

ISO 9000  
ISO 14000  
ISO 17025

# **FWA-6500PC01E Memory Compatibility Test Report**

<b>CFD-A</b>			<b>DQA</b>		
<b>Approved by</b>			<b>Approved by</b>	Adonis Shih	21-Jan-2011

# ***1. COMPATIBILITY TEST***

## **1.01 Memory Compatibility**

**Test Date:** 2011/01/11

**Test Site:** Advantech test bench

**Performed by:** Jenny Lin

### **1.01.1.01 Test Purpose**

Evaluate whether functions are working well in different memory combinations and maintained in a stable condition

### **1.01.1.02 Test Standard:**

Please refer to the following documents:

1. Hardware Specification, FWA-6500

### **1.01.1.03 Test Equipment:**

1. USB Keyboard and mouse.
2. USB Floppy: MITSUMI D353FUE
3. VGA Card: WinFast PX8400 GS TDH.

### **1.01.1.04 Sample Configuration & Quantity Under Test:**

Using one FWA-6500 with the following options installed:

1. MB: NAMB-6500 Rev. A104-1
2. BIOS version: 6500V190
3. Management Module: FWA-6500 Management Rev. A102-1
4. LAN Module: NAEM 1001 Rev. A102-1
5. CPU: Intel(R) Xeon X5570 2.93 GHz x2
6. RAM: Apacer PC3-8500 CL7 ECC REG ROHS 8GB x12  
ATP DDR3-1066 AL24M72H8BKF8S 8GB x12
7. Power supply: YH-8651B (650W)

### **1.01.1.05 Test Condition:**

1. Test environment: Room temperature
2. BIOS ECC function: enable
3. Software: Memtest 86+ Rev.4.10
4. Test item list see [Table 1.01.1](#)

### **1.01.1.06 Test Procedure:**

1. Follow the [Table 1.01.1](#) to install memories in EUT.
2. Power on and disable ECC function in BIOS setup.
3. Check memory size and run Memtest 86+ from USB floppy disk three loops to ensure design meets spec.

### 1.01.1.07 Test Data

Table 1.01.1 Memory Compatibility Combination Table

Memory Type		Full Size	Measurement	Judgment
ATP	8GB DDR3-1066 ECC REG (AL24M72H8BKF8S)	96GB	96GB	PASS
Apacer	PC3-8500 CL7 ECC REG ROHS 8GB P/N: 78.CAGDT.AF20C S/N: 201053216651	96GB	96GB	PASS

```

Memtest86 v4.10 | Pass 84% #####
Intel Core i7 2934 MHz | Test 41% #####
L1 Cache: 32K 57520 MB/s | Test #7 [Random number sequence]
L2 Cache: 256K 33718 MB/s | Testing: 58G - 60G 96G
L3 Cache: 8192K 25289 MB/s | Pattern: 22753c52
Memory : 96G 7971 MB/s |-----
Chipset : Core IMC (ECC : Detect / Correct) Scrub+ / BCLK : 133 MHz
Settings: RAM : 400 MHz (DDR3-800) / CAS : 6-6-6-16 / Triple Channel

WallTime  Cached  RsvdMem  MemMap  Cache  ECC  Test  Pass  Errors  ECC Errs
-----
40:17:14   96G     72K    e820    on  off  Std   3     0

Memory SPD Informations
-----

*****Pass complete, no errors, press Esc to exit*****
(ESC)Reboot (c)configuration (SP)scroll_lock (CR)scroll_unlock
  
```

ATP DDR3-1066 ECC REG 8GB

```

Memtest86 v4.10 | Pass 79% #####
Intel Core i7 2934 MHz | Test 89% #####
L1 Cache: 32K 57519 MB/s | Test #7 [Random number sequence]
L2 Cache: 256K 33718 MB/s | Testing: 22G - 24G 96G
L3 Cache: 8192K 25288 MB/s | Pattern: a28895aa
Memory : 96G 7971 MB/s |-----
Chipset : Core IMC (ECC : Detect / Correct) Scrub+ / BCLK : 133 MHz
Settings: RAM : 400 MHz (DDR3-800) / CAS : 6-6-6-16 / Triple Channel

WallTime  Cached  RsvdMem  MemMap  Cache  ECC  Test  Pass  Errors  ECC Errs
-----
64:17:12   96G     72K    e820    on  off  Std   5     0

Memory SPD Informations
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*****Pass complete, no errors, press Esc to exit*****
(ESC)Reboot (c)configuration (SP)scroll_lock (CR)scroll_unlock
  
```

Apacer PC3-8500 CL7 ECC REG ROHS 8GB

**1.01.1.08 Evaluation Criteria:**

1. There should be no abnormalities affecting the specified functions and performance.
2. The memory size shown on the boot screen should be the same as the installed memory modules.
3. The test program should run successfully without any error.
4. NO ECC errors.

**1.01.1.09 Test Result:**

**PASS**

**1.01.1.10 Conclusion**

**PASS**