LIFECYCLE EXTENSION GUIDE

acer

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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

acer

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 explosed 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.

239.7

614.7

63.2

457.1

368.6

335.7

127

257.4

100

100

acer

acer
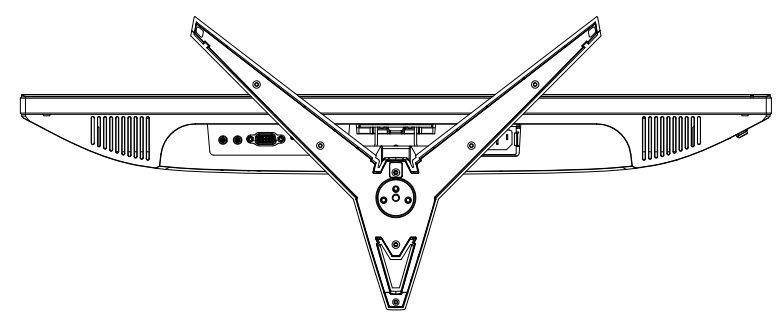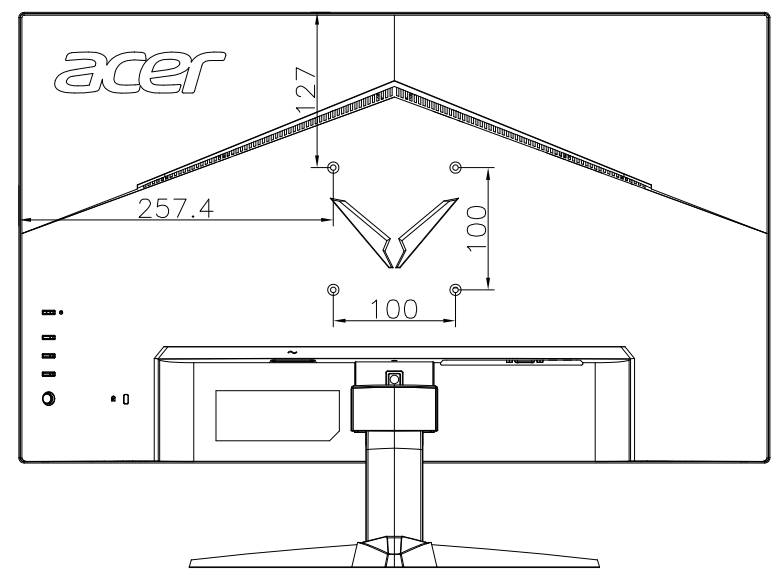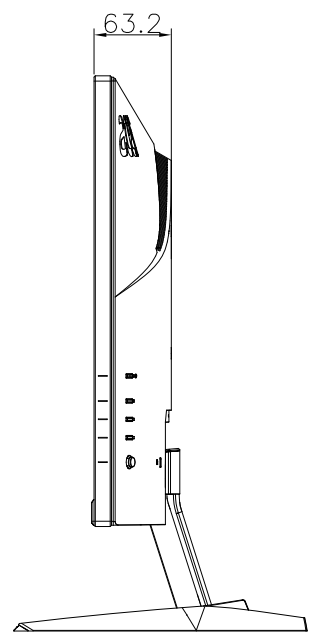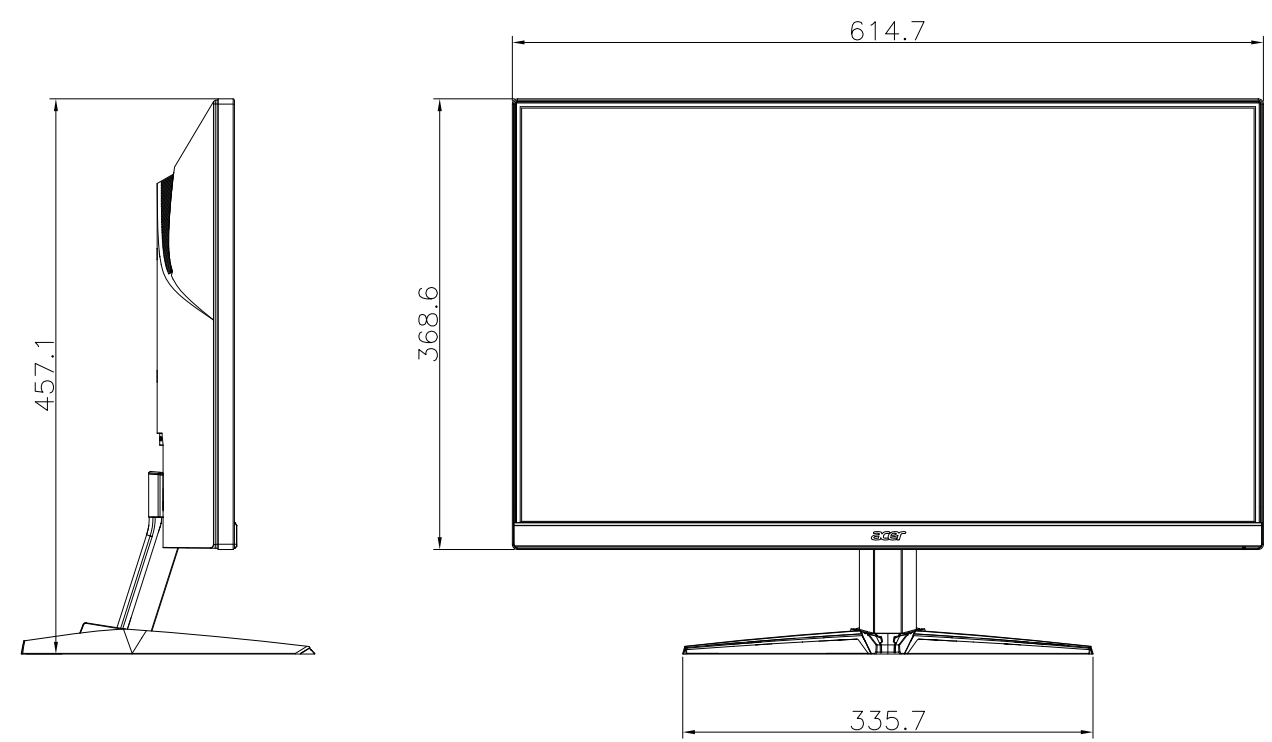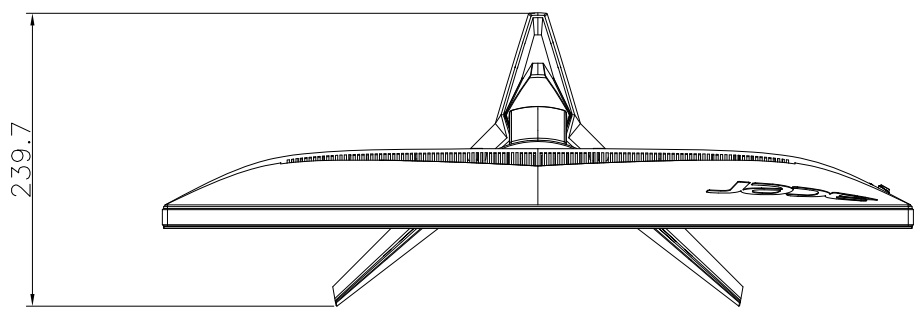
Weight		
Model	Net Weight W/O packaging(kg.)	Gross Weight with packaging(kg.)
QG271	5.1	5.7

REV	DC/EC NUMBER	DESCRIPTION	DATE
V1.0		Initial version release	2019.09.30

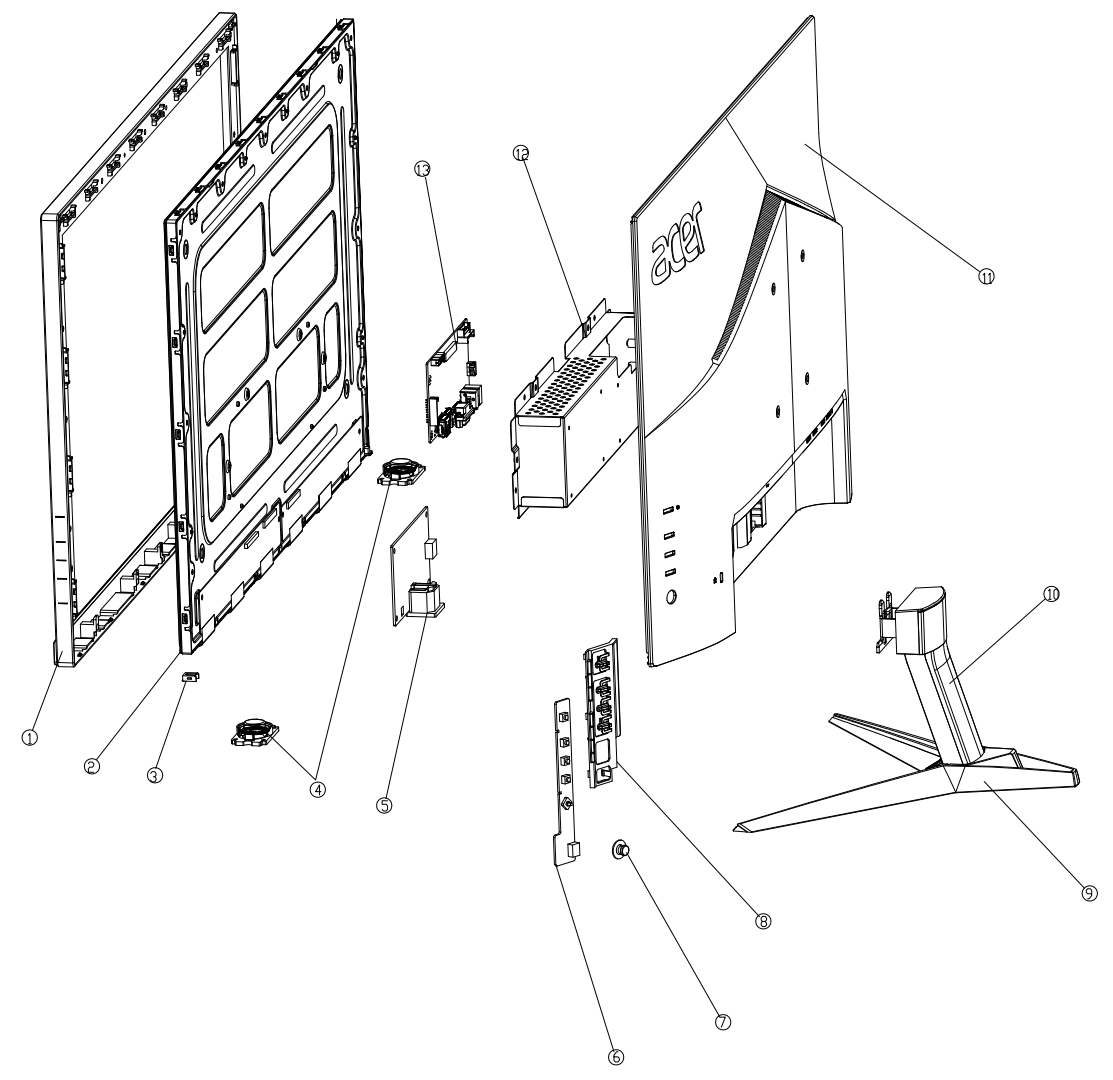| No.	Description.	Code No.	Material	Qty's	Remark
				1	
				1	
				1	
				1	
				1	
13	Main PCB			1	
12	PCB Cover			1	
11	Back Cover			1	
10	Stand support			1	
9	Stand base			1	
8	key			1	
7	switch key			1	
6	Key PCB			1	
5	power PCB			1	
4	Horn			2	
3	Lens			1	
2	Module			1	
1	Cabinet			1	

PART NUMBER

APPROVED   DATE

PART DESCRIPTION

CHECKED   DATE

EXPLODE-DRAWING

MODEL NAME

DESIGNED   DATE

2019-09-30

UNIT	SCALE	PROJECT		SIZE	SHEET NUMBER	REVISION
MM	1:1			A4	1 OF 1	V1.0

QG271 9C

REV	DC/EC NUMBER	DESCRIPTION	DATE
01		首版发行	2020.01.01
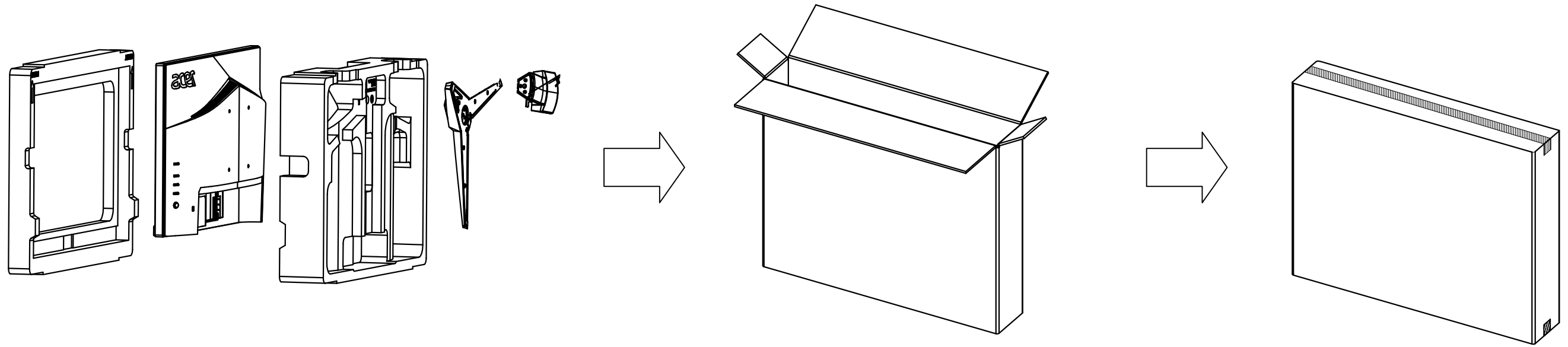
	GENERAL LINEAR TOLERANCE			
STEP	1	2	3	
0~25	0.05	0.1	0.2	SELECT LECEL
25~100	0.1	0.15	0.2	
100~200	0.15	0.2	0.4	
200~400	0.2	0.3	0.6	
400~700	0.3	0.4	1.0	
700~1000	0.4	0.4	1.2	
1000~	0.5	0.6	1.5	
ANGLE 90°	±0.5°	±1.0°	±1.5°	

参考技术要求

UNIT	SCALE	PROJECT	SIZE	SHEET NUMBER	REVISION
MM	1:1		A4	1 OF 1	V1.0

NO.			
1			

2. Wiring connectivity diagram

Power supply wire for screen

Connct the main board and screen FFC wire

Connect the horn wire
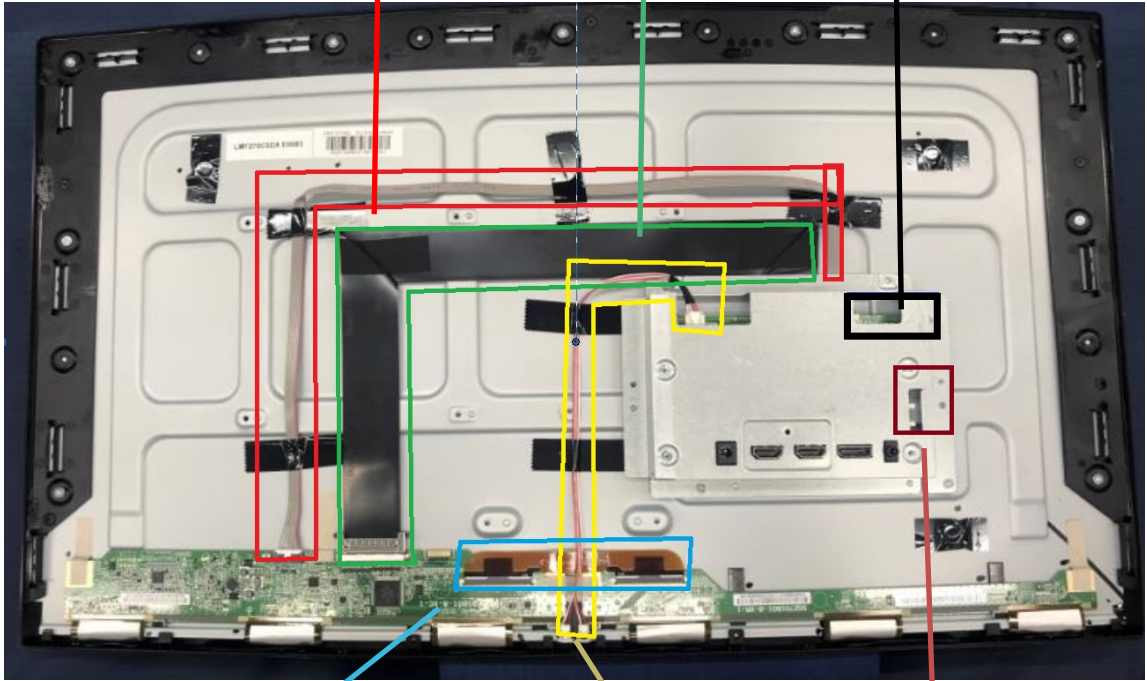
FFC wire

light bar power supply wire

Connect the key board wire

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 SOP

4.1 Disassembly Procedures		
Preparation before disassemble 1.Clean the room for disassemble 2.Identify the area for monitor 3.Check the position that the monitors be placed and the quantity of the monitor ;prepare the area for material flow; according to the actual condition plan the disassemble layout 4.Prepare the implement, equipment, materials as bellow: 1) working table 2) Screw-driver 3) knife 4) glove 5) cleaning cloth 6) ESD protection		
S1	Prepare the worktable and remove the screws of the backcover	
S2	Disassemble the backcover and disassemble the key connector.	

S3	Disassemble thetapesand speakers screws
S4	Disassemblethekey IRLenscomponents
PICTURE 1 PICTURE 2 PICTURE 3	
S5	Disassembletheconnecttedlines.
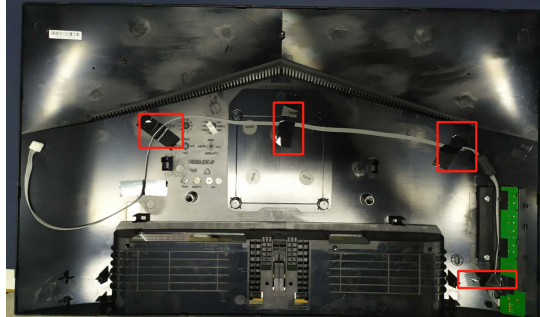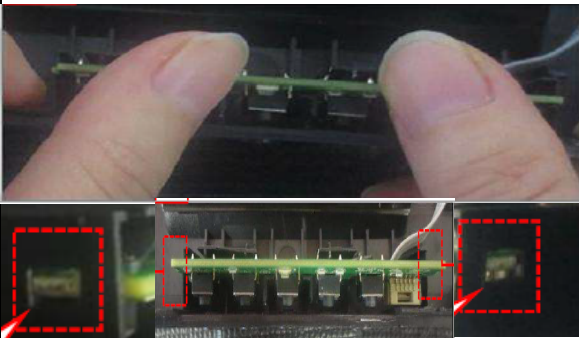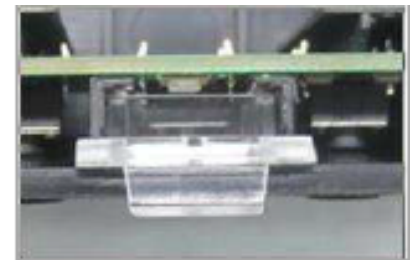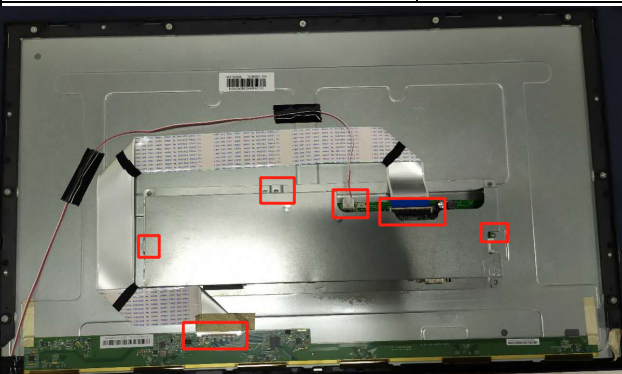
S6	Remove themainboard
S7	Remove the main board components
PICTURE 1 PICTURE 2	
S8	You will see the module
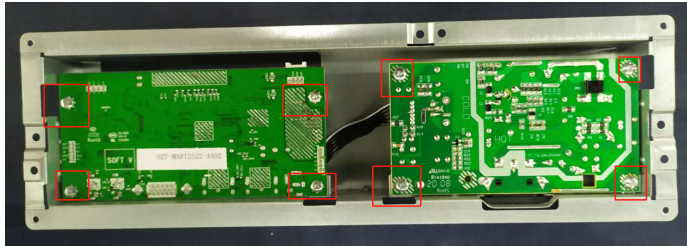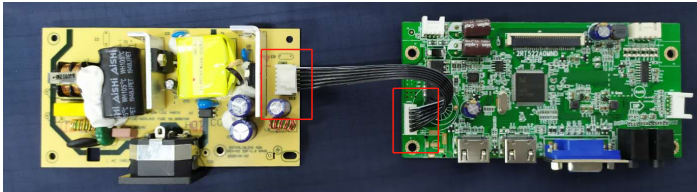
NOTE:

Circuit boards >10 cm² has been highlighted with the yellow rectangle as above image shows.

Please detach the Circuit boards and follow local regulations for disposal.

4.2 Assembly Procedures

Preparation before assemble:
1.Clean the room for work
2.Identify the area for material
3.Prepare the implement, equipment, materials as bellow：
   1)   working table
   2)   Screw-driver
   3)   Knife
   4)   glove
   5)   cleaning cloth
   6)   ESD protection

S1 ,	- Insert connect lines,put themoduleon the worktable.Install the main board to the bracket .
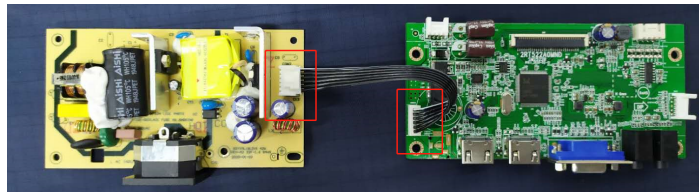
S2 .	Take the Panel on the sponge cushion.

PICTURE 1
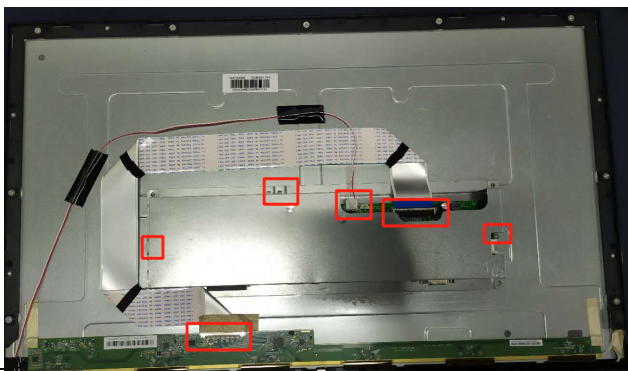
PICTURE 2
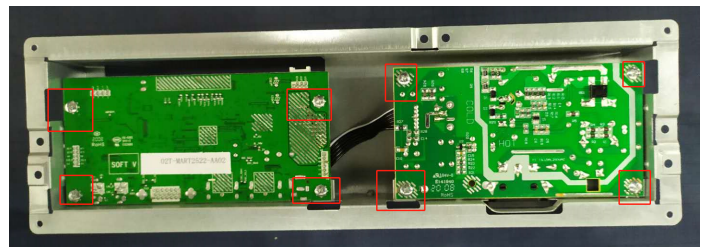
S3	Insert connect lines and check
S4	Install speakers screws and paste the black tapes
S5	Process and install key IRand lenscomponents.
	PICTURE 1 PICTURE 2 PICTURE 3
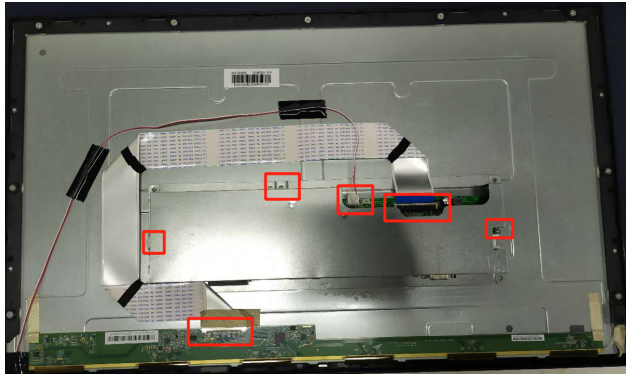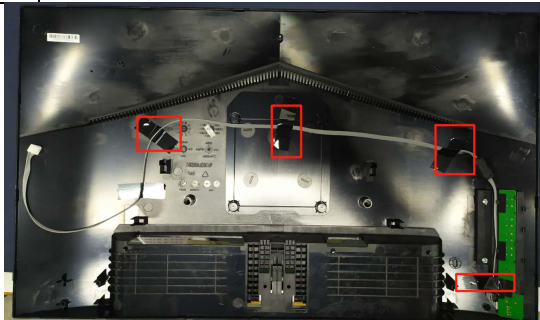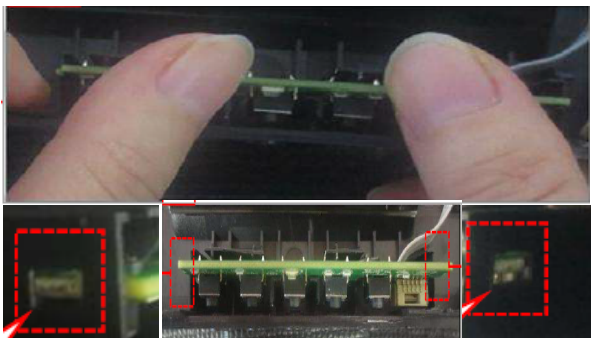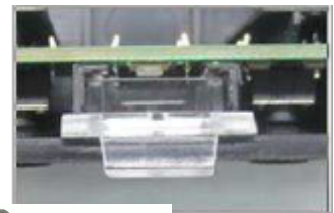
S6	Place the rear housing on the module without fastening
S7	IInsert the key IRand speakerslines. Install the rear housing to the module and fix it with the lock screw
S8	Check the appearence
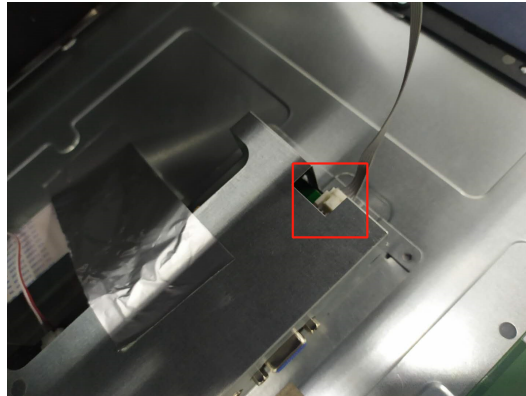
HDMI line

接板卡

接电脑
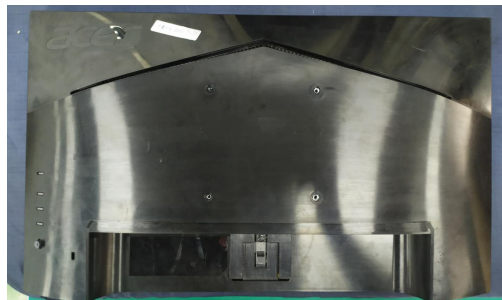
FW Upgrade SOP

1. Unzip the RTDCustomerTool_V3.9Beta4.rar

- Comm
- DefaultDebugMsgFile
- PlugIn
- RTDScaler
- Comm.dll
- RSGrid.ocx
- RTDTool.exe

2. Run the RTDTool.exe
Follow the prompt steps to install the TRDTool

3. FW Upgrade Process

Note that the monitor needs to be powered on before upgrading;;
Setp up1: Choose Access method as RealtekUSB
Step up2: Confirm that the USB upgrade board is connected to OK;
Setp up3: Double-click to select the ISP column;
Step up4: Check the first line 0 and place the box;
Step up5: Click to select and import the bin file path of the software to be upgraded;
Setp up6: Click to start;

Start the upgrade process
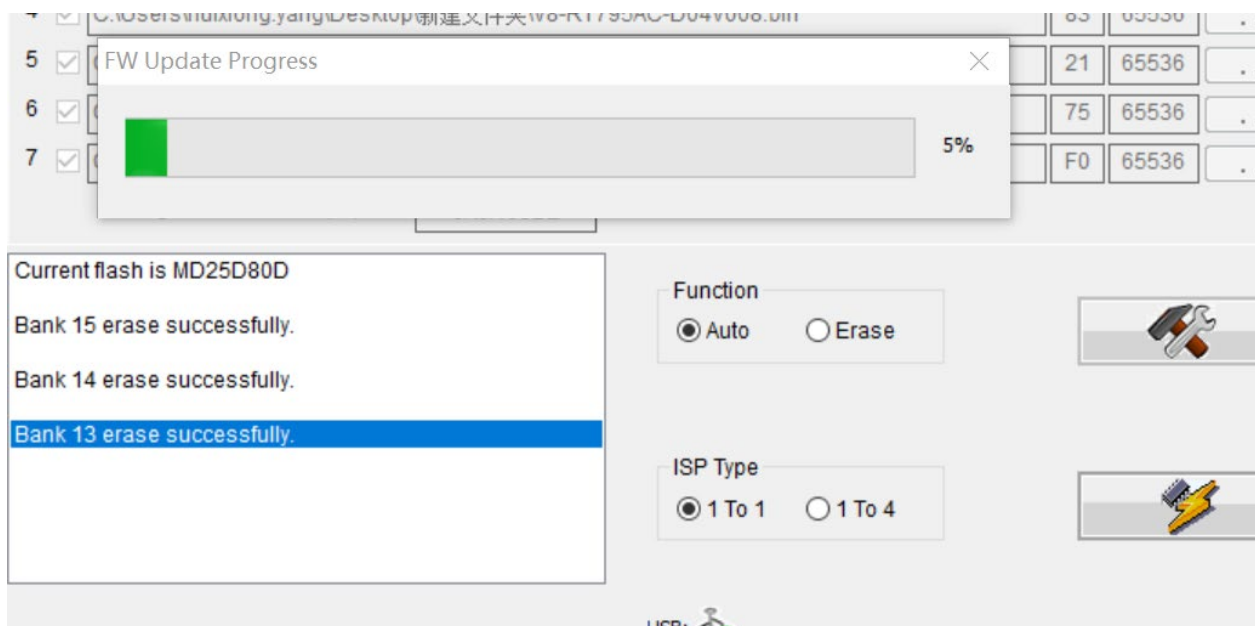
Upgrade OK prompt
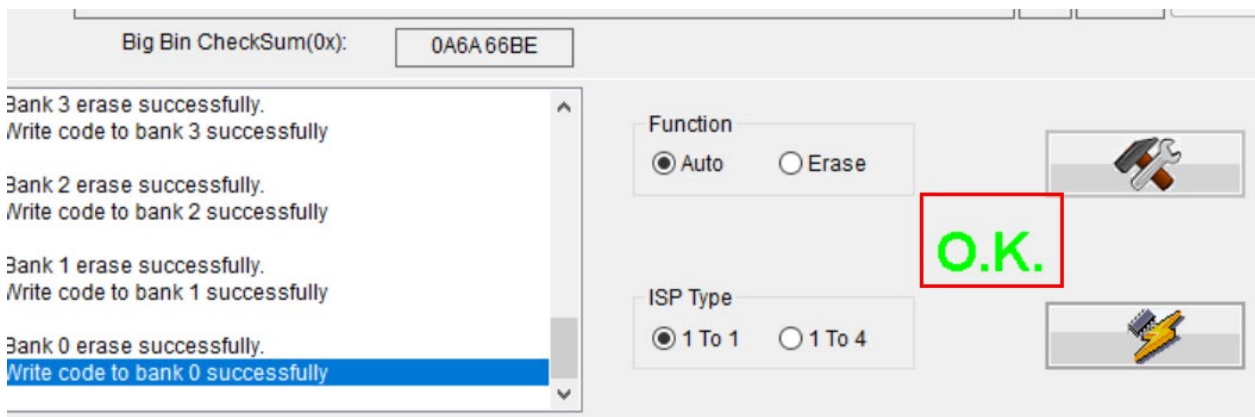
3.Check FW Version and precautions through Factory Menu

1. Enter factory mode

We have 2 different way can enter to Factory mode, shown as below:

The first way: after the burning software is completed, it defaults to the power on state and will automatically enter the factory mode, At the same time, it also enters the aging mode. At this time, if there is no signal input, it starts to age and the soft shutdown exits.

The second way: when the display is powered on and off, press the menu key all the time and power up at the same time
Until the display is normal, enter factory mode and aging mode at the same time, At this time, if there is no signal input, aging will start, and soft shutdown will exit aging and exit factory mode.


```
Chips: RTD2775YT
Panel: CSOT SG2701B01-9
Date : 20200120
Version: V8-RT775AP-001V004
          BRI 100        CON 100

Warm      R  127  G  118  B  128
Normal    R  118  G  112  B  128
Cool      R  108  G  104  B  128
Slight    R  127  G  118  B  122
Light     R  127  G  118  B  116
Medium    R  127  G  118  B  104
Strong    R  127  G  118  B   97


OD          :          OK
FRC         :          OFF
HScaling:              OFF
Burn In:               ON
NVRAM Initial
                VBO Current  2
SSC   0
Exit

PANEL TIME:          2H   0M
```
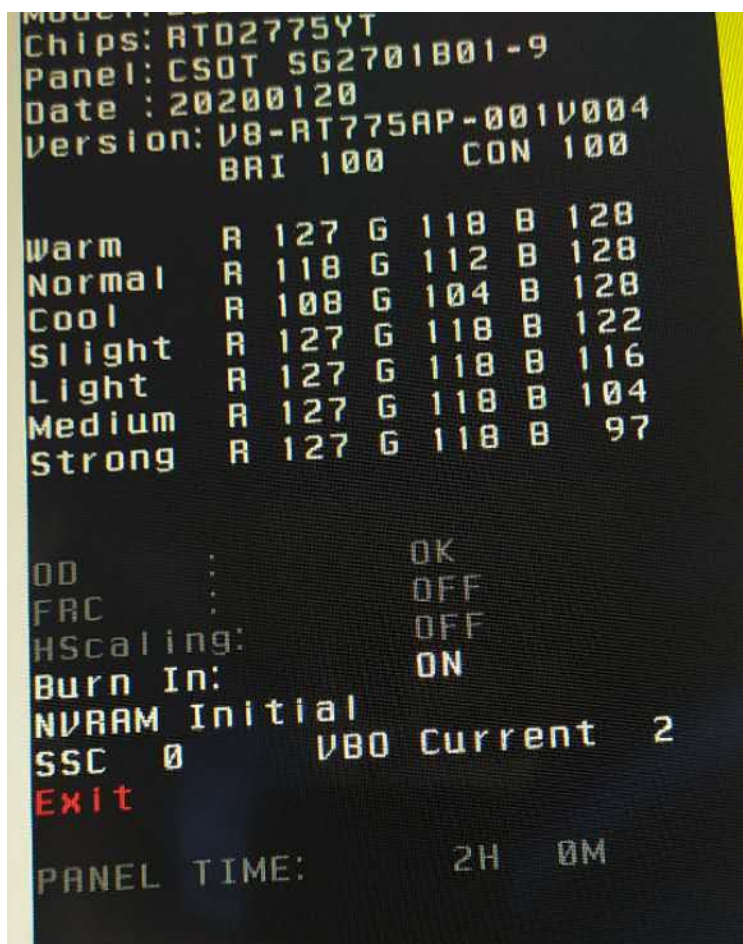
2. Exit factory menu mode press the key left and right keys to select "exit", and then press the key to exit; ⊘
Key function description: key ⊘ is confirm key, key 🔄 📧 selection or adjustment,Key ◁ has no function, key ⏻ is power key (long press for 3S to shut down, power on and press once.

Another point to note: power off in factory mode does not exit from factory mode. You need to press the long key ⏻ for 3S before you exit from factory mode.

5. Troubleshooting

5.1 No Display or display is unstable on analog or digital port:

```
┌────────────────────────────────────────────────────────┐
│ No picture or picture unstable on analog port and digital port │
└────────────────────────────────────────────────────────┘
                          │
                          ▼
              ┌───────────────────┐   Yes      ⬭ Turn on power ⬭
              │     Power off      ├──────────►
              └───────────────────┘
                          │ No
                          ▼
              ┌───────────────────┐   No       ⬭ Plug the cable then turn on power
              │ Does cable plugs in ├──────────►   again. ⬭
              │     Connector?      │
              └───────────────────┘
                          │ Yes
                          ▼
              ┌───────────────────┐   No       ⬭ Check Power Board DC-DC circuit and regulator ⬭
              │ Does power stable?  ├──────────►
              └───────────────────┘
                          │ Yes
                          ▼
              ┌──────────────────────┐   No    ⬭ Check Key BD and Key BD cable ⬭
              │ Is Power LED light Green or Amber? ├────►
              └──────────────────────┘
                          │ Yes
                          ▼
              ┌──────────────────────┐   No    ⬭ Replace IF BD ⬭
              │ Is Power LED status normal? ├────►
              └──────────────────────┘
                          │ Yes
                          ▼
              ┌──────────────────────┐   No    ⬭ Check crystal CKT or replace it ( Y1 ) ⬭
              │ Does crystal work correctly? ├────►
              └──────────────────────┘
                          │ Yes
                          ▼
              ┌──────────────────────┐   No    ⬭ Replace interface BD ⬭
              │ Is Interface BD normal? ├────►
              └──────────────────────┘
                          │ Yes
                          ▼
              ┌──────────────────────┐   No    ⬭ Plug LVDS cable again or replace it ⬭
              │ Is LVDS cable connect OK? ├────►
              └──────────────────────┘
                          │ Yes
                          ▼
              ┌───────────────────┐
              │   Replace Panel    │
              └───────────────────┘
```

5.2   Button function

```
┌────────────────────────┐
│   OSD is not working   │
└────────────────────────┘
             │
            Yes
             │
             ▼
┌────────────────────────┐        No      ⬭────────────────────────⬭
│ Is control BD connecting? │ ─────────────▶ (  Plug control BD then retry  )
└────────────────────────┘                  ⬭────────────────────────⬭
             │
            Yes
             │
             ▼
┌────────────────────────┐       Yes      ⬭────────────────────────⬭
│  Is button key normally?  │ ─────────────▶ ( Replace control BD then retry )
└────────────────────────┘                  ⬭────────────────────────⬭
             │
             No
             │
             ▼
┌────────────────────────┐
│   Replace Control BD   │
│                        │
│    Is OSD working??    │
└────────────────────────┘
             │
             No
             │
             ▼
┌────────────────────────┐
│   Check Interface BD   │
└────────────────────────┘
```

5.3   OSD function

```
        ⬭──────────────────⬭
       (   OSD doesn't work   )
        ⬭──────────────────⬭
                 │
                 │
                 ▼
┌────────────────────────┐      No      ┌────────────────────────┐
│  Is control BD working?  │ ───────────▶│   Replace control BD   │
└────────────────────────┘              └────────────────────────┘
                 │
                 │
                 ▼
        ⬭──────────────────⬭
       (   Check interface BD   )
        ⬭──────────────────⬭
```

5.4 L E D l i g h t

On: Blue light is always on
No Sigal: Blue light is flashing
 Standby: Blue light do not work

```
                    ┌─────────────────┐
                    │ Blue light is on │
                    └─────────────────┘
                             │
                             ▼            NO                        YES
                    ┌─────────────────┐ ──────────►  ┌──────────────┐ ──────
                    │Blue light is flashing│         │  Power on    │
                    └─────────────────┘              └──────────────┘
                             │ YES                         │ NO
                             ▼            NO                              YES
                    ┌─────────────────┐ ──────        ┌──────────────────┐ ──
                    │    Power on     │               │ With source input │
                    └─────────────────┘               └──────────────────┘
                             │ YES                          │ NO
                             ▼            YES
                    ┌──────────────────┐ ──────
                    │ With source input │
                    └──────────────────┘
                             │ NO
                             ▼                    ┌──────────────────────┐
                    ┌──────────────┐              │ Replace the key board │
                    │   Normal     │ ◄────        └──────────────────────┘
                    └──────────────┘
```

```
                    ┌─────────────────────┐
                    │ Blue light do not work │
                    └─────────────────────┘
                             │
                             ▼            YES
                    ┌──────────────┐ ──────►  ┌──────────────────────┐
                    │  Power on    │          │ Replace the key board │
                    └──────────────┘          └──────────────────────┘
                             │ NO
                             ▼
                    ┌──────────────┐
                    │   Normal     │
                    └──────────────┘
```
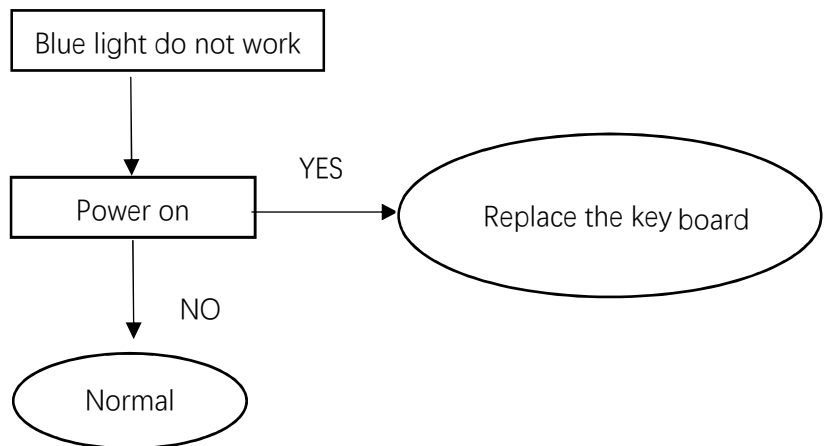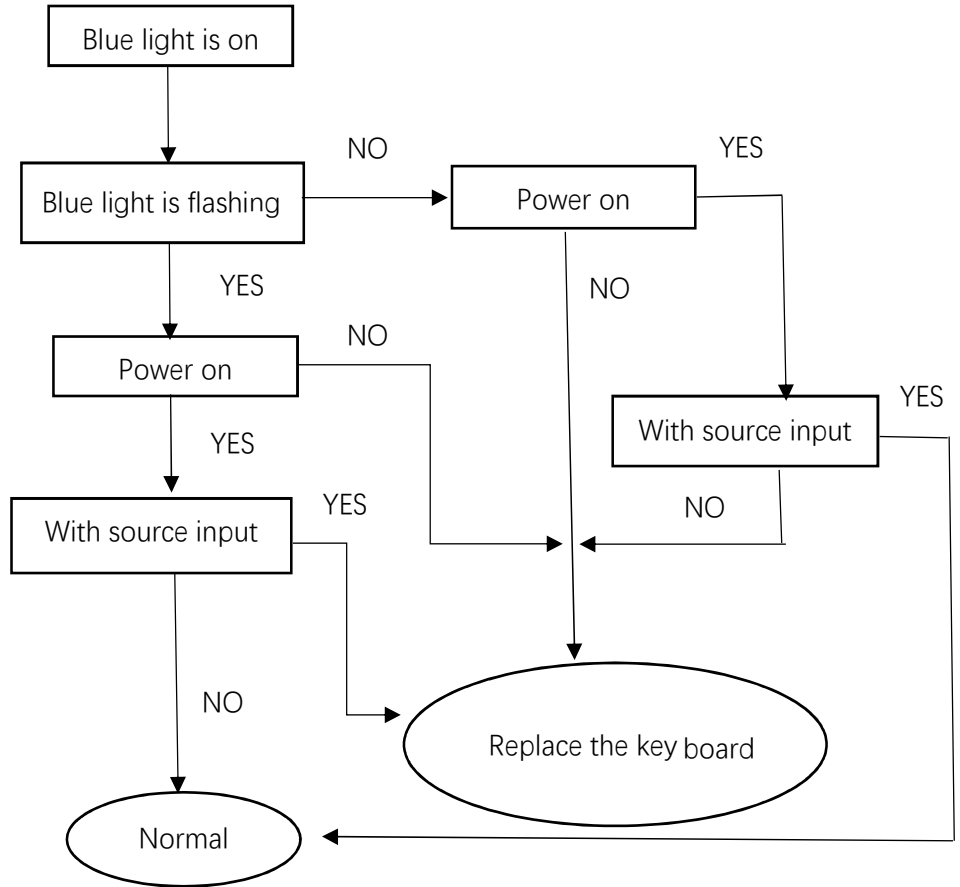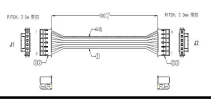
CATEGORY	CATEGORY	ODM PART NO.	ACER DESCRIPTION	ODM DESCRIPTION	ACER PART NO.
	MAINBOARD	02-MART2522-AA23M	MAIN BOARD 1A2H+SPK+AUDIO OUT+AUDIO IN	1A2H+SPK+AOUT+ADUION IN 2AMT-52AR-BH10	55.TRZMD.001
	BOARD	81-PWE027-Y1235	POWER BOARD	BLB LED / SOYYML191219 42W-3.5A	55.TKVMD.001
	BOARD	T8-24M20D1-FB1	FUNCTION KEY BOA	ASS'Y - FRONT CONTROL BOARD	55.TKUMD.002
	LCD	T8-27M2000-LPBY2	LED LCD Panel TCL 27'H FHD None Glare HKC SN270CS01-1 LF 250nit 8ms 1000:1 W/ MIDDLE	ASS'Y - PANEL MODULE LMF270HKDJE0001	KL.2700T.032
	POWER CORD	51-FCB150-C3U07TPB	POWER CORD 1500MM EU	POWER CORD 1500MM DRF-005 2 5-GPE0329 --EU	27.TKPMD.001
	CABLE	46-FZ0458-30DA20G	FFC CABLE 30PIN 458MM - PANEL TO MAIN BOARD	WIRE FFC WIRE 458MMMM 30PIN FFC1.0 FI-E	50.TRZMD.003
	CABLE	S8-FM075L-05V03G	CABLE 5PIN 750MM W/ MAGNETIC - FUNCTION KEY BOARD TO MAIN BAORD	WIRE IR WIRE 750MM 5PIN PH(LOCK) GH 2.0/(With magnetic ring)	50.TRZMD.002
	CABLE	46-DC0100-PP06S4	CABLE 6PIN 100MM - MAIN BOARD TO POWER BOARD	WIRE DC CONNECTING LINE 100MM 6PIN PHD	50.TKVMD.002
	CABLE	41-UH1500-0KK00GB	AUDIO CABLE 2.8MM 1500MM	WIRE 2.8MM 1500MM BLACK 3.5 4-DIVIDED MA	50.TKTMD.001
	CABLE	41-VGA150-C15UC1GB	VGA CABLE	WIRE-BARE BARE WIRE 5.8MM 5-AW1386	50.TKPMD.001
	CASE/COVER/BRACKET ASSEMBLY	56-772280-0HA6RH	FUNCTION KEY PAD	RAW DECOR BAR -- 00 00 00 R=Y ---JOYSTICK KEY	60.TKTMD.007
	CASE/COVER/BRACKET ASSEMBLY	56-772250-0HHZ1H	LIGHT-GUIDING PLATE	RAW DECOR BAR -- 00 00 00 R=Y	60.TKTMD.004
	CASE/COVER/BRACKET ASSEMBLY	56-772240-0HA6RH	FUNCTION KEY BRACKET	RAW DECOR BAR -- 00 00 00 R=Y --KEY SUPPORT	60.TKTMD.006
	CASE/COVER/BRACKET ASSEMBLY	55-771780-7HQ6RH	BACK COVER ASSY	RAW BC(BACK CABINET) 27M2000A --	60.TRZMD.001
	CASE/COVER/BRACKET ASSEMBLY	68-M77180-000Z1H	NECK ASSY	DEC STAND NECK BK 00 00 00 27M2000A R=Y	60.TKRMD.002
	CASE/COVER/BRACKET ASSEMBLY	68-M77180-100Z4H	BASE ASSY	DEC STAND BASE BK 00 00 00 27M2000A R=Y	60.TRZMD.002
	CASE/COVER/BRACKET ASSEMBLY	67-S77235-0G0	MAIN SHIELDING	RAW SHIELDING COVER -- 00 00 00 R=Y	33.TKVMD.001
	FAN SINK/SPEAKER/EARPHONE/RTC	42-35004B-X07G	SPEAKER 4OHM 500HZ	SPEAKER 4OHM 2W 83 500HZ RECTANGLE 14.3M	23.A2KMD.001
	MISCELLANEOUS	54-JF9170-0UB	MYLAR	EVA PADS STRIPE -- R=Y	47.TKTMD.001
	MISCELLANEOUS	54-755370-400	MYLAR STRIPE -- 32MM 22MM 0.6MM R=Y	MYLAR STRIPE -- 32MM 22MM 0.6MM R=Y	47.TRZMD.001
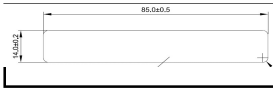
		MISCELLANEOUS	54-755370-200	MYLAR STRIPE -- 85MM 14MM 0.6MM R=Y	MYLAR STRIPE -- 85MM 14MM 0.6MM R=Y	47.TRZMD.002