



Advanced Validation Labs, Inc.

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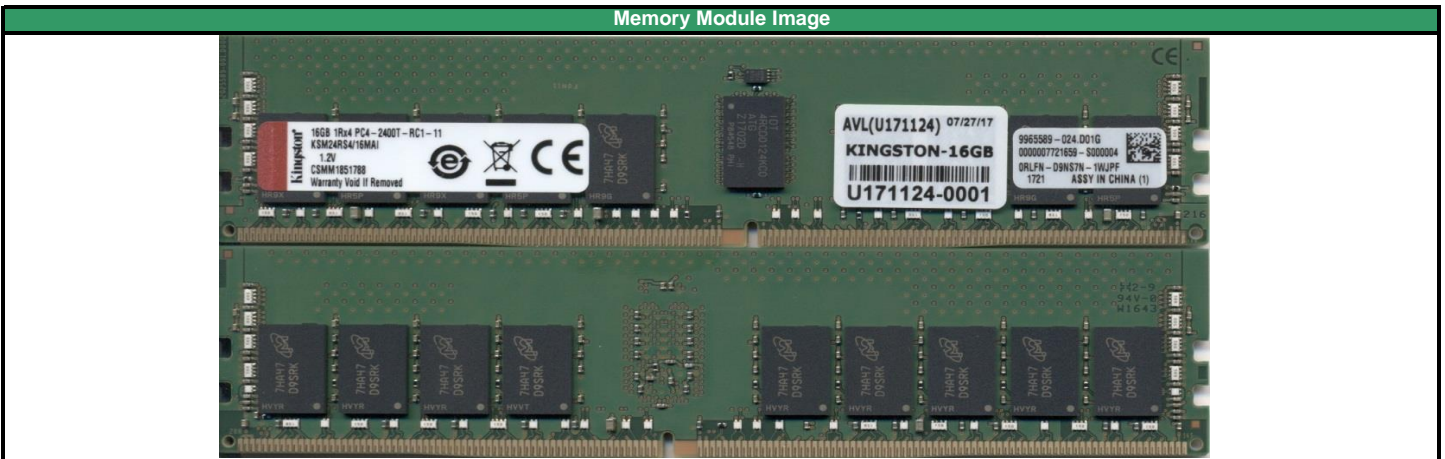
| Intel PCSD Server Memory Compatibility Test Certificate | |
|---|--------------------------|
| Test System: Intel S2600WF (Wolf Pass) | Test Result: Pass |

Leveraged System(s): R1208WFTYS, R1304WF, R1304WF0YS, R1304WFTYS, R2000WF, R2208WF0ZS, R2208WFTZS, R2224WFTZS, R2308WFTZS, R2312WF0NP, R2312WFTZS, S2600WF0, S2600WFQ, S2600WFT

| Modules Information | | | | | | | | | |
|---------------------|-------------------|----------------------------------|------------|------------------------|---------|------------------|--------------|-----|------|
| DIMM Vendor | DIMM Part Number | Type | Voltage | Size | Config. | Speed | CL | R/C | Rank |
| Kingston | KSM24RS4/16MAI | RDIMM | 1.2V | 16GB | 2Gx72 | 2400 | 17 | C | SR |
| DRAM Vendor | DRAM Part Number | DRAM Density / Width / Date Code | | Register Vendor / Rev. | | DIMM Composition | | | |
| Micron | MT40A2G4PM-083E:A | 8Gb | 2048Mx4bit | 1716 | IDT | C0 | (2048Mx4)*72 | | |

| System Configuration | | |
|----------------------|---|--------------|
| SETUP | System #1 | System #2 |
| AVL S/N | WP390 | WP305 |
| System S/N | BQWF71100390 | BQWF71100305 |
| Board Rev. (PBA) | H87179-710 | |
| CPU Type | E5-2690 v4 / 2.60 GHz | |
| Chipset | C610 | |
| BIOS | 0X.01.0008 | |
| BMC / ME | 1.02 / 04.00.03.211 | |
| FUR/SDR | 1.02 | |
| OS | Windows Server 2012 R2 | |
| Test Tool | iVVSS 2.7.0, SELViewer, Syscfg, WinPIRA | |

| Testing Summary | | |
|--|--|-----------------------|
| Test Items | Test Description | Test Results |
| 1. Latest BIOS Upgrade & Configuration check | Record memory Size and Speed detection from BIOS | Done |
| 2. SPD Check | DIMM SPD content check for JEDEC compliance | Pass |
| 3. Memory Stress | Test for 6 hours @ Max and Min Loading | HVDD Hot Pass |
| 4. Memory Stress | | HVDD Cold Pass |
| 5. Memory Stress | | LVDD Hot Pass |
| 6. Memory Stress | | LVDD Cold Pass |
| Note: | | |



| AVL USE ONLY: | | | | | | | |
|---------------|------------|------------------|----------|--------|---------|---------|--------|
| Completed by: | Andy Chang | Completion Date: | 10/17/17 | AVL A# | U171124 | AVL W/O | WF0202 |
| Comments: | | | | | | | |

Test Results

| 4C | | | | | |
|-----------------|---------|----------------|---|---|---|
| Minimum Loading | | | | | |
| Start Date | | 10/10/2017 | | | |
| DIMM Voltage | | 1.22v / 1.16v | | | |
| DIMM VPP | | 2.64v / 2.422v | | | |
| DIMM | S/N | A | B | C | D |
| CPU1 A1 | 24-0001 | P | P | P | P |
| CPU1 A2 | | | | | |
| CPU1 B1 | 24-0002 | P | P | P | P |
| CPU1 B2 | | | | | |
| CPU1 C1 | 24-0003 | P | P | P | P |
| CPU1 C2 | | | | | |
| CPU1 D1 | 24-0004 | P | P | P | P |
| CPU1 D2 | | | | | |
| CPU2 E1 | 24-0005 | P | P | P | P |
| CPU2 E2 | | | | | |
| CPU2 F1 | 24-0006 | P | P | P | P |
| CPU2 F2 | | | | | |
| CPU2 G1 | 25-0001 | P | P | P | P |
| CPU2 G2 | | | | | |
| CPU2 H1 | 25-0002 | P | P | P | P |
| CPU2 H2 | | | | | |
| CPU2 I1 | 25-0003 | P | P | P | P |
| CPU2 I2 | | | | | |
| CPU2 J1 | 25-0004 | P | P | P | P |
| CPU2 J2 | | | | | |
| CPU2 K1 | 25-0005 | P | P | P | P |
| CPU2 K2 | | | | | |
| CPU2 L1 | 25-0006 | P | P | P | P |
| CPU2 L2 | | | | | |

| 4C | | | | | |
|-----------------|---------|----------------|---|---|---|
| Maximum Loading | | | | | |
| Start Date | | 10/10/17 | | | |
| DIMM Voltage | | 1.22v / 1.16v | | | |
| DIMM VPP | | 2.64v / 2.422v | | | |
| DIMM | S/N | A | B | C | D |
| CPU1 A1 | 24-0001 | P | P | P | P |
| CPU1 A2 | 24-0002 | P | P | P | P |
| CPU1 B1 | 24-0003 | P | P | P | P |
| CPU1 B2 | 24-0004 | P | P | P | P |
| CPU1 C1 | 24-0005 | P | P | P | P |
| CPU1 C2 | 24-0006 | P | P | P | P |
| CPU1 D1 | 24-0007 | P | P | P | P |
| CPU1 D2 | 24-0008 | P | P | P | P |
| CPU2 E1 | 24-0009 | P | P | P | P |
| CPU2 E2 | 24-0010 | P | P | P | P |
| CPU2 F1 | 24-0011 | P | P | P | P |
| CPU2 F2 | 24-0012 | P | P | P | P |
| CPU2 G1 | 25-0001 | P | P | P | P |
| CPU2 G2 | 25-0002 | P | P | P | P |
| CPU2 H1 | 25-0003 | P | P | P | P |
| CPU2 H2 | 25-0004 | P | P | P | P |
| CPU2 I1 | 25-0005 | P | P | P | P |
| CPU2 I2 | 25-0006 | P | P | P | P |
| CPU2 J1 | 25-0007 | P | P | P | P |
| CPU2 J2 | 25-0008 | P | P | P | P |
| CPU2 K1 | 25-0009 | P | P | P | P |
| CPU2 K2 | 25-0010 | P | P | P | P |
| CPU2 L1 | 25-0011 | P | P | P | P |
| CPU2 L2 | 25-0012 | P | P | P | P |