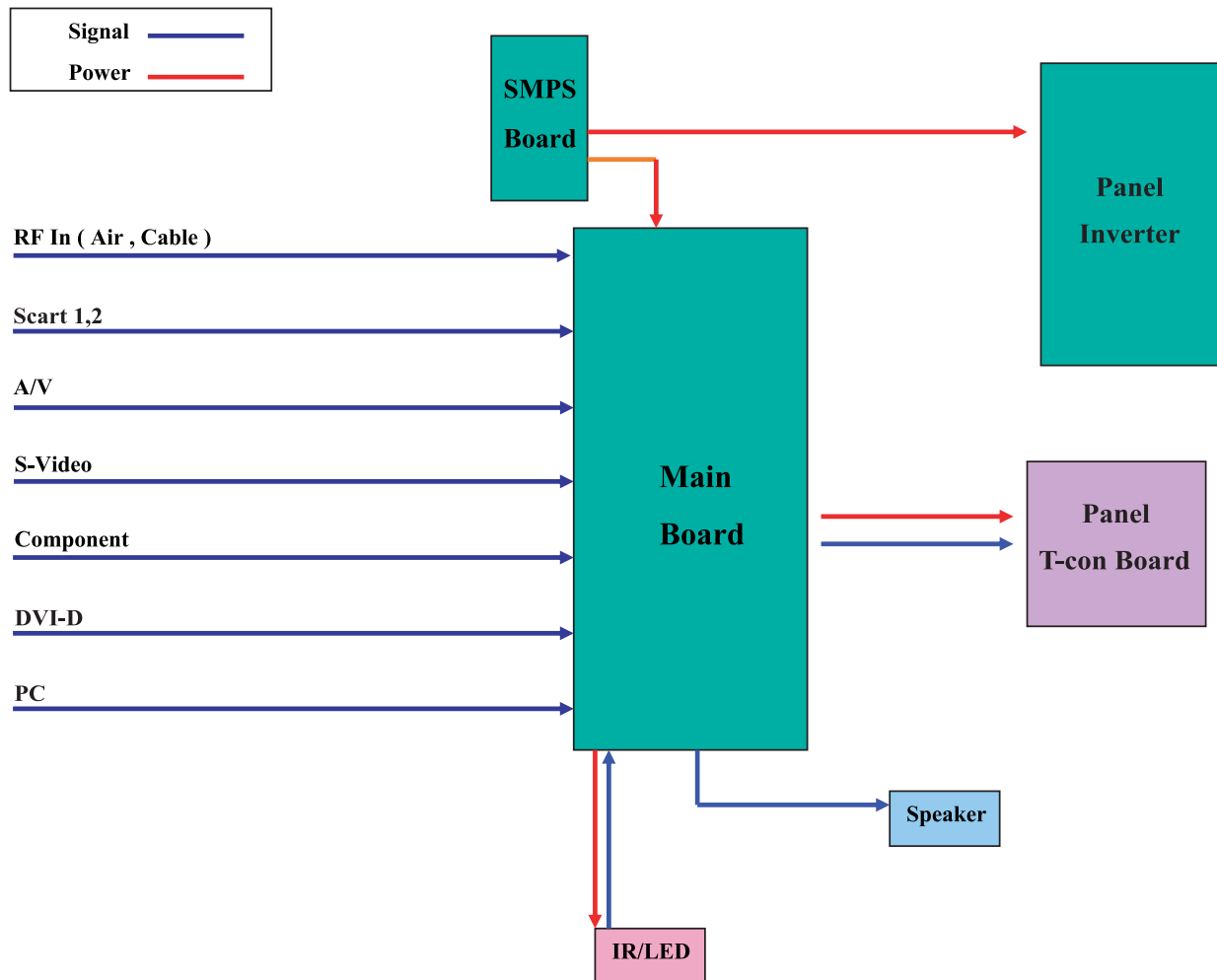


## 13 Circuit Descriptions

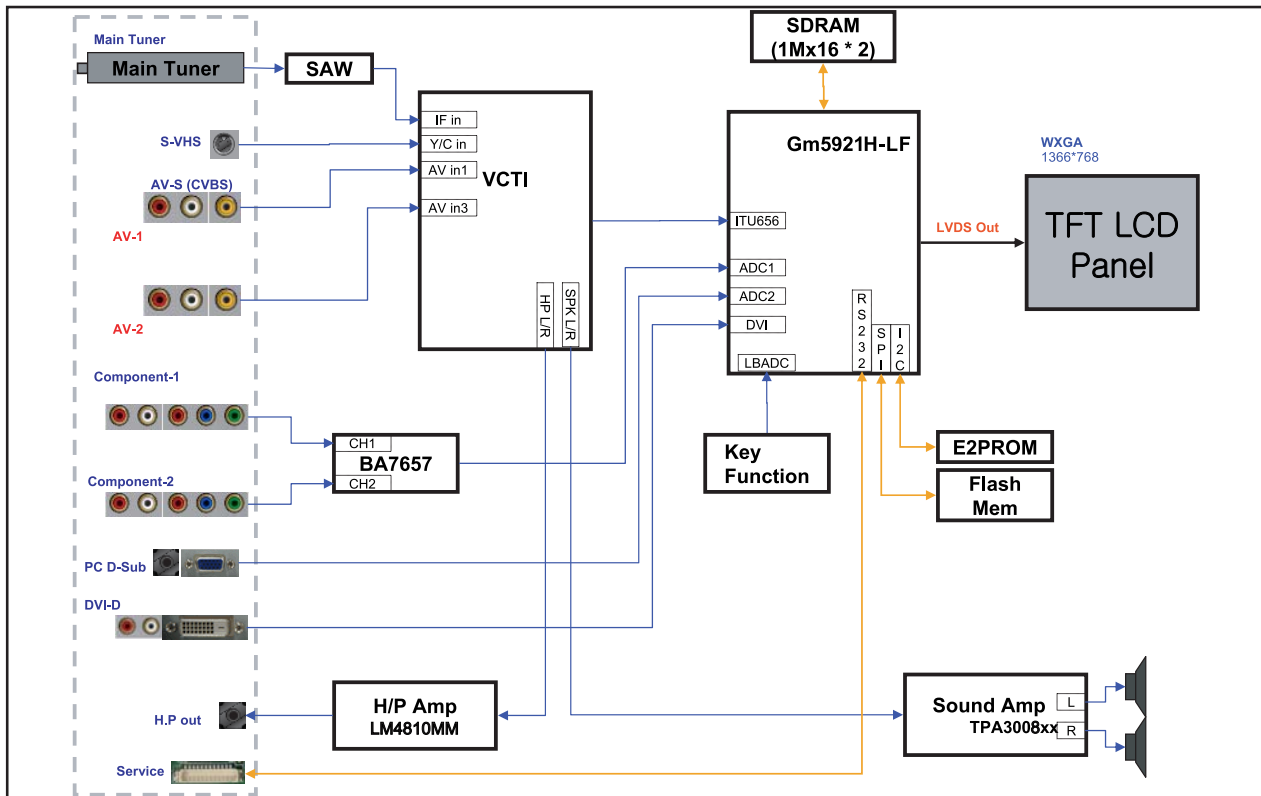
### 13-1 Block description



Torino consists of three main blocks

1. Main board : Video signal processing
2. SMPS board : Power supply
3. Panel Inverter & T-con board : LCD Panel control

## 13-2 Main Block



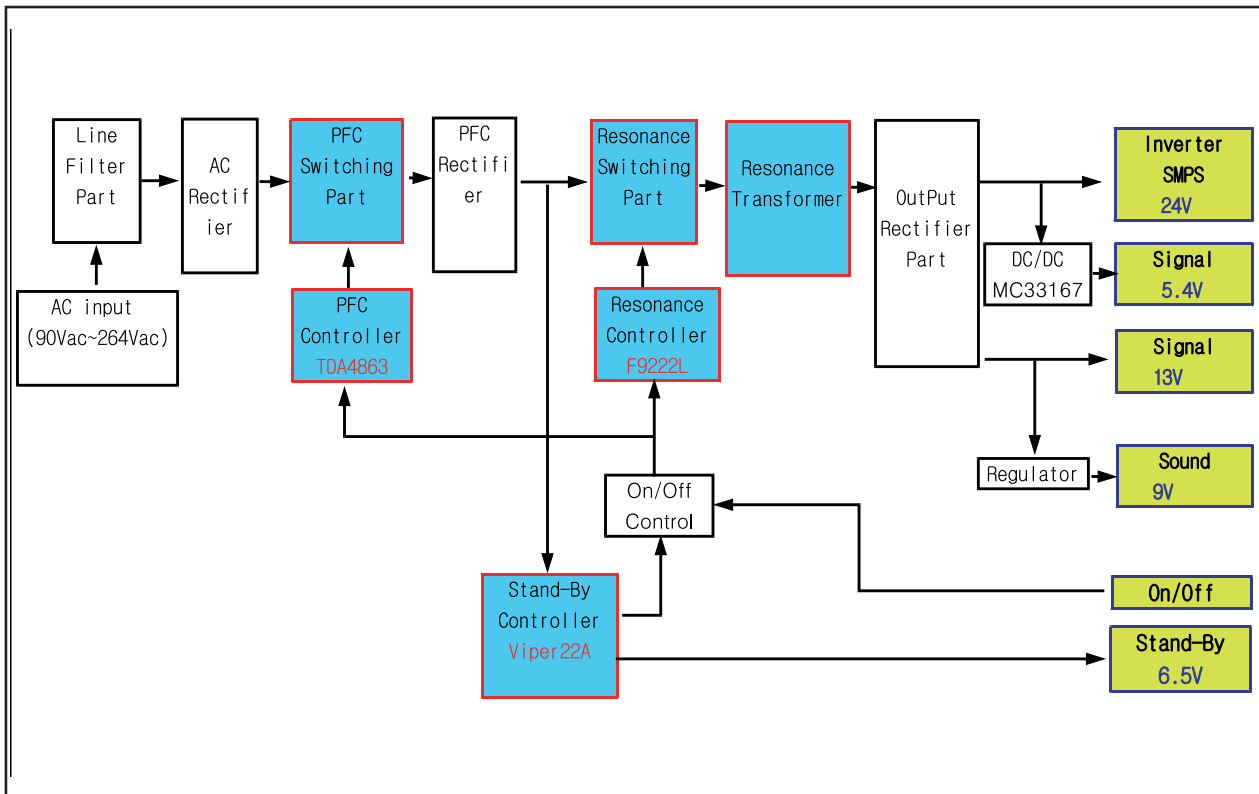
\* VCTi : IF, Scart1/2, AV, S-Video, input and Video decoding, Audio signal processing.

\* Gm5921HLF : - Scaler IC.

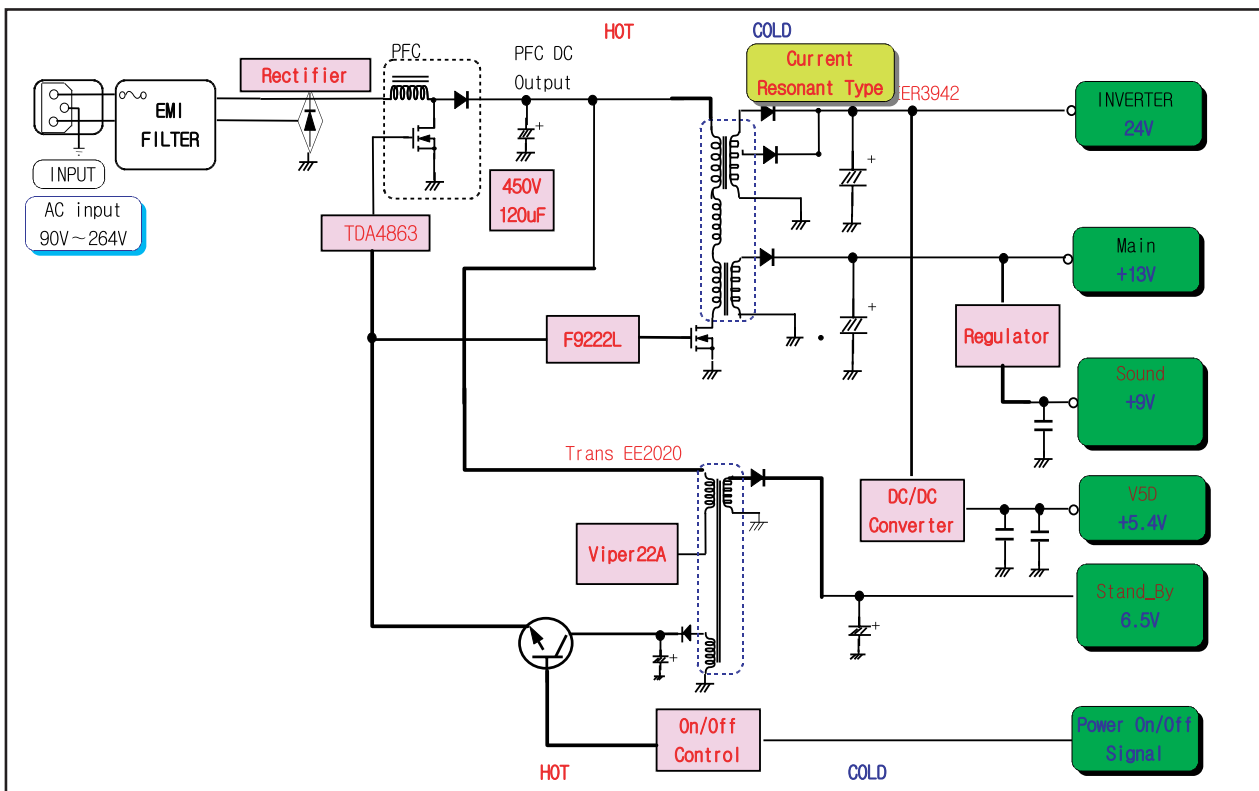
- Component, Pc, DVI-D input and LVDS signal output.

## 13-3 SMPS Board

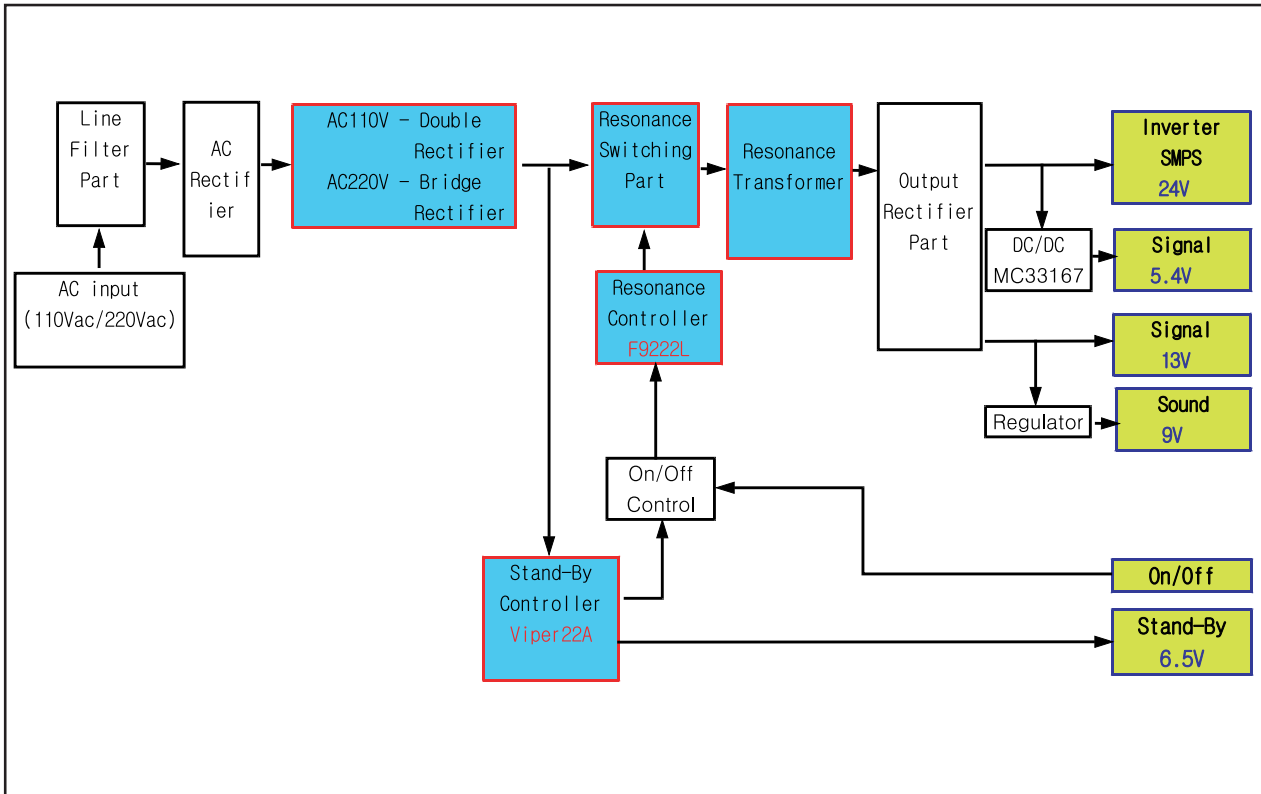
### 13-3-1 23" SMPS Block(Free\_Volt)



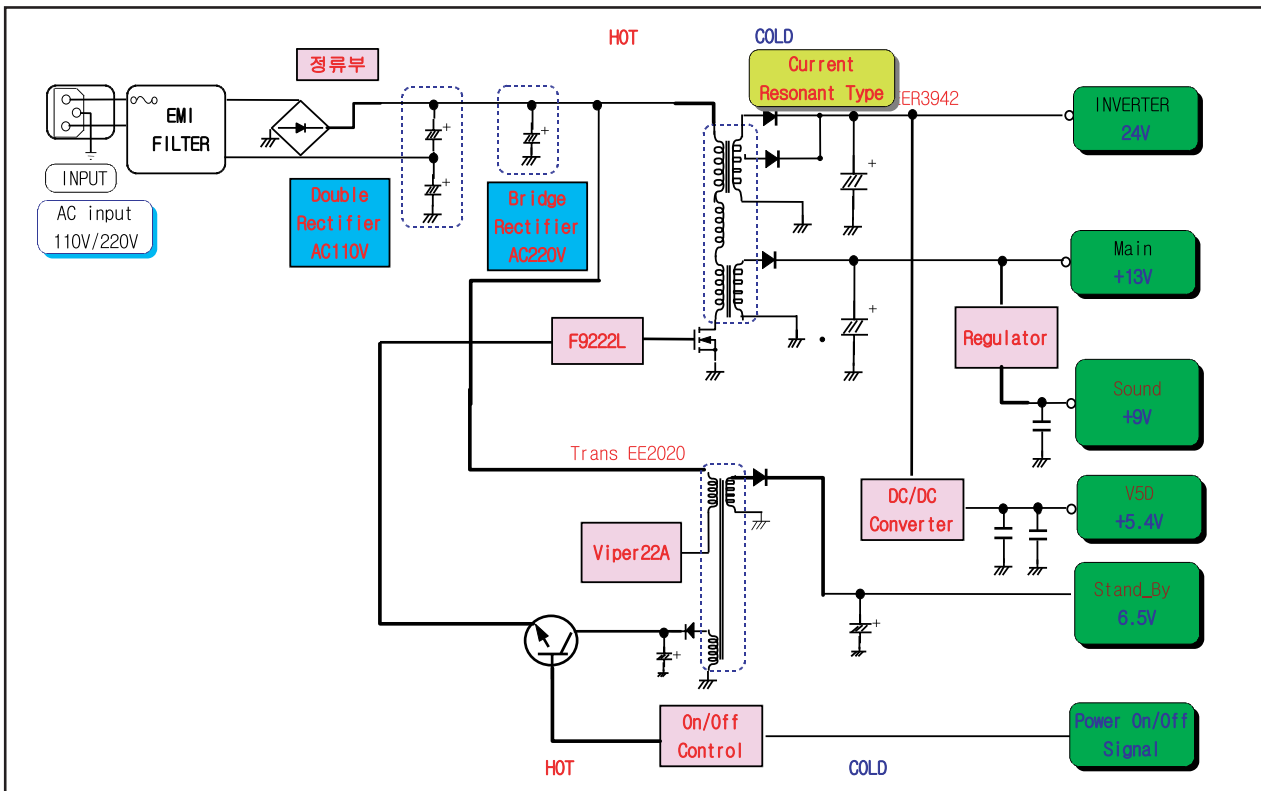
### 13-3-2 23" SMPS Diagram(Free\_Volt)



### 13-3-3 23" SMPS Block(110V / 220V Only)

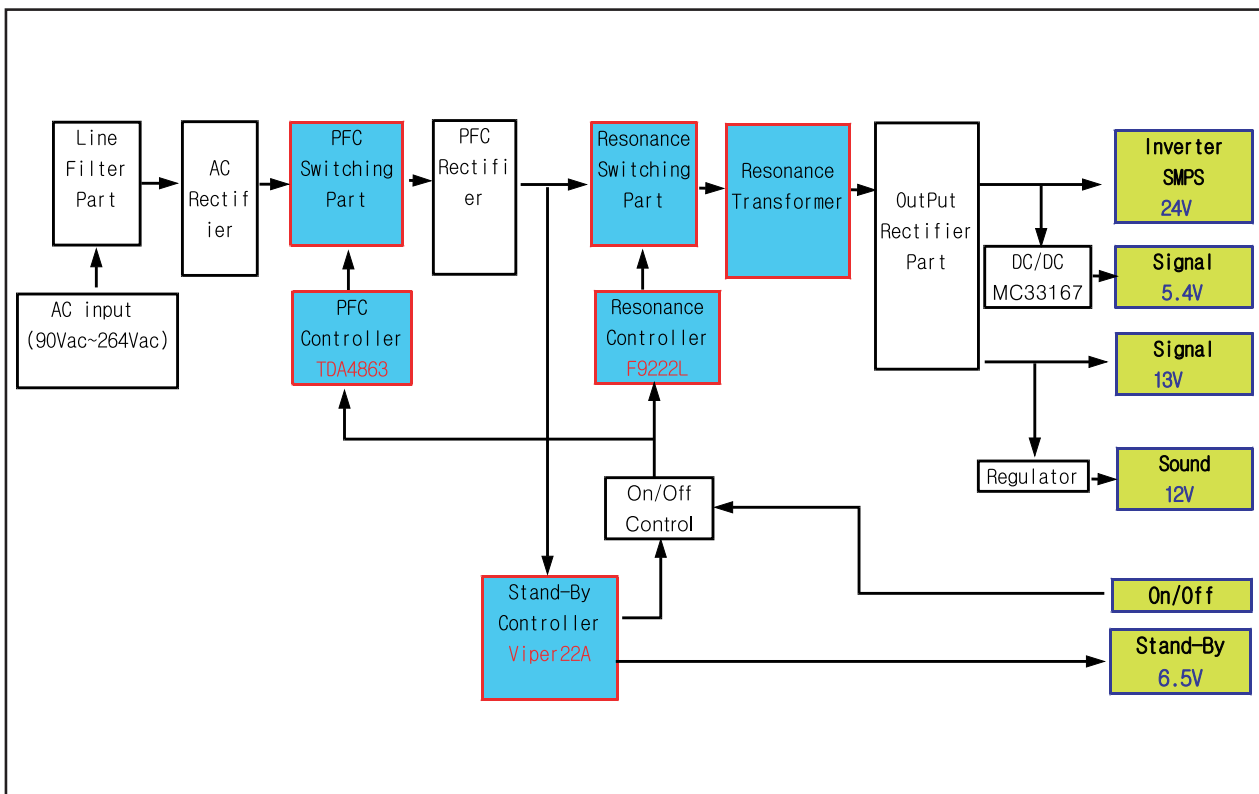


### 13-3-4 23" SMPS Diagram(110V / 220V Only)

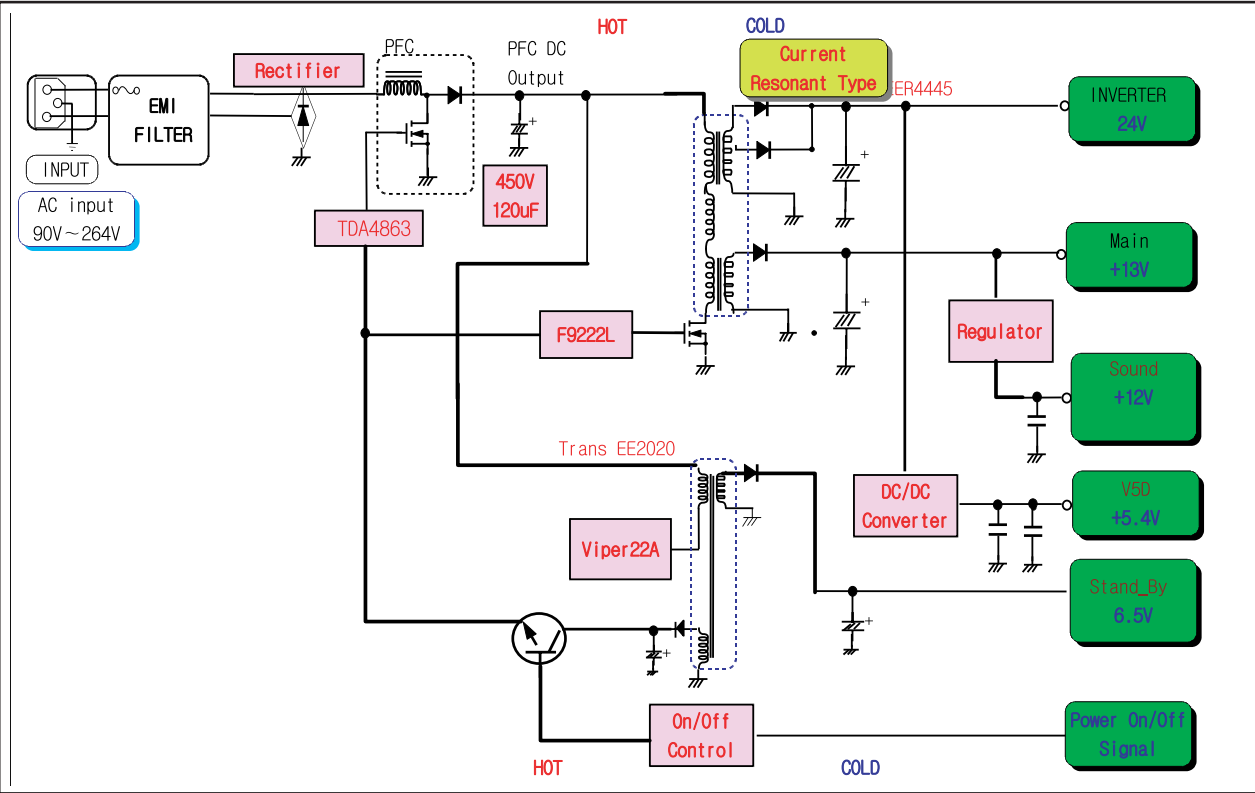


Output Name	Output Voltage			Output Current			Load Characteristics	PCB Loc.	Usage	Remark
	Nominal	Regulation (%)	Variable Range	Min	Typical	Peak				
<b>24V</b>	24.5V	± 4	23.52V ~ 25.48V	0.1A	3.0A	4.0A	Pulsating	Main B'D	Drive	-
<b>5.4V</b>	5.4V	± 5	5.13V ~ 5.67V	0.1A	3.0A	5.0A	Constant	Main B'D	Drive, Logic, Buffer, Image Digital	-
<b>13V</b>	12.7V	± 7	11.9V ~ 13.7V	0.01A	0.3A	0.5A	Constant	Main B'D	Image Analog	-
<b>Vamp</b>	9.2V	± 4	8.83V ~ 9.57V	0.01A	0.3A	1.1A	Constant	Main B'D	Sound	-
<b>ST-BY</b>	8.0V		5.58V ~ 8.5V	0.1A	0.3A	0.6A	Constant	Main B'D	Stand-by	-

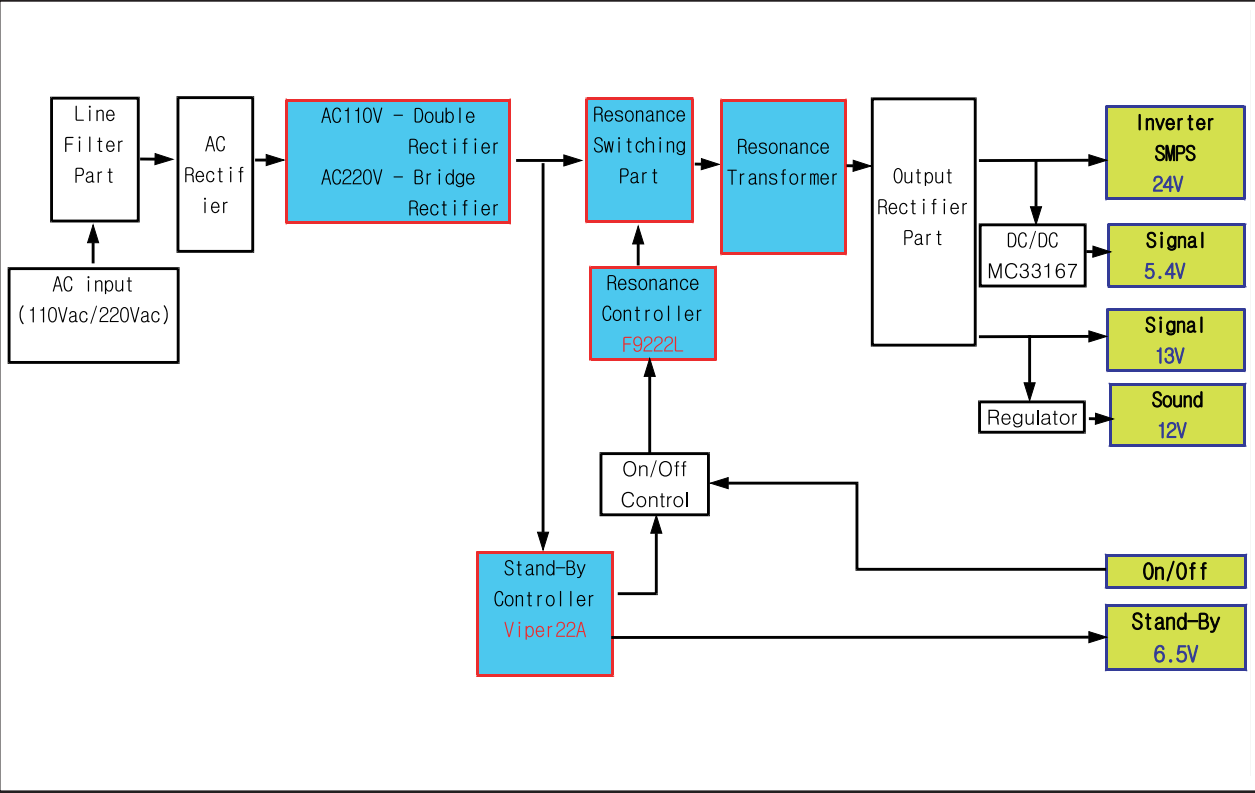
## 13-3-5 27" SMPS Block(Free\_Volt)



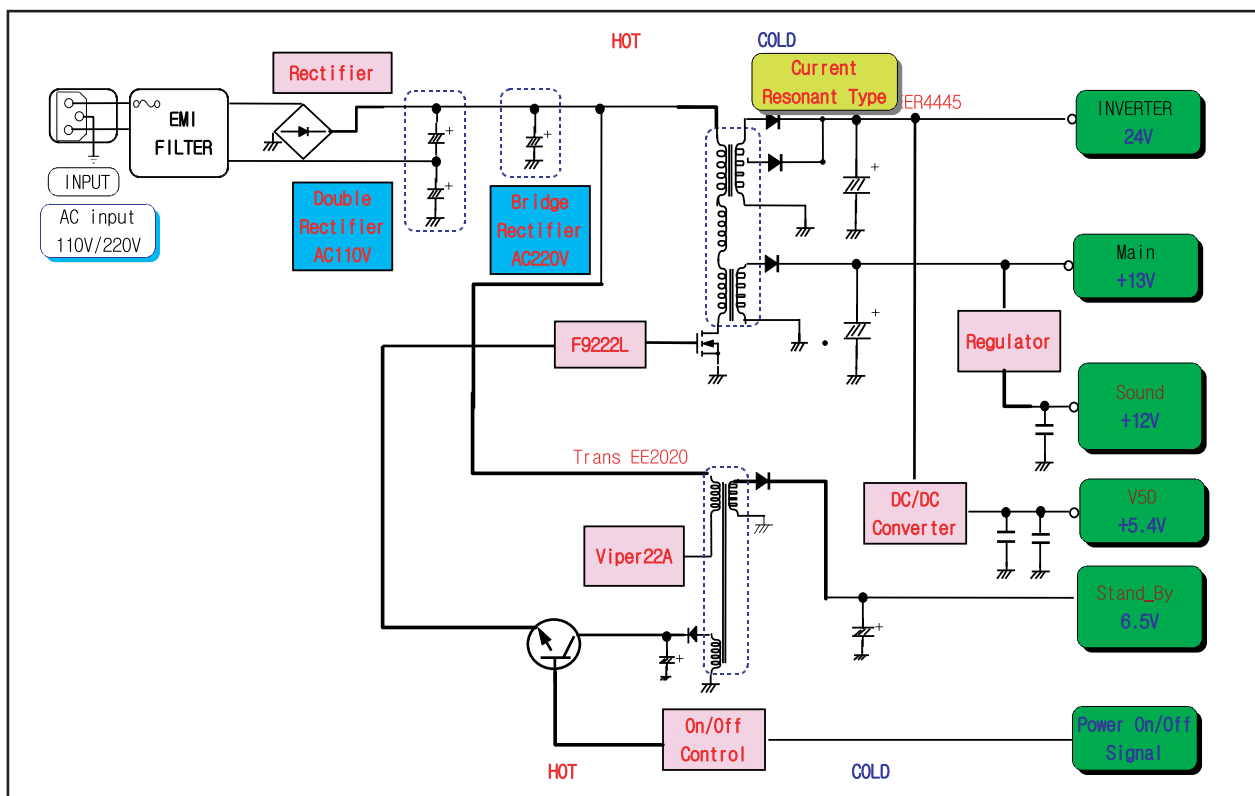
13-3-6 27" SMPS Diagram(Free\_Volt)



13-3-7 27" SMPS Block(110V / 220V Only)

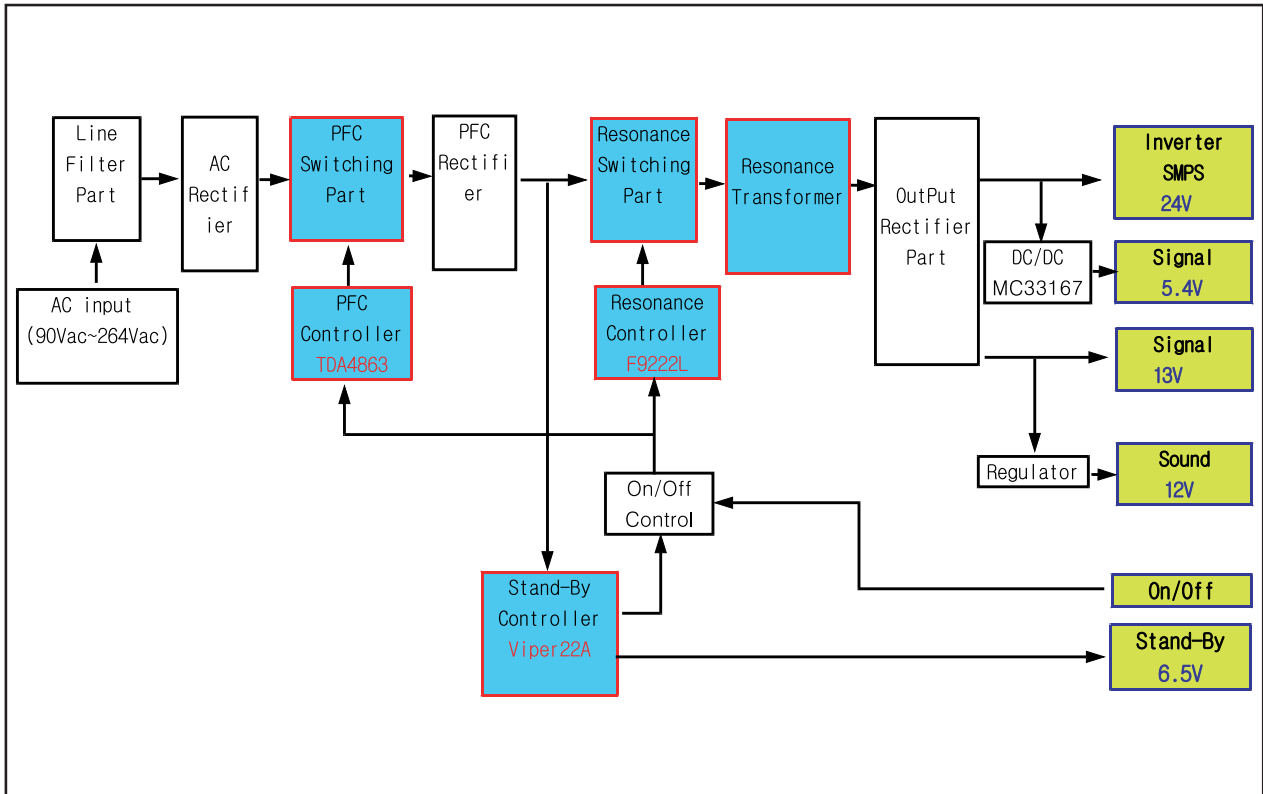


## 13-3-8 27" SMPS Diagram(110V / 220V Only)

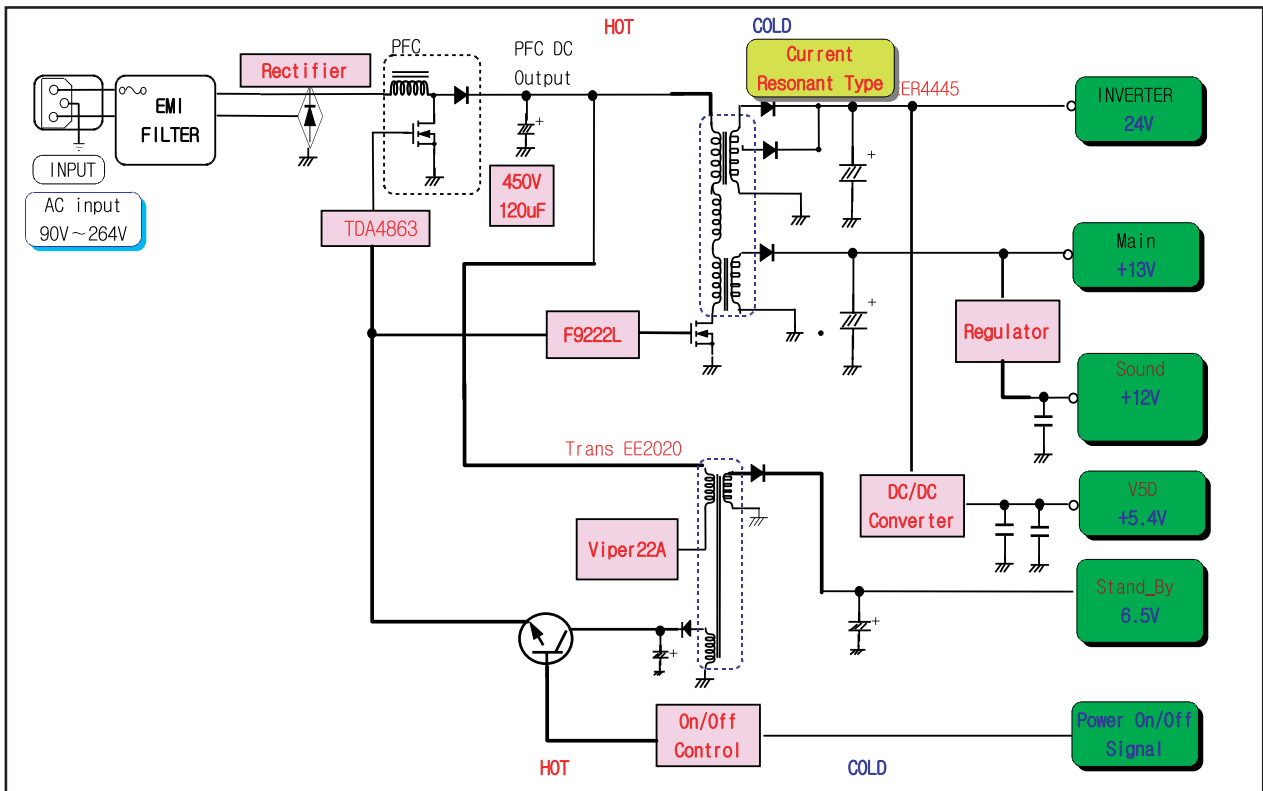


Output Name	Output Voltage			Output Current			Load Characteristics	PCB Loc.	Usage	Remark
	Nominal	Regulation (%)	Variable Range	Min	Typical	Peak				
24V	24.5V	± 4	23.52V ~ 25.48V	0.1A	4.0A	6.0A	Pulsating	Main B'D	Drive	-
5.4V	5.4V	± 5	5.13V ~ 5.67V	0.1A	4.0A	5.0A	Constant	Main B'D	Drive, Logic, Buffer, Image Digital	-
13V	12.7V	± 7	11.9V ~ 13.7V	0.01A	0.3A	0.5A	Constant	Main B'D	Image Analog	-
Vamp	12.0V	± 4	11.52V ~ 12.5V	0.01A	0.3A	3.0A	Constant	Main B'D	Sound	-
ST-BY	8.0V		5.58V ~ 8.5V	0.01A	0.3A	0.6A	Constant	Main B'D	Stand-by	-

### 13-3-9 32" SMPS Block(Free\_Volt)

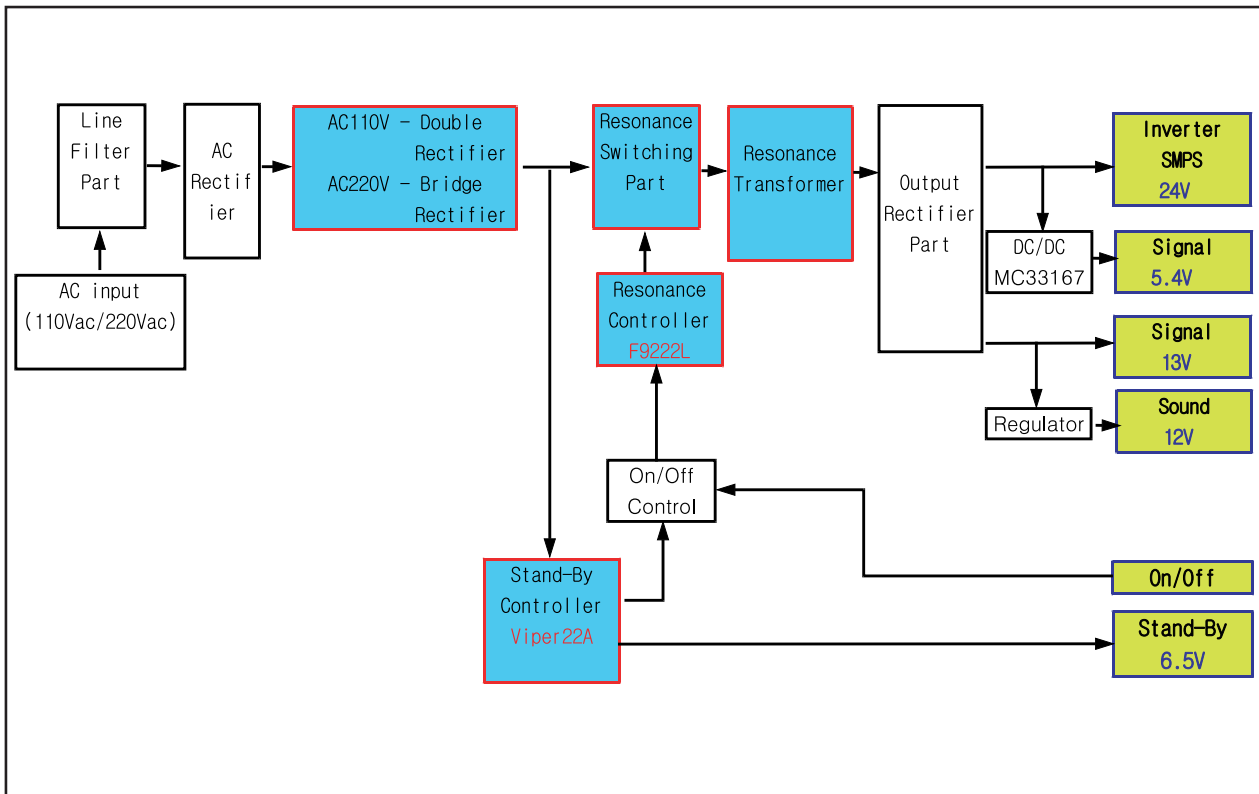


### 13-3-10 32" SMPS Diagram(Free\_Volt)

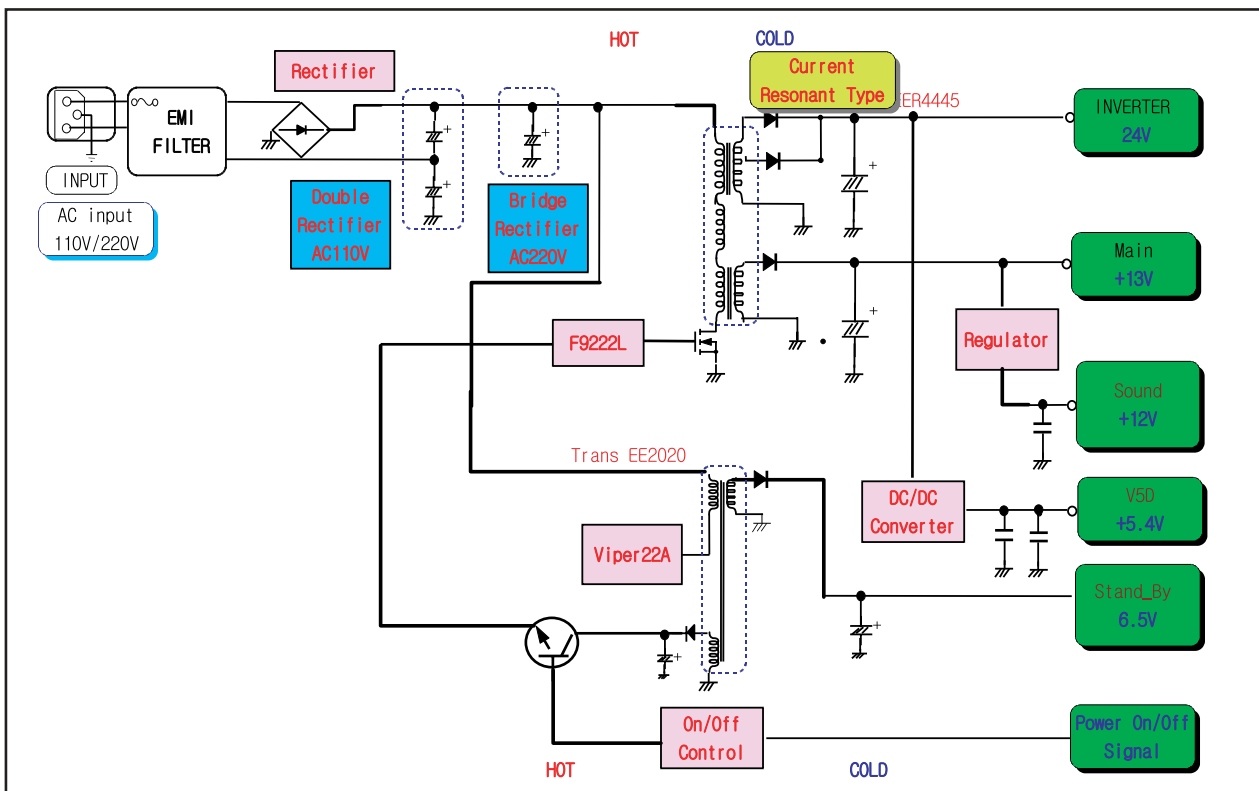




## 13-3-11 32" SMPS Block(110V / 220V Only)



## 13-3-12 32" SMPS Diagram(110V / 220V Only)



## 13 Circuit Descriptions

Output Name	Output Voltage			Output Current				Load Characteristics	PCB Loc.	Usage	Remark
	Nominal	Regulation (%)	Variable Range	Min	Typical	Peak					
<b>24V</b>	24.5V	± 4	23.52V ~ 25.48V	0.1A	<b>5.0A</b>	8.0A		Pulsating	Main B'D	Drive	–
<b>5.4V</b>	5.4V	± 5	5.13V ~ 5.67V	0.1A	<b>4.0A</b>	5.0A		Constant	Main B'D	Drive, Logic, Buffer, Image Digital	–
<b>13V</b>	12.7V	± 7	11.9V ~ 13.7V	0.01A	<b>0.3A</b>	0.5A		Constant	Main B'D	Image Analog	–
<b>Vamp</b>	12.0V	± 4	11.52V ~ 12.5V	0.01A	<b>0.5A</b>	2.5A		Constant	Main B'D	Sound	–
<b>ST-BY</b>	8.0V		5.58V ~ 8.5V	0.1A	<b>0.3A</b>	0.6A		Constant	Main B'D	Stand-by	–