

RTC-1200SK

Rugged Tablet Computer

QE Test Report

Summary	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation (Comment: _____)			
	Test Results Category			
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date	QE Manager	Test Engineer
2017/5/5	KJ Wang	Anderson Lin

Platform Information

Item	Device Information	Note
System Model/Version	RTC-1200SK	
PCB	A 0.3	
BIOS / Version	RTC-1200SK BIOS Rev 1.00(04/07/2017)	
EC / Version	0.01.00	
CPU Type	Intel® Core™ i3-6100U Processor (3M Cache, 2.30 GHz)	
Memory	DDR3L 1600 / 4GB Transcend memory	
Storage	M.2 TS64GMTS800 64GB	
eDP	11.6" eDP / 1920 x 1080 INNOLUX N116HSE-EBC	
Operating System	Windows 10 Enterprise 64-bit 2016 LTSB	
Power Adapter	FSP065-RAB output : 19V, 3.42A	
Battery Model	Two hot-swappable battery, 14.8V/ 2200mAh/2.2A	
3G Module	QUECTEL UC20	
GPS Module	U-blox NEO-M8Q-0-01	
Driver Information		
VGA	Intel®HD Graphics 510 20.19.15.4483(7/1/2016)	
Audio	Realtek ALC269 6.0.1.8040(1/10/2017)	
HDMI Audio	Intel®Display Audio 8.20.0.922(4/16/2016)	
Ethernet	Internal Gigabit Ethernet LAN Intel I219 12.13.17.4(6/18/2015)	
Wi-Fi Module	Broadcom 802.11ac 1.558.29.0(1/21/2016)	
3G Module	QUECTEL UC20 5.0.1.1(10/30/2014)	

1. Basic Function Test

1.1. Display Function Test

Video Function		Function			Note
		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		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable "auto-brightness" item
HDMI Function	Samsung SyncMaster BX2450	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connect to HDMI monitor
	Dell U2713HM 27"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Chimei 22SH-L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2. Audio Function Test

Audio Function		Function			Note
		Pass	Fail	N/A	
Internal Speaker		<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 internal speaker.
Internal Microphone		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No noise and distortion while recording voice.
Headphone jack		<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.
Headphone Microphone		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No noise and distortion while recording voice.
HDMI Audio		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sound from HDMI Audio







1.3. Wi-Fi Function Test

Wi-Fi Function		Function			Note
		Pass	Fail	N/A	
Connect to internet		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connect to www.google.com
Download files from internet		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Download files from download.cnet.com
Performance Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(www.bandwidthplace.com) Download speed:12.62 Mbps Upload speed:35.7 Mbps
Enable / Disable		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Switch on/off

1.4. 3G / 4G Function Test

3G Function		Function			Note
		Pass	Fail	N/A	
Enable / disable		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Switch on/off
Connect to internet		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connect to www.google.com
Download files		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Download files from internet
Performance Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(www.bandwidthplace.com) Download speed:4.87 Mbps Upload speed:2.37 Mbps

1.5. Ethernet Function Test

Ethernet Function			Function			Note
			Pass	Fail	N/A	
Enable / disable			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Switch on/off
Connect to internet (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connect to www.google.com
Performance Test			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(www.bandwidthplace.com) Download speed:120.65 Mbps Upload speed:163.85 Mbps
Connect two computers via different speed LAN HUB by using "Ping" instruction (1000 times) Command: ping xxx.xxx.xx.xx -l 65500 -1000			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No packet loss
Access 1GB file. Download from ftp http://XXX.XX.14.125/			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN Speed	Link / Speed LED	Active LED				
1000MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.6. COM Function Test

COM Function		Function			Note
		Pass	Fail	N/A	
RS-232	COM Port Mouse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Loopback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	115200 bps
	Transmission Test <115200bps / 15M>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RS-422 Transmission Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communication between the RS-422 port of two boards is linked by one 1.2km cable on Windows Terminal.
RS-485	Transmission Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communication between the RS-485 port of two boards is linked by one 1.2km cable on Windows Terminal.
	Use ICP CON I-7044D D/IO Module in Windows	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Support Auto flow control

1.7. Bluetooth Function Test

Bluetooth Function		Function			Note
		Pass	Fail	N/A	
Data transmission	Send files (distance:10M)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Send 10 MB file to another devices(1'12")
	Receive files (distance:10M)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Receive 10 MB file from another devices (1'17")
Bluetooth Devices	Microsoft Mobile Keyboard 5000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Logitech M557	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	SONY MW600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.8. GPS Function Test

GPS Function	Function			Note
	Pass	Fail	N/A	
Detect satellite	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	u-center v8.21(COM 4 / Baudrate: default 9600)
TTFE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.6 seconds
GPS coordinate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.98366,121.55095
(GPS/GNSS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.9. NFC Function Test

NFC Function	Function			Note
	Pass	Fail	N/A	
Detect NFC tag	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sound appeared.1 cm. SONY tag
Detect NFC card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sound appeared.3 cm. Easy card

1.10. USB Port Function Test

Micro USB Function	Function			Note
	Pass	Fail	N/A	
USB Flash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SONY USB 3.0 128GB Flash / Sandisk USB 3.0 8GB(read / write / boot)
USB Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Microsoft Wired Keyboard 600
USB Mouse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Microsoft Mouse 1133
USB 3.0 HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Toshiba 1TB HD
USB ODD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Floppy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.11. 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"/>	Picture can be zoomed in and zoomed out by 2-fingers pinch.
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 chosen and hold.
Drag and move ICON	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Icon can be Dragged and moved.
Wake up from sleep mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Touch can work well
Multi-Touch(5 points)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5 Touch points can be recognized
Draw 1 Line test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No dash lines found. No jump during drawing
2-fingers touch and draw line test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 lines can be recognized with min. 1.5cm distance
Full loading mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No delay. Touch location is correct.
Touch response time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No late response of input and display
Touch area test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No dead area, especially 4 corner and edge
No ghost touch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No ghost touch issue appeared while performing any touch gesture

1.12. Camera Function Test

Camera Function	Function			Note
	Pass	Fail	N/A	
2 MP front camera	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8 MP rear camera	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
take picture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Zoom in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Zoom out	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
flashlight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Recording	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.13. Micro SD Function Test

Micro SD Function	Function			Note
	Pass	Fail	N/A	
Read / write test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Transcend 64GB(SDXC) / Sandisk 32 GB(SDHC) / Transcend 32GB(SDHC) / SP 16GB(SDHC)

1.14. Sensor Function Test

Sensor Function	Function			Note
	Pass	Fail	N/A	
G-sensor(Accelerometer)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sensor Diagnostic Tool 0.7.2
Gyro-sensor	<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"/>	

1.15. UI Function Test

UI Function	Function			Note
	Pass	Fail	N/A	
Airplane Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wi-Fi,Bluetooth,3G connection will be disabled
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	msconfig
Device Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No yellow question mark

1.16. Buttons Function Test

Function Key test	Function			Note
	Pass	Fail	N/A	
Windows Key	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Start Menu
Power Key	Power on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Power off under BIOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Power off under Windows	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Volume up/down	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Volume increase and decrease
F1 / F2 / F3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F1:Ctrl+alt+del / F2:Touch mode switch / F3:Printscreen

1.17. Quick Launch Test

Function Key test	Function			Note
	Pass	Fail	N/A	
Tablet Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable / disable
Rotation Lock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable / disable
All settings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Battery saver	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Battery saver will turn on automatically when your battery falls below 10%
Bluetooth	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Brightness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25%,50%,75%,100%
Cellular	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3G / 4G enable / disable
Wi-Fi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wi-Fi connection enable / disable
Airplane mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wi-Fi,Bluetooth,3G connection will be disabled

1.18. ACPI Function Test

Function Key test	Function			Note
	Pass	Fail	N/A	
Sleep	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shutdown -h
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shutdown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.19. Battery Charge and Discharge status Check

Function Key test	Function			Note
	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Red color
Battery discharge LED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Battery Life (50% brightness, Wifi on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3h 47 m(Battery Eater Pro V2.70)
Show low power message (Power level reach to 10%)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (Power level reach to 0%)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Battery 1 and 2 detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OS icon shows Battery 1 and 2
Battery hot-plug	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Detected correct and didn't cause any system crash or hang

1.20. TPM Function Test

Function test	Function			Note
	Pass	Fail	N/A	
TPM Version (2.0) Check	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Enable under BIOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Disable under BIOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. Power Consumption Test

Hardware Information with Windows 10 Enterprise English SP1 64 Bit	
Model	RTC-1200SK
PCB	A 0.3
CPU	Intel® Core™ i3-6100U Processor (3M Cache, 2.30 GHz)
Memory	DDR3L 1600 / 4GB Transcend memory
Storage	M.2 TS64GMTS800 64GB

5.1. ATX Power Consumption

Test Equipment						
Equipment	DC Source					
Manufacturer	Chroma					
Model name	62012P-600-8					
Test Environment						
DC Adapter	FSP084-DMAA1/12V/7.0A MAX (84W MAX)					
Keyboard/Mouse	USB Keyboard: Microsoft 600; USB mouse: Logitech M-U0026					
Power Supply	DC Adapter					Note
(Full Loading Mode) Windows 10 with Prime 95 Full Loading Test	+19V	0.45	A	8.55	W	Prime95 Version 285
Full Loading Total Watt	8.55(W)					
Win. Idle mode: Measure the current value when system in windows mode and without running any program	+19V	1.019	A	19.36	W	
Idle Total Watt	19.36(W)					
S3 mode: Measure the current value when system in Sleep mode	+19V	0.04	A	0.76	W	
Idle Total Watt	0.76(W)					

3. Time Accuracy Test

2.1. System Clock & RTC Clock Test

Under Room Temperature:

Function	Item	Time Interval	Criteria	Actual	Result			Note
					Pass	Fail	N/A	
RTC Clock in Power On Mode		24 hrs	+/-2 Sec	-1 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTC Clock in Power Off Mode		24 hrs	+/-2 Sec	-1 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. Performance Test

4.1 System Performance Test

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark 8 (Creative)			
PCMarks	3478		PCMarks
Web Browsing-Jungle Pin	0.38473s		
Web Browsing-Amazonia	0.15977s		
Video Group Chat v2- Video Group Chat playback1 v2	30.01 fps		
Video Group Chat v2- Video Group Chat playback2 v2	29.99 fps		
Video Group Chat v2- Video Group Chat playback3 v2	30.01 fps		
Video Group Chat v2- Video Group Chat encoding v2	77.33333ms		
Advanced Photo Editing1	0.28109s		
Advanced Photo Editing2	20.78712s		
Video To Gp Part 1	8.25667 s		
Video To Gp Part 2	12.22600 s		
Mainstream Gaming part 1	7.09 FPS		
Mainstream Gaming part 2	3.95 FPS		
Music To Go	2.47833s		
Benchmark duration	58min 3 s		

3Dmark11			
Performance 1280*720 (Default)			
3Dmark Score		P1196	
Graphics Score		1121	
Physics Score		2846	
Combined Score		875	
3Dmark06 Professional Edition			
1920*1080			
3Dmark 06Score		4955	
SM 2.0		1686	
HDR / SM 3.0		2026	
CPU		3221	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 8.0			
PassMark Rating	1883.7	-	
CPU Mark	3421	-	
2D Graphics Mark	460.7	-	
3D Graphics Mark	745	-	
Memory Mark	1378	-	
Disk Mark	2066	-	

CD Mark	-	-	
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4.2. Storage Performance Test

EMMC Performance				
M.2	M.2 / TS64GMTS800 / 64GB			
CPU	Intel® Core™ i3-6100U Processor (3M Cache, 2.30 GHz)			
Memory	DDR3L 1600 / 4GB Transcend memory			
OS	Windows 10 Enterprise 64-bit 2016 LTSC			
Item	Comment / (unit)	Software	Score	Note
M.2	Maximum Read	ATTO Disk Benchmark	444.21 MB/s	
	Maximum Write	ATTO Disk Benchmark	81.72 MB/s	

USB 3.0 / 2.0 Performance				
Software	ATTO Disk Benchmark	Transfer Rate(MB/s)		
USB Flash		Sony USB3.0 128GB	Transcend USB 3.0 64GB	Note
USB3.0 Port	Maximum Read	103.34 MB/s	91.46 MB/s	
	Maximum Write	84.28 MB/s	81.47 MB/s	
USB2.0 Port	Maximum Read	36.52 MB/s	35.37 MB/s	
	Maximum Write	30.4 MB/s	33.81 MB/s	
Docking(Front side USB2.0 Port)	Maximum Read	36.52 MB/s	29.31 MB/s	
	Maximum Write	30.4 MB/s	31.87 MB/s	

Micro SD performance				
MicroSD				
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
Kingston SDXC 128GB	Maximum Read	ATTO Disk Benchmark	23.96 MB/s	
	Maximum Write	ATTO Disk Benchmark	13.37 MB/s	
Transcend SDXC 64 GB	Maximum Read	ATTO Disk Benchmark	24.72 MB/s	
	Maximum Write	ATTO Disk Benchmark	16.72 MB/s	
Kingston SDXC 64GB	Maximum Read	ATTO Disk Benchmark	22.77 MB/s	
	Maximum Write	ATTO Disk Benchmark	13.79 MB/s	
SPI SDHC 16GB	Maximum Read	ATTO Disk Benchmark	24.01 MB/s	
	Maximum Write	ATTO Disk Benchmark	12.46 MB/s	

5. Stability test

5.1. Run In Test

Under Room Temperature: 26 °C

OS: Windows 10 Enterprise 2015 LTSB English 64bit

Test Item	Result			Note		
	Pass	Fail	N/A			
Burn In Test V8.1(1018) Duty: 100 Time: over 12 hours <System should not error or hang during testing.>	CPU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	RAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	COM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Video	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	2D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Sound	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Advanced Net	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Parallel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	USB	2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Bluetooth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Note: COM PORT Speed Set to 115200.

5.2. Reboot Test

Under Room Temperature: 26 °C

OS: Windows 10 Enterprise English 64bit

Test Tool: Passmark rebooter.exe

Test item	Result			Note
	Pass	Fail	N/A	
Reboot test for 500 cycles <System should not error or hang during testing.>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5.3. Memory Test

Under Room Temperature: 26 °C

OS: Dos

Test Tool: Memtest86+ 5.01

Test item	Result			Note
	Pass	Fail	N/A	
Running at least 3 cycles <System should not error or hang during testing.>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	