

# QE P5 Verification Test Report

Release No: 08E010012

<b>Product Model</b>	<b>PER-C20L</b>
<b>Description</b>	<b>Intel Dual Ethernet Add-On card - Mini PCI Module</b>
<b>Test Configuration</b>	<input checked="" type="checkbox"/> Renew product <input checked="" type="checkbox"/> PCB : PER-C20L Rev.A1.0 <input checked="" type="checkbox"/> BIOS: N/A <input checked="" type="checkbox"/> Chipset : 82551ER / 82551QM  <input checked="" type="checkbox"/> Remark : QE NPDP P5 External Report
<b>Test Result Summary</b>	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment:	

*2008/03/20*

**Issue date**

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**Test Engineer**

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**There are 3 test results in this document; they are described as follows:**

Pass: Function worked perfectly

Fail: Function failed and must be modified in the next version

N/A: Outside of specification or no test equipment

**Platform Information:**

Item	Device Information
PCB Model / Version	PER-C20L Rev:A1.0 With AEC-6920 Rev:A1.0
BIOS / Version	N/A
CPU Type	Intel Core 2 Duo T7200 / 2.0GHz
Memory Type	Apacer DDRII 533 MHz 512MB
Primary IDE Master	Fujitsu 2.5" MHV2040AT 40GB
Primary IDE Slave	ASUS / CD-S520 / 52X
CRT	ViewSonic E70
LCD	N/A
Compact Flash	N/A
Riser Card	N/A
Backplane	N/A
OS	Windows XP Professional English Version V2002 with Service Pack 2
Power Supply	ATX Power : Seventeam / ST-32HLP /300W
	AT Power : N/A

## Test Result for Certification

### 1. O.S. Compatibility Test

Installation Operation System Compatibility Test	Result		
	Pass	Fail	N/A
Windows XP Professional English Version V2002 Service Pack 2	X		

### 2. Mini PCI Card Function Test (82551ER & 82551QM)

Model	Result			Note
	Pass	Fail	N/A	
LAN Status LED	X			Link /Active & 10/100MB Speed status
10/100 Mbps Connect to Internet	X			82551ER/82551QM
Wake-On-LAN Function	X			82551ER+ICH7 not support WOL 82551QM Intel 945GM+ ICH7 not support WOL

### 3. Boot ROM Test

Test Item	Result			Note
	Pass	Fail	N/A	
Boot ROM to Novell 4.11 [RPL]			X	HUB : HP J4095A
Boot ROM to WinNT 4.0 [PXE]( 82551QM)	X			HUB : HP J4095A 82551ER not support Boot from LAN

### 4. Network HUB / LAN Connection Test

#### <EMB-945T for 82551QM>

#### 4-1-1. LAN LED Function Test :

Test Points: 1. Active LED → It shows flickering orange color while LAN is access

2. Link LED → It shows green color that is always on while LAN speed is 10/100 MBps

→ It shows red-orange color that is always on while LAN speed is 1000 MBps (Gigabit)

#### EMB-945T for 82551QM LAN 1 : LED Indicator Lights Function Test [ ] No Support

Test Item	Active LED (Flickering Orange Color)	Link / Speed LED (10/100: Green Color) (Gigabit: Red-Orange Color)	Note
Pass	X	X	
Fail			
N/A			

#### EMB-945T for 82551QM LAN 2 : LED Indicator Lights Function Test [ ] No Support

Test Item	Active LED (Flickering Orange Color)	Link / Speed LED (10/100: Green Color) (Gigabit: Red-Orange Color)	Note
Pass	X	X	
Fail			
N/A			

**4-1-2. Network HUB / LAN Connects Test:**

- Test Point: 1. A represents QE Windows XP Pro / B represents Tested machine (Under Windows)  
 2. A ↔ B means to connect two computers each other by using “Ping” instruction  
 3. Use CAT.6 network cable with RJ-45 connector to test  
 4. Allow failure rate under 1/1000.

**EMB-945T for 82551QM LAN1 Port Test : [ X ]10 , [ X ]100 , [ ]1000 Mbps**

Network HUB / HUB Speed		Transfer Mode	Cable Length	Function Test					Note
				Packet in Byte	Send	LAN Speed	Received	N/A	
HP J4095A 24 Ports	100 MBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DGS-1008T	1GBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DES-1316 PoE Switch	100 MBps	A ↔ B	100 M	8192	1000	100	1000		
Intel InBusiness 8 Port	100 MBps	A ↔ B	100 M	8192	1000	100	999		
Accton DeskTop-3005	100 MBps	A ↔ B	100 M	8192	1000	100	999		
SVEC FD916H (10 Mbps HUB)	10 MBps	A ↔ B	100 M	8192	1000	10	999		

**EMB-945T for 82551QM LAN2 Port Test : [ X ]10 , [ X ]100 , [ ]1000 Mbps**

Network HUB / HUB Speed		Transfer Mode	Cable Length	Function Test					Note
				Packet in Byte	Send	LAN Speed	Received	N/A	
HP J4095A 24 Ports	100 MBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DGS-1008T	1GBps	A ↔ B	100 M	8192	1000	100	1000		
D-Link DES-1316 PoE Switch	100 MBps	A → B	100 M	8192	1000	100	999		
Intel InBusiness 8 Port	100 MBps	A ↔ B	100 M	8192	1000	100	1000		
Accton DeskTop-3005	100 MBps	A ↔ B	100 M	8192	1000	100	1000		
SVEC FD916H (10 Mbps HUB)	10 MBps	A ↔ B	100 M	8192	1000	10	999		

**<GENE-8310 for 82551QM>**

**4-2-1. LAN LED Function Test :**

- Test Points: 1. Active LED → It shows flickering orange color while LAN is access  
 2. Link LED → It shows green color that is always on while LAN speed is 10/100 MBps  
 → It shows red-orange color that is always on while LAN speed is 1000 MBps (Gigabit)

**GENE-8310 for 82551QM LAN 1 : LED Indicator Lights Function Test [ ] No Support**

Test Item	Active LED (Flickering Orange Color)	Link / Speed LED (10/100: Green Color) (Gigabit: Red-Orange Color)	Note
Pass	X	X	
Fail			
N/A			

**GENE-8310 for 82551QM LAN 2 : LED Indicator Lights Function Test [ ] No Support**

Test Item	Active LED (Flickering Orange Color)	Link / Speed LED (10/100: Green Color) (Gigabit: Red-Orange Color)	Note
Pass	X	X	
Fail			
N/A			

#### 4-2-2. Network HUB / LAN Connects Test:

- Test Point: 1. A represents QE Windows XP Pro / B represents Tested machine (Under Windows)  
 2. A ↔ B means to connect two computers each other by using “Ping” instruction  
 3. Use CAT.6 network cable with RJ-45 connector to test  
 4. Allow failure rate under 1/1000.

#### GENE-8310 for 82551QM LAN1 Port Test : [ X ]10 , [ X ]100 , [ ]1000 Mbps

Network HUB / HUB Speed		Transfer Mode	Cable Length	Function Test					Note
				Packet in Byte	Send	LAN Speed	Received	N/A	
HP J4095A 24 Ports	100 MBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DGS-1008T	1GBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DES-1316 PoE Switch	100 MBps	A ↔ B	100 M	8192	1000	100	999		
Intel InBusiness 8 Port	100 MBps	A ↔ B	100 M	8192	1000	100	999		
Accton DeskTop-3005	100 MBps	A ↔ B	100 M	8192	1000	100	999		
SVEC FD916H (10 Mbps HUB)	10 MBps	A ↔ B	100 M	8192	1000	10	999		

#### GENE-8310 for 82551QM LAN2 Port Test : [ X ]10 , [ X ]100 , [ ]1000 Mbps

Network HUB / HUB Speed		Transfer Mode	Cable Length	Function Test					Note
				Packet in Byte	Send	LAN Speed	Received	N/A	
HP J4095A 24 Ports	100 MBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DGS-1008T	1GBps	A ↔ B	100 M	8192	1000	100	999		
D-Link DES-1316 PoE Switch	100 MBps	A → B	100 M	8192	1000	100	999		
Intel InBusiness 8 Port	100 MBps	A ↔ B	100 M	8192	1000	100	1000		
Accton DeskTop-3005	100 MBps	A ↔ B	100 M	8192	1000	100	999		
SVEC FD916H (10 Mbps HUB)	10 MBps	A ↔ B	100 M	8192	1000	10	999		

#### 5. M/B & PER-C20L 82551ER / 82551QM LAN Function Compatibility Test

Equipment Model	BIOS	Chipset	CPU	Boot from LAN				WOL			
				82551ER		82551QM		82551ER		82551QM	
				PASS	N/A	PASS	N/A	PASS	N/A	PASS	No support
EMB-945T A1.0	945QM.BIN	Intel 945GM ICH7M	Intel Celeron M 440 1.86GHz		X	X			X		X
AEC-6920 A1.0	6920QM.BIN	Intel 945GM ICH7	Intel Core 2 Duo T7200 / 2.0GHz		X	X			X		X
PCM-8152 A1.0	8152_13P.BIN Rev 1.3.P (08/13/2007)	Intel 852GM ICH4	Intel (R) Celeron (R) M 600 MHz CPU		X	X		X		X	
Gene-8310 A1.1	8310_14P.BIN	Intel 852GM ICH4	Intel ULV Celeron 600MHz		X	X		X		X	

EMB-945T & AEC-6920 WOL 82551QM <S3=OK, S5=Fail> Intel FAE replay no support WOL  
 82551ER+ICH7 not support WOL  
 82551ER not support Boot from LAN