

RTC-600A

Rugged Tablet Computer

P5 Test Report

| | |
|---------|--|
| Summary | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation (Comment: _____) |
|---------|--|

| Issue date | Approval | Test Engineer |
|------------|----------|---------------|
| 2015/12/10 | KJ Wang | Anderson Lin |

Platform Information

| Item | Device Information | Test Item |
|---------------------|---|-----------|
| System Model / Ver. | RTC-600A (A1.1) | 1,2 |
| CPU Type | Cortex™A9 Dual Core (OMAP4470)1.5 GHz | 1,2 |
| Memory Type | Built-in 1GB | 1,2 |
| Storage | eMMC Flash 16GB | 1,2 |
| LCD Monitor | 5.7" color TFT LCD module with LED backlight | 1,2 |
| Android Version | 4.2.2 | 1,2 |
| Build Number | RTC-600A userdebug 4.2.2 JDQ39 eng.jimmychung.20151109.152841 test-keys | 1,2 |
| AC / DC Adapter | LTE24E-S2-2 output : 12V, 2A | 1,2 |
| Battery | Lithium-Polymer high capacity battery swappable, 6hrs 1.) Master BAT/Hard pack: 7.4V 1530mAH 2.) Slave BAT/Soft pack:7.4V 1530mAH | 1,2 |

1. Basic Function Test

1.1. Display Function Test

| Test Case | Judgment | | | Test Result |
|-------------------------|-------------------------------------|--------------------------|-------------------------------------|--|
| | Pass | Fail | N/A | |
| Display quality | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No color deviation / No saw-tooth / No flicker / No light leak /No abnormal Uniformity |
| Playback 1080p video | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No lag / No ghost / No flicker / No color deviation while playing video. |
| Brightness control | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Brightness can be adjusted by control bar |
| Auto Brightness control | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Brightness is changeable according to different ambient environment. |
| LCD Leakage check | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No obvious leakage appeared |
| Mini HDMI | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Check HDMI display quality. Sound can be played from HDMI audio |

1.2. Audio Function Test

| Test Case | Judgment | | | Test Result |
|----------------------|-------------------------------------|--------------------------|--------------------------|---|
| | Pass | Fail | N/A | |
| Internal Speaker | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No noise, no distortion, no background noise .the sound is clean, volume can be changed as we set with internal speaker. |
| Internal Microphone | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No noise and distortion while recording voice. |
| Line-Out | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No noise, no distortion, the sound is clean, volume can be changed as we set with line-out. Internal speaker will be turned off automatically when we plug in earphone. Sound can be played from left channel or right channel as we set. |
| Headphone Microphone | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No noise and distortion while recording voice. |

1.3. Wi-Fi Function Test

| Test Case | Judgment | | | Test Result |
|---|-------------------------------------|--------------------------|--------------------------|--|
| | Pass | Fail | N/A | |
| Enable / Disable | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Wi-Fi function can work normally after switch Wi-Fi on /off. No hang up |
| Connect to internet | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | connect to internet by web browser via Wi-Fi connection. Website shows correctly without any error or crash. |
| Download files from internet | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Download files from internet via Wi-Fi connection. The file is complete and not broken. |
| Performance Test | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Download speed:28.38 Mbps Upload speed13.96Mbps |
| Check the strength indicator of Wi-Fi signal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | It is variable according to the strength of Wi-Fi signal |
| Switch on /off between 3G , Wi-Fi , and Airplane mode | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Network function is workable while switching between 3G, Wi-Fi, and Airplane mode. |
| Wake up from sleep mode, check Wi-Fi function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Wi-Fi function still can work correctly after waking up from sleep mode. |
| Reboot system, check Wi-Fi function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | W-Fi function still can work correctly after reboot. |

1.4. 3G Function Test

| Test Case | Judgment | | | Test Result |
|--|-------------------------------------|--------------------------|--------------------------|---|
| | Pass | Fail | N/A | |
| Enable / disable | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3G function can work normally after switch 3G on /off.The signal strength of 3G is displayed on system bar. |
| Connect to internet | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | We can connect to internet by web browser via 3G connection |
| Download files from internet | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Download files from internet via 3G connection. The file is complete and not broken. |
| Performance Test | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Download speed:2.9 Mbps Upload speed:0.12 Mbps |
| Check the strength indicator of 3G signal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | It is variable according to the strength of 3G signal |
| Wake up from sleep mode, check 3G function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3G function still can work correctly after waking up from sleep mode. |
| Reboot system, check 3G function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3G function still can work correctly after reboot. |

1.5. Bluetooth Function Test

| Bluetooth Function | Judgment | | | Test Result |
|---|-------------------------------------|--------------------------|--------------------------|--|
| | Pass | Fail | N/A | |
| Enable / disable | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Bluetooth function can work normally after switch Bluetooth on /off. The Bluetooth icon is displayed on system bar. |
| Search BT Devices | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | We can see other surrounding Bluetooth enabled device in the screen of BT setting. |
| Data transmission via Bluetooth | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Send / Receive files |
| Wake up from sleep mode, check Bluetooth function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Bluetooth function still can work correctly after waking up from sleep mode. |
| Reboot system, check Bluetooth function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Bluetooth function still can work correctly after reboot. |

1.6. GPS Function Test

| GPS Function | Judgment | | | Test Result |
|------------------|-------------------------------------|--------------------------|--------------------------|--|
| | Pass | Fail | N/A | |
| Detect satellite | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1.GPS can detect satellite and positioning 2.TTFF:34 sec. |
| GPS performance | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Detection of satellites numbers:9 |

1.7. NFC Function Test

| NFC Function | Judgment | | | Test Result |
|-----------------|-------------------------------------|--------------------------|--------------------------|--------------|
| | Pass | Fail | N/A | |
| Detect NFC tag | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | SONY NFC tag |
| Detect NFC Card | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Easy Card |

1.8. USB Function Test

| Mini USB Function | | Judgment | | | Test Result |
|-------------------|---|-------------------------------------|--------------------------|--------------------------|-----------------------------------|
| | | Pass | Fail | N/A | |
| Micro USB Port | USB Flash(Mode: SONY 64 GB) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Read / write test |
| | USB Keyboard(Model: Microsoft Wire keyboard 600) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | type words |
| | USB Mouse(Model: Microsoft 1133) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | icon can be selected by USB mouse |
| | ADB function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Connect to PC via ADB |
| Type A USB | USB Flash(Mode: SONY 64 GB) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Read / write test |
| | USB Keyboard(Model: Microsoft Wire keyboard 600) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | type words |
| | USB Mouse(Model: Microsoft 1133) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | icon can be selected by USB mouse |

1.9. Touch Screen Function Test

| Touch Screen Function | Judgment | | | Test Result |
|------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------------|
| | Pass | Fail | N/A | |
| 2-fingers pinch | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | zoom in /out picture |
| Swipe Test | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Page move while swiped |
| Press and hold | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Icon can be choosen and hold. |
| Drag and move | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Icon can be Dragged and moved. |
| Draw 1 Line test | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No dash lines found |
| Multi-Touch(10 points) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Antutu hw monitor |

1.10. Camera Function Test

| OSD Control Function | Judgment | | | Test Result |
|-----------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| | Pass | Fail | N/A | |
| 5 MP auto-focus rear camera | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Zoom in /out,AF function |
| take picture | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Picture is clear |
| Flashlight | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Auto / On / Off |

1.11. Barcode Scanner Function Test

| OSD Control Function | Judgment | | | Test Result |
|----------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------|
| | Pass | Fail | N/A | |
| 1D barcode scanning | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | UPC-A / UPC-E / EAN-13 |
| 2D barcode scanning | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | PDF417 / Datamatrix / QR Code |

1.12. Micro SD Function Test

| MicroSD Function | Judgment | | | Test Result |
|-------------------|-------------------------------------|--------------------------|--------------------------|--------------------------------|
| | Pass | Fail | N/A | |
| Read / write test | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sandisk 32GB / Transcend 64 GB |

1.13. Sensor Function Test

| Sensor Function | | Judgment | | | Test Result |
|-------------------------|-------------------------|-------------------------------------|--------------------------|--------------------------|-----------------------|
| | | Pass | Fail | N/A | |
| G-sensor(Accelerometer) | Lock rotation | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | AndroSensor V1.9.4.4a |
| | Angle of rotation:90° | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | Angle of rotation: -90° | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Light- sensor | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| E-Compass | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Vibrator | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

1.14. Quick Launch Test

| UI Function | | Judgment | | | Test Result |
|-------------------------------|--|-------------------------------------|--------------------------|--------------------------|--|
| | | Pass | Fail | N/A | |
| Airplane mode(Turn on /off) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3G / Wi-Fi / BT will be turned off automatically If turn on Airplane mode |
| Wi-Fi(Turn on /off) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3G(Turn on /off) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Bluetooth(Turn on /off) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Auto-brightness(Turn on /off) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Barcode scanner(Turn on /off) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Battery status | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 st snd 2 nd battery status check |
| Settings | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Link to system settings |

1.15. Power Button Function Test

| Function Key test | | Judgment | | | Test Result |
|--------------------------------|--|-------------------------------------|--------------------------|--------------------------|---------------------------------|
| | | Pass | Fail | N/A | |
| Sleep | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Press power button for 1 second |
| Wake up system from sleep mode | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Press power button for 1 second |
| Shut down | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Press power button for 2 second |
| Shut down(force shutdown) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Press power button for 7 second |
| Power on | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Press power button for 2 second |

1.16. Side Key and Function Key Test

| Function Key test | | Judgment | | | Test Result |
|----------------------------|-------------------|-------------------------------------|--------------------------|--------------------------|--|
| | | Pass | Fail | N/A | |
| 2* Scanner trigger buttons | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2* volume setup buttons | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Increase /decrease volume |
| Function key | Return to Button | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Return to the previous operation step or the previous operation interface. |
| | Home Button | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | This key can help you return to main function page from any page or application. |
| | Recent App Button | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If you press this key, opens a list of thumbnail images of apps you've worked With recently; touch an app to open it. |

1.17. Power LED Function Test

| Function Key test | Judgment | | | Test Result |
|-------------------|-------------------------------------|--------------------------|--------------------------|--|
| | Pass | Fail | N/A | |
| Power LED | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | System shows Green light while booting |
| Message LED | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Execute "Test Notification Led" |

1.18. Battery Charge and Discharge Function Test

| Function Key test | Judgment | | | Test Result |
|--------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------|
| | Pass | Fail | N/A | |
| Battery charge function | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | OS icon shows charging |
| Battery charge 100% | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Battery can be charged to 100% |
| Battery charge(under sleep mode) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Battery charge(under power off mode) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Battery discharge | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | OS icon shows discharging |
| Battery charge LED | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Not support |
| Battery discharge LED | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Not support |

2. Run In Test

2.1. Run-In Test (over 12 hours)

| Test Item | Judgment | | | Test Result |
|----------------------|-------------------------------------|--------------------------|--------------------------|-----------------------------|
| | Pass | Fail | N/A | |
| Stability Test(V2.7) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No hang up, no system crash |