

Report NO: 14E010007

AQ7-IMX6 Freescale iMX6 platform Q7 CPU Module

P5 Verification Test Report

■ Pass Summary ☐ Fail ☐ 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	Approval	Test Engineer
2014/4/29	Tom Lin	Louie Lee



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History:						
Item	Date	Description				
1	2014/4/29	P5 test report first release				



		Back summary	Total	43	Rate
1. Basic IO Fu	nction lest		Incomplete	0	0.00%
		Rev. 14E010007	Pass Fail	40	93.02% 0.00%
	Test Date	:2014/02/24~2014/03/10	N/A	3	6.98%
Test Configuration					
os	Android 4.0.4 Kernel 3.0.35-05524-g85	13494-dirty			
	Linux Ubuntu 11.10 Kernel 3.0.35-2508	-g54750ff			
CPU	Onboard Freescale [™] i.MX6 Quad 1.0C	Hz Processor			
Memory	Onboard DDR3 1066MHz, 1GB				
eMMC	Onboard eMMC				
PCB version	AQ7-IMX6 A0.3				
Carrier Board version	ECB-970 A0.2				
Chipset Software	Freescale III I.MX6 Quad Processor				
Ethernet	1 Gigabit Ethernet by Micrel ® KS2902	1 RNI			
Audio	125(please refer above customer pin-ou	it define)			
1 1 Android					
1 1 1 Image boot Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
		Confirm boot function is	Base	1000010	Noto
Boot from eMMC.	H/W Jumper SW2 setting boot from eMMC.	correct.	Pass		
Boot from SD card.	H/W Jumper SW2 setting boot from SD	Confirm boot function is	Pass		
		correct.	1 400		
1.1.2 CDU Eurotion Test					
Test Item	Method	Pass Criteria	Popult	lesue ID	Note
restitem	Method	Confirm CPUL information is	nesun	ISSUE ID	Note
CPU information: CPU-z	1. To Install CPU-z.apk and run the APP	correct.	Pass		
Stability Test V2.5	2. To run CPU+GPU Stability test for overnight test	System has not halt or shutdown.	Pass		
1.1.3. Video Resolution and R	Function Test				
Test Item	Method	Pass Criteria	Result	Issue ID	Note
2x LVDS (1x 24 bit) 1024*768	1. Boot to U-boot. command 1(18-bit): setenv bootargs 'console=ttymxc0,115200 androidboot.console=ttymxc0 vmalloc=400M init=/init video=mxcfb0:dev=ldb,LDBXGA,if=RGB666 video=mxcfb1:dev=ldb,LDB- XGA,if=RGB666 ldb=dul1' command 2: setenv bootcmd booti mmc3 command 3: saveenv command 4: boot	Confirm dual display function whether properly.	Pass		
LVDS brightness control icon	Click brighness icon 0~100%	Confirm Action and function	Pass		
1920x1080(HDMI)	1.Boot to U-boot. command 1: setenv bootargs console=ttymxc0,115200 androidboot.console=ttymxc0 vmalloc=400M init=/init video=mxcfb0:dev=hdmi,1920x1080M@60 fbmem=28M command 2: setenv bootcmd booti mmc3 command 3: saveenv command 4: boot	1.Support 1920x1080 display include audio function 2.Confirm Action and function whether properly	Pass		
Stability Test V2.5	 To install Stability test.apk. To run CPU+GPU Stability test overnight test 	System has not halt or shutdown.	Pass		
1.1.4. Audio Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
Onboard Audio Line out	 Setting display from LVDS. Connect to earphone 	Confirm line out Action and	Pass		
Microphone Test	3.Broadcast music 1.Connect Microphone to phone jack. 2.Test recorder and play function.	Confirm Action and function whether properly	Pass		



HDMI Audio Line out	 Setting display from HDMI. Connect to HDMI cable Broadcast music 	Confirm line out Action and function whether properly	Pass		
1 1 5 J AN Eurotion Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
1G / 100M Link/Speed LED	Onboard LAN 1.To connect 1G or 100MB LAN Switch 2.Transmission packet 3.Check the transmission link / rate lights color is normal	1G/100M Speed LED color is green	Pass		
1G / 100M Active LED	Onboard LAN 1.Connect 1G or 100MB LAN Switch 2.Transmission packet 3.Check the transmission process active lights color is normal	LED color is yellow LED and flicker	Pass		
Internet Browser (DHCP Server)	1. Connect LAN cable from DHCP server 2. To run the browser.	Confirm Action and function whether properly	Pass		(Under Android Insert x1 LAN Card onboard LAN no function)
lperf test.	 Prepare one PC as Server, turn off the firewall and enter "iperf.exe -s" In AQ7-IMX6, install iperf.apk Enter "-c 192.168.XX.XX -t 1800 -i 1" and turn ON the button 	Confirm function whether properly and have not loss.	Pass		
1.1.6 USB Eurotion Test					
Test Item	Method	Pass Criteria	Result	lesue ID	Note
USB Mouse and Keyboard	1.Connect to USB Mouse and Keyboard 2.A keyboard to enter letters / numbers / symbols 3 Mouse movement / click	Confirm Action and function whether properly	Pass		note
USB 2.0 Removable Devices	1.Connect to flash drive	Confirm USB flash can be detected, the information display on tera term.	Pass		
USB OTG	Connect USB Keyboard, Mouse and USB Flash.	Confirm USB keyboard, mouse and flash function whether properly	Pass		
1 1 7 LIADT Eurotian Test					
Tost Itom	Mothod	Page Critoria	Popult		Noto
UART	PC terminal setting default is 115200bps. After boot-up, you could command to AQ7-IMX6 via Tera Term then show the current status of system • Tera Term Terminal setting Baud rate: 115200bps Data: 8bit Parity: none Stop: 1 bit • Tera Term Utility: Download path: http://sourceforge.jp/projects/ttssh2/downloa ds/59442/teraterm-4.79.exe/	Confirm Action and function whether properly	Pass		
1 1 8 SPI Flash Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
SPI Flash	SPI Flash Read/Write command under U boot: command 1: sf probe 0 command 2: sf erase 0 0x10000 command 3: mw.l 0x12000000 0x54612354 0x100000 command 4: sf write 0x12000000 0x0 0x1000 command 5: sf read 0x13000000 0x0	In U-boot mode, write a value into flash then read back from Flash and check whether the value are match.	Pass		
1.1.9. Camera Function Test		Dees Outlet	Desudi	Leeve ID	Nete
rest tiem	wethod	Pass Criteria	Result	Issue ID	Note
Camera	 To connector Camera module. To run the APP "Camera" Take a picture and recorder test. 	function whether properly. 2.Confirm Action and function	Pass		



1.1.10. SATA Function Test					
	Method	Pass Criteria	Result	Issue ID	Note
SATA HDD (2.5 SATA HDD of 3.5 SATA HDD)	Connect SATA HDD with CN11 SATA port.	whether properly	N/A		Android no support.
1.1.11. PCI-Express Function T	est	De la Oritaria	Burnit		N I.
Test Item	Method	Pass Criteria	Result	Issue ID	Note
PCle x1	2. Connect LAN cable from DHCP server 3. To run the browser	Confirm Action and function whether properly	Pass		
					1
1.2. Linux	notion Toot				
Test Item	Method	Pass Criteria	Result	Issue ID	Note
2x LVDS (1x 24 bit) 1024*768	1. Boot to U-boot.command 1(18-bit): setenv bootargs_mmc 'setenv bootargs \${bootargs} root=/dev/mmcblk1p1 rootwait rw video=mxcfb0:dev=ldb,LDB- XGA,if=RGB666 ldb=sin0' command 2: setenv bootcmd_mmc 'run bootargs_base bootargs_mmc;mmc dev 1;mmc read \${loadaddr} 0x800 0x2000;bootm' command 3: saveenv command 4: boot	Confirm dual display function whether properly.	Pass		
1920x1080(HDMI)	1. Boot to U-boot. command 1: setenv bootargs_mmc 'setenv bootargs \${bootargs} root=/dev/mmcblk1p1 rootwait rw video=mxcfb1:dev=ldb,LDB- XGA,if=RGB666 video=mxcfb0:dev=hdmi,1920x1080M@60,i f=RGB24' command 2: setenv bootcmd_mmc 'run bootargs_base bootargs_mmc;mmc dev 1;mmc read \${loadaddr} 0x800 0x2000;bootm' command 3: saveenv command 4: boot	Confirm Action and function whether properly	Pass		
	•				
1.2.2. Audio Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
Onboard Audio Line out	2.Connect to earphone 3.Broadcast music	Confirm line out Action and function whether properly	Pass		
Microphone Test	1.Connect Microphone to phone jack. 2.Test recorder and play function.	Confirm Action and function whether properly	N/A		Image no support.
HDMI Audio Line out	Setting display from HDMI. Connect to HDMI cable Proceeding to the set of t	Confirm line out Action and function whether properly	Pass		
	5. Divadeast music		_		
1.2.3. LAN Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
1G / 100M Link/Speed LED	Onboard LAN 1.To connect 1G or 100MB LAN Switch 2.Transmission packet 3.Check the transmission link / rate lights color is normal	1G/100M Speed LED color is green	Pass		
1G / 100M Active LED	Onboard LAN 1.Connect 1G or 100MB LAN Switch 2.Transmission packet 3.Check the transmission process active lights color is normal	LED color is yellow LED and flicker	Pass		
Internet Browser (DHCP Server)	1. Connect LAN cable from DHCP server 2. To run the browser.	Confirm Action and function whether properly	Pass		(Under Android) Insert x1 LAN Card) onboard LAN no function)
Ping test 1000 times with 100Mbps switch <accton 100mb="" desktop-3005="" link=""></accton>	1.Connect two computers via 100Mbps speed LAN switch by using "Ping" instruction (1000 times) Linux: ping 192.168.xx.xx -c 1000 -s 65500 Windows: ping 192.168.xx.xx -n 1000 -l 65500	Confirm function whether properly and have not loss.	Pass		



1.2.4. USB Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
USB Mouse and Keyboard	1.Connect to USB Mouse and Keyboard 2.A keyboard to enter letters / numbers / symbols 3.Mouse movement / click	Confirm Action and function whether properly	Pass		
USB 2.0 Removable Devices	1.Connect to flash drive	1.Connect to flash drive 2.Confirm Action and function whether properly	Pass		
Test Item	Mothod	Pass Critoria	Popult		Noto
UART	PC terminal setting default is 115200bps. After boot-up, you could command to AQ7-IMX6 via Tera Term then show the current status of system • Tera Term Terminal setting Baud rate: 115200bps Data: 8bit Parity: none Stop: 1 bit • Tera Term Utility: Download path: http://sourceforge.jp/projects/ttssh2/downloa ds/59442/teraterm.4.79.exe/	Confirm Action and function whether properly	Pass		
1.2.6. SPI Flash Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
SPI Flash	SPI Flash Read/Write command under U boot: command 1: sf probe 0 command 2: sf erase 0 0x10000 command 3: mw.l 0x12000000 0x54612354 0x100000 command 4: sf write 0x12000000 0x0 0x1000 command 5: sf read 0x13000000 0x0	In U-boot mode, write a value into flash then read back from Flash and check whether the value are match.	Pass		
1.2.7. Camera Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
Camera	 To connector Camera module. To run the APP "Camera" Take a picture and recorder test. 	1.Take a picture and recorder function whether properly. 2.Confirm Action and function whether properly	N/A		Default image has not support Camera
1.2.8. SATA Function Test	Bill a di	Dess Oritoria	Decula	la sus ID	Nete
Test Item	Method	Pass Criteria	Result	Issue ID	Note
SATA HDD (2.5" SATA HDD or 3.5" SATA HDD)	Connect SATA HDD with CN11 SATA port.	storage. 2. Confirm Action and function whether properly	Pass		
1 2 9 Can Bus Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
Can Bus	[Step1] Setup two AQ7-IMX6 with ECB- 970; one for transmitter and one for receiver [Step2] Please connect CN37 to each other, as the figure shows,(CANH to CANH; CANL to CANL; GND to GND) [Step3] In Linux OS, enter command in receiver side: command 1: canconfig can0 bitrate 500000 command 2: ifconfig can0 up command 3: canecho can0 -v [Step4] In Linux OS, enter command in transmitter side: command 1: canconfig can0 bitrate 500000 command 2: ifconfig can0 up command 3: cansend can0 -i0x100 0x33 0x22 0x55 0x56	Confirm Receiver side and Transmitter side data are match.	Pass		



Test Item	Method	Pass Criteria	Result	Issue ID	Note
Intel CT Gigabit LAN card Internet Browser (DHCP Server)	1. To connect PCI-e 1x LAN card. 2. Connect LAN cable from DHCP server 3. To run the browser	Confirm Action and function whether properly	Pass		
Intel CT Gigabit LAN card Ping test 1000 times	1. Connect PCI-e 1X LAN card. 2.Connect 1000Mbps LAN siwtch(D-Link DGS-1210-16) by using "Ping" instruction (1000 times) Linux: ping 192.168.xx.xx -c 1000 Windows: ping 192.168.xx.xx -n 1000	Confirm Action and function whether properly	Pass		
4 0 44 100 Function Test					
Tost Itom	Mothod	Pace Critoria	Popult		Noto
20	1. Boot to U-boot. 2. command: i2c probe	command will show: [Valid chip addresses: 00 4A 68	Pass	Issue ID	Note
	-				
1.2.12. GPIO Function Test					
Test Item	Method	Pass Criteria	Result	Issue ID	Note
GPIO	 Use image for DIO testing. Measure GPIO pin voltage meet the test AP default setting 	Confirm CN41 GPIO voltage meet with AP default setting.	Pass		



		Back summary	Total	42	Rate
2. Compatibil	ity lest		Incomplete	0	0.00%
		Rev. 14E010007	Fail	34 0	0.00%
	Test Date	:2014/02/24~2014/03/10	N/A	8	19.05%
Test Configuration					
Test Configuration	Android 4 0 4 Kernel 3 0 35-05524-085	13494-dirty			
OS	Linux Ubuntu 11.10 Kernel 3.0.35-2508	-q54750ff			
CPU	Onboard Freescale™ i.MX6 Quad 1.0C	Hz Processor			
Memory	Onboard DDR3 1066MHz, 1GB				
eMMC	Onboard eMMC				
PCB version	AQ7-IMX6 A0.3				
Carrier Board version	ECB-970 A0.2				
Chipset Software	Freescale [™] i.MX6 Quad Processor				
Ethernet	1 Gigabit Ethernet by Micrel ® KSZ902	1RNI			
Audio	I2S(please refer above customer pin-ou	ut define)			
2.1. Android					
2.1.1. USB OTG Compatibil	ity Test				
Test Item	Method	Pass Criteria	Result	Issue ID	Note
	1.Connect USB Flash to OTG port				
USB Flash	2.To do read / write / copy / delete action (Test with Adata C802 2GB; Transcend 16GB; Kingston 16GB)	Confirm Action and function whether properly	Pass		
USB Mouse	Connect USB mouse to OTG port (Test with Logitech M-U0003; Microsoft MSK-1113B)	Confirm Action and function whether properly	Pass		
USB Keyboard	Connect USB Keyboard to OTG port (Test with Logitech K200; Microsoft 1366)	Confirm Action and function whether properly	Pass		
0.1.0 LICD Composibility To					
2.1.2. USB Compatibility re	st	1			1
Test Item	Method	Pass Criteria	Result	Issue ID	Note
USB Flash	Connect Flash driver to USB port. (Test with Adata C802 2GB; Transcend 16GB; Kingston 16GB)	Confirm USB flash can be detected, the information display on tera term.	Pass		
USB Mouse	Connect USB mouse to USB port. (Test with Logitech M-U0003; Microsoft MSK-1113B)	Confirm Action and function whether properly	Pass		
USB Keyboard	Connect USB keyboard to USB port. (Test with Logitech K200; Microsoft 1366)	Confirm Action and function whether properly	Pass		
213 PCLExpress Compati	hility Test				
Test Item	Method	Pass Criteria	Result	Issue ID	Note
PCI-e x1 LAN Card	 Insert PCIe x1 LAN Card. Connect LAN cable from DHCP server. To run the APP "Browser " 	Confirm Action and function whether properly	Pass		when insert PCIe x1 LAN Card onboard LAN wiill no function)
PCI-e x1 USB Card	1.Connect to usb Mouse or Keyboard or flash drive 2.A keyboard to enter letters / numbers / symbols 3.Mouse movement / click 4.USB flash drive as storage.	Confirm Action and function whether properly	N/A		Basic image support Intel LAN driver only
PCI-e x1 SATA Card	Connect SATA HDD.	Confirm Action and function whether properly	N/A		
2.1.4. Storage Compatibility	/ Test				
Test Item	Method	Pass Criteria	Result	Issue ID	Note
SATA HDD (2.5" SATA HDD or 3.5" SATA HDD)	Connect Transcend SSD TS16GSSD25S-s 16GB	 1.CN11 for storage use. 2. Confirm Action and function whether properly 	N/A		Android can't support SATA HDD



		Connect Transcend 2GB	1.CN73 for system storage. 2.Confirm Action and function	Pass		
		Connect Transcend SDHC 4GB	1.CN73 for system storage.	Pass		
SD Card(C	NI79)	Connect Transcend SDHC 8GB	1.CN73 for system storage.	Pass		
SD Gald(G	лч <i>то)</i>	Connect Transcend SDHC 16GB	1.CN73 for system storage. 2.Confirm Action and function whether properly	Pass		
		Connect_ATP, 8GB, MLC, x10) [AF8GSD31A1323M02M-10]	1.CN73 for system storage. 2.Confirm Action and function whether properly	Pass		
2.1.5. LAI	N Switch Compatibi	lity Test				
Test liters		Method	Deep Criteria	Decult	lasus ID	Nete
1G switch<	D-Link DGS-1210-16>	1. Connect LAN cable from 1GB switch.	Confirm Action and function	Pass	Issue ID	Note
1G switch<	D-Link DGS-1008D>	1. Connect LAN cable from 1GB switch.	Confirm Action and function	Pass		
100M swite	ch <d-link accton<="" td=""><td>1. Connect LAN cable from 100MB switch.</td><td>Confirm Action and function</td><td>Pass</td><td></td><td></td></d-link>	1. Connect LAN cable from 100MB switch.	Confirm Action and function	Pass		
100M swite	chASUS: RX3041	Connect LAN cable from 100MB switch.	Confirm Action and function	Pass		
100M swite	ch BUFFALO: LSW3-	 1. Connect LAN cable from 100MB switch. 	Confirm Action and function	Pass		
GI-5EP/W	/H	2. To run the browser.	whether properly	1 400		
2.2. I ini	IX					
2.2.1. US	B Compatibility Tes	t				
Test Item	1	Method	Pass Criteria	Result	Issue ID	Note
	Adata C802 2GB	1.Connect to USB HDD	Confirm Action and function	Pass		
USB HDD	Transcend 16GB Kingston 16GB	2.In the OS environment , insert the USB HDD, do read / write / copy / delete action	whether properly	Pass Pass		
USB FDD		1.Connect to usb FDD 2.In the OS environment , insert the USB FDD, do read / write / copy / delete action	Confirm Action and function whether properly	N/A		Basic Linux image no support USB FDD
USB DVD-	ROM	1.Connect to usb DVD-ROM 2. In the OS environment , then the USB DVD -ROM , to do the operation of read /	Confirm Action and function whether properly	N/A		Basic Linux image no support USB DVD
USB HUB		1.Connect to usb HUB 2.Insert the USB Mouse \ Keyboard and flash drive	Confirm Action and function whether properly	Pass		
		1114. Tool				
2.2.2. FC	-Express Company					
Test Item	1	Method	Pass Criteria	Result	Issue ID	Note
PCI-e x1 L	AN Card	 Insert PCIe x1 LAN Card. Connect LAN cable from DHCP server. To run the APP "Browser " 	Confirm Action and function whether properly	Pass		
PCI-e x1 U	ISB Card	1.Connect to usb Mouse or Keyboard or flash drive 2.A keyboard to enter letters / numbers / symbols 3.Mouse movement / click 4.USB flash drive as storage.	Confirm Action and function whether properly	N/A		Basic image support Intel LAN driver only
PCI-e x1 S	ATA Card	Connect SATA HDD.	Confirm Action and function whether properly	N/A		
0.0.2 Sto	vraga Compatibility	Toot				
2.2.3. 510	orage companionity					
Test Item		Method	Pass Criteria	Result	Issue ID	Note
SATA	Transcend SSD TS16GSSD25S-s 16GB	Connect SATA HDD to SATA port.	1.CN11 for storage use. 2. Confirm Action and function whether properly	Pass		
HDD	WD WD3200AAKX 3.5" 320GB	Connect SATA HDD to SATA port.	1.CN11 for storage use. 2. Confirm Action and function whether properly	Pass		
SATA DVD	ASUS BW-14D1XT	Connect SATA DVD to SATA port.	Confirm Action and function whether properly	N/A		Basic Linux image no support SATA DVD



	Connect Transcend 2GB	1.CN73 for system storage. 2.Confirm Action and function whether properly	Pass		
	Connect Transcend SDHC 4GB	1.CN73 for system storage. 2.Confirm Action and function	Pass		
SD Card(CN73)	Connect Transcend SDHC 8GB	1.CN73 for system storage. 2.Confirm Action and function	Pass		
	Connect Transcend SDHC 16GB	1.CN73 for system storage. 2.Confirm Action and function whether properly	Pass		
	Connect ATP, 8GB, MLC, x10) [AF8GSD31A1323M02M-10]	1.CN73 for system storage. 2.Confirm Action and function whether properly	Pass		
2.2.4. LAN Switch Compatibi	ity Test				
Test Item	Method	Pass Criteria	Result	Issue ID	Note
1G switch <d-link dgs-1210-16=""></d-link>	1. Connect LAN cable from 1GB switch.	Confirm Action and function	Pass		
	z. To full the browser.	whether properly	Fass		
1G switch <d-link dgs-1008d=""></d-link>	1. Connect LAN cable from 1GB switch. 2. To run the browser.	whether properly Confirm Action and function whether properly	Pass		
1G switch <d-link dgs-1008d=""> 100M switch <d-link accton<br="">Desktop-3005 Link 100MB></d-link></d-link>	1. Connect LAN cable from 1GB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser.	whether properly Confirm Action and function whether properly Confirm Action and function whether properly	Pass Pass Pass		
1G switch <d-link dgs-1008d=""> 100M switch <d-link accton<br="">Desktop-3005 Link 100MB> 100M switchASUS: RX3041</d-link></d-link>	1. Connect LAN cable from 1GB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser.	whether properly Confirm Action and function whether properly Confirm Action and function whether properly Confirm Action and function whether properly	Pass Pass Pass Pass		
1G switch <d-link dgs-1008d=""> 100M switch <d-link accton<br="">Desktop-3005 Link 100MB> 100M switchASUS: RX3041 100M switch BUFFALO: LSW3- GT-5EP/WH</d-link></d-link>	1. Connect LAN cable from 1GB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser. 1. Connect LAN cable from 100MB switch. 2. To run the browser.	whether properly Confirm Action and function whether properly Confirm Action and function whether properly Confirm Action and function whether properly Confirm Action and function whether properly	Pass Pass Pass Pass Pass		



3. Time Accuracy Test		Back summary	Total Incomplete Pass	8 0 8	Rate 0.00% 100.00%	
		Test Date	Rev. 14E010007 :2014/02/24~2014/03/10	Fail N/A	0 0	0.00% 0.00%
Test Config	uration		10404 dista			
os		Android 4.0.4 Kernel 3.0.35-05524-g85	13494-dirty			
		Linux Ubuntu 11.10 Kernel 3.0.35-2508	l-g54/50ff			
CPU		Onboard Freescale™ i.MX6 Quad 1.00	Hz Processor			
Memory		Onboard DDR3 1066MHz, 1GB				
eMMC		Onboard eMMC				
SD card		Transcend SDHC 4GB				
PCB version		AQ7-IMX6 A0.3				
Carrier Board	d version	ECB-970 A0.2				
Ethernet	ware	1 Gigabit Ethernet by Microl ® KSZ902				
		12S(please refer above customer pin-ou	it define)			
Addio						
3.1. System	Clock & RTC	Clock Test (Under Room Tempera	ture: 26°C) (Test under	U-boot)		
Test Item		Method	Pass Criteria	Result	Actual	Issue ID
RTC Clock in Amb Power On	bient=26° ℃	1. Setting RTC time under u-boot 2. # i2c mm 68 00 <keyin time=""> 3. # i2c md 68 00 <read time=""></read></keyin>	+/-2 sec/24hours	Pass	0 sec	
RTC Clock in Power Off Mode	ient=26 ℃	1. Setting RTC time under u-boot 2. # i2c mm 68 00 <keyin time=""> 3. # i2c md 68 00 <read time=""> 4. Power off and AC loss.</read></keyin>	+/-2 sec/24hours	Pass	-1 sec	
		-				
3.2. Watchd	log Timer Test	(Test under Linux)				
Test Item		Method	Pass Criteria	Result	Actual	Issue ID
10 sec		1. In Linux OS serial console, enter command: 2. command 1: cd /unit_tests/	Margin for error : + / - 10 %	Pass	10.2sec	
60 sec		1. In Linux OS serial console, enter command: 2. command 1: cd /unit_tests/	Margin for error : + / - 10 %	Pass	60sec	
128sec		1. In Linux OS serial console, enter command: 2. command 1: cd /unit_tests/	Margin for error : + / - 10 %	Pass	128.5sec	
2.2 Posting	Timor Toot (T	at under Andreid)				
Test Item	Timer rest (re	Method	Pass Criteria	Result	Actual	Issue ID
Shutdown Time		Press "shutdown icon" under Android	shutdown time<20sec	Pass	10sec	
System Booting	Time	Press the Power Button till "Beep" Sound appears	Booting time<7sec	Pass	1 sec	
3.4 Clear Cl	NOS Test	Method	Pass Criteria	Result		
Clear CMOS		Remove 3.3V CMOS battery for 20sec.	Confirm RTC time have be cleared.	Pass		
		I				



			Back summary	Total	43	Rate			
4. O	.S. Compa	tidility lest		Incomplete	0	0.00%			
			Bev. 14E010007	Pass Fail	39 0	90.70%			
			Test Date:2014/02/24~2014/03/10	N/A	4	9.30%			
4.1. An	4.1. Android 4.0 Kernel 3.0.15								
OS		Android 4.0.4 Kernel 3.0.3	5-05524-g8513494-dirty						
CPU		Onboard Freescale™ i.MX	6 Quad 1.0GHz Processor						
Memory		Onboard DDR3 1066MHz,	1GB						
eMMC		Onboard eMMC							
SD card		Transcend SDHC 4GB							
PCB ver	sion	AQ7-IMX6 A0.3							
Carrier	Board version	ECB-970 A0.2							
Chipset	Software	Freescale MI.MX6 Quad F							
Etherne	t i	I Gigabit Ethernet by Micro	el & KSZ902 I RNI						
Audio		125(please feler above cus	Boose Ovitoria	Decult	la sus ID	Note			
Test iter		Method	Pass Criteria	Result	Issue ID	Note			
1	Alarms icon	2. To setting Alarm time.	whether properly	Pass					
2	Google search icon	 Click "Google sarch icon" To test search function. 	Confirm Action and function whether properly	Pass					
3	Return icon	Click " Return icon"	Confirm Action and function whether properly	Pass					
4	Home icon	Click " Home icon"	Confirm Action and function	Pass					
т г			whether properly Confirm Action and function	Dees					
5	Recent Apps Icon	Click " Recent Apps Icon"	whether properly	Pass					
6	icon	Click APP " Browser "	whether properly	Pass					
7	Default APP: Calculator	Click APP " Calculator "	Confirm Action and function whether properly	Pass					
8	Default APP: Calendar	Click APP " Calendar "	Confirm Action and function whether properly	Pass					
			1.Test take the pictures and video features	Daaa					
9	Default APP: Gamera	Click APP " Camera "	2.Confirm Action and function	Pass					
	0 "D' '! 7 "		No support.						
10	Camera "Digital Zoom"	1. Click APP " Camera " 2. To use Zoom function	Confirm Action and function	N/A		No support			
			whether properly						
11	Default APP: Clock	Click APP " Clock "	whether properly	Pass					
12	Default APP: Downloads	Click APP " Downloads "	Confirm Action and function whether properly	Pass					
13	Default APP: Email	Click APP " Email"	Confirm Action and function whether properly	Pass					
14	Default APP: File	Click APP " File manager"	Confirm Action and function	Pass					
15	Default APP: Gallery	Click APP " Gallery"	Confirm Action and function	Pass					
	Default APP:		whether properly Confirm Action and function	- 1 400					
16	Messaging	Click APP " Messaging"	whether properly	Pass					
17	Studio	Click APP " Movie Studio"	whether properly	Pass					
18	Default APP: Music	Click APP " Music"	Confirm Action and function whether properly	Pass					
19	Default APP: Notepad v3	Click APP " Notepad V3"	Confirm Action and function whether properly	Pass					
20	Default APP: People	Click APP " People"	Confirm Action and function whether properly	Pass					
21	Default APP: Phone	Click APP " Phone"	Confirm Action and function whether properly	N/A		No support			
22	Default APP: Search	Click APP " Search"	Confirm Action and function whether properly	Pass					
23	Default APP: Sound Recorder	Click APP " Sound Recorder"	Confirm Action and function whether properly	Pass					
24	Default APP: System	Click APP " system Profile"	Confirm Action and function	Pass					
25	Default APP: Setting	Click APP " Setting"	Confirm Action and function	Pass					
26	Sound Volumes icon	Click sound volumes icon.	Confirm Action and function	Pass					
1	1		whether properly						



27	Stand by	1.Press power button: sleep mode 2.System will show unlock screen when press power button from sleep mode.	Confirm Action and function whether properly under Android	Pass						
28	Shutdown	1.Press power button for 2sec [,] click ok to system shutdown	Confirm Action and function whether properly	Pass						
4.2. Lir	ux Linux Ubuntu 1	1.10 Kernel 3.0.35-2508-g54750ff								
OS		Linux Ubuntu 11.10 Kernel 3.0.35-2508	-g54750ff							
CPU		Onboard Freescale [™] i.MX6 Quad 1.0G	Hz Processor							
Memory	1	Onboard DDR3 1066MHz, 1GB								
eMMC		N/A								
SD card		Transcend SDHC 4GB								
PCB ve	rsion									
Carrier	Board version	FCB-970 A0 2								
Chinest	Software	Ecosoalo III i MX6 Quad Broossor								
Chipset	Jontware	1 Circebit Ethernet by Mierel @ KCZ000								
Elnerne	1	I Gigabit Ethernet by Micrel ® KS2902								
Audio		12S(please refer above customer pin-ou	it define)							
Test Iter	m	Method	Pass Criteria	Result	Issue ID	Note				
1	uname –a	# uname -a	1.Confirm Action and function whether properly	Pass						
•	uname a		(Show information)	1 8 3 3						
			Confirm Action and function							
2	Shut down	Click "shutdown" icon	whether properly	N/A		support command				
2	Chat down	Chok Shutdown Icon.	(Command : Init 0 or shutdown			shutdown only				
			–h now)							
			Confirm Action and function							
3	Restart the Computer	Click "Beset" icon	whether properly	N/A		support command				
•			(Command : Init 6 or shutdown			reset only				
			–r now)							
4	Loa out	Click "log out" icon.	Confirm Action and function	Pass						
	- 3		whether properly							
5	Lock Screen	Click "Lock Screen" icon.	Confirm Action and function	Pass						
			whether properly							
0			Confirm Action and function	Deee						
ь	Suspend (Stand by)	Click "Suspend" icon.	(Make up by power button)	Pass						
			(Wake up by power bullon.)							
7	ls / clear; cd /dev	To test command "ls/clear/cd/dev" under	whether properly	Dace						
1	/ls –l	terminal	(Command instruction)	Fass						
			Confirm Action and function							
8	lcon-search	Click "leap" icap	whether properly	Dace						
0	ICOII-SEAICII		(Command instruction)	газэ						
			Confirm Action and function							
9	Icon-Home Folder	Click "Icon-Home" icon	whether properly	Pass						
Č			(Command instruction)	1 400						
			Confirm Action and function							
10	Icon-Firefox Web	Click "Firefox" icon.	whether properly	Pass						
-	Browser		(Command instruction)							
			Confirm Action and function							
11	Icon-Ubuntu Software	Click "Ubuntu Software center" icon.	whether properly	Pass						
	Center		(Command instruction)							
			Confirm Action and function							
12	Icon-Ubuntu One	Click "Ubuntu one" icon.	whether properly	Pass						
			(Command instruction)							
			Confirm Action and function							
13	Icon-System Settings	Click "System Settings" icon.	whether properly	Pass						
			(Command instruction)							
			Confirm Action and function							
14	Icon-Terminal	Click "Terminal" icon.	whether properly	Pass						
			(Command instruction)							
	1		Confirm Action and function							
15	Icon-Workspaces	Click "Workspaces" icon.	whether properly	Pass						
		L	(Command instruction)							



		Back summary	Total	31	Rate				
5. Performanc	e Test		Incomplete	0	0.00%				
		D 145010007	Pass	31	100.00%				
	Tost	Kev. 14E010007		0	0.00%				
	Test	Date:2014/02/24 2014/03/10	N/A	U	0.00 /8				
Test Configuration									
	Android 4.0.4 Kernel 3.0.35-05524	1-a8513494-dirty							
os	Linux Libuntu 11 10 Kernel 3.0.35-2508-a54750ff								
ODU	Onboard Fraescale IV i MX6 Ouad 1 0GHz Processor								
		11.0GHz FIOCessol							
Memory	Onboard DDR3 1066MHz, 1GB								
emmc									
SD card	ranscend SDHC 4GB								
PCB version		Q/-IMX6 A0.3							
Chinset Software	ECB-370 A0.2	or							
Fthernet	1 Gigabit Ethernet by Micrel ® KS	79021BNI							
Audio	I2S(please refer above customer)	pin-out define)							
5.1. Performance Test for	Android								
Test Item									
Antutu Benchmark (V2.6)	Method	Pass Criteria	Result	Score	Issue ID				
RAM Performance			Pass	1790					
CPU Integer Performance	_		Pass	2889					
CPU Floating-point performance	-		Pass	2294					
2D Graphics performance	-	1 No	Pass	282					
Database IQ	To run the program.	 No error massage Program can be finished 	Pass	896					
SD card write speed	-		Pase	8 4MB/s 84					
SD card read speed	-		Pass	>50MB/s 199					
CPU frequency	-		Pass	996MHz					
Total score	-		Pass	8704					
benchmark	Method	Pass Criteria	Result	Score	Issue ID				
Graphic		1. No error massage 2. Program can be finished	Pass	383.79868					
CPU	To run the program		Pass	3133.376					
Memory			Pass	537.09125					
Filesystem			Pass	239.65128					
SD card tester (eMMC)	Method	Pass Criteria	Result	Score	Issue ID				
· · ·									
Read	To run the program.	Record	Pass	30.29MB/s					
Write	To run the program.	Record	Pass	6.91MB/s					
An3D Benchmark	Method	Pass Criteria	Result	Score	Issue ID				
Fillrate ST/MT:			Pass	11.49/11.49MP/					
Higt object count	-		Daee	45 46fps					
Multiple lights	-	1 No error massage	Pass	60.13fps					
High polygon count	To run the program.	2. Program can be finished	Pass	60.13fps					
keyframe animation		Ŭ	Pass	60.15fps					
Game level			Pass	60.03fps					
Total score			Pass	7661					
Play movie function nornal (
Lag / hang up / blue screen /	Method	Pass Criteria	Result	Score	Issue ID				
garbage screen)									
		1 Supported		Play video with					
AVI/MPG/MP4/Mov	To play Video	AVI/MPG/MP4/Mov formats	Pass	AVI/MPG/MP4/					
		video.		Mov					
Onboard LAN	Method	Pass Criteria	Result	Score	Issue ID				
Speed Test_2.0.9(LAN)									
PNG		Record	Dooo	Orac					
	To run the program.	Becord	Pass	72 30Mbps					
UPLOAD	To run the program	Record	Pass	22,56Mbps					
			1 0 0 0						



PCI-e LAN card Speed Test_2.0.9(LAN)	Method	Pass Criteria	Result	Score	Issue ID		
PNG	To run the program.	Record	Pass	11ms			
DOWNLOAD	To run the program.	Record	Pass	79.92Mbps			
UPLOAD	To run the program.	Record	Pass	22.06Mbps			
5.2. Performance Test for Linux Test Item							
Play movie function nornal (Lag / hang up / blue screen / garbage screen)	Method	Pass Criteria	Result	Score	Issue ID		
AVI/MPG/MP4/Mov	To play Video	1. Supported AVI/MPG/MP4/Mov formats video.	Pass	Play video with AVI/MPG/MP4/ Mov			



6. Stress Test			Total	4	Rate				
			Incomplete	0	0.00%				
			Pass	2	50.00%				
			Rev. 14E010007	Fail	0	0.00%			
		Test Date	:2014/02/24~2014/03/10	N/A	2	50.00%			
Test Co	nfiguration								
OS		Android 4.0.4 Kernel 3.0.35-05524-g8513494-dirty							
CPU		Onboard Freescale™ i.MX6 Quad 1.0G	Hz Processor						
Memory		Onboard DDR3 1066MHz, 1GB							
eMMC		Onboard eMMC							
SD card		N/A							
PCB vers	sion	AQ7-IMX6 A0.3							
Carrier B	loard version	ECB-970 A0.2							
Chipset S	Software	Freescale™ i.MX6 Quad Processor							
Ethernet		1 Gigabit Ethernet by Micrel ® KSZ9021RNI							
Audio		I2S(please refer above customer pin-out define)							
6.1 And	roid Stress Test								
Test Item	ı	Method	Pass Criteria	Result	Issue ID	Note			
6.1.1	Stability Test.	1. Install Stability Test V2.5.apk 2. To run CPU+GPU Stability test overnight test	No halt, shutdown, reboot and error message.	Pass					
6.1.2	Cold boot on/off test	1. Install ON_OFF_Test.apk 2. AC loss on/off test over 1000 times.	Loss: 0/1000 times	Pass					
6.2 Linux Stress Test									
Test Item		Method	Pass Criteria	Result	Issue ID	Note			
6.2.1	Stability Test.			N/A		No AP support.			
6.2.2	Cold boot on/off test			N/A		No AP support.			



7 Dower con	sumption	Back summary		0	Rate	
1. FOWEI COIR	sumption			0	#DIV/0! #DIV/0!	
	Rev. 14E010007	Fail	0	#DIV/0!		
	Test Date:20	014/02/24~2014/03/10	N/A	0	#DIV/0!	
Test Configuration						
os	Android 4.0.4 Kernel 3.0.35-05524-g851	13494-dirty				
СРО	Onboard Freescale™ I.MX6 Quad 1.0G	Hz Processor				
Memory	Onboard DDR3 1066MHz, 1GB					
eMMC	Onboard eMMC					
SD card	N/A					
PCB version	AQ7-IMX6 A0.3					
Carrier Board version	ECB-970 A0.2					
Chipset Software	Freescale [™] i.MX6 Quad Processor					
Ethernet	1 Gigabit Ethernet by Micrel ® KSZ9021	RNI				
Audio	I2S(please refer above customer pin-ou	t define)				
7.1 Power Consumption	test					
Test Equipment						
Equipment	Digital Multimeter					
Manufacturer	Hila					
Model name	DM-1240					
a. Idle mode						
Test Item	Method	Current (A)	Total Watt(W)	Issue ID	Note	
ATX 5V	Bootup to Android and have not run any program.	0.313	1.565			
b. Full loading mode						
Test Item	Method	Current (A)	Total Watt(W)	Issue ID	Note	
ATX 5V	To run test AP: Stability Test V2.5.	1.075	5.375			
c. Suspend						
Test Item	Method	Current (A)	Total Watt(W)	Issue ID	Note	
ATX 5V	Press power butter to suspend.	0.052	0.26			