DVD Player

Service
Service
Service

Service Manual

TABLE OF CONTENTS

DVK435

MT1389J

1. CONTENTS

1.Technical Specifications

1. Disctype:
   DVD/SVCD/DVCD/CVD(digital audio
   And video disc)
   VCD 1.0, 1.1.2.0 version(minilaser
   Audio audion and video laser dise)
   CD-DA(common music laserCD)
   Mp3 audio CD
   MPEG2 for DVD;MPEG1forVCD

2. Videoformat:
   MPEG2

3. Audioformat:
   MPEG1, MPEG2, PCM, DOLBY,
   DIGITAL, DTS, ANALOG STEREO,
   VIRTUAL SURROUND, 5.1CHANNEL

4. Signaloutput:
   Video sysetm:NTSC orPAL
   Video:1.0Vp-p
   Audio:5.1channel 0.5Vp-p mix stereo
   2 Vp-p

5. Karaoke:
   Build in ECHO, by reuwte ECHO+,
   ECHO-button to control ECHO deep.

6. Inputjack:
   Microphone jack2

7. Outputjack:
   RCA, S-video, 5.1 channel, optical and R, Pb, Pr
   Coaxial digital output.

8. Power voltage:
   AC 90V-240V

9. Power consumption:
   15W

10. Frequencyresponse:
    DVD:20Hz~20KHz

11. Signal/noise ratio:≥100dB

12. DIMENSIONS:
    360*220*38mm

13. Accessories:
    Audio/video cable, remote control(without
    battery), users manual, scart cable.

Note:designs and specifications are
subject to change withoutnotice.

(End)

Safety instructions, Warnings, Notes

Safety instructions

1. General safety

Safety regulations require that during a repair:

. Connect the unit to the mains via an isolation transformer.

. Replace safety components indicated by the symbol▲, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that after a repair, you must retum the unit in its original condifion. pay, in particular, attention to the following points:

. route the wires/cables correctly. and fix them with the mounted cable clamps.

. Check the insulation of the mains lead for extemal damage.

· Check the electrical DC resistance between the mains plug and the secondary side:

1) Unplug the mains cord:and connect a wire between the two pins of the mains plug.

2) Set tge mains switch the "on" position (keep the mains cord unplug).

3) Measure the resistance value between the mains plug and the front panel, controls, and chassls bottom.

4) Reoair or correct unit when the resistance measurement is less than 1M.

5) Verify this, before you return the unit to the customer/user(ref. ul-standard no. 1492).

6) Switch the unit "off", and remove the wire between the two pins of the mains plug.

2. Laser safety

This unit employs a laser. Only qualified service personnel may remove the cover, or attempt to service this device(due to possible eye injury).

Laser device unit

Type : Semiconductor laser GaAlAs

Wavelength :650mm(DVD)

:780mm(DVD/CD)

Output power

:0. 8mW(DVD/reading)

:0. 3mW(VCD/CD reading)

Beam divergence:60 degree

Note: Use of controls or adjustments or performance of procedure other than those specified herein, may result in hazardous radiation exposure. Avoid direct exposure to beam.

Warnings

1. General

. All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handing during repair can reduce life drastically. make sure that, during repair, you are at the same potential as the mass of the set by a wristhband with resistance. keep components and tools at this same potential. available esd protection equipment:

1) Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.

2) Wristband tester 4822 344 13999.

. Be careful during measurements in the live voltage section. The primary side of the power supply (pos. 1005), including the heat sink, carries live mains voltage when you connect the player to the mains (even when the player is "off"!). It is possible to touch copper tracks and/or components in this unshielded primary area, when you service the player. Service personnel must take precautions to prevent touching this area or components in this area. A "lightning stroke" and a stripe-marked printing on the printed wiring board, indicate the primary side of the power supply.

. Never replace modules, or components, while the unit is "on".

2. Laser

. The use of optical instruments with this product, will increase eye hazard.

. Only qualified service personnel may remove the cover or attempt to service this device, due to possible eye injury.

. Repair handing should take place as much as possible with a disc loaded inside the player.

. Text below is placed inside the unit, on the laser cover shield:

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.

2.Mechanical and Dismantling Instructions

Dismantling Instruction

In this paragraph some tips are given to dismantle the DVD player, For item number, refer to the exploded view.

1. Remove 3 screws at the Rear Cover.(exploded view screws ⑥)

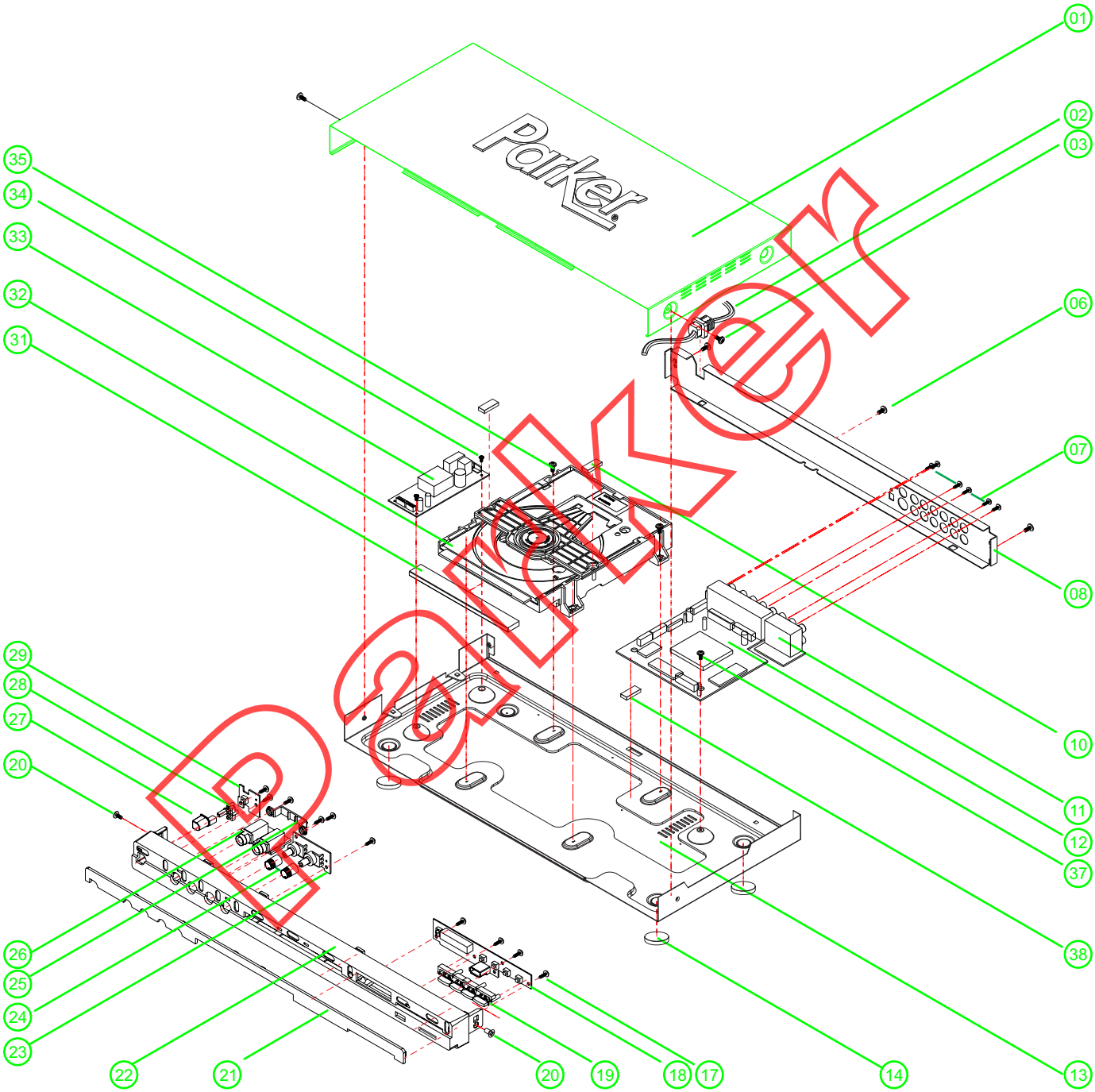
2. Remove 2 screws at Top Cover(exploded view screws ③) , Push the Top Cover toward the Rear.

3.Remove two screws at side of panel.(exploded view screws ⑳)

4.Remove 4 screws at both sides of the loader and disconnect 6 wire connections.(exploded view screws ⑦)

5.Remove the power board, First remove the 2 screws(exploded view screws ㉞), secondly remove the 3 screws.(exploded view screws ㉟ ㊲)

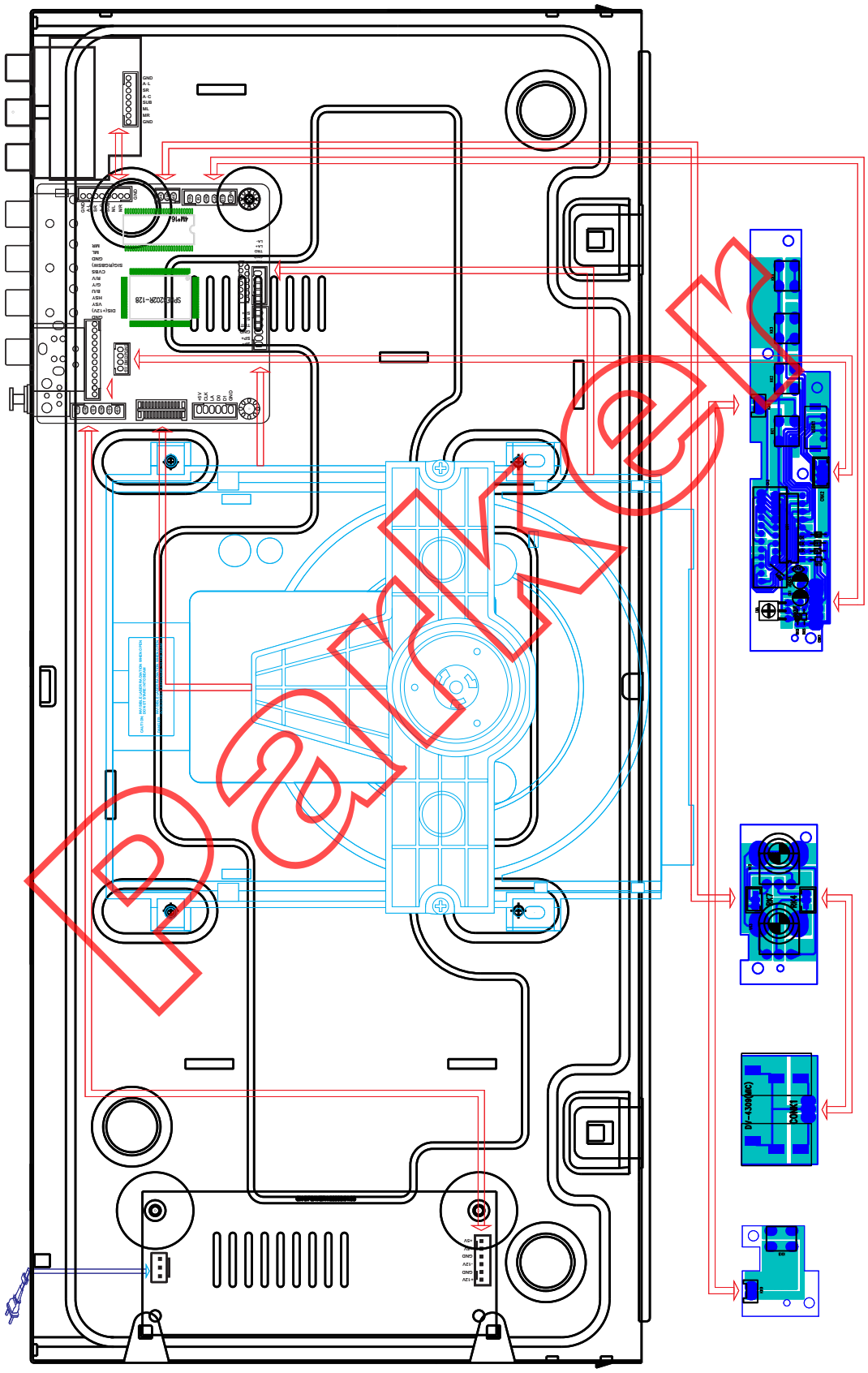
3. Exploded view



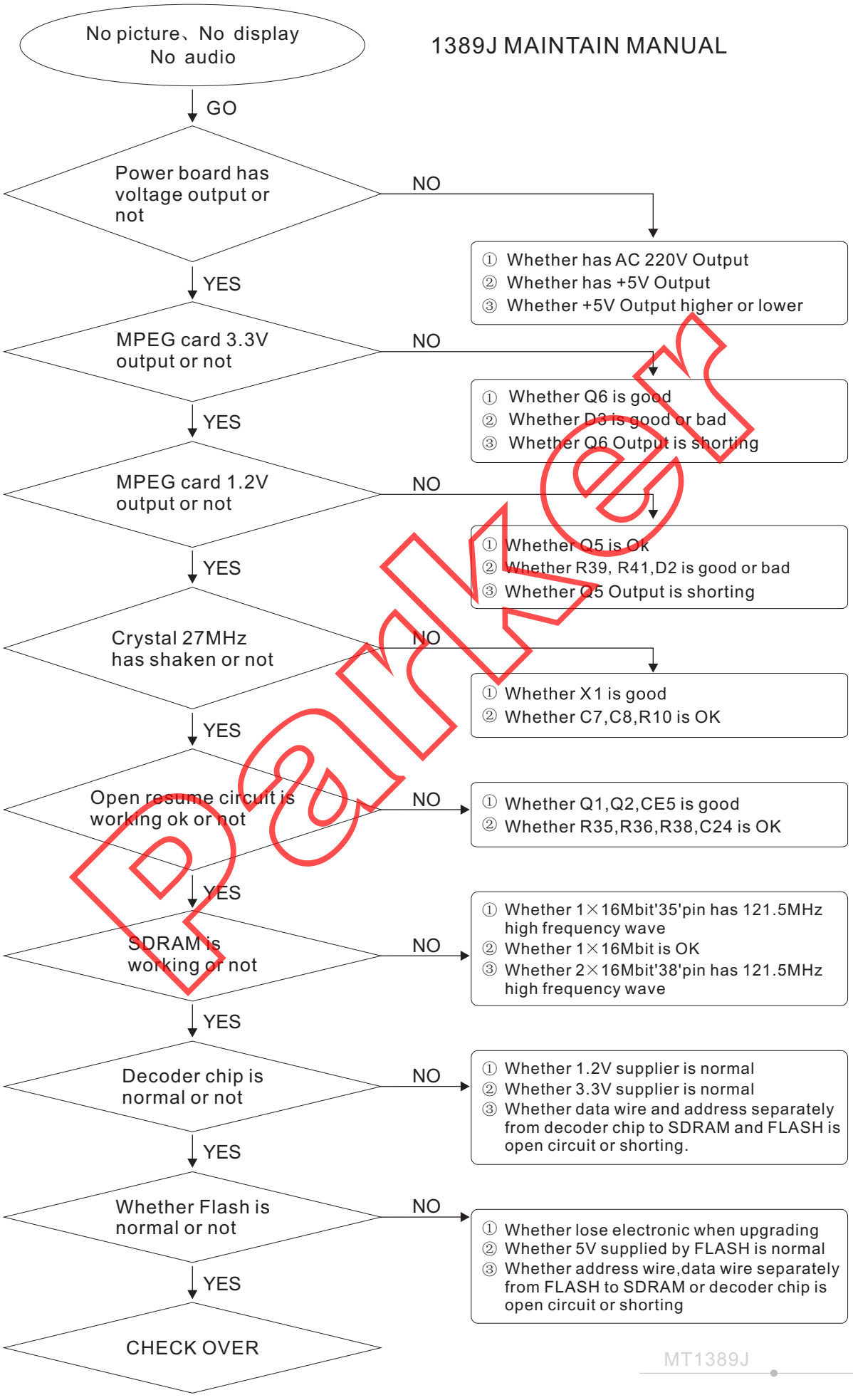
4. Exploded view Parts Lists

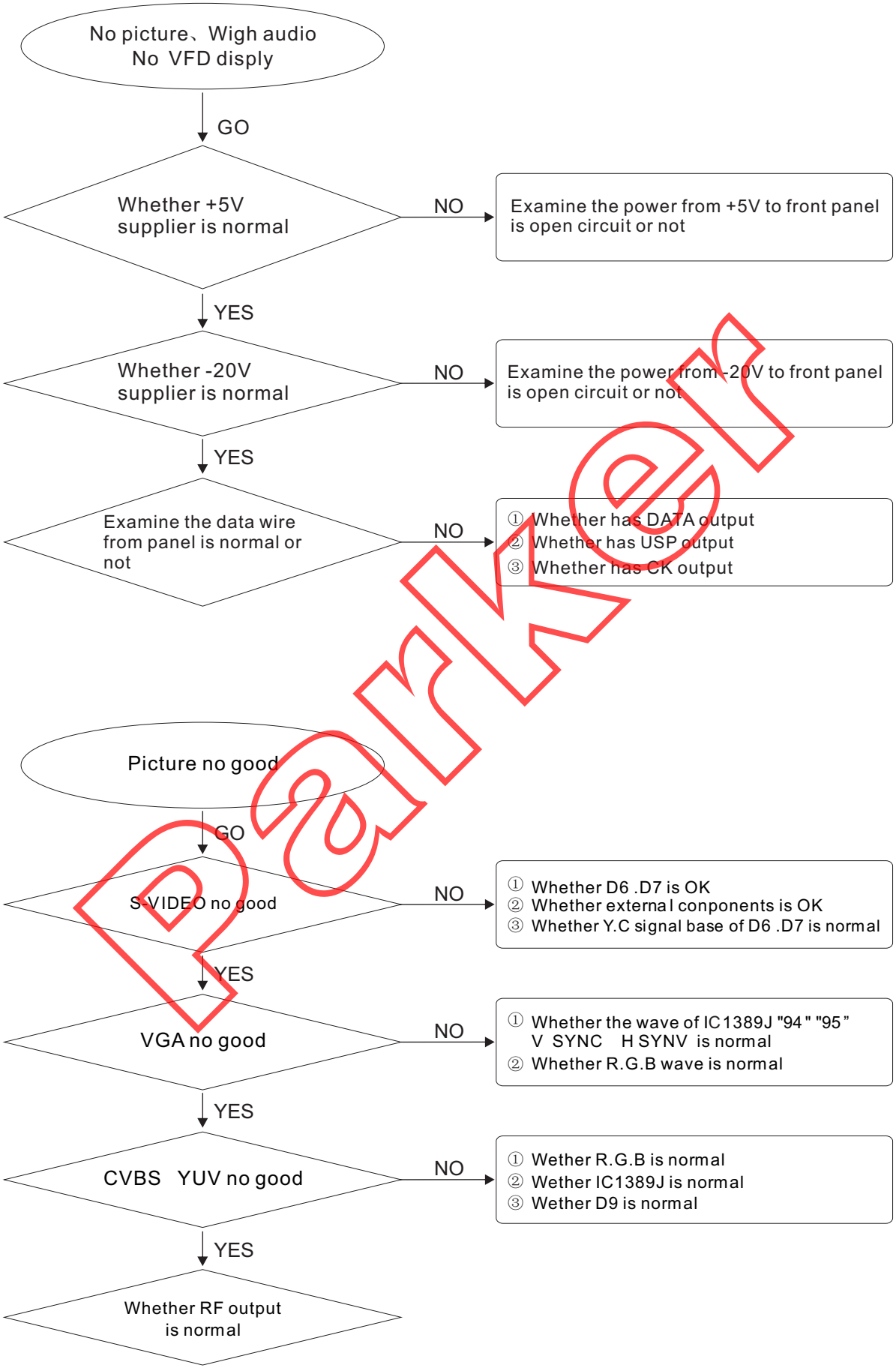
PART	PART NAME	NUMBER	DESCRIPTION
1	TOP COVER	1	
2	POWERWIRE	1	
3	SCREW	2	3×6PWB
4	——	——	
5	——	——	
6	SCREW	3	3×6PWB
7	SCREW	5	3×8PA
8	BACKBOARD	1	
9	——	——	
10	EVA	2	3×6PWB
11	5.1CH	1	35×9.5x3mm
12	DECODE BORADE	1	
13	BOTTOM COVER	1	
14	EVA	4	ϕ 14x5mm
15	——	——	
16	——	——	
17	SCART	10	3×8PA
18	FRONT CASE	1	
19	KEY	1	
20	SCREW	2	3×6 KM
21	LENS	1	
22	FRONT	1	
23	VOLUME CONTROL	1	
24	KNOB	1	
25	MIC BOARD	1	
26	MIC CARD	1	
27	POWER KEY	1	
28	POWER KEY2	1	
29	KEY PCB	1	
30	——	——	
31	DVD DOOR	1	
32	DVD LOADER	1	
33	POWER BOARD	1	
34	SCREW	2	3×6BB
35	SCREW	2	3×6PWB
36	VGA	1	
37	SCREW	1	3×6BB
38	EVA	1	12×8x8mm

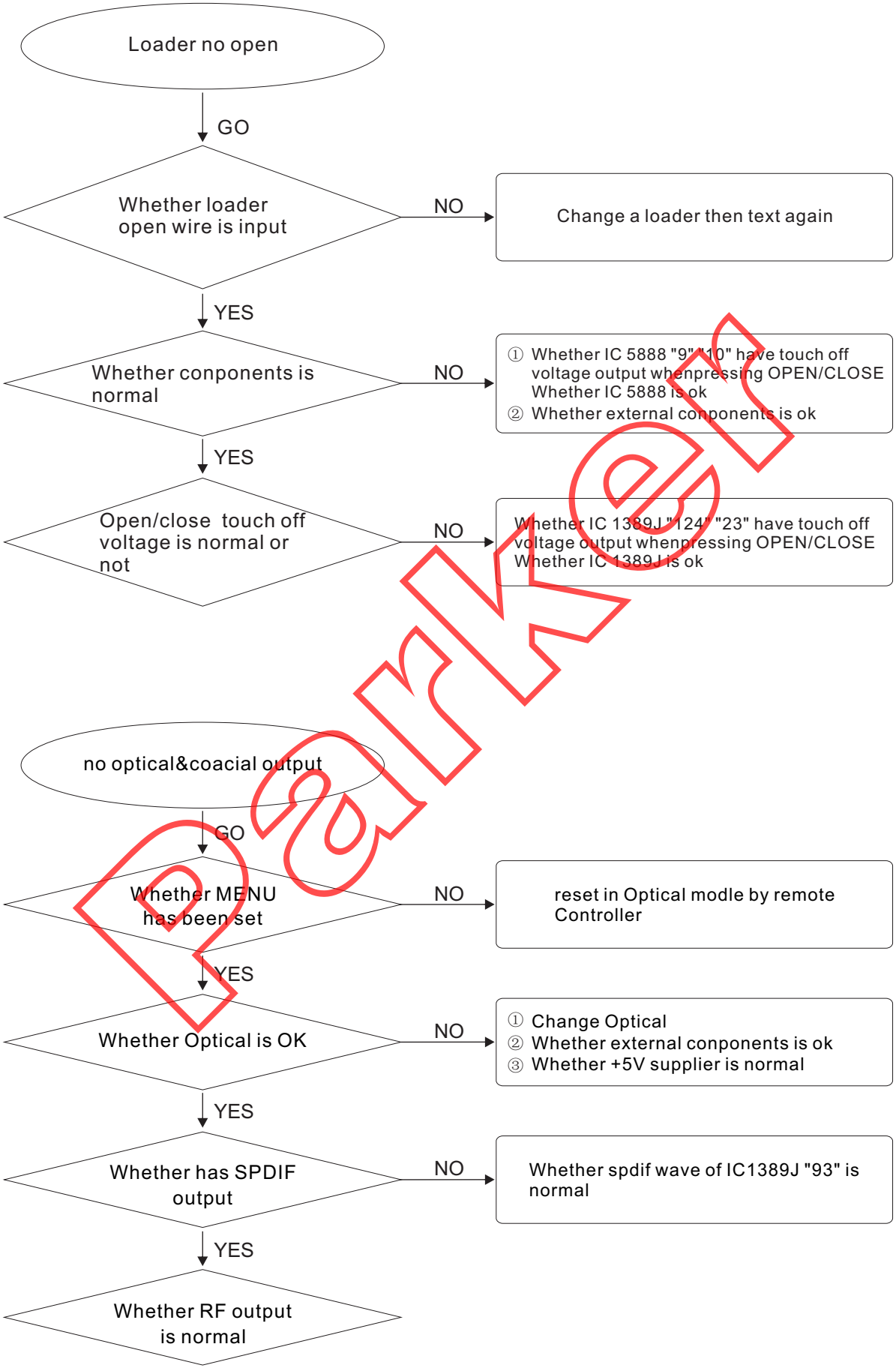
5. BLOCK DIAGRAM (CABLE CONNECTIONS)

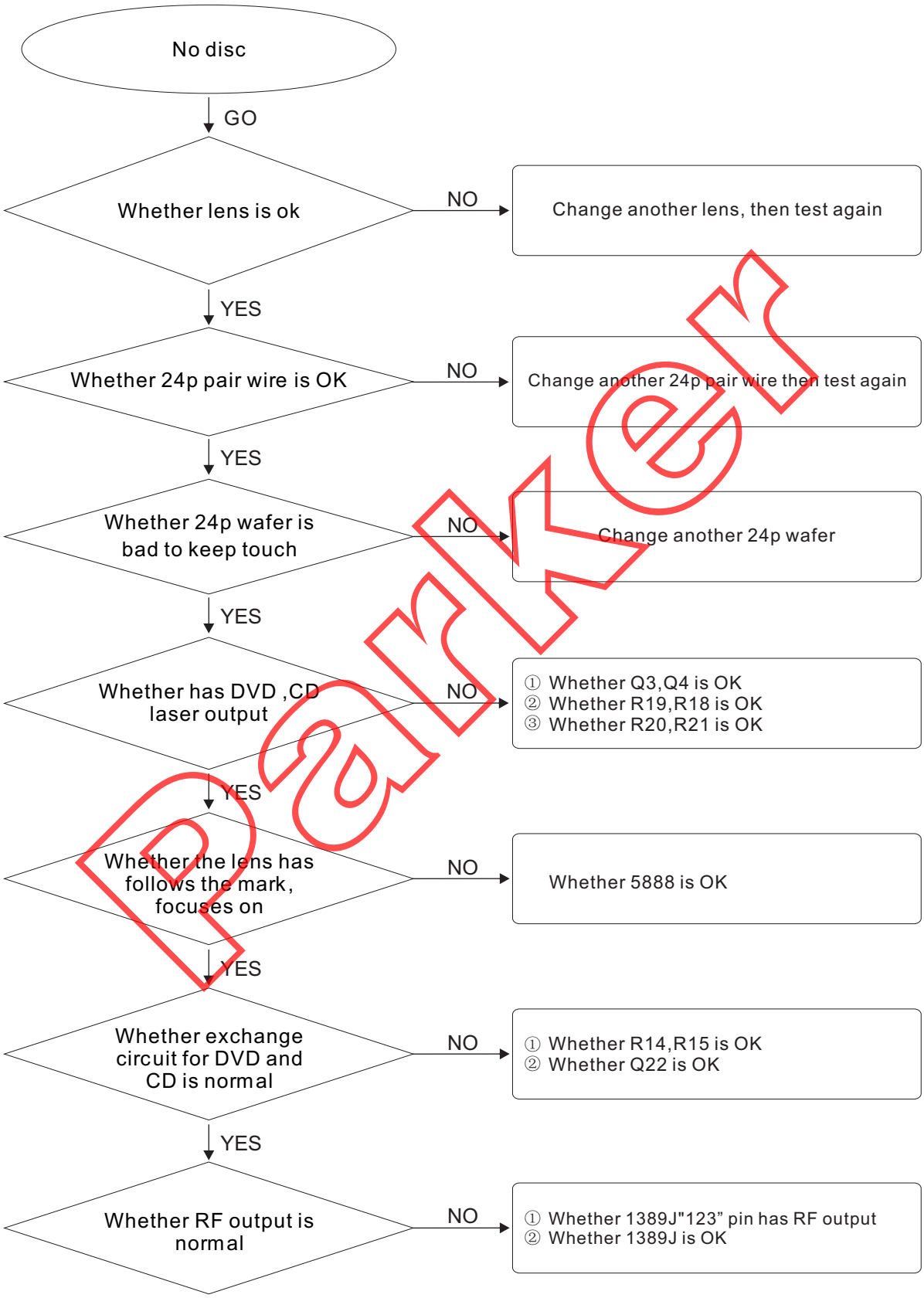


6. Fault tracing flow chart



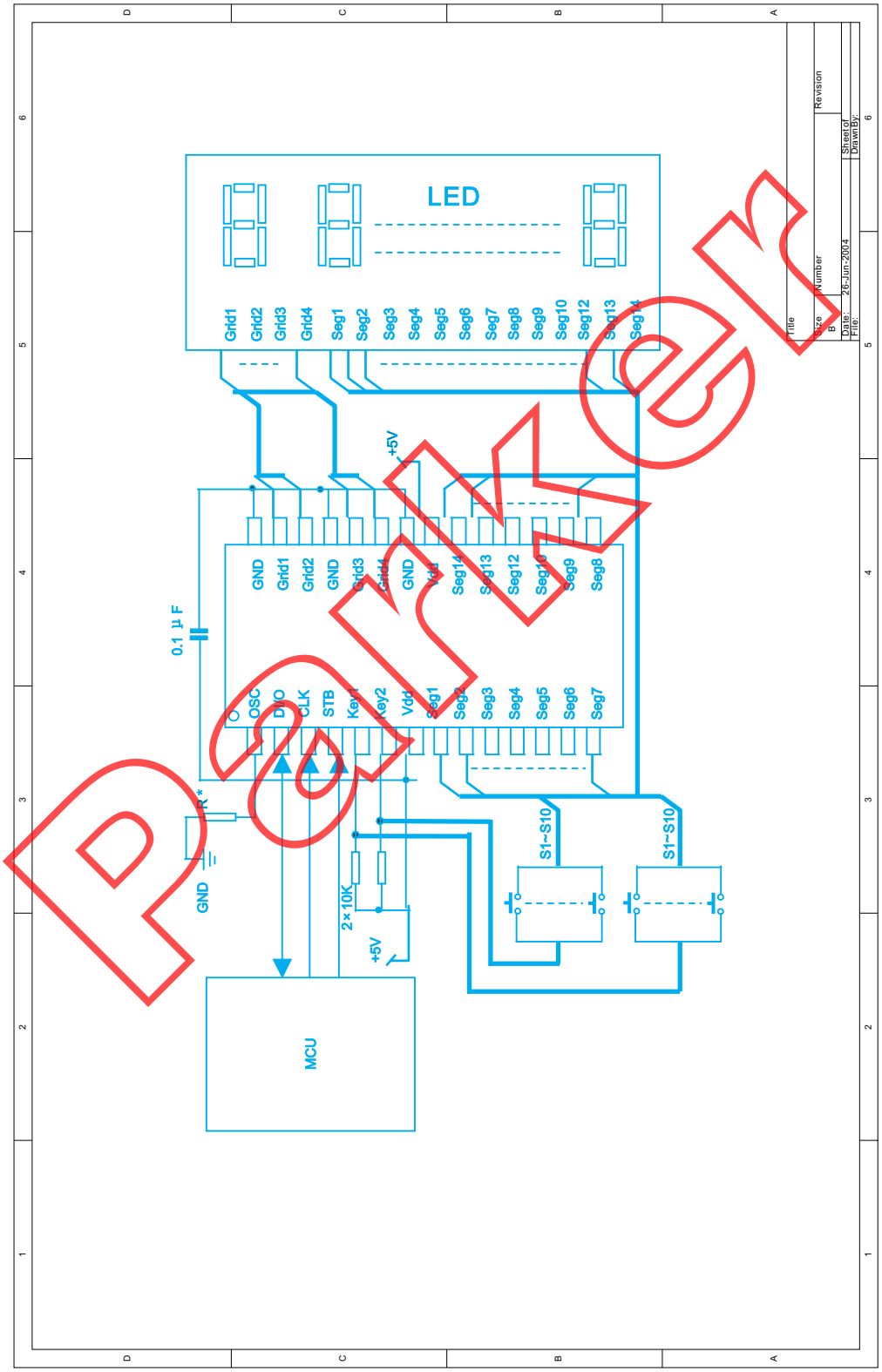

No picture、Wigh audio
No VFD disply
GO
Whether +5V supplier is normal
NO
Examine the power from +5V to front panel is open circuit or not
YES
Whether -20V supplier is normal
NO
Examine the power from -20V to front panel is open circuit or not
YES
Examine the data wire from panel is normal or not
NO
① Whether has DATA output
② Whether has USP output
③ Whether has CK output
Picture no good
GO
S-VIDEO no good
NO
① Whether D6 .D7 is OK
② Whether external conponents is OK
③ Whether Y.C signal base of D6 .D7 is normal
YES
VGA no good
NO
① Whether the wave of IC1389J "94" "95" V SYNC H SYNV is normal
② Whether R.G.B wave is normal
YES
CVBS YUV no good
NO
① Wether R.G.B is normal
② Wether IC1389J is normal
③ Wether D9 is normal
YES
Whether RF output is normal


Loader no open
GO
Whether loader open wire is input
NO
Change a loader then text again
YES
Whether conponents is normal
NO
① Whether IC 5888 "9" "10" have touch off voltage output whenpressing OPEN/CLOSE Whether IC 5888 is ok
② Whether external conponents is ok
YES
Open/close touch off voltage is normal or not
NO
Whether IC 1389J "124" "23" have touch off voltage output whenpressing OPEN/CLOSE Whether IC 1389J is ok
no optical&coacial output
GO
Whether MENU has been set
NO
reset in Optical modle by remote Controller
YES
Whether Optical is OK
NO
① Change Optical
② Whether external conponents is ok
③ Whether +5V supplier is normal
YES
Whether has SPDIF output
NO
Whether spdif wave of IC1389J "93" is normal
YES
Whether RF output is normal


No disc
GO
Whether lens is ok
NO
Change another lens, then test again
YES
Whether 24p pair wire is OK
NO
Change another 24p pair wire then test again
YES
Whether 24p wafer is bad to keep touch
NO
Change another 24p wafer
YES
Whether has DVD ,CD laser output
NO
① Whether Q3,Q4 is OK
② Whether R19,R18 is OK
③ Whether R20,R21 is OK
YES
Whether the lens has follows the mark, focuses on
NO
Whether 5888 is OK
YES
Whether exchange circuit for DVD and CD is normal
NO
① Whether R14,R15 is OK
② Whether Q22 is OK
YES
Whether RF output is normal
NO
① Whether 1389J"123" pin has RF output
② Whether 1389J is OK

7.Front Panel

The front panel I/O is controlled by the Hd6928 driver.



Functional descriptions(panel)

Front Panel Interface

6 Pin, Data Connector Pin Assignments

PIN	NAME	I/O	DESCRIPTION
1	REM	I	Front Panel Data input
2	DATA	I	IR sensor interrupt
3	CLK	O	Front Panel chip select
4	STB	O	Front Panel clock
5	GND	O	Front Panel Data output
6	VCC		

6 Pin, Power Connector Pin Assignments

PIN	NAME	FROM	DESCRIPTION
1	VFD 1	SMPS	Segment and grid Voltage of the VFD
2	VFD 2	SMPS	Provide a DC supply to the cathode. To vercome the voltage difference between one and the other of the cathode.
3	-21V	SMPS	
4	STBY	SMPS	
5	GND	SMPS	
6	+5V	SMPS	Supplies IR and Front IC

There are 3 different devices operated by the PIC508 and Pt6312 (Optional):
* Vacuum Fluorescent Display (VFD)
* Push-buttons
* LEDs (Hd6928)

There is an option for a tray lamp and a joystick which is not currently assembled. The VFD display is custom made, implemented in a 6 grids by 16 segment matrix.
The VFD needs special voltage supply for operation:
* Vkk which is -21V needed to drive the segments and grids of the VFD.
* Vf1, Vf2 which powers the exection cloud filament (cathode) with a differential voltage of 3.5V. This is a floating voltage difference generated by the power supply, and is biased to -21V in the ront panel board by a Zener circuit from the -21V (Vkk) supply. Moving the bias towards a more positive number will reduce the segment brightness. Vf1 & Vf2 provide a DC supply to the cathode. To overcome the voltage difference between one end and the other of the cathode, it is geometrically titled so that the segments observe the same potential and have all the same brightness. Other way to overcome the problem is to employ an AC supply to power the Vf1 and Vf2.

8. DVD driver&Exploded view Parts Lists

Adopt small lens: can adopt DV34.Hittachi .Mipseumi . Thomson act lens

Electric specification

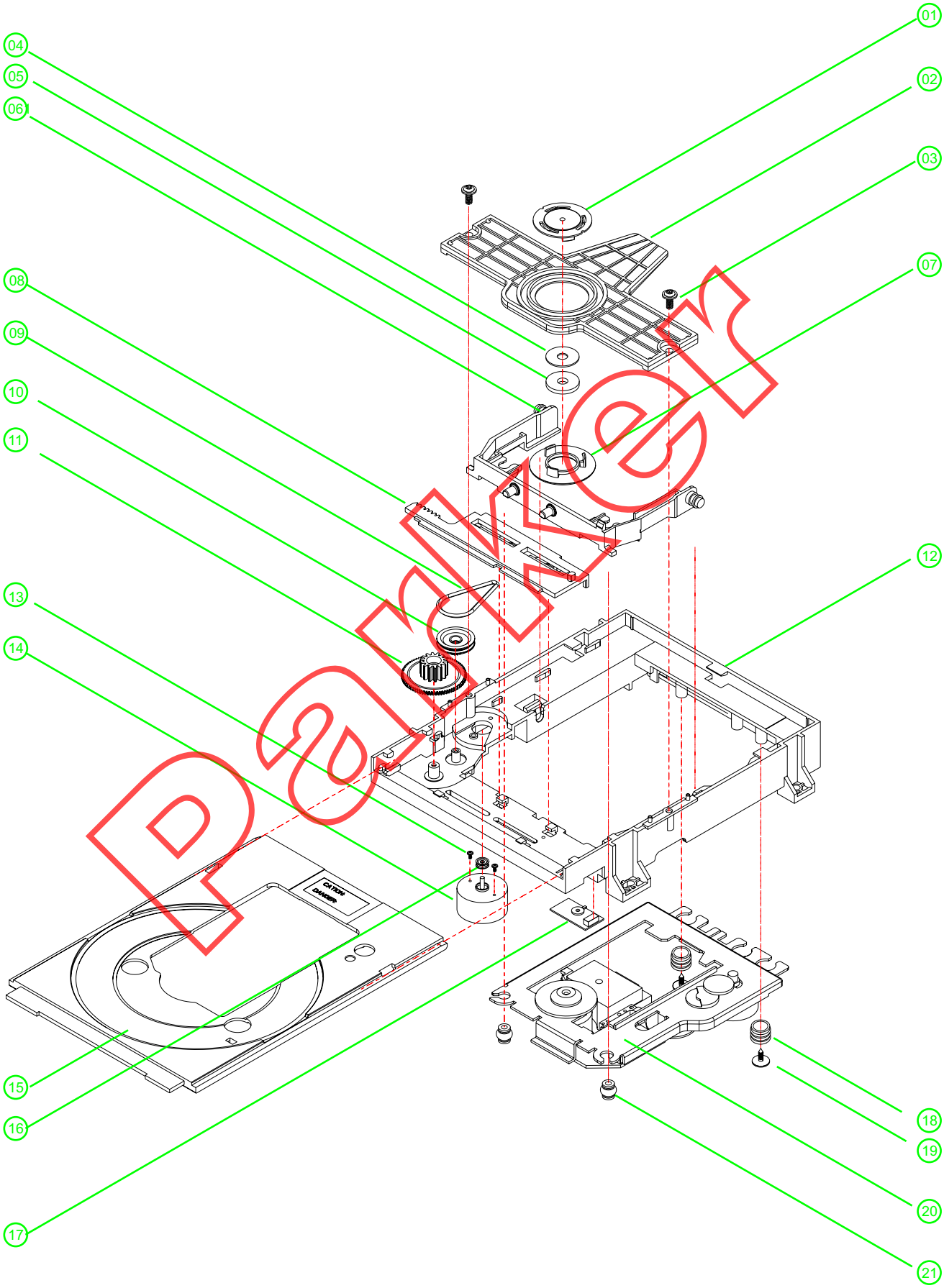
- Drive cell:adopt RF-300CA-10500 electricity machine
- Electricity machine work voltage is 3V-5.9V
- General work voltage is 3.3V-5V
- Unilateralism(com or go) move time:<1.5S(add 5V voltage)
- In 5℃-10℃ work current is <120mA

Testing condition

- Position: level placed
- Environment: temperature 22±2 C °
  Humidity 50±5%
- Turnover storehouse voltage:5V±0.5V
- Standard DVD lens testing frock
- Standard DVD testing dish

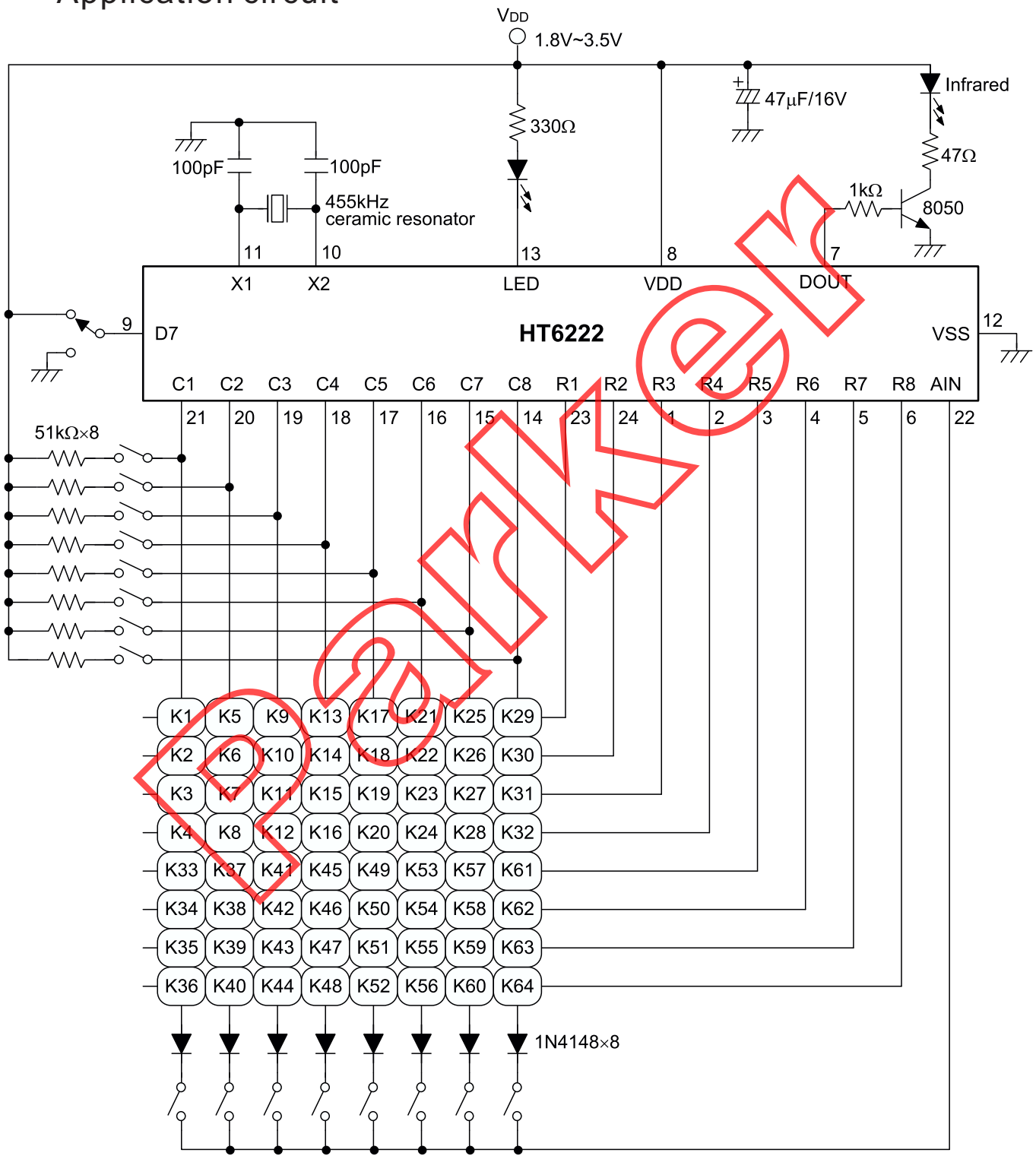
Ref. No	Description	Parts No	Q' ty
1	CLAMPER-UP	POM	1
2	BRIDGE	ABS	1
3	SCREW	2.6X10 PA	2
4	PLAT	φ16X0.6mm	1
5	MAGNET	φ16X3mm	1
6	CD DRIVER FRAME	ABS	1
7	CLAMPER-DOWN	POM	1
8	SLIDE	ABS	1
9	BELT PULLEY	φ24X1.2mm	1
10	PULLEY-GEAR	PP	1
11	BIG-GEAR	ABS	1
12	BASE	ABS	1
13	SCREW	1.7X4 PM	2
14	MOTOR	KRF-300CA-11440	1
15	TRAY	ABS	1
16	PULLEY	POM	1
17	PCB		1
18	REAR-DAMPER	YJ-125B	2
19	SCREW	2.6X8 PWA W=10	2
20	CD DRIVER	SONY313	1
21	FRONT-DAMPER	YJ-211B	2

9. Exploded view(DVD driver)

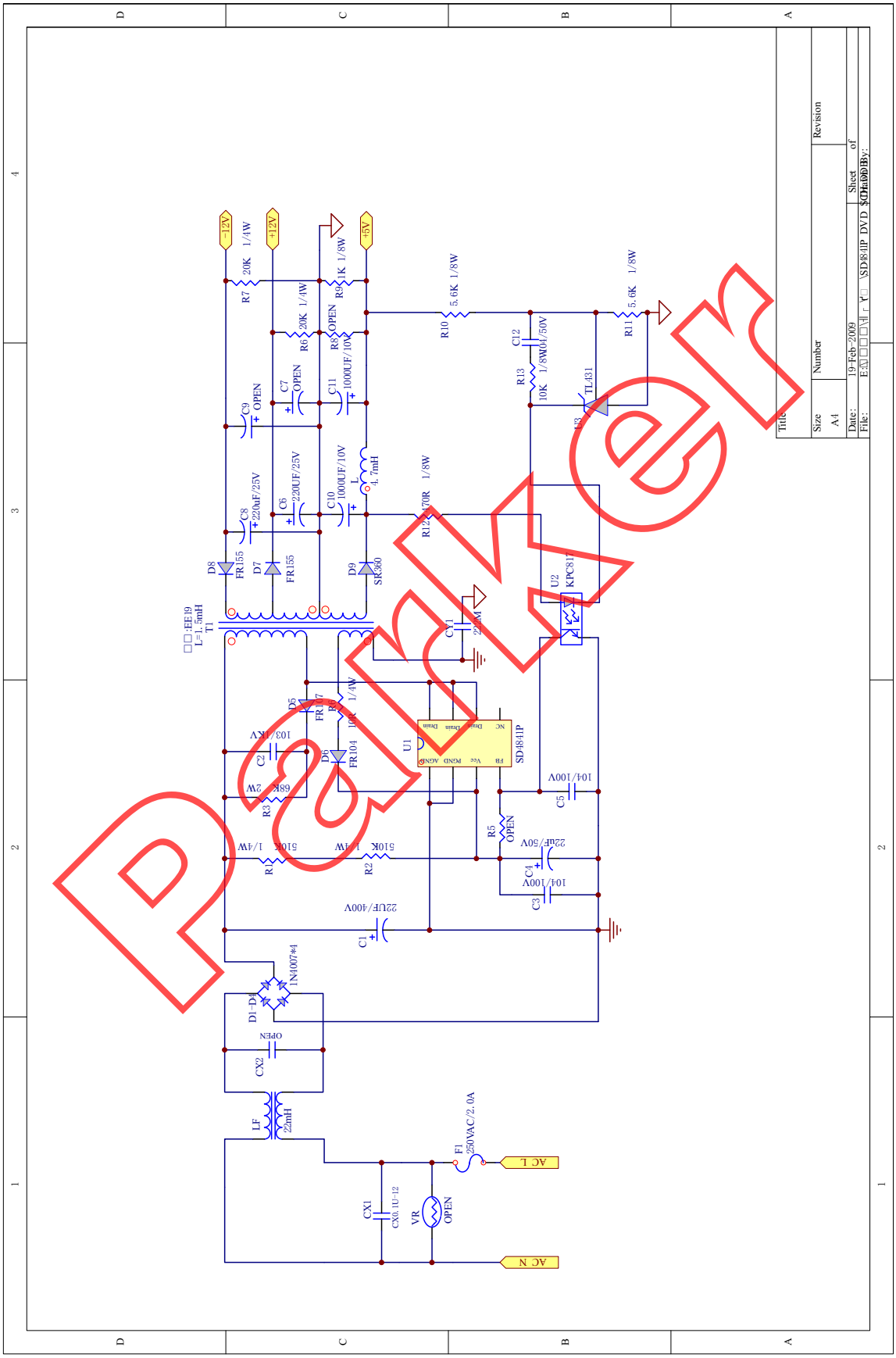


10. Remote control systems

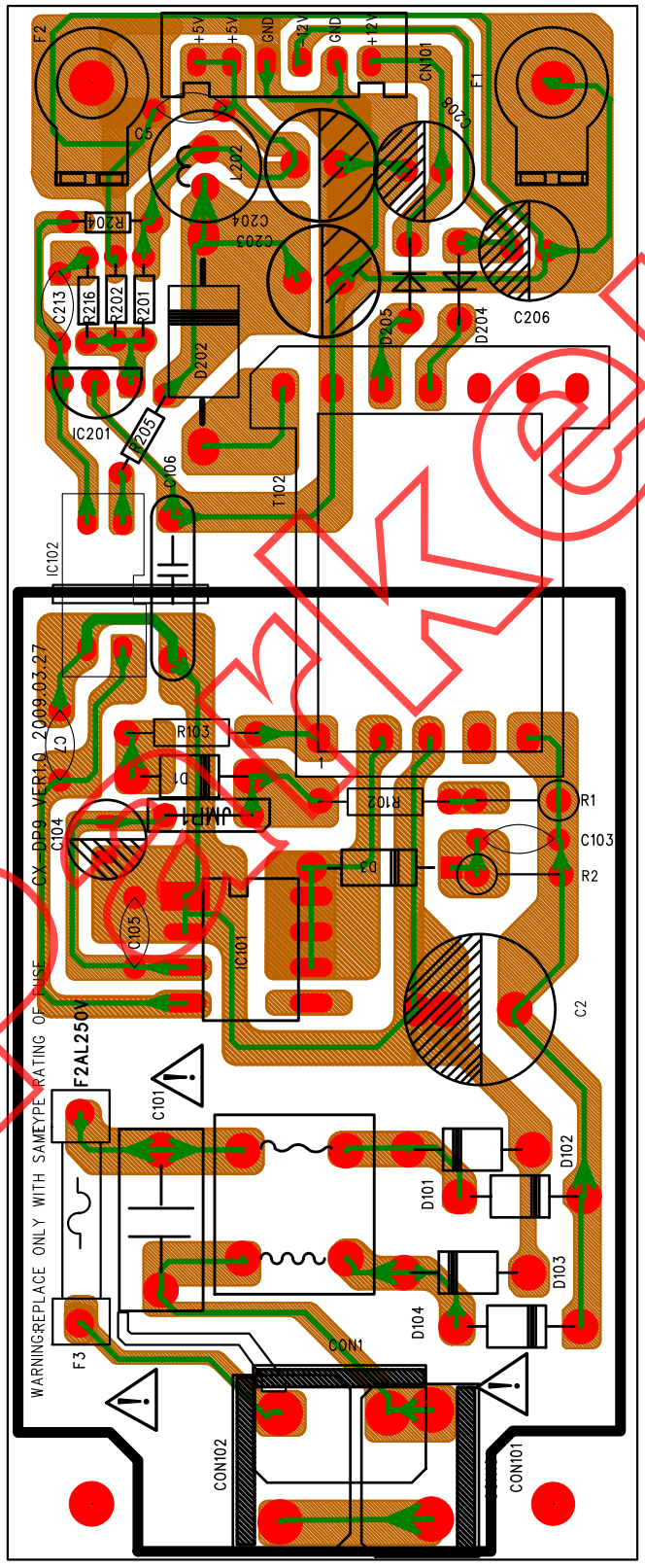
Application circuit



11.Power supply SCH



Power supply PCB



Power supply board Parts Lists

POWER BOM

Production：DVD POWER :CX-DP9				File No：001		
Ser/No	SPEC		Unit	Qty	Position	Remark
1	15.00DP90-10	PCB	L111*W43*D1.6MM	PCS	1	CX-DP9 VER：1.0 20090327
2	01.225683-00	Resistor	68K 1/2W ±5%	PCS	1	R2
3	01.245514-00	Resistor	510K 1/4W ±5%	PCS	2	R1 R102
4	01.245101-00	Resistor	100 ohm 1/4W ±5%	PCS	1	R103
5	01.A85982-00	Resistor	9.8K 1/8W ±1%	PCS	1	R202
6	01.A85103-00	Resistor	10K 1/8W ±1%	PCS	1	R201
7	01.285332-00	Resistor	3.3K 1/8W ±5%	PCS	1	R204
8	01.285103-00	Resistor	10K 1/8W ±5%	PCS	1	R216
9	01.285101-00	Resistor	100 ohm 1/8W ±5%	PCS	1	R205
10	50.000015-45	Jumper	ф0.45MM L=6MM	PCS	1	JMP1
11	02.684104-00	Capacitor	0.1UF/275V ±20%	PCS	1	C101(UL,VDE)
12	02.1A4103-00	Capacitor	103/1KV ±20%	PCS	1	C103
13	02.194222-00	Capacitor	222/400V ±20%	PCS	1	C106(UL,VDE)
14	02.294106-00	Electolytic	10UF/400V ±20% 10*16mm	PCS	1	C2
15	02.223108-00	Electolytic	1000U/10V ±20% 8*12mm	PCS	1	C203
16	02.223477-00	Electolytic	470U/10V ±20% 6*12mm	PCS	1	C204
17	02.233227-00	Electolytic	220U/16V ±20% 6*12mm	PCS	2	C208 C206
18	02.263226-00	Electolytic	22U/50V ±20%	PCS	1	C104
19	02.164104-00	Capacitor	104/50V ±20%	PCS	3	C7 C105 C213
20	04.304007-11	Diode	1N4007	PCS	4	D101 D102 D103 D104
21	04.300104-11	Diode	FR104	PCS	3	D1 D204 D205
22	04.300360-11	Diode	SR360	PCS	1	D202
23	04.300107-11	Diode	FR107	PCS	1	D3
24	R06.24841P-00	IC	SD4841P	PCS	1	IC101
25	R06.2PC817-00	IC	BPC817	PCS	1	IC102
26	06.200431-WL	IC	KA431ACZ	PCS	1	IC201
27	07.143903-19	Socket	3 Pin	PCS	1	CON1 (Have no power switch)
28	07.143903-19		3 Pin	PCS	2	CON101 CON102 (Have power switch)
29	08.420250-00	FUSE	F2A/AC 250VAC	PCS	1	F3(VDE)
30	03.234100-00	Inductance	10UH ±10%	PCS	1	L202
31	11.3J0611-02	filter	4PIN 30MH(JKY061102)	PCS	1	T101
32	14.2JK095-20	Transformer	JKY090520	PCS	1	T102
33	07.112506-19	Socket	6P 2.5mm	PCS	1	CN101
34	18.134000-TS	GND		PCS	1	F2

Silan
Microelectronics

SD484XP67K65

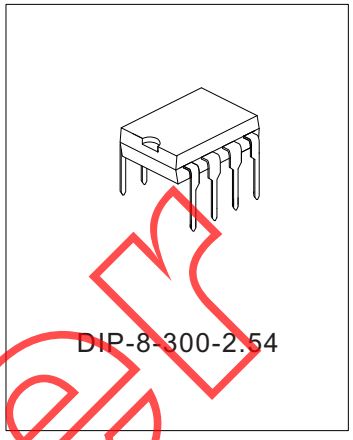
CURRENT MODE PWM CONTROLLER WITH BUILT-IN HIGH VOLTAGE MOSFET

DESCRIPTION

SD484XP67K65 is a current mode PWM controller with low standby power and low start current for power switch. In standby mode, the circuit enters burst mode to reduce the standby power dissipation.

The switch frequency is 67KHz with ±2.5 KHz jitter frequency for low EMI.

SD484XP67K65 includes under voltage lock-out, over voltage protection, leading edge blanking, over current protection and the temperature protection. The circuit will restart automatically until the system is normal after the protection is active.



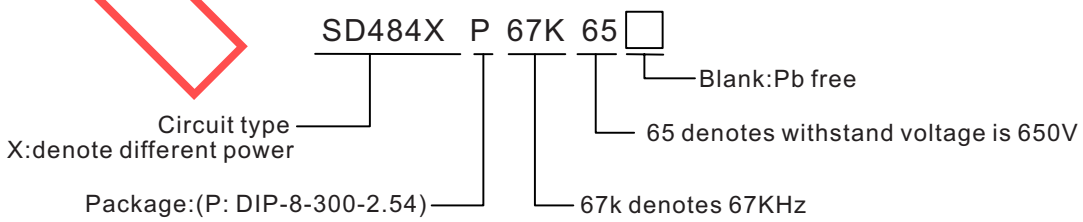
FEATURES

* Lower start-up current (Typ.6μA)
* Frequency jitter for low EMI
* Overcurrent protection
* Overvoltage protection
* Undervoltage lockout
* Built-in temperature protection
* Built-in high voltage MOSFET
* Auto restart mode
* Burst mode operation
* Cycle by cycle current limit

APPLICATIONS

* Switch power

ORDERING INFORMATION

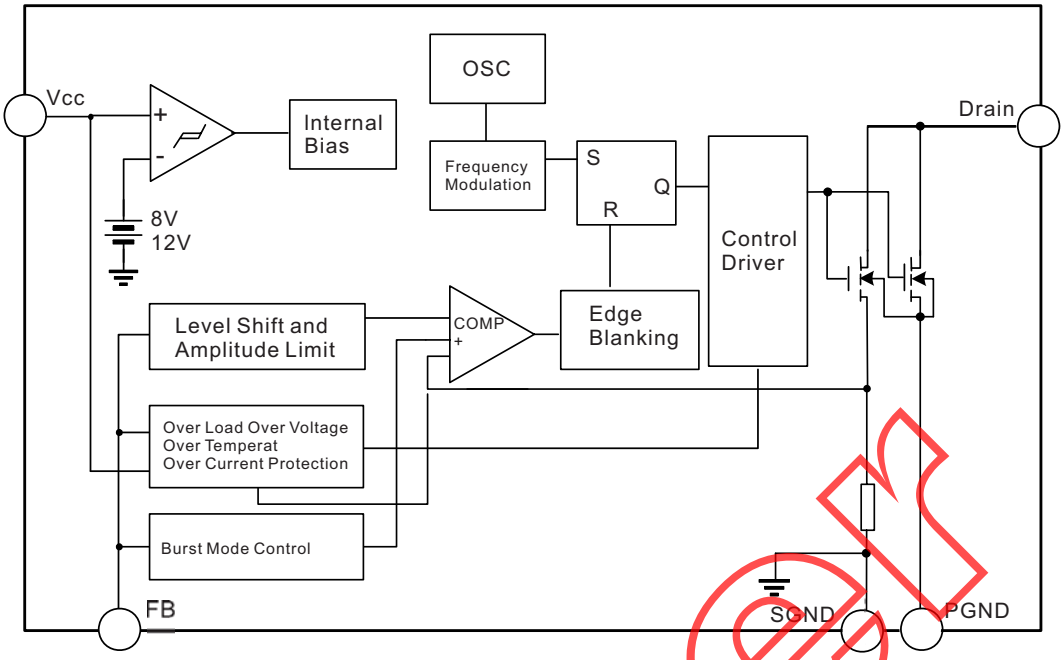


Part No.	Package	Marking	Material	Package Type
SD4841P67K65	DIP-8-300-2.54	SD4841P67K65	Pb free	Tube

TYPICAL OUPUT POWER CAPABILITY

Part No.	190~265VAC		85~265VAC	
	Adapter	Open	Adapter	Open
SD4841P67K65	10W	14W	8W	12W

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATING

Characteristics		Symbol	Rating	Unit
Drain-Gate Voltage (RGS=1MΩ)		V_{DGR}	650	V
Gate-Source (GND) Voltage		V_{GS}	±30	V
Drain Current Pulse (note1)	SD4841P67K65	I_{DM}	6	A
Continuous Drain Current (T_{amb}=25°C)	SD4841P67K65	I_D	1.5	A
Signal Pulse Avalanche Energy(note 2)	SD4841P67K65	E_{AS}	30	mJ
Power Supply Voltage		$V_{CC,MAX}$		V
Analog Input Voltage		V_{FB}	-0.3~ V_{SD}	V
Total Power Dissipation		P_D	1.5	W
		Darting	0.017	W/°C
Operating Junction Temperature		T_J	+160	°C
Operating Temperature		T_{amb}	-25~ +85	°C
Storage Temperature		T_{STG}	-55~+150	°C

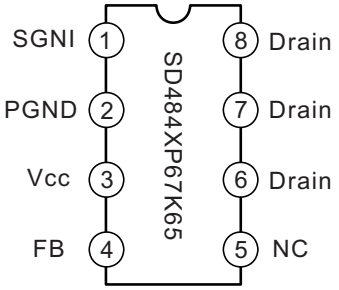
Note: 1. Pulse width is limited by maximum junction temperature.

2. L=51mH, starting T_j=25°C

PIN DESCRIPTION

Pin No.	Pin Name	I/O	Function description
1	SGND	-	Ground for control part.
2	PGND	-	MOSFET Ground.
3	Vcc	-	Power supply pin.
4	FB	I/O	Feedback input pin.
5	NC	-	Not connected.
6,7,8	Drain	O	Drain pins.

PIN CONFIGURATION



ELECTRICAL CHARACTERISTICS (sense MOSFET part, unless otherwise specified, Tamb=25°c)

Characteristics		Symbol	Test conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage		BV	V =0V, ID=50μA	650	--	--	V
Zero Gate Voltage Drain Current		IDSS	VDS=Max. VGS=0V	--	--	50	μA
			DS=0.8Max. VGS=0V amb=125°C	--	--	200	μA
Static Drain-Source On Resistance	SD4841P67K65	DS(ON)	VGS=10V, ID=0.5A	--	8.0	9.6	Ω
Input Capacitance	SD4841P67K65	Ciss	VGS=0V, VDS=25V, f=1MHz	--	250	--	pF
Output Capacitance	SD4841P67K65	Coss	VGS=0V, VDS=25V, f=1MHz	--	25	--	pF

ELECTRICAL CHARACTERISTICS (unless otherwise specified, Tamb=25°c)

Characteristics		Symbol	Test conditions	Min.	Typ.	Max.	Unit
Undervoltage Section							
Start Threshold Voltage		Vstart		11	12	13	V
Stop Threshold Voltage		Vstop		7	8	9	V
Oscillator Section							
Oscillate Frequency		FOSC		61	67	73	KHz
Frequency Jitter		FMOD		±1.5	±2.0	±2.5	KHz
Frequency Change With Temperature		--	25°C≤Tamb≤+85°C	--	±5	±10	%
Maximum Duty Cycle		Dmax		72	77	82	%
Feedback Section							
Feedback Source Current		IFB	0V≤VFB≤3V	0.7	0.9	1.1	mA
Shutdown Feedback Voltage		VSD		5.5	6.0	6.5	V
Shutdown Delay Current		Idelay	5V≤VFB≤VSD	3.5	5.0	6.5	μA
Current Limit							
Peak Current Limit	SD4841P67K65	Iover	Max. inductor current	0.67	0.75	0.83	A
Burst mode							
Burst Mode High Voltage		VBURH		0.4	0.5	0.6	V
Burst Mode Low Voltage		VBURL		0.25	0.35	0.45	V
Protection Section							
Overvoltage Protection		Vovp		18	19	--	V
Thermal Shutdown		Tsd		125	140	--	°C
Leading-edge Blanking Time		TLEB		200	--	--	ns
Total Standby Current							
Start Current		Istart	VCC=11V		6	20	μA
Supply Current (Control Part)		Iop	VCC=12V	1	3	5	mA

Description of the integrated circuits(TL431)

SMPS PROGRAMMABLE SHUNT REGULATOR (FAIRCHILD TL 431)

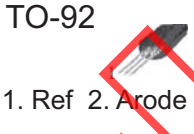
Features

* Programmable output voltage to 36volts
* Low dynamic output impedance 0.20 typical
* Sink current capability of 1.0 to 100mA
* Equivalent full-range temperature coefficient of 50 ppm ℃ typical
* Temperature compensated for operation over full rated operating temperature range
* Low output noise voltage
* Fast turn-on response

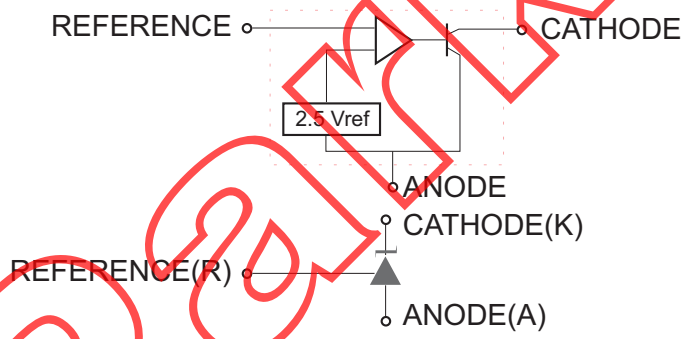
Description

The TL 431/TL 431A are three-terminal adjustable regulator series with a guaranteed thermal stability over applicable temperature ranges. The output voltage may be set to any value between VREF (approximately 2.5 volts) and 36 volts with two external resistors. These devices have a gypical dynamic output impedanceof 2.0W Active oupput circuity provides a very sharp turn-on characteristic making these devices excel lent replacement for zener diodes in many applications

TO-92



1. Ref 2. Arode 3. Cathode



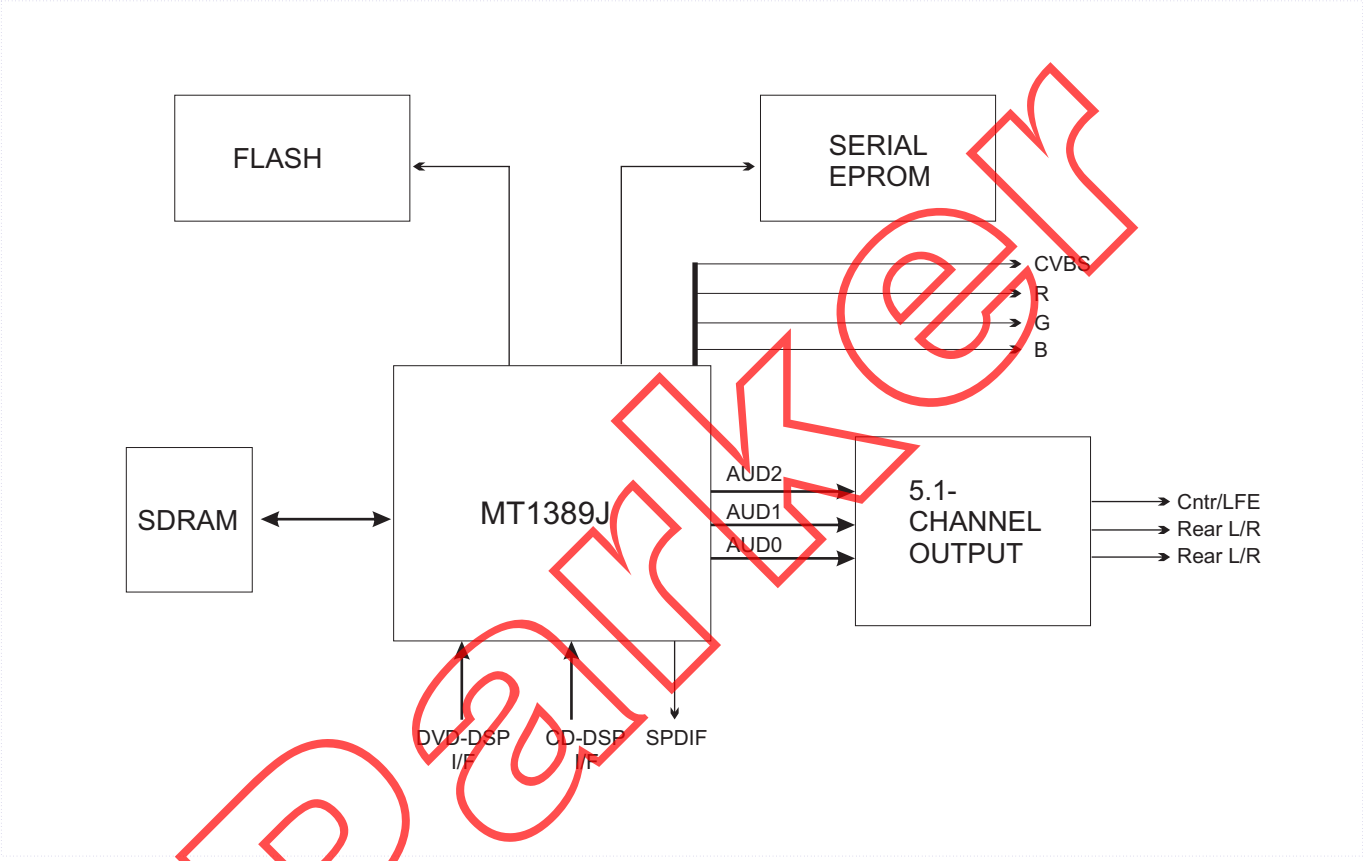
Absolute maximum ratings

Parameter	Symbol	Value	Unit
Cathode voltage	VKA	37	V
Cathode current Range (Continuous)	IKA	-100 ~ +150	MAI
Reference Input Current Range	IREF	0.05 ~ +10	MA
Power dissipation D,Z Sffix Package N Suffix Package	PD	 770 1000	 MW MW
Operating Temperature Range	TOPR	-25 ~ +85	℃
Storage Temperature Range	TSTG	-65 ~ +150	℃

Recommended Operating conditions

Parameter	Symbol	Value	Value	Value	Unit
Cathode voltage	VKA	VREF	-	36	V
Cathode Current	IKA	1.0	-	100	MA

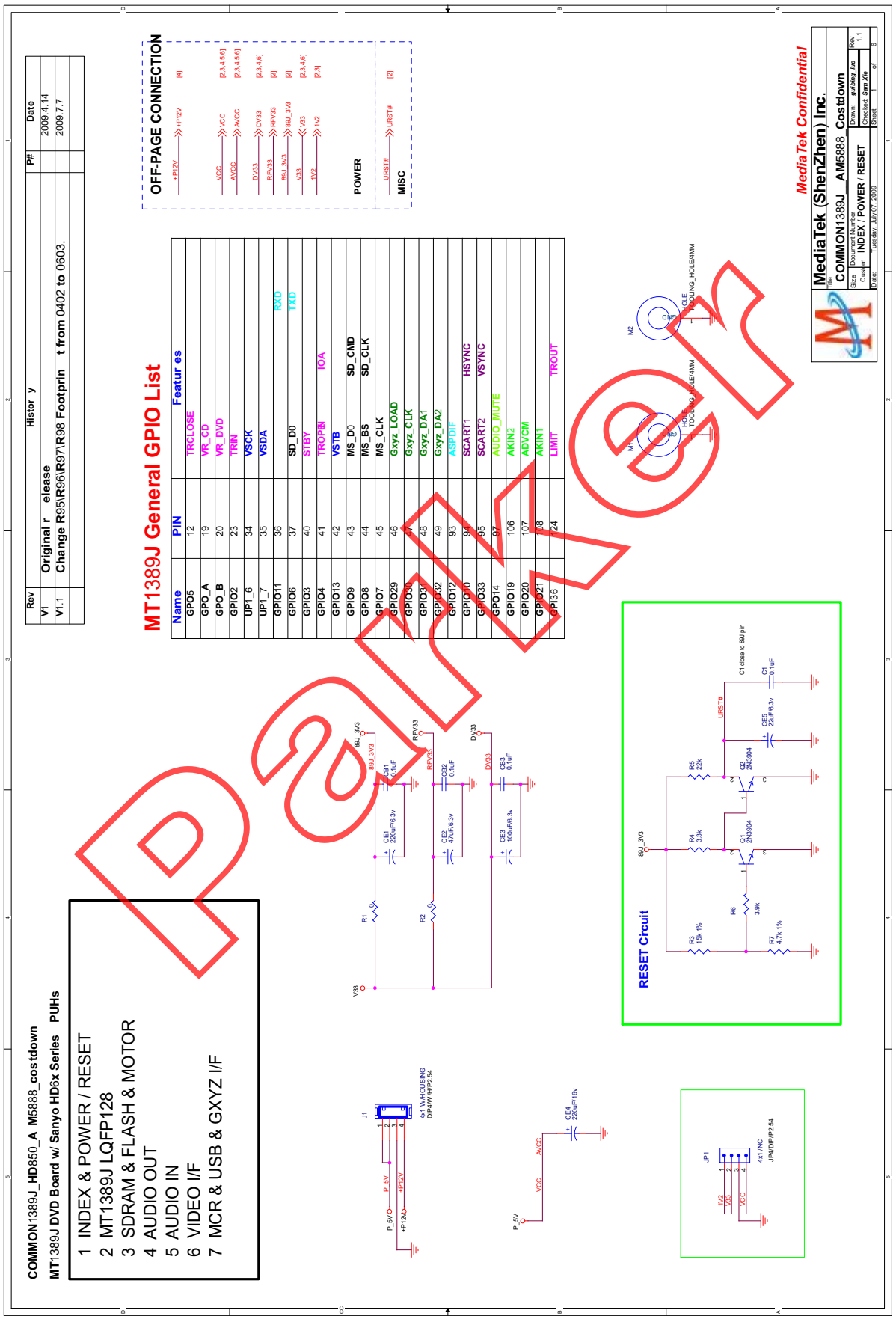
12.DVD MPEG board
FUNCTIONAL DESCRIPTIONS

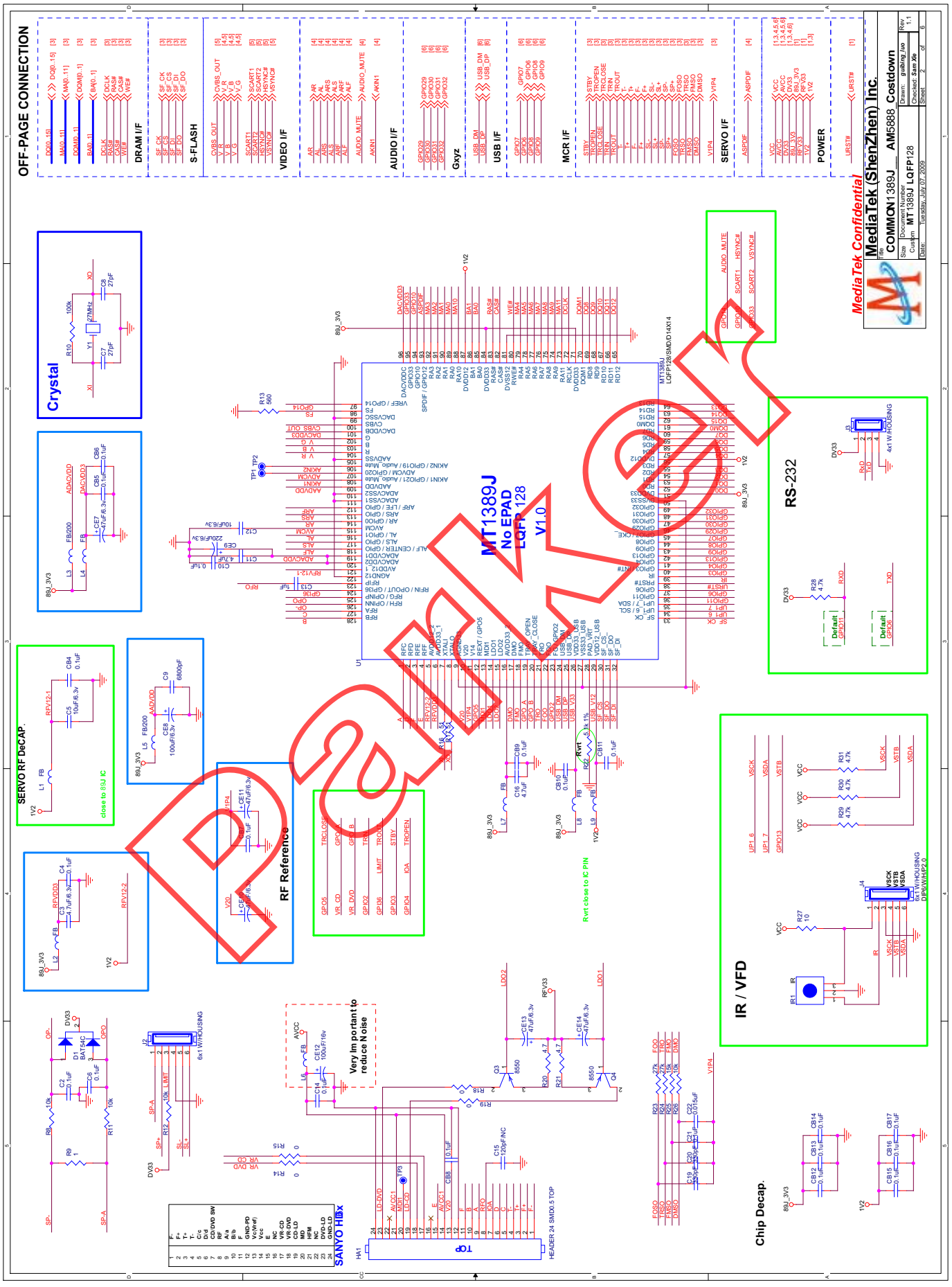


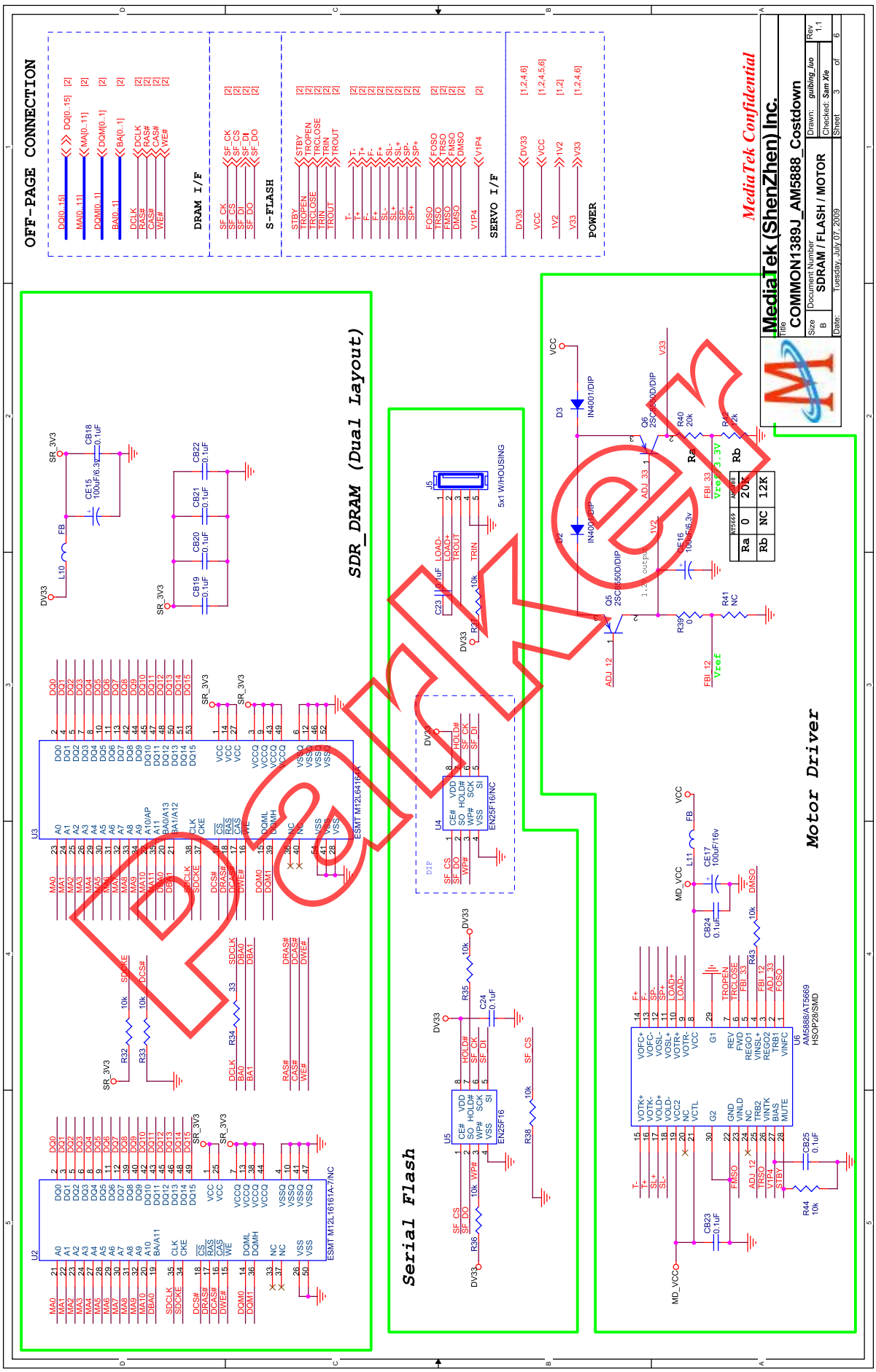
This board implements the back-end circuitry of a DVD player. It is composed of the following subsystems:

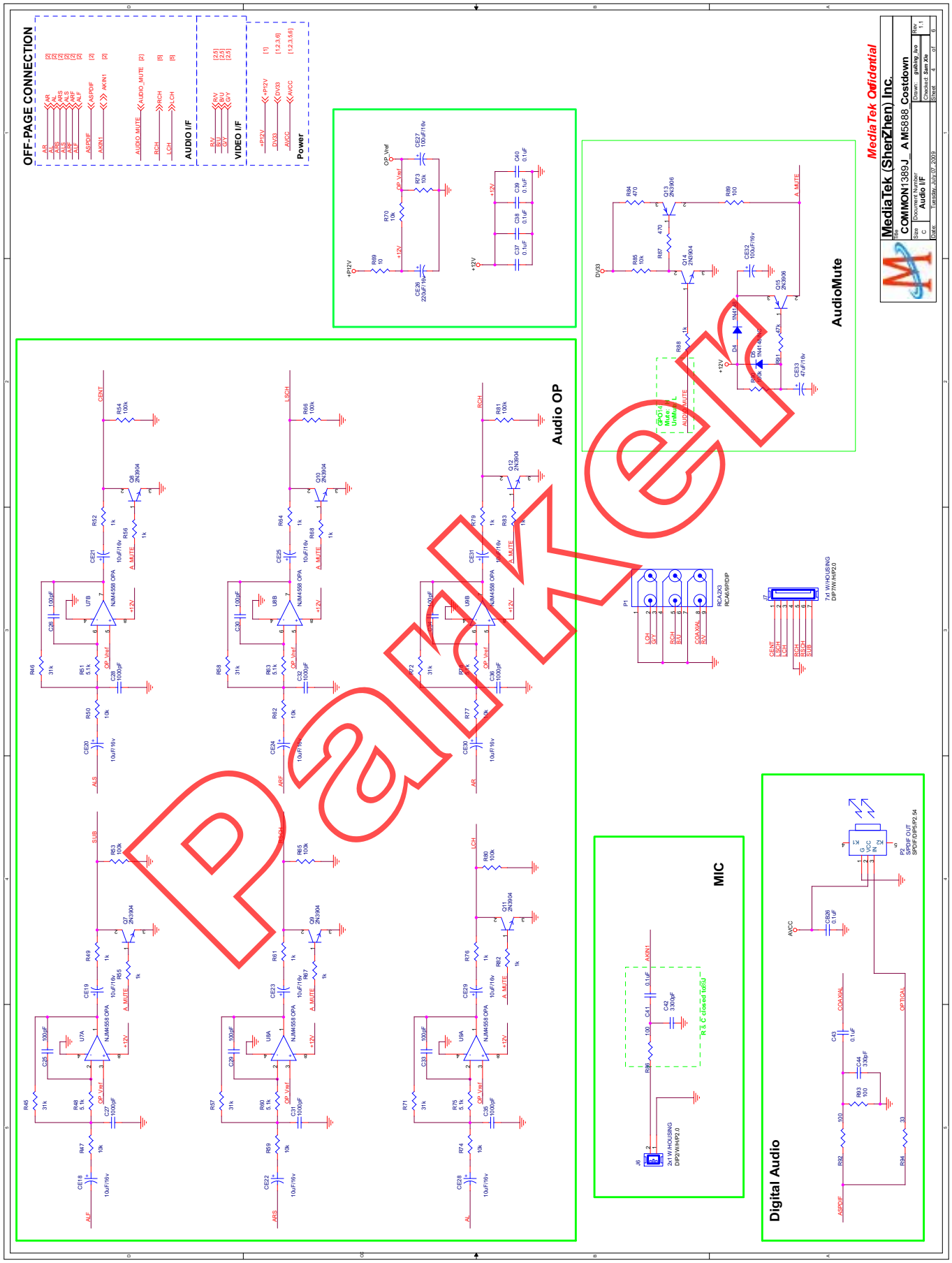
* Microcontroller which does main control to all other sub-blocks of the system including user interface, driver interface, audio/video output.
* Vaddis A/V Decoder IC decodes the bitstream coming from the DVD front-end drive, and Optionally performs audio and video effects.
* Audio Codec

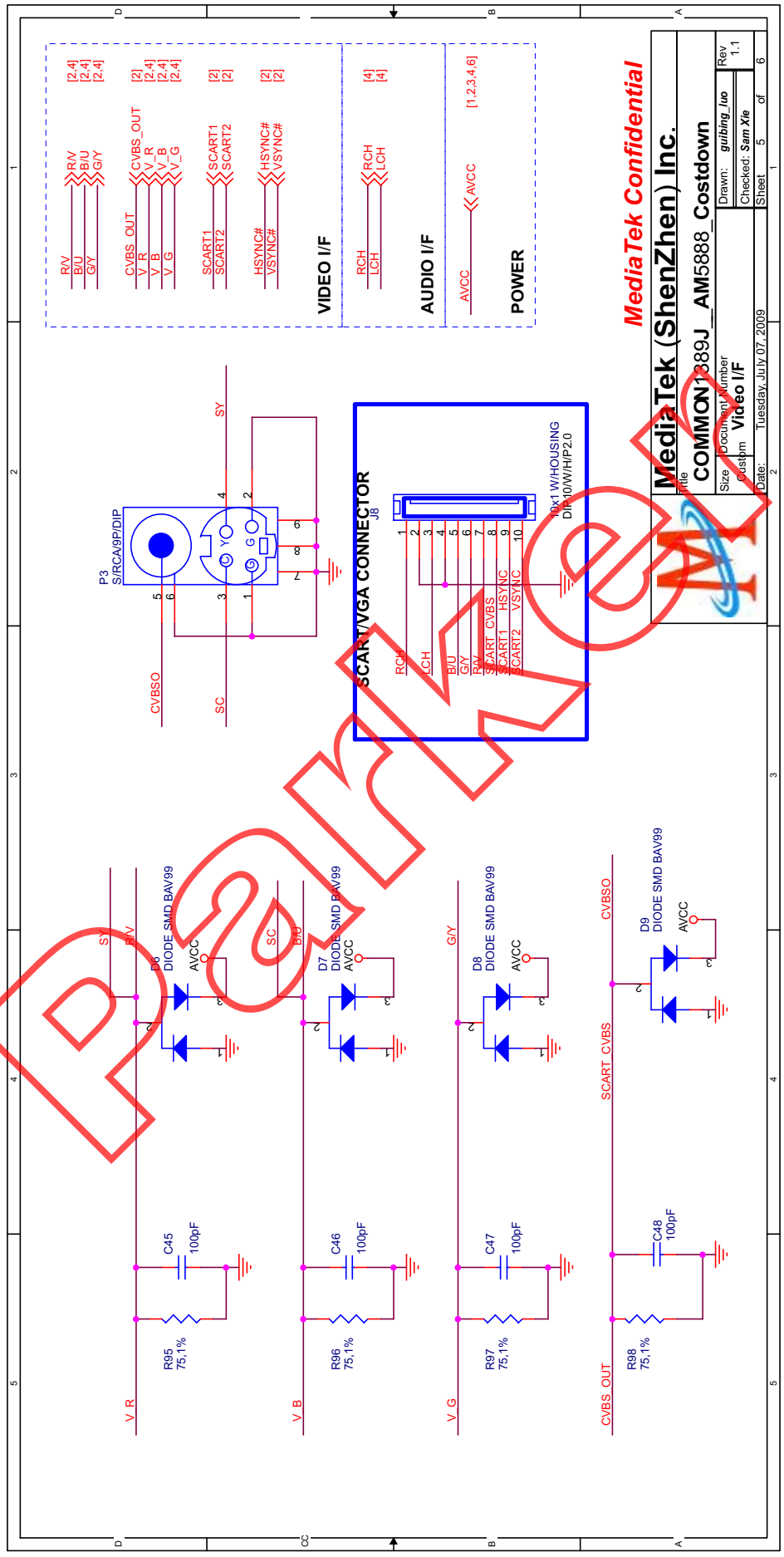
DVD MPEG board SCH

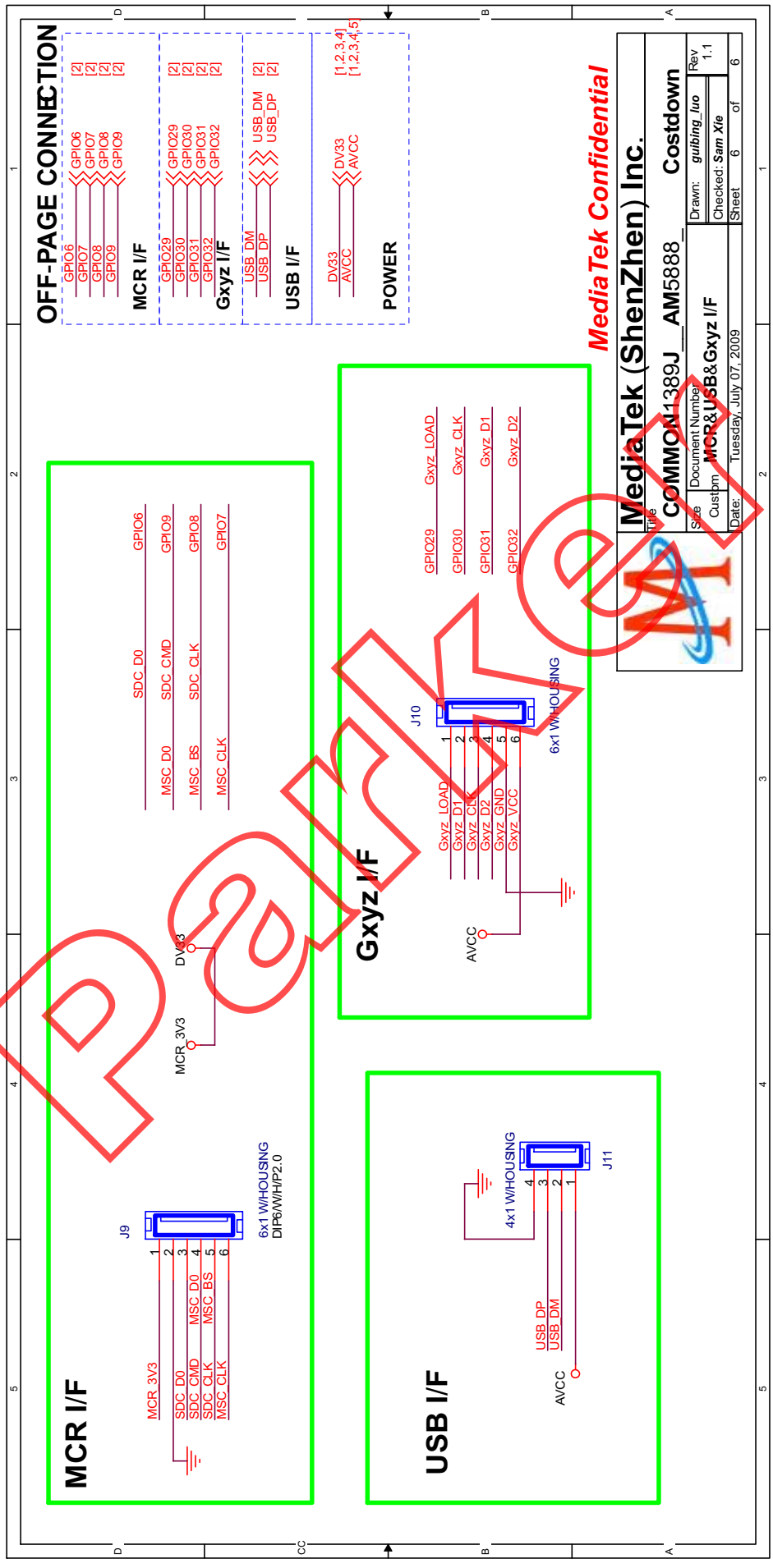



OFF-PAGE CONNECTION
DRAM I/F
S-FLASH
VIDEO I/F
AUDIO I/F
Gxyz
USB I/F
MCR I/F
SERVO I/F
POWER
Crystal
SERVO RF DeCAP.
RF Reference
RS-232
IR / VFD
Chip Decap.
MT1389J
No EPAD
LQFP 128
V1.0
SANYO HOP
MediaTek Confidential
MediaTek (ShenZhen) Inc.
COMMON1389J AM5888 Costdown
MT1389J LQFP128
Tuesday, July 07, 2009
Pb-free

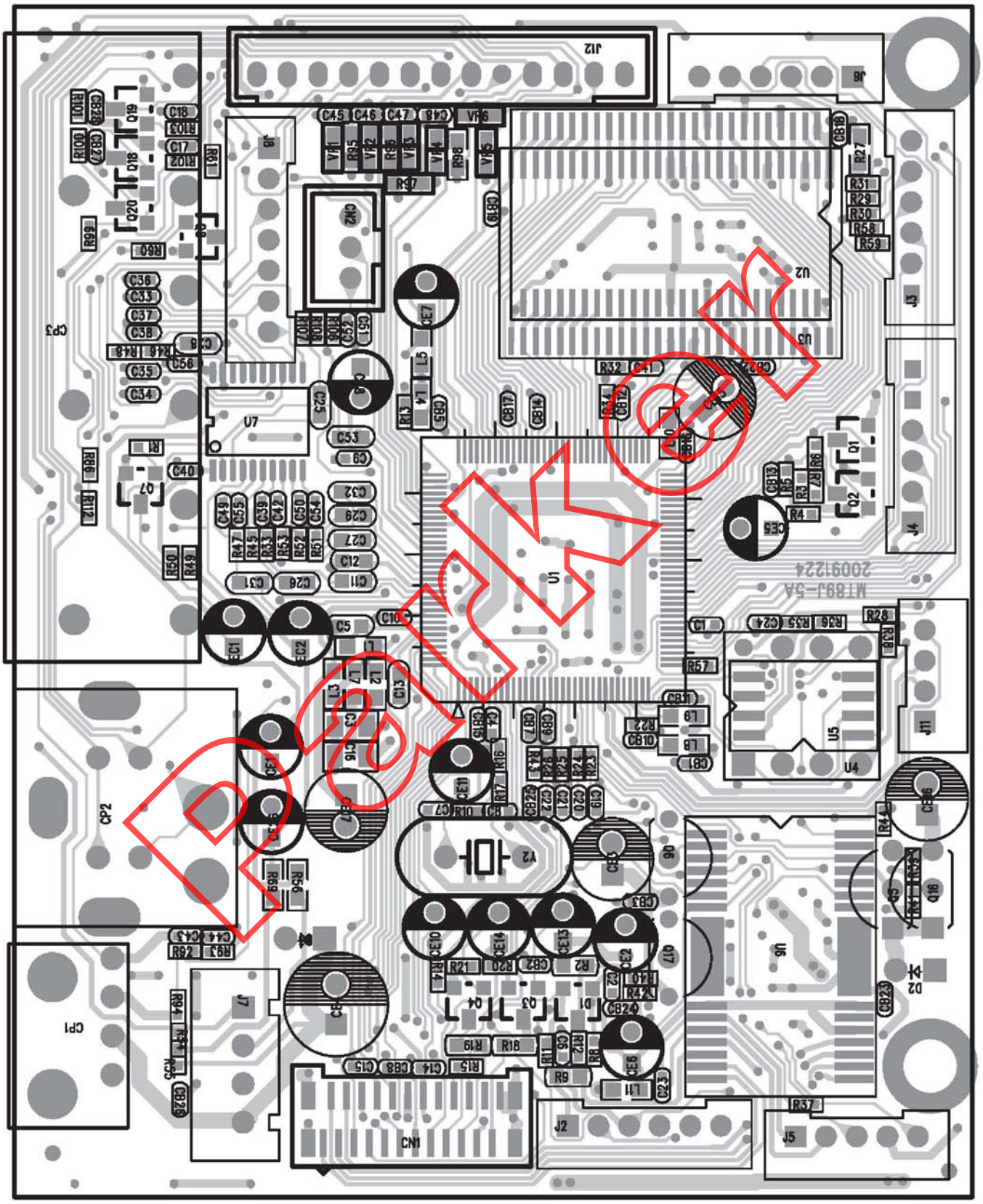

OFF-PAGE CONNECTION
DRAM I/F
S-FLASH
SERVO I/F
POWER
SDR_DRAM (Dual Layout)
Serial Flash
Motor Driver
MediaTek (ShenZhen) Inc.
COMMON1389J_AM5888_Costdown
SDRAM / FLASH / MOTOR
MediaTek Confidential
Berrker


OFF-PAGE CONNECTION
AUDIO I/F
VIDEO I/F
Power
Audio OP
MIC
Digital Audio
AudioMute
MediaTek Confidential
MediaTek (ShenZhen) Inc.
COMMON1389J_A M5888_Costdown
Audio I/F
Parker

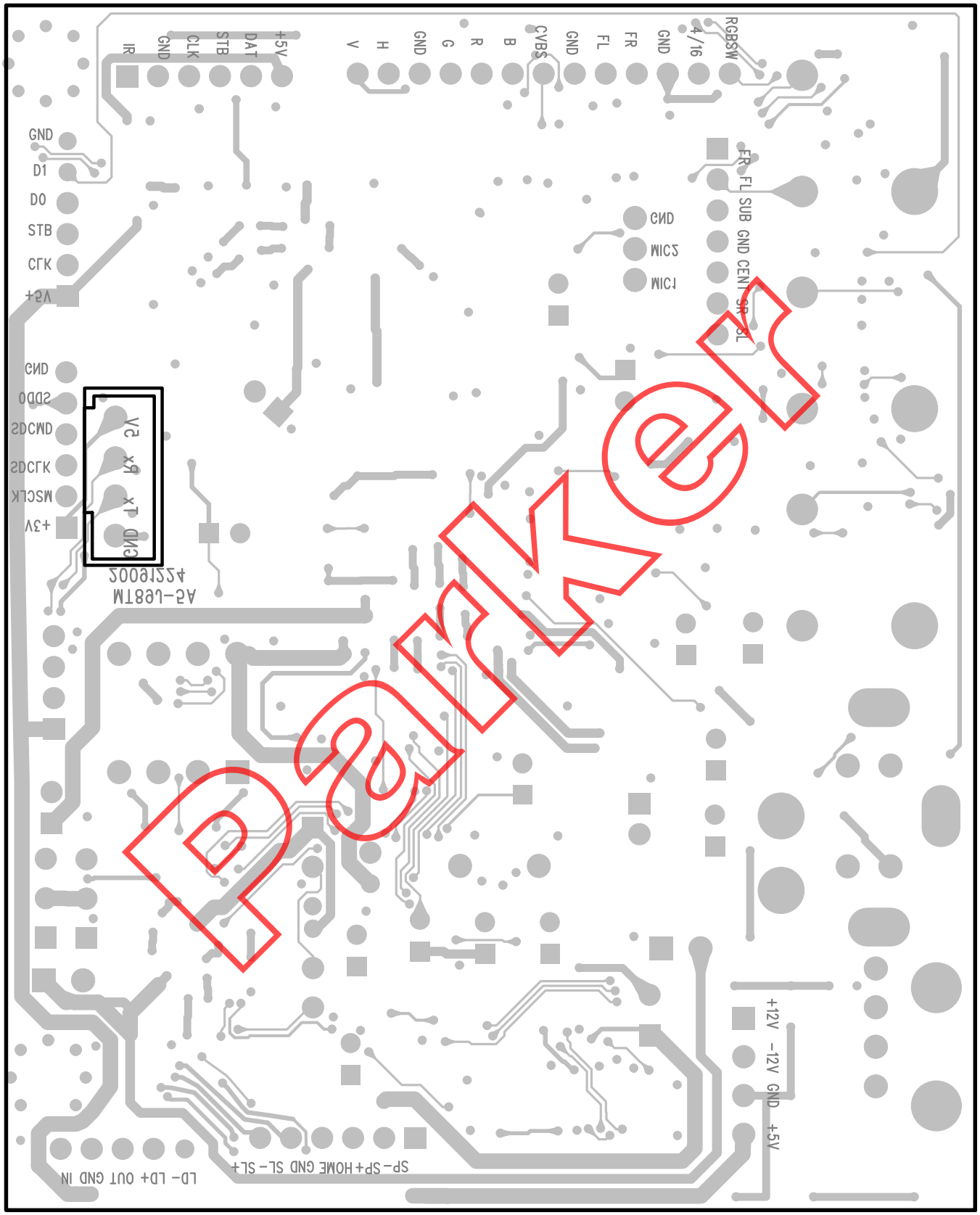

MediaTek Confidential
MediaTek (ShenZhen) Inc.
COMMON1389J_AM5888_Costdown
Video I/F
Tuesday, July 07, 2009
VIDEO I/F
AUDIO I/F
POWER
SCART/VGA CONNECTOR
P3
S/RCA/9P/DIP
J8
10X1 W/HOUSING
DIP-10/W/H/P2.0
DIODE SMD BAV99
CVBSO
SC
SY
V_R
V_B
V_G
CVBS_OUT
SCART_CVBS
AVCC
R95 75,1%
R96 75,1%
R97 75,1%
R98 75,1%
C45 100pF
C46 100pF
C47 100pF
C48 100pF
D6
D7
D8
D9


OFF-PAGE CONNECTION
MCR I/F
GPIO6 [2]
GPIO7 [2]
GPIO8 [2]
GPIO9 [2]
Gxyz I/F
GPIO29 [2]
GPIO30 [2]
GPIO31 [2]
GPIO32 [2]
USB I/F
USB_DM [2]
USB_DP [2]
POWER
DV33 [1,2,3,4]
AVCC [1,2,3,4,5]
MediaTek Confidential
MediaTek (ShenZhen) Inc.
Title
COMMON1389J__AM5888_ Costdown
Size
Document Number
MCR&USB&Gxyz I/F
Rev 1.1
Drawn: guibing_luo
Checked: Sam Xie
Date: Tuesday, July 07, 2009
Sheet 6 of 6
MCR I/F
SDC_D0 GPIO6
SDC_CMD GPIO9
SDC_CLK GPIO8
MSC_CLK GPIO7
MSC_D0
MSC_BS
MCR_3V3
DV33
J9
6x1 W/HOUSING
DIP6/W/H/P2.0
Gxyz I/F
GPIO29 Gxyz_LOAD
GPIO30 Gxyz_CLK
GPIO31 Gxyz_D1
GPIO32 Gxyz_D2
J10
6x1 W/HOUSING
Gxyz_LOAD
Gxyz_D1
Gxyz_CLK
Gxyz_D2
Gxyz_GND
Gxyz_VCC
AVCC
USB I/F
J11
4x1 W/HOUSING
USB_DP
USB_DM
AVCC

Electrical Diagrams and Print-layoutsDecode Board(For info only)



CY17-8202R VER1.0 TOP.PCB



CY17-8202R VER1.0 BOTTOM.PCB

DVD MPEG board Parts Lists

BOM

Production :				File No:		
No	Number	SPEC		Unit	Qty	Position
1	010101BA000000	SMT Resistor	0402, ±5%, 1/10W, 000000	PCS	4	R55 R39 R15 R14
2	010102BA000000	SMT Resistor	0603, ±5%, 1/10W, 000000	PCS	3	R2 R19 R18
3	010102BA0001R0	SMT Resistor	0603, ±5%, 1/10W, 0001R0	PCS	1	R9
4	010101BA0004R7	SMT Resistor	0402, ±5%, 1/10W, 0004R7	PCS	2	R21 R20
5	010102BA000100	SMT Resistor	0603, ±5%, 1/10W, 000100	PCS	2	R27 R69
6	010101BA000330	SMT Resistor	0402, ±5%, 1/10W, 000330	PCS	3	R94 R57 R34
7	010101BA000510	SMT Resistor	0402, ±5%, 1/10W, 000510	PCS	2	R17 R16
8	010102BA000750	SMT Resistor	0603, ±5%, 1/10W, 000750	PCS	4	R95 R96 R97 R98
9	010101BA000101	SMT Resistor	0402, ±5%, 1/10W, 000101	PCS	2	R93 R92
10	010102BA000471	SMT Resistor	0603, ±5%, 1/10W, 000471	PCS	1	R56
11	010101BA000561	SMT Resistor	0402, ±5%, 1/10W, 000561	PCS	1	R13
12	010101BA000751	SMT Resistor	0402, ±5%, 1/10W, 000751	PCS	3	R108 R107 R106
13	010101BA000102	SMT Resistor	0402, ±5%, 1/10W, 000102	PCS	2	R100 R99
14	010101BA000332	SMT Resistor	0402, ±5%, 1/10W, 000332	PCS	1	R4
15	010101BA000392	SMT Resistor	0402, ±5%, 1/10W, 000392	PCS	1	R6
16	010101BA000472	SMT Resistor	0402, ±5%, 1/10W, 000472	PCS	6	R7 R31 R30 R29 R28 R101
17	010101BA000512	SMT Resistor	0402, ±5%, 1/10W, 000512	PCS	1	R22
18	010101BA000682	SMT Resistor	0402, ±5%, 1/10W, 000682	PCS	6	R53 R52 R51 R47 R45 R33
19	010101BA000103	SMT Resistor	0402, ±5%, 1/10W, 000103	PCS	16	R44 R43 R38 R37 R36 R35 R32 R26 R12 R11 R8 R50 R49 R1 R103 R102
20	010101BA000123	SMT Resistor	0402, ±5%, 1/10W, 000123	PCS	1	R42
21	010101BA000153	SMT Resistor	0402, ±5%, 1/10W, 000153	PCS	4	R3 R25 R48 R46
22	010101BA000203	SMT Resistor	0402, ±5%, 1/10W, 000203	PCS	1	R40
23	010101BA000223	SMT Resistor	0402, ±5%, 1/10W, 000223	PCS	1	R5
24	010101BA000273	SMT Resistor	0402, ±5%, 1/10W, 000273	PCS	2	R24 R23
25	010101BA000104	SMT Resistor	0402, ±5%, 1/10W, 000104	PCS	1	R10
26	020101BB000330	Chip Capacitor	0402, ±5%, 16V, 000330	PCS	2	C8 C7
27	020101BB000470	Chip Capacitor	0402, ±5%, 16V, 000470	PCS	6	C38 C37 C36 C35 C34 C33
28	020101BB000101	Chip Capacitor	0402, ±5%, 16V, 000101	PCS	12	C48 C47 C46 C45 C55 C54 C50 C49 C42 C39 C18 C17
29	020101CB000331	Chip Capacitor	0402, ±10%, 16V, 000331	PCS	3	C44 C20 C19
30	020101CB000682	Chip Capacitor	0402, ±10%, 16V, 000682	PCS	1	C9
31	020101CB000103	Chip Capacitor	0402, ±10%, 16V, 000103	PCS	2	C52 C51
32	020101EB000153	Chip Capacitor	0402, +80-20%,16V,000153	PCS	1	C22
33	020101EB000104	Chip Capacitor	0402, +80-20%,16V,000104	PCS	36	CB26 CB25 CB24 CB23 CB22 CB19 CB18 CB17 CB16 CB15 CB14 CB13 CB12 CB11 CB10 CB9 CB8 CB7 CB5 CB3 CB2 CB1 C56 C43 C40 C24 C23 C21 C14 C10 C6 C4 C2 C1 CB28 CB27
34	020102EB000105	Chip Capacitor	0603,+80-20%,16V,000105	PCS	4	C13 C28 C25 C53
35	020102EB000225	Chip Capacitor	0603, +80-20%,16V,000225	PCS	8	C5 C32 C31 C29 C27 C26 C11 C12
36	020103EB000475	Chip Capacitor	0805, +80-20%, 16V,000475	PCS	2	C16 C3
37	020207EC000106	Electolytic capacitor	4*7, +80-20%, 25V, 000106	PCS	2	EC2 EC1
38	020207EC000226	Electolytic capacitor	4*7, +80-20%, 25V, 000226	PCS	1	CE5
39	020207EB000476	Electolytic capacitor	4*7, +80-20%, 16V, 000476	PCS	10	CE1 CE8 CE26 CE6 CE7 CE10 CE14 CE11 CE2 CE13
40	020208EB000107	Electolytic capacitor	5*7, +80-20%, 16V, 000107	PCS	4	CE17 CE3 CE16 CE15
41	020209EB000227	Electolytic capacitor	6.3*7, +80-20%, 16V,000227	PCS	1	CE4
42	030202XX0FB60R	Bead	0603, 0FB60R	PCS	10	L5 L3 L2 L9 L8 L7 L4 L11 L10 L1
43	041002XX000024	ESD diode	0603, SESD0603E050M24	PCS	6	VR6 VR5 VR4 VR3 VR2 VR1
44	040602XA004004	Diode	DIP, X, 0.5W, 004004	PCS	2	D3 D2
45	040503XABAT54C	SMT Transistor	SOT23, X, 0.5W, BAT54C	PCS	1	D1

No	Number	SPEC		Unit	Qty	Position
46	050103XA003904	SMT Transistor	SOT23，X，0.5W，003904	PCS	3	Q1 Q2 Q7
47	050103XA08050D	SMT Transistor	SOT23，X，0.5W，08050D	PCS	2	Q20 Q18
48	050103XA08550D	SMT Transistor	SOT23，X，0.5W，08550D	PCS	3	Q4 Q3 Q19
49	050201XESS8550	Transistor	TO92，X，1W，SS8550	PCS	4	Q17 Q16 Q6 Q5
50	070301DB000024	FPC Socket	0.5MM，000024	PCS	1	CN1
51	070600XX000053	RCA Socket	AV6	PCS	1	CP3
52	070500XX000051	Socket	S-video,video	PCS	1	CP2
53	070400XX000056	optical	X，X，000056	PCS	1	CP1
54	070104XX000003	Socket	2.0MM，X，X，000003	PCS	1	CN2
55	070104XX000004	Socket	2.0MM，X，X，000004	PCS	1	J11
56	070105XX000004	Socket	2.54MM，X，X，000004	PCS	1	J7
57	070104XX000005	Socket	2.0MM，X，X，000005	PCS	1	J5
58	070104XX000006	Socket	2.0MM，X，X，000006	PCS	4	J4 J6 J2 J3
59	070104XX000007	Socket	2.0MM，X，X，000007	PCS	1	J8
60	070104XX000013	Socket	2.0MM，X，X，000013	PCS	1	J12
61	070205XX000008	IC Socket	2.54MM，DIP-8	PCS	1	U4
62	060109XX01389J	ASIC	LQFP-128，X，X，1389J	PCS	1	U1
63	060306XXES1*16	SDRAM	TSOP50（1*16）ES1*16	PCS	1	U2
64	060608XXCD5888	MOTOR DRIVER	HSOP28，X，X，CD5888	PCS	1	U6
65	061044XXSA7401	IC	SSOP-20，X，X，SD7401	PCS	1	U7
66	060201XXE25F80	FLASH	DIP-8，X，X，E25F80	PCS	1	U4
67	090102AX000276	Crystal	UC-49S，±20ppm，000276	PCS	1	Y2
68	100203CX89J-5A	PCB	1.2mm，X，MT89J-5A	PCS	1	