

AFE-R750_A101-2 DVT Function Test Report

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Revision History :

Date	Revision	Description	Creator
2025/8/14	V1.0	AFE-R750 A101-2 DVT function test	Nick Yu

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Product Specification :

		AFE-R750	AFE-R750
	CPU		
	Chipset	AGX Orin	NX
	Memory		
Coastline I/O	HDMI	1x 1.4a, 4K 24Hz	1x 1.4a, 4K 24Hz
	GigaLAN	4 (4 x Intel i226-LM)	4 (4 x Intel i226-LM)
	USB	4* USB 3.2, 2ports share 2.5A(max)	4* USB 3.2, 2ports share 2.5A(max)
	COM	2x full COM	2x full COM
	PowerButton	1	1
	DIO	16bit Isolated (8DI/8DO)	16bit Isolated (8DI/8DO)
	CANBus	2 Isolated	1 Isolated
	Power input	20-28VDC 4pin phoenix	20-28VDC 4pin phoenix
	Power switch+LED	8pin	8pin
	Fan connector	12V 1A defined connector	12V 1A defined connector
	Type C	for flash image	for flash image
Internal Connector	TPM 2.0	1	1
	M.2 M key 2280	1	1
	M.2 B Key 2280	PCIex1 + USB 3.2 +USB 2.0	PCIex1 + USB 3.2 +USB 2.0
	SIM	1	1
	M.2 E Key 2230	PCIex1 + USB 2.0 (Wake on WLAN)	PCIex1 + USB 2.0 (Wake on WLAN)
	IMU	Bosch BMI088	Bosch BMI088
	GPS	Ublox (PPS Source) (Optional)	Ublox (PPS Source) (Optional)
GMSL Board	GMSL	8	4
	IMU	Optional MTI-3	-
Power		20-28VDC	20-28VDC
Dimensions(mm)			
EMI level		CE/FCC/CCC/BSMI 重工 + 資訊類Class B	CE/FCC/CCC/BSMI 重工 + 資訊類Class B
		Separate GND and Digital GND	Separate GND and Digital GND
		ESD 8KV/15KV and TVS Protection	ESD 8KV/15KV and TVS Protection
Safety		CB/UL/CCC/BSMI 62368 (61010 test	CB/UL/CCC/BSMI 62368 (61010 test
Operating temperature		-20~50C	-20~50C
		All with 0.7m/s air flow	All with 0.7m/s air flow
SW/OS		Robotic Suite	Robotic Suite
		Ubuntu RT	Ubuntu RT
		Peripherals tools/Utility (Co-work with pe	Peripherals tools/Utility (Co-work with pe
		TBD	TBD
Peripherals Testing with		Lidar	Lidar
		Camera	Camera
		IMU	IMU
		GPS	GPS

System Configuration :

AGX

Item.	Description.
Project Name.	AFE-R750
M/B Name	Nvidia Jetson AGX Orin
Carrier Board Model.	AFE-R750
Carrier Version.	A101-2
CPU Model/Info	Nvidia Jetson AGX Orin
Memory Type/Info/Size	32GB 256-bit LPDDR5
Graphic Controller	2 GPC 8 TPC 2048 NVIDIA® CUDA® cores 32 Tensor cores Ray-Tracing cores 170 Sparse TOPS Maximum Operating Frequency: 1.3 GHz
LAN1 Controller	Intel® Ethernet Controller I226-LM
LAN2 Controller	Intel® Ethernet Controller I226-LM
LAN3 Controller	Intel® Ethernet Controller I226-LM
LAN4 Controller	Intel® Ethernet Controller I226-LM
GMSL/IMU Board	AFE-ROM4 A101-1
Storage Type/Info.	32GB eMMC 6.0
Power Supply Model	FSP230-AAAN3 DC 24V/9.58A 230W
Display Monitor	ViewSonic VX2476-SMHD
Test OS Version	Ubuntu 22.04 with JetPack6.1 Linux localhost.localdomain 5.15.148-tegra #1 SMP PREEMPT Mon Jul 30 22:34:37 CST 2025 aarch64 aarch64 aarch64 GNU/Linux.(AFE-R750_0730_disablebmi088_cbb.tar.gz) Linux localhost.localdomain 5.15.148-tegra #1 SMP PREEMPT Mon Jul 21 11:44:13 CST 2025 aarch64 aarch64 aarch64 GNU/Linux.(Stress)(AFE-R750_0721_disable_bmi088_poweronoff.tar.gz)

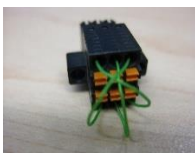
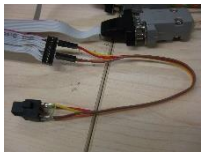
NX

Item.	Description.
Project Name.	AFE-R750
M/B Name	Nvidia Jetson NX
Carrier Board Model.	AFE-R750
Carrier Version.	A101-2
CPU Model/Info	Nvidia Jetson NX
Memory Type/Info/Size	32GB 256-bit LPDDR5
Graphic Controller	2 GPC 8 TPC 2048 NVIDIA® CUDA® cores 32 Tensor cores Ray-Tracing cores 170 Sparse TOPS Maximum Operating Frequency: 1.3 GHz
LAN1 Controller	Intel® Ethernet Controller I226-LM
LAN2 Controller	Intel® Ethernet Controller I226-LM
LAN3 Controller	Intel® Ethernet Controller I226-LM
LAN4 Controller	Intel® Ethernet Controller I226-LM
Storage Type/Info.	Advantech SQF-C8MZ4-512GDEDE
Power Supply Model	FSP230-AAAN3 DC 24V/9.58A 230W
Display Monitor	ViewSonic VX2476-SMHD
Test OS Version	Ubuntu 22.04 with JetPack6.1 Linux localhost.localdomain 5.15.148-tegra #1 SMP PREEMPT Mon Jul 08 10:25:36 CST 2025 aarch64 aarch64 aarch64 GNU/Linux.(Stress)(AFE-R750_0708_FIXNXUSB_POWERONOFF.tar.gz) Linux localhost.localdomain 5.15.148-tegra #1 SMP PREEMPT Mon Jul 08 10:25:36 CST 2025 aarch64 aarch64 aarch64 GNU/Linux.(Stress)(AFE-R750_0708_FIXNXUSB_POWERONOFF.tar.gz)

Test Utility and Tool List :

Title	Version	Remark
burnin.sh	non	
iPerf3.	non	

Test Equipment :

Model	Description
Advantech Power on/off test equipment (ATX/AT)	
Serial Port cable for Transmission test	
COM RS232 Loopback Plug	
CAN Bus Loopback	 
WLAN Access Point (Model. ASUS RT-AC66U Dual Band x3 802.11 AC Gigabit Router)	

Test Results Definition :

Criteria	Definition
PASS	Test result pass and function work perfectly.
Fail	Test fail or cannot meet the spec requirement.
Limitation	There are no plans to fix this function.
N/A	Not Available or Not Applicable.
Check Next Version	HW modified circuit and solution verified, and checks the function result has pass. Need to check next version.

Test Results Summary :

Num.	Test Item	Result	Remark
1	Function		
1.01	Support Processor and Memory SPEC Check	PASS	
1.02	Output Display Function	PASS	
1.03	M.2 Function	PASS	
1.04	USB Function	PASS	
1.05	Wired LAN Function-1G	PASS	
1.06	Serial Port Function	PASS	
1.07	Jumper/Connector/Button/Pin Header Function	PASS	
1.08	GPIO Port Function	PASS	
1.09	CAN Bus Function	PASS	
1.10	GMSL Basic Function	PASS	
1.11	TPM Function	PASS	
1.12	IMU Function	PASS	
2	Performance		
2.01	Storage Performance	PASS	
2.02	USB Performance	PASS	
2.03	Ethernet Performance-1G	PASS	
3	Reliability		
3.01	System Timer Function Test	PASS	
3.02	RTC Timer Function Test	PASS	
3.03	CMOS Battery Discharge Current Test	PASS	
3.04	Power On/Off Test	PASS	
3.05	Reboot Test	PASS	
3.06	LAN Port Stress Test	PASS	
3.07	IO Port Stress Test	PASS	
3.08	Integrated Stress Test	PASS	

1. Function

1.01 Support Processor and Memory SPEC Check

1.01.01 Support CPU SPEC Test

1.01.01.01.01 Test Purpose :

The purpose of this test is to validate and ensure the CPU Specification.

1.01.01.01.02 Test Data:

AGX

Test Item	Description	Result	Remark
CPU SPEC Information Check	Nvidia Jetson AGX Orin 32 GB Test program(cmd):lscpu	PASS	

NX

Test Item	Description	Result	Remark
CPU SPEC Information Check	Nvidia Jetson NX 32 GB Test program(cmd):lscpu	PASS	

1.01.02 Memory Specification Test

1.01.02.01.01 Test Purpose :

The purpose of this test is to validate and ensure the Memory Specification.

1.01.02.01.02 Test Data:

Test Item	Description	Result	Remark
Memory Spec. Check	32GB 256-bit LPDDR5 Test program(cmd):free -m	PASS	

1.02 Output Display Function

1.02.01 HDMI Output Display Function Test

1.02.01.01.01 Test Purpose :

The purpose of this test is to examine the function of HDMI interface.

1.02.01.01.02 Test Data :

Test Item	Description	Location	Result	Remark
HDMI function	Display resolution check at 1080P. 1920x1080, 60 Hz	HDMI1	PASS	
	3840×2160, 30Hz (HDMI 1.4)	HDMI1	PASS	
	Max resolution (SPEC) check under Windows OS. <u>Max spec resolution:</u> => 4096×2160, 24Hz	HDMI1	PASS	test with 30Hz
	<u>Monitor Model and Fixture No.</u> => ViewSonic VX2475SMHL 24" DI-A00150			
	Hot-Plug under OS. Check HDMI Output function. Check HDMI-Audio function.	HDMI1	PASS	
	Plug-in HDMI monitor "after" system boot into Windows.	HDMI1	PASS	

1.03 M.2 Function

1.03.01 M.2 Function Test

1.03.01.01 Test Purpose :

The test is to ensure the on-board M.2 socket functionality could work properly.

1.03.01.02 Test Data :

Test Item	Description	Location	Result	Remark
M.2 device (PCIe with NVME) M Key 2280	Read or Write Test Device Model and fixture No. SQF-C8MV2-128GDEDC Test program: fio	NVME1	PASS	
M.2 device (USB) B Key 2242/3520	USB Type: USB2.0/USB3.2 devices.5G/LTE module Device Model and fixture No. 5G module_ AIW-357 DK-G2U GPS module: AIW-210XU-001 GPS function needs to be installed gps kit(apr-get install gps)"	M2B1	PASS	
M.2 device (PCIe) B Key 2242/3520	Read or Write Test Device Model and fixture No. 96FD42-PT512-LIS Test program: fio	M2B1	PASS	
M.2 device (PCIe) E Key 2230	PCIe Type: WLAN /WWAN devices Device Model and fixture No. EWM-W179M201E	M2E1	PASS	
	PCIe Type: NVME Device Model and fixture No. SQF-C3AV-512GDEDE	M2E1	PASS	
M.2 device (USB) E Key 2230	USB Type: Blue Tooth devices. Device Model and fixture No. EWM-W179M201E	M2E1	PASS	

1.04 USB Function

1.04.01 USB3.2 Gen2 x 1 Function Test

1.04.01.01 Test Purpose :

The purpose of this test is to ensure the USB3.2 port functional of DUT.

1.04.01.02 Test Data :

Test Item	Description	Location	Result	Remark
USB3.2 type A Hot-plug function	USB 2.0 & 3.2 devices Hot-Plug test under OS. => Check on each USB3.2 ports. Device Model and fixture No. USB2.0: SanDisk SDCZ50 16G Flash drive USB3.1: Transcend JetFlash 790 32GB Flash drive USB3.2 gen2 x1: WD P50 500GB External disk	USB1	PASS	
		USB2	PASS	
		USB3	PASS	
		USB4	PASS	
USB function	R/W USB2.0 /USB3.2 Devices => Check on one USB3.2 port of each USB3.2 controller. Device Model and fixture No. USB3.2 gen2x2: WD P50 500GB External disk	USB1	PASS	
		USB2	PASS	
		USB3	PASS	
		USB4	PASS	

1.05 Wired LAN Function – 2.5G(AGX)/1G(NX)

1.05.01 LAN Basic Function Test

1.05.01.01 Test Purpose :

The purpose of this test is to examine the wired LAN basic function and to ensure the functional of Ethernet controllers.

1.05.01.01.02 Test Data :

Test Item	Description	Location	Result	Remark
Ethernet Basic Function Check	Connecting internet to surfing websites under Nvidia OS.	LAN1	PASS	
		LAN2	PASS	
		LAN3	PASS	
		LAN4	PASS	
	LAN speed detect function test (command : iperf3 -c IP -t 100 r)	LAN1	PASS	
		LAN2	PASS	
		LAN3	PASS	
		LAN4	PASS	

1.05.02 LAN LED Indicators Function Test

1.05.02.01.01 Test Purpose :

The purpose of this test is to examine the functional of the LAN LED.

1.05.02.01.02 Test Data :

AGX

Test Item	Description		Location	Result	Remark
LAN Indicator LED Checks	Right Side (LED1)	Green LED ON for Link On. Green LED blinking for Active.	LAN1	PASS	
			LAN2	PASS	
			LAN3	PASS	
			LAN4	PASS	
	Left Side (LED2)	LED Off for 10/100Mbps, Orange LED ON for 1Gbps s Green LED ON for 1G/2.5Gbps.	LAN1	PASS	
			LAN2	PASS	
			LAN3	PASS	
			LAN4	PASS	

NX

Test Item	Description		Location	Result	Remark
LAN Indicator LED Checks	Right Side (LED1)	Green LED ON for Link On. Green LED blinking for Active.	LAN1	PASS	
			LAN2	PASS	
			LAN3	PASS	
			LAN4	PASS	
	Left Side (LED2)	LED Off for 10Mbps, Orange LED ON for 100Mbps s Green LED ON for 1Gbps.	LAN1	PASS	
			LAN2	PASS	
			LAN3	PASS	
			LAN4	PASS	

1.06 Serial Port Function

1.06.01 Serial Port Function Test

1.06.01.01 Test Purpose :

The purpose of this test is to ensure the system Serial Port function.

1.06.01.02 Test Data :

Test Item	Description	Location	Result	Remark
RS-232 Function	1. Loopback Test: Plug in RS232 loopback and use burnin.sh to test RS232 function is properly (50 cycle) 2. RS-232 Loopback connected on a 15M RS-232 pin to pin cable (50 cycle) Test program: burnin.sh (115200bps)	COM1	PASS	
		COM2	PASS	
RS-422 Function	1. Loopback Test: Plug in RS422 loopback and use burnin.sh to test RS422 function is properly (100 cycle) 2. Send/Receive Test by burnin.sh between 2 RS-422 port (100 cycle) (terminal set off) Test program: burnin.sh (115200bps)	COM1	PASS	
		COM2	PASS	
RS-485 Function	1. Port to Port Test (50 cycle) 2. Test with RS-485 1200M cable connected Test program: burnin.sh (115200bps)	COM1	PASS	
		COM2	PASS	

1.07 Jumper/Connector/Button/Pin Header Function

1.07.01 AT/ATX Jumper Function Test

1.07.01.01 Test Purpose :

The purpose of this test is to examine the GPIO Connector function.

1.07.01.02 Test Data :

Test Item	Description	Location	Result	Remark
AT/ATX Jumper Check	1-2 : AT 2-3 : ATX (Default)	JPS0N1	PASS	

1.07.02 Power/Recover/Reset Button Function Test

1.07.02.01 Test Purpose :

The purpose of this test is to examine the Power button/Recovery/Reset function.

1.07.02.02 Test Data :

Test Item	Description	Location	Result	Remark
Power Button	Press the Power Button to start up the system normally	PWRBTN1	PASS	
Reset Button	Press the Recovery Button to process system recovery normally	bot side switch 1	PASS	
Recover Button	Press the Reset Button to process the system reset normally	bot side switch 2	PASS	

1.07.03 Fan Connector Function Test

1.07.03.01.01 Test Purpose :

The purpose of this test is to examine the Debug Port/Fan/PCIEx 16 Connector function.

1.07.03.01.02 Test Data :

Test Item	Description	Location	Result	Remark
Fan Header (1 x 4 pin header)	Check the SMART FAN can work normally	CPU_FAN1	PASS	

1.08 GPIO Port Function

1.08.01.01.01 Test Purpose :

The purpose of this test is to examine the GPIO function.

1.08.01.01.02 Test Data :

Test Item	Description	Location	Result	Remark
GPIO Function	USE GPIO loop back to verify the GPIO function is normally Test program: burnin.sh	GPIO1	PASS	

1.09 CAN Bus Function

1.09.01.01.01 Test Purpose :

The purpose of this test is to examine the CAN bus function.

1.09.01.01.02 Test Data :

AGX

Test Item	Description	Location	Result	Remark
CAN port0 to CAN port1 with 30m cable(2.0B)				
1. CAN Bus Port0 send to Port1 2. CAN Bus Port1 send to Port0	Bus Speed	1000kbps	CAN1	PASS

NX

Test Item	Description	Location	Result	Remark
CAN Bus send	Bus Speed	1000kbps	CAN1	PASS

1.10 GMSL Basic Function

1.10.01.01.01 Test Purpose :

The test is to ensure the MIPI-CSI socket functionality could work properly.

1.10.01.01.02 Test Data :

AGX

Test Item	Description	Location	Result	Remark
GMSL Function	Connect 8 pic GMSL camera to AFE-ROM4 Board make sure is function properly	CN2	PASS	

NX

Test Item	Description	Location	Result	Remark
GMSL Function	Connect 4 pic GMSL camera to AFE-ROM4 Board make sure is function properly	CN2	PASS	

1.11 TPM Function

1.11.01.01.01 Test Purpose :

The test is to ensure the TPM functionality could work properly.

1.11.01.01.02 Test Data :

Test Item	Description	Result	Remark
TPM 2.0 Function	USE burnin.sh program to verify the TPM function is normally Test program: burnin.sh	PASS	

1.12 IMU Function

1.12.01.01.01 Test Purpose :

The test is to ensure the IMU Module functionality could work properly.

1.12.01.01.02 Test Data :

AGX

Test Item	Description	Location	Result	Remark
IMU Function	Connect IMU chip to AFE-ROM4 Board make sure is function properly	CN1	PASS	

2. Performance

2.01 Storage Performance

2.01.01 M.2 Performance

2.01.01.01 Test Purpose :

The purpose of this test is to ensure the M.2 performance of DUT.

2.01.01.02 Test Data :

AGX

M.2 Performance			
M.2 device :			
E Key : SQF-C3AV-512GDEDE			
M Key: SQF-C8MV2-128GDEDC			
B Key: 96FD42-PT512-LIS			
Test Item	Descriptions	Result	Remark
M.2 NVME Device E Key Test Device: SQF-C3AV-512GDEDE	Transfer Rate - Read. (MB/s)	827	
	Transfer Rate - Write. (MB/s)	718	
M.2 NVME Device M Key Test Device: SQF-C8MV2-128GDEDC	Transfer Rate - Read. (MB/s)	1052	
	Transfer Rate - Write. (MB/s)	1051	
M.2 NVME Device B Key Test Device: 96FD42-PT512-LIS	Transfer Rate - Read. (MB/s)	842	
	Transfer Rate - Write. (MB/s)	578	

NX

M.2 Performance			
M.2 device :			
E Key : SQF-C3AV-512GDEDE			
M Key: SQF-C8MV2-128GDEDC			
B Key: 96FD42-PT512-LIS			
Test Item	Descriptions	Result	Remark
M.2 NVME Device E Key Test Device: SQF-C3AV-512GDEDE	Transfer Rate - Read. (MB/s)	844	
	Transfer Rate - Write. (MB/s)	756	
M.2 NVME Device M Key Test Device: SQF-C8MV2-128GDEDC	Transfer Rate - Read. (MB/s)	1052	
	Transfer Rate - Write. (MB/s)	1051	
M.2 NVME Device B Key Test Device: 96FD42-PT512-LIS	Transfer Rate - Read. (MB/s)	843	
	Transfer Rate - Write. (MB/s)	593	

2.02 USB Performance

2.02.01 USB3.2 Gen2x1 Performance

2.02.01.01 Test Purpose :

The purpose of this test is to ensure the USB3.2 Gen2x1 performance of DUT.

2.02.01.01.02 Test Data :

AGX

SUSB3.2 Gen2x1 Performance			
USB device : WD_BLACK P50 500GB USB3.2 Gen2 x2 External Disk			
Test Item	Descriptions	Result	Remark
Port1	Transfer Rate - Read. (MB/s)	827	
	Transfer Rate - Write. (MB/s)	718	
Port2	Transfer Rate - Read. (MB/s)	844	
	Transfer Rate - Write. (MB/s)	756	
Port3	Transfer Rate - Read. (MB/s)	826	
	Transfer Rate - Write. (MB/s)	806	
Port4	Transfer Rate - Read. (MB/s)	826	
	Transfer Rate - Write. (MB/s)	818	

NX

SUSB3.2 Gen2x1 Performance			
USB device : WD_BLACK P50 500GB USB3.2 Gen2 x2 External Disk			
Test Item	Descriptions	Result	Remark
Port1	Transfer Rate - Read. (MB/s)	788	
	Transfer Rate - Write. (MB/s)	801	
Port2	Transfer Rate - Read. (MB/s)	802	
	Transfer Rate - Write. (MB/s)	818	
Port3	Transfer Rate - Read. (MB/s)	777	
	Transfer Rate - Write. (MB/s)	806	
Port4	Transfer Rate - Read. (MB/s)	786	
	Transfer Rate - Write. (MB/s)	805	

2.03 Ethernet Performance – 2.5G(AGX)/1G(NX)

2.03.01 iPerf3 Performance

2.03.01.01.01 Test Purpose :

The purpose of this test is to examine the LAN performance and to ensure the quality and stability of Ethernet controllers.

2.03.01.01.02 Test Data :

AGX

Test Item	Description	Result	Remark
LAN1	Receive (Gbps)	2.31	
	Send (Gbps)	2.31	
LAN2	Receive (Gbps)	2.31	
	Send (Gbps)	2.31	
LAN3	Receive (Gbps)	2.30	
	Send (Gbps)	2.30	
LAN4	Receive (Gbps)	2.31	
	Send (Gbps)	2.31	

NX

Test Item	Description	Result	Remark
LAN1	Receive (Gbps)	941	
	Send (Gbps)	941	
LAN2	Receive (Gbps)	941	
	Send (Gbps)	941	
LAN3	Receive (Gbps)	941	
	Send (Gbps)	941	
LAN4	Receive (Gbps)	941	
	Send (Gbps)	942	

3. Reliability

3.01 System Timer Function Test

3.01.01.01 Test Purpose :

The purpose of this test is to ensure the functional of the System timer.

3.01.01.02 Test Data :

Test Item	Description	Result	Remark
System Timer Function	System time can work normally after warm boot and AC off, without any abnormality and time deviation.	PASS	
System Date and Time Function	After setting the correct Date and Time, Reboot and shutdown system for 5 loops. Checking Date and Time data should correct.	PASS	

3.02 RTC Timer Function Test

3.02.01.01.01 Test Purpose :

The purpose of this test is to ensure the functional of the RTC timer.

3.02.01.01.02 Test Data :

Test Item	Description	Result	Remark
RTC Function	RTC time can work normally after warm boot and AC off, without any abnormality and time deviation.	PASS	
RTC Timer Accuracy	RTC time must $\leq +8.64\text{sec}/24\text{hours}$ under room temperature.	PASS	

Note: 01/05 NVIDIA 回覆 RTC 誤差 spec $\pm 8.64\text{s}/24\text{hours}$

3.03 CMOS Battery Discharge Current Test

3.03.01.01.01 Test Purpose :

The purpose of this test is to examine the platform CMOS battery discharge current.

3.03.01.01.02 Test Data:

AGX

CMOS(Coin) Battery Discharge Current		Result	Remark
Condition	CMOS backup battery discharge current test (must be less than $6\mu\text{A}$)	PASS	($0.2\mu\text{A}$)

NX

CMOS(Coin) Battery Discharge Current		Result	Remark
Condition	CMOS backup battery discharge current test (must be less than $6\mu\text{A}$)	PASS	($0.2\mu\text{A}$)

3.04 Power On/Off Test

3.04.01.01.01 Test Purpose :

The purpose of this test is to validate the stability of the DUT after Power On/Off cycling test.

3.04.01.01.02 Test Data :

Test Item	Description	Result	Remark
Power ON/OFF Test	ATX Mode. Power ON/OFF test. Motherboard ATX/AT Jumper setting at "ATX" Mode. PASS criteria >= 1000 loops, booting rate=100%	PASS	
	AT Mode. Power ON/OFF test. Motherboard ATX/AT Jumper setting at "AT" Mode. PASS criteria >= 1000 loops, booting rate=100%	PASS	

3.05 Reboot Test

3.05.01.01.01 Test Purpose :

The purpose of this test is to validate the stability of the DUT after Power On/Off cycling test.

3.05.01.01.02 Test Data :

Test Item	Description	Result	Remark
Auto Reboot Test	ATX Mode. Power ON/OFF test. Motherboard ATX/AT Jumper setting at "ATX" Mode. PASS criteria >= 1000 loops, booting rate=100%	PASS	

3.06 LAN Port Stress Test

3.06.01.01.01 Test Purpose :

The purpose of this test is to examine and validate the stability of the LAN port.

3.06.01.01.02 Test Data :

Test Item	Description	Result	Remark
LAN Port (LAN1/LAN2/LAN3/LAN4)	1. The platform must pass the LAN Port stress test over 12 hours. 2. The platform MUST maintain a stable condition after the test has been completed. Test program:iperf3	PASS	

3.07 IO Port Stress Test

3.07.01.01.01 Test Purpose :

The purpose of this test is to examine and validate the stability of the IO port.

3.07.01.01.02 Test Data :

Test Item	Description	Result	Remark
RS232	1. The platform must pass the Serial Port stress test over 12 hours. 2. The platform MUST maintain a stable condition after the test has been completed. Test program: burnin.sh (115200 bps, loopback)	PASS	
CAN Bus	1. The platform must pass the CAN bus stress test over 12 hours. 2. The platform MUST maintain a stable condition after the test has been completed. *Test with CAN bus loopback Test program: burnin.sh (loopback)	PASS	

Test Item	Description	Result	Remark
GPIO	1. The platform must pass the GPIO stress test over 12 hours. 2. The platform MUST maintain a stable condition after the test has been completed. *Test with GPIO loopback Test program: burnin.sh (loopback)	PASS	

3.08 Integrated Stress Test

3.08.01.01.01 Test Purpose :

The purpose of this test is to examine the Full Load performance and to ensure the quality and stability of the System.

3.08.01.01.02 Test Data :

Test Item	Description	Result	Remark
CPU/GPU/Memory	The platform must pass the stress test over 12 hours. And MUST maintain a stable condition after the test has been completed. Test program: burnin.sh	PASS	