ACER Monitor SA220Q

LIFECYCLE EXTENSION GUIDE





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Safety Notice

Any person attempting to service this chassis must familiarize with the chassis and be aware of the necessary safety precautions to be used when serving electronic equipment containing high voltage



Important Safety Notice

Product Announcement:

This product is certificated to meet RoHS Directive and Lead-Free produced definition. Using approved critical components only is recommended when the situation to replace defective parts. Vender assumes no liability express or implied, arising out of any unauthorized modification of design or replacing non-RoHS parts. Service providers assume all liability.

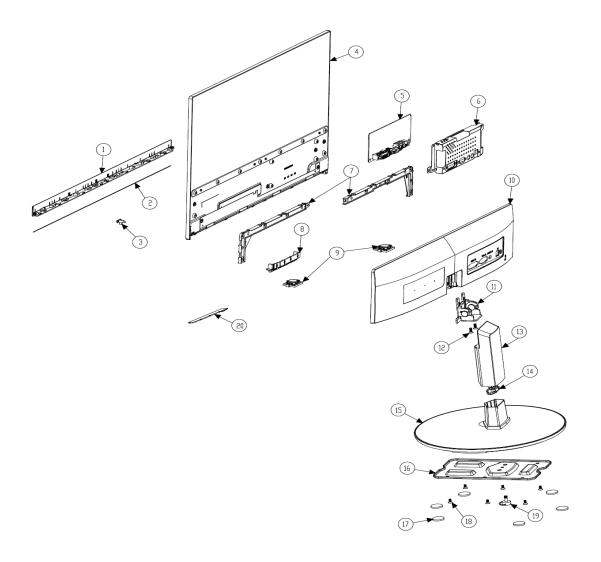
Qualified Repairability:

Proper service and repair is important to the safe, reliable operation of all series products. The service providers recommended by vender should being aware of notices listed in this service manual in order to minimize the risk of personal injury when perform service procedures. Furthermore, the possible existed improper repairing method may damage equipment or products. It is recommended that service engineers should have repairing knowledge, experience, as well as appropriate product training per new model before performing the service procedures.

NOTICE:

- ! To avoid electrical shocks, the products should be connect to an authorized power cord, and turn off the master power switch each time before removing the AC power cord.
- ! To prevent the product away from water or exposed in extremely high humility environment.
- ! To ensure the continued reliability of this product, use only original manufacturer's specified parts.
- ! To ensure following safety repairing behavior, put the replaced part on the components side of PWBA, not solder side.
- ! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to screw and unscrew screws.
- ! Using Lead-Free solder to well mounted the parts.
- ! The fusion point of Lead-Free solder requested in the degree of 220°C.

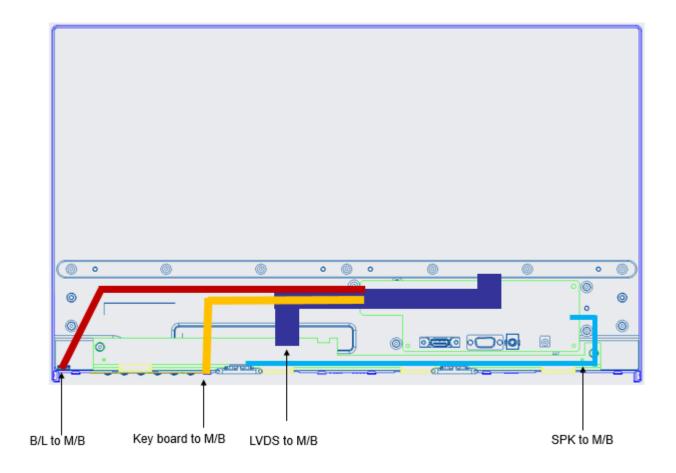
1. Exploded Diagram



20.	R352700120156	DISPLAY BD ASS'Y(R271H)(R2)	1						
19.	R172096041020	MAC. SCREW HANDLE M4.0*10.0L,NI	1						
18.	172130030620	TAP. SCREW-TF #3.0×6.0L,Ni	6						
17.	R170110000200	BASE FOOT (SILICON RUBBER/D16.0*2.0t) (Black)	6	Rubber					
16.	R171201001260	BASE BKT (SECC 1.0T) (SA0&HA0)	1	SECC					
15.	R170105065010	BASE (94-HB/J13417B5XSA0)	1	PA757					
14.	171201020481	BASE NECK BKT(SECC 1.2tX(s220HQL)	1	SECC					
13.	R170105036012	BASE NECK(ABS 94-HB/K21411)(G227HQL)	1	PA757					
12.	172050030850	MAC. SCREW-MI M3.0*8.0L,BLK-NI	1						
11.	R171209000730	Hinge Ass'y (SA220)	1	SECC					
10.	R170102056021	REAR COVER(ABS 94-HB/J13417B5)(R221Q bmd)	1	PA757					
09.	R033502040230	SPK 2W 4ohn 470/230nn (P2822KMG04E-1-9JB) VECO for R271 LF	1						
08.	R170104017010	DISPLAY KEY(ABS 94-HB/J13417B5XR271)	1	PA757					
07.	R170119035011/5021	Frame_L/R(ABS 94-HB/J13417B5) (R221 Q)	各1	PA757					
06.	R171201001021	SHIELDING (SECC 0.5T)(bmd/CR271)	1	SECC					
05.	R352227820150	MAIN BD ASSY SA2200 bmd(LM215WF3-RSAR7) ES7JJ no ES logo	1						
04.	LM215WF3-RSAR7	ES7,0 LM215WF3-RSAR7 R221,Blade V AD2 215W	1						
03.	R170107002240	LED LENS(PC-122)(R271)	1	PC	TRANSPARENT				
02.	R194718000300	GASKET(L490*W4*0.6)	1	SPONGE					
01.	R170101029010	FRONT DECO(ABS 94-HB/J13417B5)(R221 Q)	1	PA757	BLACK				
ND.	PART NO.	DESCRIPTION	QTY	MATERIAL	COLOR FINISH	NOTE			
This	This drawing is property of RAKEN Technology Ltd.								

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2. Wiring Connectivity diagram



3. Mechanical Instruction

Tools Required

List the type and size of the tools that would typically can be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description:

- working table
- Screw-driver
- Knife
- glove
- cleaning cloth
- ESD protection

4. Assembly and Disassembly Procedures

Disassembly ProcedureStep. 1 Pull the base & stand assembly out



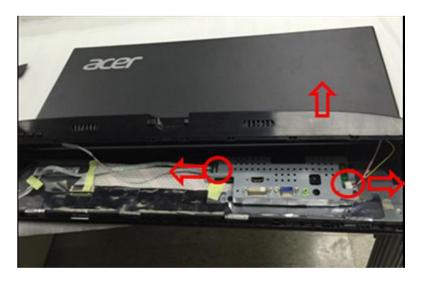
Step.2 Unscrew two screws at the I/O area



Disassemble rear cover by a thin plastic tool from a slot at the bottom of rear cover



Step 4. Pull up the rear cover and puul out all connectors



Step.5 Disassemble deco cover.



Step.6 Unscrew PCBA's screws and disassemble frame L&R.







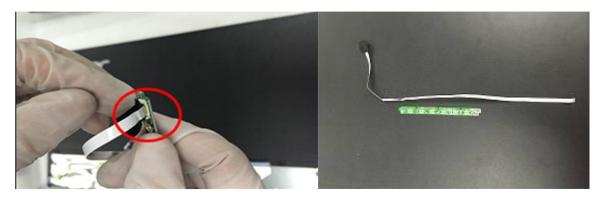


Step.7 Remove all cables from LCM

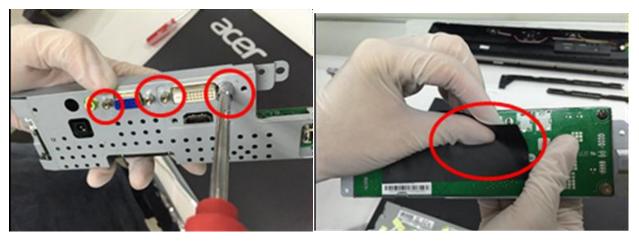




Step.8 Remove FFC from display board



Step.9 Unscrew hex nuts and six screws and remove main board PCBA from main shielding.





Step.10 Unscrew the screw and separate base &neck assembly



Step.11 Remove six silicon rubbers



Step.12 Unscrew six screws and separate base assembly



Step.13 Unscrew two screws and remove bracket



Step.14 Unscrew two screw and separate HINGE assembly





> Assembly Procedure

Step1. Assembly 8 FFC to key board



Step2. Assembly key board to rear cover



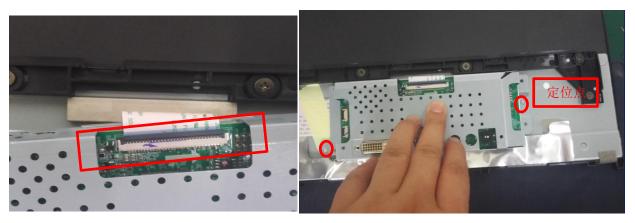
Step3. Assemble deco cover to LCM



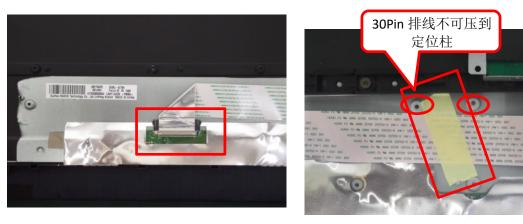
Step4. Assemble frame L&R and lock crews to fix



Step5. Assembly main board into shielding and insert 30pin FFC to MB, put main board on LCM.



Step6. Insert 30 pin LVDS FFC to LCM, then use yellow tape to tape FFC.



Step7. Lock crews to fix MB



Step8. Insert 10pin FFC to LCM and LCM and inert 30pin FC to panel, then use yellow tape to fix FFC



Step9. Use Al taple the tape shielding and LCM.



Step10. Insert 8pin FFC to MB and assembly rear cover with LCM .

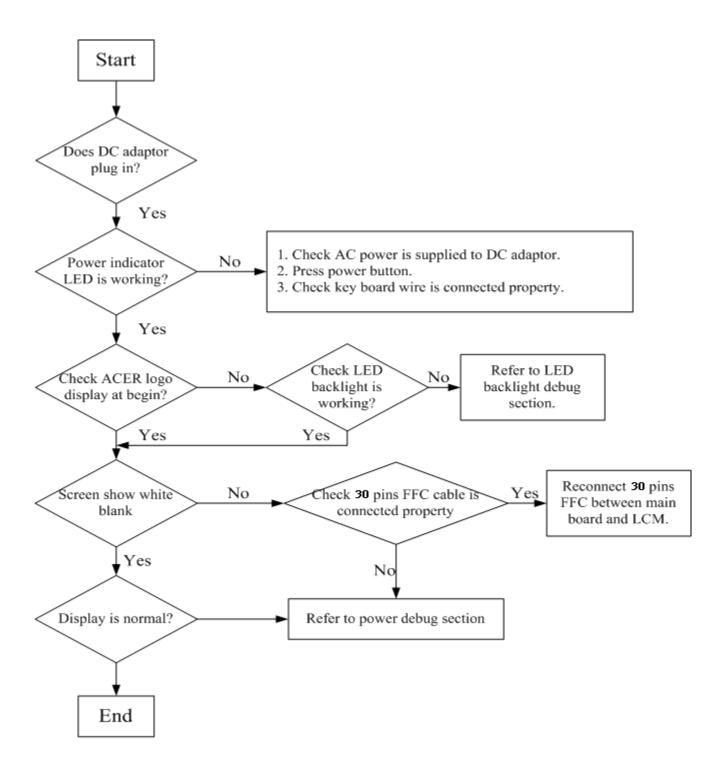


Step11. Lock rear cover screw (in red circle),

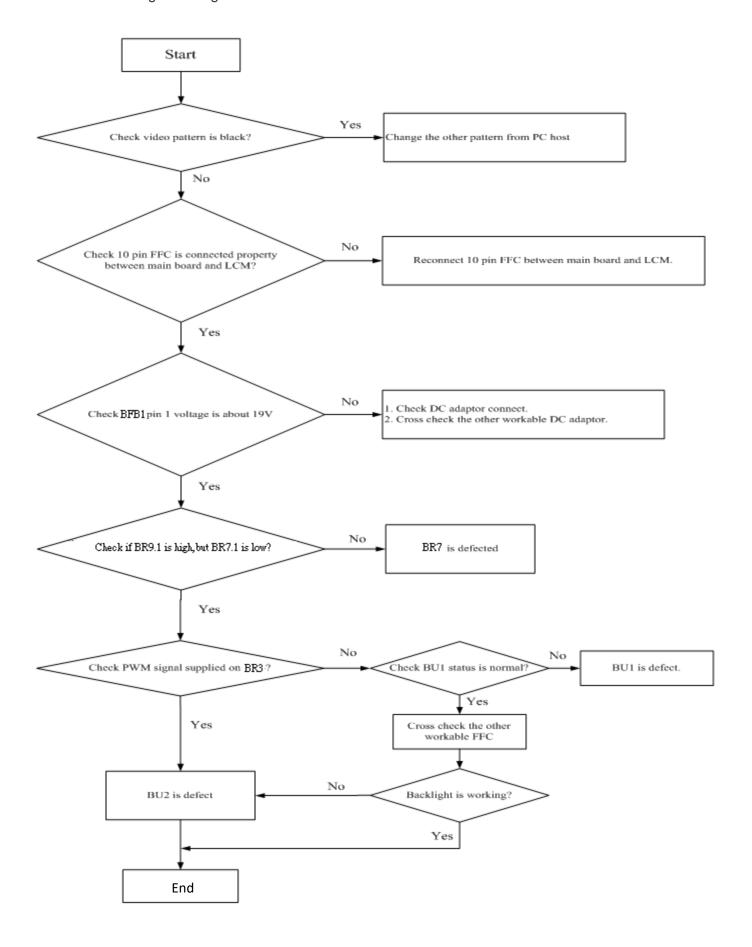


5. Troubleshooting

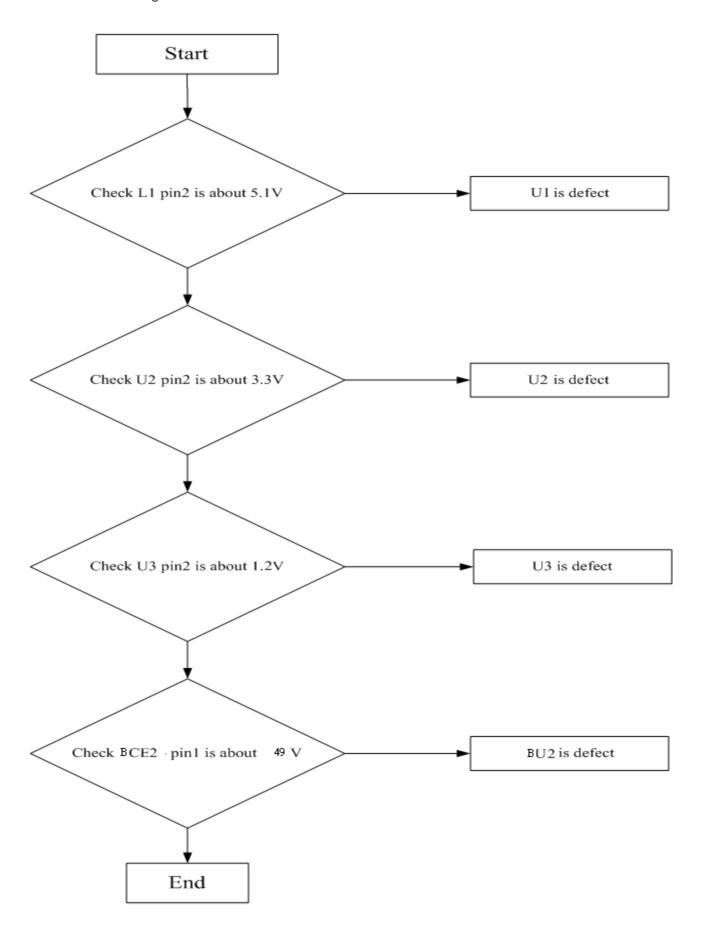
5.1 Test flow for abnormal machine:



5.2 LED backlight debug flow:



5.3 Power debug flow:



6. FRU (Field Replaceable Unit) List

Parts Photo	SPL_Category	Acer PN	Raken PN	ODM Description
The few	ADAPTER	25.T4BM5.001	R030070131495	A-D adapter 1.3 A 19V ADS-25SG-19-3 19025E(VI) _ ACER S200HQL
	BOARD	55.T90M5.006	R352231820150	MAIN BD ASS'Y SA220Q bi_RTD2313AR freesync ES7.0 no ES logo_CI
	BOARD	55.T60M5.002	R352700120156	DISPLAY BD ASS'Y(R271H)(R2)
Color Day Street	CABLE	50.T6KM5.001	R046428080860	WH FFC 8P(0.5mm)235mm(1FOLD)60V G/F (A8+A5)LF
Colonia transport	CABLE	50.T6KM5.003	R046428100800	WH FFC 10P(0.5mm)320mm(3FOLD+PRO)60V G/F (A8+A12/V-CUT)LF
NA No. 12 co. marks NASCO TOTAL STATE	CABLE	50.T6KM5.005	R046428301551	WH FFC 30P(1.0mm)275mm(2FOLD)60V G/F W/CONN.(A5+BC)+AL(AA) LF
ocer No.	LCD	KL.21502.011	R352200920395	LCM ASSY ACER SB220Q (ES8.0 LM215WF3-RSAR7-001)