Report NO:15P010004

PER-T248

CAN 2.0B Mini-PCIe Card

P5 Verification Test Report

Summary	☒ Pass ☐ Fail ☐ Pass with Deviation (Comment: _____)

Test Results Category				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	2	0
Defect Unsolved	0	0	2	0

Issue date	Approval	Test Engineer
2015/05/22	KJ Wang	Jack Huang

Version Released Records

Date	Version	Change History	Note
2010/04/21	P3-1001	1. Re-composing test Items	
2010/06/01	P2P3-1001	1. New Test Report	
2010/06/21	P2P3-1002	1. Add BIOS -> SPI ROM Setting (South Bridge - GPIO)	
2010/12/02	P2P2-1003	1. New Test Report	
2011/02/23	P2P3-1101	1. Re-composing test Items	
2011/03/04	P2P3-1102	1. Add Specification Validation	
2012/05/29	P2P3-1201	1. Add Summary Table of DTS	
2013/12/6	P2P3-1301	1. Rename document : [Board Level Product P2-P3 Verification Test Plan & Report Template] 2. Chapter1:Memory compatibility add AAEON P/N 3. Chapter1:Add CFast and m-SATA test item. 4. Chapter3:Add RS422 1.2KM/115200bps transmission test 5. Chapter3:BurninTest test add USB2.0/3.0. 6. Chapter5: Modify power consumption test item. 7. Chapter7: add Windows XP Professional English Version 32/64Bit and Windows 8 Pro English Version 32/64Bit test. 8. Chapter8: Change BIOS format from Award to AMI and add Hi-Safe, Hi-Manager test item. 9. Chapter9: Add SATA performance test and USB3.0 performance. 10. Remove Chapter10: Other Tests..	

Note :

For all test items in this report, 3 results have been defined and described as follow.

Pass:	Functionality work perfectly
Fail:	Functionality failed and must be resolved in the next version
N/A:	Functionality Not Applicable or Not Available

This test report would be updated when re-test completed in next version of the product.

Specification Validation

Main Specification

Item	Specification	Result			Note
		Pass	Fail	N/A	
Product Name	PER-T248	☒	☐	☐	
Form Factor	MiniCard(MiniPCIe)	☒	☐	☐	
CAN Controllers	RX630	☒	☐	☐	
High-Speed CAN Transceiver	TJA1050	☒	☐	☐	
Interface	Mini-PCI Express (USB signal) x1 USB (WAFER) x1 RS-232 (WAFER) x1	☒	☐	☐	
CAN	Support dual port CAN Support CAN 2.0A/B Implements ISO-11898 Standard Physical Layer Supports 1 Mb/s operation (125 Kbps default) Receive buffers, masks, filters, and data byte filtering Supports Single-shot transmission 100 mA active current (typical);60 mA standby current (typical) (sleepmode)	☒	☐	☐	
Transfer rates	125Kbps, 500Kbps, 1Mbps	☒	☐	☐	
CAN baud rate	5Kbps ~ 1Mbps	☒	☐	☐	
Protections	120 Ohm line termination IEC 61000-4-2 (ESD) ± 15KV (air/contact) Support Isolation 2Kv	☒	☐	☐	
Firmware Update	Via USB connector	☒	☐	☐	
Software	Provide API and SDK for Window Provide Utility tools for Window	☒	☐	☐	
Power Requirement	Mini-PCIe +3.3V power	☒	☐	☐	
Dimensions	Refer to MiniCard	☒	☐	☐	
Net weight	TBD	☒	☐	☐	
Gross weight	TBD	☒	☐	☐	
Carton size	TBD	☒	☐	☐	

O.S. Support

Item	Specification	Result	Note
Microsoft Windows	Windows 7(32/64bit)	☒	
	Windows 8.1(32/64 bit)	☒	
	Windows XP(32 bit)	☒	
Linux	Linux kernel 2.6.x or above	☒	

Environmental Specifications

Item	Specification
Operating temperature	-4°F ~ 158°F (-20°C ~ 70°C)*
Storage temperature	-40°F ~ 185°F (-40°C ~ 85°C)*
Storage humidity	5~ 95% , non-condensing
Vibration	1g RMS / 5~ 500Hz / operation
Shock	20G peak acceleration (11 msec. duration)
Drop	76cm (1 Corner, 3 Edge, 6 Surface)
EMC	CE /FCC class A PreScan

Note: Please refer to Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
PCB Model / Version	PER-T248 REV.B0.2	1
CPU Board	GENE-QM77 A1.0	1
BIOS / Version	AEC-6637 R1.0(V00Y3M10) (11/14/2014)	1
CPU Type	Intel® Core™ i7-3610QE Processor (6M Cache, up to 3.30 GHz)	1
Memory Type	Transcend DDR3 1600/8GB	1
SATA HDD	Toshiba MK1676GSX 2.5” 160G	1
SATA DVD-ROM	LG H.L GH20 NS15 8X	1
USB DVD-ROM	ASUS SDRW-08D2S-U/DBLK/G/AS	1
LCD Monitor	Dell 2410U 24”	1
LVDS	N/A	N/A
Cfast	N/A	N/A
Daughter Board	N/A	N/A
Expansion Board	N/A	N/A
	N/A	N/A
Operating System	☒ ubuntu 12.04 Kernel 3.2.0 -23 –generic-pae #36-ubuntu	1-2
	☒ Windows 7 Ultimate 32/64Bit	1-2
	☒ Windows 8.1 Ultimate 32/64Bit	1-2
	☒ Windows XP Professional English SP3 32 Bit	1-2
Power Supply	ATX Power Supply : N/A	N/A
	AT Power Supply: N/A	N/A
	DC Adapter : FSP120-AAB 19V	1
Battery Model	N/A	

Summary Table of contents:

1. Hardware Test

1.1. AAEON Board Compatibility Test

Board Information	Result			Note
	Pass	Fail	N/A	
GENE-CV05	☒	☐	☐	
GENE-QM77	☒	☐	☐	

1.2. Support OS

CPU Information	Result			Note
	Pass	Fail	N/A	
Windows 8.1 Enterprise 32bit	☒	☐	☐	Can Bus test
Windows 8.1 Enterprise 64bit	☒	☐	☐	Can Bus test
Windows 7 Ultimate 32bit	☒	☐	☐	Can Bus test
Windows 7 Ultimate 64bit	☒	☐	☐	Can Bus test
Windows XP Professional English SP3 32 Bit	☒	☐	☐	Can Bus test
UBUNTU 12.04	☒	☐	☐	Can Bus test Not test Loop

1.3. Burn In Test

Under Room Temperature: 26 °C

Test Item	Result			Note
	Pass	Fail	N/A	
Burn In Test V7.1 Pro	☒	☐	☐	Windows 7 Ultimate SP1 English Version 32Bit Windows 7 Ultimate SP1 English Version 64Bit

Note: COM PORT Speed Set to 115200.

1.4. CAN BUS Test

CAN BUS Compatibility Test	Result			Note
	Pass	Fail	N/A	
PER-T248 (mini-Card “USB”) Firmware Version: 20150213A0	☒	☐	☐	
PER-T248 (USB2.0) Firmware Version: 20150213A0	☒	☐	☐	
PER-T248 (COM PORT) Firmware Version: 20150213A0	☒	☐	☐	
30 meter transmission test	**Result**			**Note**
	Pass	**Fail**	**N/A**	
125K Baud rate	☒	☐	☐	
500K Baud rate	☒	☐	☐	
1M Baud rate	☒	☐	☐	

1.5. CANBUS Mode Test

CANBUS Mode Test	Result			Note
	Pass	Fail	N/A	
CAN S Mode Test	☒	☐	☐	
CAN E Mode Test	☒	☐	☐	
RTR Test	☒	☐	☐	

1.6. CANBUS Mask & Filter Test

CANBUS Mask & Filter Test	Result			Note
	Pass	Fail	N/A	
CAN Mask Test	☒	☐	☐	
CAN Filter Test	☒	☐	☐	

1.7. AP Test

CANBUS Mask & Filter Test	Result			Note
	Pass	Fail	N/A	
PER-T248B (20150513)	☒	☐	☐	