	ALPS	RK09L1240 (□□17□)	SW811		1
36	PANEL	ALPS	SKRGAE010	SW559,SW560,SW561,SW562,SW563,SW564,SW565,SW566,SW567,SW568,SW569,SW570,SW571,SW572,SW573,SW574,SW575,SW576,SW577,SW578,SW579,SW580,SW581,SW582,SW583,SW584,SW813,SW814,SW815,SW816,SW817,SW818,SW819,SW820,SW821,SW822,SW823,SW824	28	
31	TAP	ALPS	SKRGAE010	SW700		1
48	BOOTH MON	ALPS	SPEA122200	SW813,SW814,SW815,SW816,SW817,SW818,SW819	10	
32	TAP	ALPS	SPEA122200	SW702,SW703		2
49	BOOTH MON	ALPS	SPEA123000	SW810		1
33	TAP	ALPS	SPEA123000	RS700		1
50	BOOTH MON	ALPS	SRBV141400 (l=15)	SW550,SW551,SW592,SW593		4
37	PANEL	ALPS	SSS014800	SW558,SW567,SW588,SW589		4
38	PANEL	ALPS	SSS014200	SW400,SW1010,SW102		3
68	POWER DI0	ALPS	SSS014400	IC305,IC306		2
47	DIGITAL	APOGEE	DDX-8001			
5	BOOTH MON	TOUSHIN K01C	UTCM TS 100M(10/16)4□?	C722,-C780	2	
8	BOOTH MON	TOUSHIN K01C	UTCM TS 100M(100/16)6.3□?	C700	2	
6	BOOTH MON	TOUSHIN K01E	UTCM TS 100M(10/25)5□?	C752	1	
5	COMBO	TOUSHIN K01E	UTCM TS 100M(100/25)6□?	C733,C734	2	
9	BOOTH MON	TOUSHIN K01E	UTCM TS 100M(100/25)8□?	C735,C736	2	
7	BOOTH MON	TOUSHIN K01V	UTCM TS 100M(10/35)5□?	C765,C766,C709,C710,C711,C712,C713,C714,C707,C708,C715,C716,C717,C718,C719,C720	20	
4	COMBO	TOUSHIN K01H	UTCM TS 100M(10/50)6.3□?	C703,C704	2	
11	BOOTH MON	TOUSHIN K01H	UTCM TS 3R3M(3.3/50)4□?	C753,C754,C755,C756	4	
9	DIGITAL	TOUSHIN K01C	UTCM TS 100M (10/16)4□5	C371,C372,C373,C374,C375,C376,C377,C378,C379,C380,C381,C382,C383,C384,C385,C386,C387,C388,C389,C390,C391,C392,C393,C394,C395,C396,C397,C398,C399,C400,C401,C402	33	
12	DIGITAL	TOUSHIN K01C	UTCM TS 100M(100/16)8□5	C409,C407,C408,C405,C406,C403,C404	8	
15	DIGITAL	TOUSHIN K01C	UTCM TS 220M (22/16)5□5	C423,C424	2	
10	DIGITAL	TOUSHIN K01E	UTCM TS 100M(10/25)5□5	C467,C468,C469,C470	4	
13	DIGITAL	TOUSHIN K01E	UTCM TS 100M(100/25)8□5	C366,C367	2	

16	DIGITAL	TOUSHIN K01E UTGX TS 4R7M(4.7/25)4□5	C43?
11	DIGITAL	TOUSHIN K01H UTGX TS 100M(10/35)5□5	C440,C441,C442,C443
14	DIGITAL	TOUSHIN K01H UTGX TS 2R2M (2.2/50)4□5	C450,C451,C460,C461,C462,C463,C464
17	DIGITAL	TOUSHIN K01H UTGX TS 4R7M(4.7/50)5□5	C465,C466
9	POWER DIO	TOUSHIN K01C UTES TS 100M(10/16)5□1.1	C208,C209,C210,C211,C212,C213,C217,C214
4	PANEL	TOUSHIN K01C UTES TS 101M□100/16□5□1.1	C215,C216,C218,C219
12	POWER DIO	TOUSHIN K01C UTES TS 101M□100/16□5□1.1	C220,C2172
18	POWER DIO	TOUSHIN K01C UTES TS 470M(47/16)5□1.1	C199
18	DIGITAL	TOUSHIN K01C UTES TS 471M(470/16)6□1.5	C366
5	IO PCB	TOUSHIN K01E UTES TS 100M□10/25□5□1.1	C940,C941,C942,C943,C944 C945,C946,C947
10	POWER DIO	TOUSHIN K01E UTES TS 100M□10/25□5□1.1	C171
7	IO PCB	TOUSHIN K01E UTES TS 101M□100/25□6.3□1.1	C984,C985
13	POWER DIO	TOUSHIN K01E UTES TS 101M□100/25□6.3□1.1	C169,C170
8	IO PCB	TOUSHIN K01H UTES TS 220M□22/25□5□1.1	C916,C917,C918,C919,C920,C921,C922,C923
3	PANEL	TOUSHIN K01H UTES TS 100M□10/35□5□1.1	C550,C551,C552,C553,C554,C555,C556,C557
14	POWER DIO	TOUSHIN K01H UTES TS 102M(1000/35)12.5□20	C100
8	POWER DIO	TOUSHIN K01H UTES TS 100M□10/50□1.1	C221,C222,C223,C224
6	IO PCB	TOUSHIN K01H UTES TS 100M□10/50□1.1	C970,C979,C980,C981,C982,C983,C900,C901
11	POWER DIO	TOUSHIN K01H UTES TS 100M□10/50□1.1	C910,C911,C912,C913,C914,C915,C916,C917,C918
15	POWER DIO	TOUSHIN K01H UTES TS 2R2M(2.2/50)5□1.1	C202,C203,C204
16	POWER DIO	TOUSHIN K01C UTWE TS 222M(2200/16)1050□12.5□102	C173,C174,C175,C176,C177,C178,C179,C180
17	POWER DIO	TOUSHIN K01H UTWE TS 222M(2200/35)1050□16□1030□105□106	C103,C104,C105,C106
32	POWER DIO	EMUDEN H0446□	F106,F107
25	IO PCB	JALCO YK C21-4085V	J900,J901,J902,J903,J904
65	POWER DIO	JALCO YL C21-3034V	J100,J101,J102
□□	POWER DIO	YK C21-3486N=> VESTAX 6/20)	J103,J104,J105
8	COMBO	JRC NJM2043D-□777B □DIP8	IJC700
14	IO PCB	JRC NJM2043D-□777B □DIP8	IJC700,IJC901,IJC902,IJC903
20	BOOTH MON	JRC NJM206BD-□ZZZB □DIP8	IJC702,IJC703,IJC704,IJC705,IJC706,IJC707
15	IO PCB	JRC NJM206BD-□ZZZB □DIP8	IJC904,IJC905
36	POWER DIO	JRC NJM206BD-□ZZZB □DIP8	IJC110,IJC111,IJC112
12	TAP	JRC NJM206BD-□ZZZB □DIP8	IJC110,IJC111
50	DIGITAL	JRC NJM206AM-TE1	IJC328,IJC329
21	BOOTH MON	JRC NJM2100D-□ZZZB □DIP8	IJC701
16	PANEL	JRC NJM2100D-□ZZZB □DIP8	IJC550,IJC551,IJC552,IJC553
51	DIGITAL	JRC NJM2100M-TE1	IJC315
37	POWER DIO	JRC NJM2374AD-□ZZZB	IJC116
22	BOOTH MON	JRC NJM4556AD□DIP8	IJC708
52	DIGITAL	JRC NJM4580M-TE1	IJC356,IJC357
38	POWER DIO	JRC NJM7805FA-□ZZZB T0-2220	IJC109
39	POWER DIO	JRC NJM7818FA-□ZZZB T0-2220	IJC107
40	POWER DIO	JRC NJM7918FA-□ZZZB T0-2220	IJC108
19	DIGITAL	JST IOM&-BT□LOT=250	CN304,CN305,CN306
20	DIGITAL	JST I2M&-BT□LOT=250	CN301,CN302,CN303
11	PANEL	JST B11B-PH-K-S□LF)(SN)	CN560
9	TAP	JST B11B-PH-K-S□LF)(SN)	CN611

28	DIGITAL	JST	B11B-PH-K-S□LF) (SN)	CN3225
29	DIGITAL	JST	B12B-PH-K-S□LF (SN)	CN324
30	DIGITAL	JST	B13B-PH-K-S□LF) (SN)	CN326
18	BOOTH MON	JST	B14B-PH-K-S□LF) (SN)	CN706
12	PANEL	JST	B14B-PH-K-S□LF) (SN)	CN528
31	DIGITAL	JST	B14B-PH-K-S□LF) (SN)	CN316
21	DIGITAL	JST	B2B-PH-K-S□LF) (SN)	CN327
22	DIGITAL	JST	B3B-PH-K-S□LF) (SN)	CN329
23	POWER DIO	JST	B3P-VH□LF) (SN)	CN108
23	DIGITAL	JST	B4B-PH-K-S□LF) (SN)	CN308,CN328
24	DIGITAL	JST	B5B-PH-K-S□LF) (SN)	CN329,CN320,CN321,CN322,CN323
25	DIGITAL	JST	B6B-PH-K-S□LF) (SN)	CN312,CN313,CN310,CN311,CN309,CN314
26	DIGITAL additional	JST	B7B-PH-K-S□LF) (SN)	CN300,CN315
10	TAP	JST	B8B-PH-K-S□LF) (SN)	CN307□□
27	DIGITAL	JST	B9B-PH-K-S□LF) (SN)	CN813
13	PANEL	JST	B9B-PH-K-S□LF) (SN)	CN317,CN318
24	POWER DIO	JST	S2B-PH-K-S□LF) (SN)	CN522
7	COMBO	JST	S3B-PH-K-S□LF) (SN)	CN701
1	Monitor_jack PCB	JST	S3B-PH-K-S□LF) (SN)	CN709,CN704
1	FRONT	JST	S4B-PH-K-S□LF) (SN)	CN101
25	POWER DIO	JST	S4B-PH-K-S□LF) (SN)	CN100
1	TF.CF	JST	S5B-PH-K-S□LF) (SN)	CN250,CN251,CN252,CN253
12	IO PCB	JST	S5B-PH-K-S□LF) (SN)	CN105
26	POWER DIO	JST	S5B-PH-K-S□LF) (SN)	CN109
13	IO PCB	JST	S6B-PH-K-S□LF) (SN)	CN700,CN901,CN902,CN903
27	POWER DIO	JST	S6B-PH-K-S□LF) (SN)	CN110
74	DIGITAL	KOA	KVSF637CTC103(K0A)/RH063MC14R(ALPS)	TM300,TM301
26	IO PCB	KUMMING	HTJ-064-12D	J905,J906
66	Monitor_jack PCB	KUMMING	HTJ-064-12D	J701,J702
20	POWER DIO	KUMMING	HTJ-064-12D	J104,J105
14	TAP	LED	5□□□LED(□□□□□□□□□□□□)	J905,J906
19	PANEL	LED	7□□□LED(□□□□□□□□□□□□)	J701,J702
20	PANEL	LED	5□□□LED(□□□□□□□□□□□□)	(LD582,LD583,LD584,LD585,LD586) (LD575,LD576,LD577,LD578,LD579) (LD589,LD590,LD591,LD592,LD593) (LD596,LD597,LD598,LD599,LD600)
13	TAP	LED	7□□□LED(□□□□□□□□□□□□)	(LD584,LD585,LD586,LD587,LD588) (LD850,LD851,LD852,LD853,LD854)
42	POWER DIO	NEC	UPC2933T□E1-AZ / uPC2933AT	IC117
55	DIGITAL	NEC	UPC2933T□E1-AZ / uPC2933AT	IC303,IC304
12	BOOTH MON	NISSEI	AMZ50K153□0.015□	C757,C758,C759,C760
9	IO PCB	NISSEI	AMZ50K332□0.0033□	C932,C933,C934,C935,C936,C937,C938,C939
13	BOOTH MON	NISSEI	AMZ50K333□0.033□	C762,C763,C764
10	IO PCB	NISSEI	AMZ50K681	C924,C925,C926,C927,C928,C930,C931
32	DIGITAL	OMCG	SM-49-4 16MHz□AT-51CD2□16MHz□	X300
33	DIGITAL	OMCG	SM-49-4 25MHz□AT-51CD2 25MHz□	X301

13	COMBO	SOUNDKING	CA235/CA236□10P)	J700		1
2	IF.CF	taiwan a1p	RAB0D1F-220-15C1-B10K-0051	VR250,VR251,VR252,VR253		4
34	TAP	taiwan a1p	SR2512-11-LKA0-C9-S-264	RS810		1
45	POWER DI0	TDK	TSL1112S-220K2R9-PF	L109		1
46	POWER DI0	TDK	TSL1315S-100K2R5-PF	L112		1
2	BOOTH MON	MARUHA	□RT)HE40TKYB10K(100P)	C771,C777		2
2	PANEL	MARUHA	□RT)HE40TKYB100D(10P)	C588,C589,C590,C591,C592,C593,C594,C595		12
3	BOOTH MON	MARUHA	□RT)HE40TKYB100D(10P)	C596,C597,C598,C599		2
4	POWER DI0	MARUHA	(RT)HE40TKSL100(10P)	C767,C768		2
5	POWER DI0	MARUHA	(RT)HE40TKYB22JK(220P)	C200		1
3	COMBO	MARUHA	(RT)HE40TKSL220J(22P)	C705,C706		2
6	POWER DI0	MARUHA	(RT)HE40TKYB33JK(330P)	C101		1
3	IO PCB	MARUHA	(RT)HE40TKSL330J(33P)	C918,C949,C950,C951,C952,C953,C954,C955		8
4	BOOTH MON	MARUHA	(RT)HE40(SK)SL470J(47P)□	C753,C724,C725,C726,C728,C729,C730		13
4	IO PCB	MARUHA	(RT)HE40(SK)SL470J(47P)□	C731,C732, C721,C769,C770		
7	POWER DI0	MARUHA	(RT)HE40(SK)SL470J(47P)□	C990,C991,C992,C993		4
2	TAP	MARUHA	(RT)HE40(SK)SL470J(47P)□	C109,C110,C111,C112,C113,C114		6
2	POWER DI0	MARUHA	CK45F1H222ZYA(0.0022UF)□□	C810,C811,C812,C813		4
26	BOOTH MON	TDO	RD16S □Q	C205,C206,C207		3
23	PANEL	TDO	RD16S □Q	R765		1
47	POWER DI0	TDO	RD16S □.1KQ□□□1.2K)	R631,R635,R636,R637,R638,R639,R640,R641		8
17	IO PCB	TDO	RD16S 1.5K	R166,R167		2
49	POWER DI0	TDO	RD16S 10KQ	R912,R913,R914,R915,R916,R917,R918,R919		8
28	BOOTH MON	TDO	RD16S 10KQ	R185		1
18	IO PCB	TDO	RD16S 100KQ	R715,R716,R717,R718,R719,R720,R721,R722,R723,R724,R725		17
25	PANEL	TDO	RD16S 100KQ	R985,R986,R987,R988,R989,R990,R991,R992,R970		10
50	POWER DI0	TDO	RD16S 100KQ	R590,R591,R592,R593,R594,R595,R596,R597		24
18	TAP	TDO	RD16S 100KQ	R598,R599,R600,R601,R602,R603,R604,R605,R606,R607,R608,R609,R610,R611,R612,R613		
27	BOOTH MON	TDO	RD16S 100KQ	R1371,R140,R141,R142,R143,R144,R145,R146		8
24	PANEL	TDO	RD16S 100KQ	R633,R634,R635,R636,R637,R638,R639,R640		8
29	BOOTH MON	TDO	RD16S 10KQ	R766		1
19	IO PCB	TDO	RD16S 10KQ	R642,R643,R644,R645,R646,R647,R648,R649		44
51	POWER DI0	TDO	RD16S 10KQ	R650,R651,R652,R653,R654,R655,R656,R657,R658,R659,R660,R661,R662,R663,R664,R665,R666,R667,R668,R669,R670,R671,R672,R673,R674,R675,R676,R677,R678,R679,R680,R681,R682,R683,R684,R685		
30	BOOTH MON	TDO	RD16S 120KQ	R737,R740,R741,R742,R743,R744		6
31	BOOTH MON	TDO	RD16S 120KQ	R979,R980,R981,R982,R983,R984,R920,R921		14
53	POWER DI0	TDO	RD16S 12KQ	R175,R176,R177		3
19	TAP	TDO	RD16S 12KQ	R818,R819		2
32	BOOTH MON	TDO	RD16S 15KQ	R790,R791,R792,R793		4
20	IO PCB	TDO	RD16S 15KQ	R991,R992		2
54	POWER DI0	TDO	RD16S 180K	R156,R157		2
10	COMBO	TDO	RD16S 180K	R708,R709		2

33	BOOTH MON	TDO	RD16S 1KΩ	R745,R747,R748,R749,R750,R751,R752,R753 ,R754,R755,R745,R764,R756,R757,R758,R75	20
21	TO PCB	TDO	RD16S 1KΩ	R922,R903,R904,R905,R906,R907,R908,R90	18
26	PANEL	TDO	RD16S 1KΩ	R556,R559,R560,R561,R562,R563,R564,R565 ,R566,R567,R568,R569,R666,R667,R668,R66	40
55	POWER DI0	TDO	RD16S 1KΩ	R770,R571,R572,R573,R574,R575,R576,R5 77,R578,R579,R580,R581,R582,R583,R584,R585 L92,R542,R543,R544,R545,R546,R547,R548,R549 R110,R111,R112,R113,R114,R115,R116,R117 ,R118,R119,R129	11
20	TAP □□ POWER DI0	TDO	RD25S 1KΩ 1/4W	R825,R826,R827,R828,R829,R830,R831,R832 R109,R130	10
22	TO PCB	TDO	RD16S 1M	R921,R929,R930,R931,R932,R933,R934,R935	8
56	POWER DI0	TDO	RD16S 1M	R162	1
57	POWER DI0	TDO	RD16S 22	R163,R164	2
34	BOOTH MON	TDO	RD16S 220KΩ	R702,R703,R704,R705	4
11	COMBO	TDO	RD16S 220KΩ	R700,R701	2
23	TO PCB	TDO	RD16S 220KΩ	R944,R945,R946,R947,R948,R949,R950,R951 ,R952,R953,R954,R955,R956,R957,R958,R95 9,R960,R961,R962,R963,R964,R965,R966,R9	24
27	PANEL	TDO	RD16S 220KΩ	R550,R551,R552,R553,R554,R555,R556,R557 R821,R822	8
21	TAP	TDO	RD16S 220KΩ	R730,R731,R732,R733,R734,R735,R736,R737 □ R780,R781,R782,R783	12
35	BOOTH MON	TDO	RD16S 22KΩ	R840,R841,R842,R843	4
22	TAP	TDO	RD16S 22KΩ	R784,R789	2
36	BOOTH MON	TDO	RD16S 3 . 3KΩ	R820	1
23	TAP	TDO	RD16S 3 . 3KΩ	R171,R172,R173,R174	4
59	POWER DI0	TDO	RD16S 470	R729	0
38	BOOTH MON	TDO	RD16S 47KΩ	R626,R627,R628,R629,R630,R631,R632,R633	8
28	PANEL	TDO	RD16S 47KΩ	R158,R159,R160,R161,R162,R163	6
60	POWER DI0	TDO	RD16S 47KΩ	R725,R726	2
29	□□ BOOTH MON	TDO	RD16S 5 . 5K	R704,R707	2
12	COMBO	TDO	RD16S 5K	R931,R937,R938,R939,R940,R941,R942,R943	8
24	TO PCB	TDO	RD16S 5K	R758,R769,R770,R771,R772,R773,R774,R775 ,R776,R777,R778,R779,R801,R729	14
39	BOOTH MON	TDO	RD16S 6 . 8KΩ	R844,R845,R846,R847	4
24	TAP	TDO	RD16S 6 . 8KΩ	R794,R795,R796,R797	4
40	BOOTH MON	TDO	RD16S 6K	R168,R169,R170	3
61	POWER DI0	TDO	TDREGT J1000 (Q2)	R307,R308	2
57	DIGITAL	TDO	TDREGT J100V (10Ω)	R409,R410	2
58	DIGITAL	TDO	TDREGT J10V (100Ω)	R323,R324,R325,R326,R327 ,R328,R329,R330,R334,R335,R336,R337,R338,R339,R	17
59	DIGITAL	TDO	TDREGT J102V (1K)	R393,R394,R395,R396,R397,R398,R399,R400 ,R401,R402,R403,R404,R405,R406,R407	15
63	DIGITAL	TDO	TDREGT J103V (10K)	R300,R359,R360,R361,R362,R363,R364,R365 ,R366,R367,R368,R369,R370,R371,R372,R37 3,R374,R375,R376,R377,R378,R379,R380,R3 81,R382,R302,R303,R337,R338,R339,R 340,R341,R342,R343,R344,R345,R346,R347 R348,R349,R350,R351,R352,R353,R354,R355 ,R356,R357,R358,R363,R364,R365,R366,R36 7,R368,R369,R370,R371,R372,R373	64

60	DIGITAL	TDO	TDR3GTJ104V(100K)	R424,R425,R426,R427,R428,R429,R430,R431 ,R432,R433,R434,R435,R436,R437,R438,R43 9,R440,R441,R442,R443,R444,R445,R446,R4 47,R448,R449,R450,R451,R453,R454,R455,R4 46,R456,R457,R458,R459,R460,R461,R462,R463, R464,R465,R502	42
62	DIGITAL	TDO	TDR3GTJ150V(150Ω)	R466,R467,R468,R469,R470,R471,R472,R473,R475 ,R476,R477,R478,R479,R480,R481,R482,R48 3,R484,R485,R486,R487,R490,R491,R492	23
64	DIGITAL	TDO	TDR3GTJ332V(3.3K)	R331,R332	2
65	DIGITAL	TDO	TDR3GTJ333V(33K)	R497,R498,R499,R500,R502,R503,R504	10
66	DIGITAL	TDO	TDR3GTJ393V(39K)	R505,R509	2
68	DIGITAL	TDO	TDR3GTJ470V(47Ω)	R411,R412,R413,R414,R415,R416,R417,R418 ,R419,R420,R421,R422,R423,R472,R474,R48	18
67	DIGITAL	TDO	TDR3GTJ472V(4.7K) / MCR10EZHZJ472	R406	1
69	DIGITAL	TDO	TDR3GTJ473V(47K) / MCR10EZHZJ473	R495,R496	2
52	POWER DIO	TDO	□□□□□10K(12:□□RSN25F 10K	R131	1
58	POWER DIO	TDO	□□□□□3·3K(12:□□RSN25F 3·3K	R132	1
41	POWER DIO	TI	PCM2902E□	I118	1
1	PANEL	TOKIN	DSSY5V1H104Z(0.1/50V)	C582,C583,C584,C585,C586	5
1	TAP	TOKIN	DSSY5V1H104Z(0.1/50V)	C816,C817,C818,C819,C820	5
2	COMBO	TOKIN	DSSY5V1H104Z(0.1/50V)	C737,C738	2
2	IO PCB	TOKIN	DSSY5V1H104Z(0.1/50V)	C985,C987,C988,C989	4
3	POWER DIO	TOKIN	D55Y5V1H104Z(0.1/50V)	C120,C139,C142,C143,C144,C151,C152,C153 ,C154,C155,C156,C157,C158,C159,C160,C19 5,C196,C197,C107,C108,C109,C110,C111,C1 19,C161,C162,C167,C168,C198, C113	30
1	BOOTH MON	TOKIN	DSSY5V1H104Z(0.1/50V)	C740,C741,C742,C743,C744,C745,C739,C746 ,C747,C748,C749,C750,C751	13
3	IF·CF	VESTAX	SFV-03N	CF (CF BOARD PCB)	1
35	POWER DIO	ASAHIKASEI AK4122VQF	IC114,IC115,IC116	3	
45	DIGITAL	ASAHIKASEI AK4388ET /VT	IC324,IC325	2	
46	DIGITAL	ASAHIKASEI AK5381ET	IC316,IC317,IC318,IC319,IC320	5	
15	PANEL	ONSEMI MC14051□(PG) □PDIPI=1b	IC556,IC557,IC558,IC559	4	
37	BOOTH MON	KAMAYA	RST-1/2S 470JB(6·5Xφ2·5□	R798,R799	2
48	POWER DIO	KAMAYA	RST-2S 0·1Ω□13·0Xφ4·5□	R106	1
44	DIGITAL	KYUUSYUUDE KHC5600ATW	0SC3D0	1	
3	DIGITAL	KYOUSERA CM105CH010J50AT□J00P)	C146,C147,C148,C149,C1420,C1421,C422,C14 9	1	
7	DIGITAL	KYOUSERA CM105CH221J50AT□J220P)	C140,C141	2	
1	DIGITAL	KYOUSERA CM105SV103Z50AT(0·01)	C425,C426,C427,C428,C429,C430,C431,C432 ,C336,C337,C338,C339,C340,C341,C342,C343 ,C344,C345,C346,C347,C348,C349,C350,C35	10	
2	DIGITAL	KYOUSERA CM105SV104Z225AT(0·1)	1,C352,C353,C354,C355,C350,C323,C324,C325,C326,C 33,C334,C335,C322,C323,C324,C325,C326,C 327,C328,C329,C356,C357,C358,C359,C360, C361,C362,C363,C364,C365,C300,C301,C302 ,C303,C304,C305,C306,C307,C308,C309,C3 0,C310,C311,C312,C313,C314,C315,C316,C317,C3	66	
28	POWER DIO	KYOUSERA-KHC-49/U-S 1.2MHz□□□	X100	1	
47	BOOTH MON	SANSYODDEN LBC22B 12K SILVER	SW701	1	
34	PANEL	SANSYODDEN LBC22B 12K SILVER	SW550,SW551,SW552,SW553	4	
29	TAP	SANSYODDEN LBC23M 12K SILVER	SW812	1	
52	BOOTH MON	□□□ N·M(10/35)	C779	1	

53	BOOTH MON	□□□	N·M□R)	R767, R800
31	POWER DIO	SHINNDENGS1NB2D-70B2□□□□□	D106	1
53	DIGITAL	SEIKO S-B0B40CNUA□B8Z-T2G)	IC313	1
64	POWER DIO	SOMEYADENS PLUS TRANS / F13-248(T100	1
36	DIGITAL	THOSHIBA 1SSS302□F)	D307, D308, D309, D310	4
35	DIGITAL	THOSHIBA 1SSS352□TPH3·F)	D306	1
29	PANEL	THOSHIBA 2SA1296-Y□TPE·2·F)	Q550, Q551, Q552, Q553, Q554, Q555, Q556, Q557	8
25	TAP	THOSHIBA 2SA1296-Y□TPE·2·F)	Q610, Q611, Q612, Q613, Q614, Q615, Q616, Q617	8
41	BOOTH MON	THOSHIBA 2SC1815-Y□TPE2·F)	Q700, Q701, Q702, Q703, Q704, Q705	6
63	POWER DIO	THOSHIBA 2SJ438□Q)	Q101	1
54	DIGITAL	THOSHIBA TC4051BFT□EL·N)	IC311	1
17	PANEL	THOSHIBA TC74HC138&AP□F) DIP=16	IC560	1
	TAP	THOSHIBA TC74HC138&AP□F) DIP=16	IC612	1
18	PANEL	THOSHIBA TC74HC238AP DIP=16	IC554, IC555	2
34	POWER DIO	THOSHIBA TC74VHC04FT_EI.K) TSSOP14	IC113, IC101	2
37	DIGITAL	THOSHIBA TC74VHC04FT□EL·K) TSSOP14	IC308	1
38	DIGITAL	THOSHIBA TC74VHC05FT□EL·K) TSSOP14	IC310	1
40	DIGITAL	THOSHIBA TC74VHC08FT□EL·K) TSSOP14	IC321, IC322	2
43	DIGITAL	THOSHIBA TC74VHC14FT□EL·K) □TSSOP14	IC307	1
41	DIGITAL	THOSHIBA TC74VHC181FT□EL·K) TSSOP16	IC300, IC301, IC302	3
39	DIGITAL	THOSHIBA TC74VHCT04AFT□EL·K) TSSOP14	IC309	1
42	DIGITAL	THOSHIBA TH74VHC32FT□EL·K) TSSOP14	IC323	1
33	POWER DIO	TOYOU FU5MF62NR 2·0A	(F106) , (F107)	2
10	BOOTH MON	NIHON KEMI ESR4350ELL100ME07D□50X?□	C774, C775	2
3	TAP	NIHON KEMI ESR4350ELL100ME07D□50X?□	C814, C815, C821, C822	4
27	IO PCB	NEUTRIK NC3MAH-0	IC323	1
67	POWER DIO	NEUTRIK NC3MAH-0	J907, J908	2
5	PANEL	HARNESS 1JP-SAN(=)PHR=1↓	J106, J107	2
7	TAP	HARNESS 12P-SAN(=)PHR=1↓	□□□□□	1
22	POWER DIO	HARNESS 13P-SAN(=)PHR□13	□□□□□	1
6	PANEL	HARNESS 14P-SAN(=)PHR=14	□□□□□	1
8	TAP	HARNESS 14P-SAN(=)PHR=14	□□□□□	1
7	PANEL	HARNESS 2P-SAN(=)PHR=2	□□□□□	1
14	BOOTH MON	HARNESS 2P-SAN(=)PHR=2	□□□□□	1
4	TAP	HARNESS 3P-SAN(=)PHR=3	□□□□□	1
15	BOOTH MON	HARNESS 3P-SAN(=)PHR=3	□□□□□	2
6	COMBO	HARNESS 4P-SAN□□□PHR=4	□□□□□	1
11	IO PCB	HARNESS 4P-SAN□□□PHR=4	□□□□□	1
8	PANEL	HARNESS 5P-SAN(=)PHR=5	□□□□□	1
19	POWER DIO	HARNESS 5P-SAN(=)PHR=5	□□□□□	1
16	BOOTH MON	HARNESS 5P-SAN(=)PHR=5	□□□□□	1
5	TAP	HARNESS 5P-SAN(=)PHR=5	□□□□□	1
17	BOOTH MON	HARNESS 6P-SAN(=)PHR=6	□□□□□	1
9	PANEL	HARNESS 6P-SAN(=)PHR□6	□□□□□	1
6	TAP	HARNESS 6P-SAN(=)PHR=6	□□□□□	1
20	POWER DIO	HARNESS 7P-SAN(=)PHR=7	□□□□□	1
21	POWER DIO	HARNESS 9P-SAN(=)PHR=9	□□□□□	1
10	PANEL	HARNESS 9P-SAN(=)PHR=9	□□□□□	1
72	DIGITAL	HIROSGI HOT-2B08□□□□□□□	TP300, TP301, TP302, TP303, TP304, TP305, TP3	7
74	POWER DIO	HOHIDEN USB□TYPE-B / CM31410-060100USB-B	J112	1

1	COMB0 TO PCB	MARUHA	RTHE 50SKYB102K□□0.00UF	C701, C702
1	POWER DIO PANEL	MARUHA	RTHE 50SKYB102K□□0.00UF	C972, C973, C974, C975, C976, C977, C978, C957, C958, C959, C960, C961, C962, C963, C964, C965
1	POWER DIO PANEL	MARUHA	MS-621C	C1&1, C1&2, C1&3, C1&4, C1&5, C1&6, C1&7, C1&8, SW555, SW556, SW557
35	BOOTH MON	MURATA	BL02RN1R3J2B	L703, L704, L705
23	COMBO TO PCB	MURATA	BL02RN1R3J2B	L700, L701, L702
9	COMBO TO PCB	MURATA	BL02RN1R3J2B	L902, L903, L904, L905, L906, L907, L908, L909
16	POWER DIO	MURATA	BL02RN1R3J2B	L910, L911, L912, L913, L914, L915, L916, L917, L918
43	DIGITAL	MURATA	GRM1882C1H100JA0D□10P)□□□	L126, L127, L128, L129, L130, L131, L132, L133
4	DIGITAL	MURATA	GRM1882C1H122JA0D(120P)□□□	C438, C439
5	DIGITAL	MURATA	GRM1882C1H150JA0D(15P)□□□	C412, C413
6	DIGITAL	MURATA	GRM1882C1H470JA0D(47P)□□□	C435, C436
8	DIGITAL	MURATA	NFM188C223R1C3□D)	C449, C450, C451, C452, C453, C454, C455, C456, C457
56	DIGITAL	MURATA	RUNEASU	L300, L301, L302, L303
48	DIGITAL	RUNEASU	H064F3052BF 25V(H8/3052F)	I331
49	DIGITAL	RUNEASU	H064F3664F(H8/3664F)	I333
29	POWER DIO	ROHM	1SR139-400□T-32)□1SR35-400□□□□	D112, D107, D108, D109
34	POWER DIO	ROHM	1SR154-400□TE25)	D300, D301
19	BOOTH MON	ROHM	1SS133□T=72)	D701, D702, D703, D704, D705, D700
14	PANEL	ROHM	1SS133□T=72)	D550, D551, D552, D553, D554, D555, D556, D557, D584, D573, D594, D590, D589, D577, D555, D57, 2, D595, D570, D563, D560, D568, D569, D56, 64, D567, D573, D575, D566, D563, D575, D576, D558, D561, D585, D565, D561, D560, D574, D578, D591, D594, D587, D581, D571, D560, D574, D578, D592, D593, D594, D579, D582,
30	POWER DIO	ROHM	1SS133□T=72)	D140, D141
11	TAP	ROHM	1SS133□T-77□	D810, D811, D812, D813, D814, D815, D816, D817, 5, D826, D827, D828, D829, D830, D831, D832, D83
73	DIGITAL	ROHM	DTCL44YUA(T106)	Q300, Q301, Q302, Q303, Q304, Q305, Q306, Q307, 1, Q308, Q309, Q310, Q311, Q312, Q313, Q314, Q31, 5, Q315, Q316, Q317, Q318, Q319, Q320, Q321, Q322, Q323, Q324, Q325, SEG00, SEG01, SEG02, SEG03, SEG04, SEG05, SEG06, SEG07, 15, SEG08, SEG09, SEG10, SEG11, SEG12, SEG13, SEG14, SEG15, SEG16, SEG17
62	POWER DIO	ROHM	RB201A60□T-31)	D105
71	DIGITAL	ROHM	RB501V-40□TE-17□□	D302, D303, D304, D305
24	BOOTH MON	ROHM	SLR-342VR□T3)	L3700
25	BOOTH MON	ROHM	SLR-342YY□T3)	L3701, L3702, L3703
21	PANEL	ROHM	SLR-342YY□T3)	L3601, L3602, L3603, L3604, L3605, L3606, L3607, L3614, L3615, L3616, L3617, L3618, L3619, L3620
15	TAP	ROHM	SLR-342YY□T3)	L3601, L3602, L3603, L3604, L3605, L3606, L3607, L3614, L3615, L3616, L3617, L3618, L3619, L3620, 40, L3641, L3642, L3643, L3644, L3645, L3646, L3647, L3648, L3649, L3650, L3651, L3652, L3653, L3654, L3655, L3656, L3657, L3658, L3659, L3660, L3661, L3662
additional	Rear Panel		POWER SWITCH	22
69	POWER DIO	ROHM	SLR343BC(T□□T3)	L3654, L3655
22	PANEL	ROHM	SLR343BC(T□□□T3)□	L3550, L3551, L3552, L3553, L3554, L3555, L3556, L3557
44	POWER DIO	JUMPER□□□EMI)□□□□	L3553, L3554, L3555	
				3
				1
				1
				1
				8

40	PANEL	N·M(47P)□□□□	C574,C575,C576,C577,C578,C579,C580,C581	8
70	POWER DIO	N·M(BOURS MF-R110)□□□□	F104,F105	2
70	DIGITAL	N·M□R)□□□□	R309,R310,R311,R312,R313,R304,305,306	8
28	IO PCB	N·M□R)□□□□	R968	1
41	PANEL	N·M□R)□□□□	R614,R615,R616,R617,R618,R619,R620,R621	12
71	POWER DIO	N·M□R)□□□□	R164,R165,R178,R179,R180,R181	6