# SPEC® OMPG2012 Result

## Uniwide Technologies
**(Test Sponsor: Telecommunications Technology Association)**

**RB128 (Intel Xeon E5-2600 v4 1U Server)**

### SPECompG_base2012 = 9.50

<table>
<thead>
<tr>
<th>Test Sponsor:</th>
<th>Telecommunications Technology Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested by:</td>
<td>Telecommunications Technology Association</td>
</tr>
<tr>
<td>OMP2012 license:</td>
<td>068A</td>
</tr>
<tr>
<td>Test date:</td>
<td>Nov-2019</td>
</tr>
<tr>
<td>Hardware Availability:</td>
<td>May-2017</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Dec-2018</td>
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</table>

**Thread Count Performance**

<table>
<thead>
<tr>
<th>Thread Count</th>
<th>SPECompG_base2012</th>
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<tbody>
<tr>
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<tr>
<td>2</td>
<td>16.3</td>
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<td>4</td>
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<td>8</td>
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<td>16</td>
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<td>32</td>
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<tr>
<td>64</td>
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<td>128</td>
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<td>256</td>
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<tr>
<td>4096</td>
<td></td>
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<tr>
<td>8192</td>
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</table>

**Hardware**

- **CPU Name:** Intel Xeon E5-2699 v4
- **CPU Characteristics:**
  - Intel Turbo Boost Technology up to 3.60 GHz
  - Hyper-threading off.
- **CPU MHz:** 2200
- **CPU MHz Maximum:** 3600
- **FPU:** Integrated
- **CPU(s) enabled:** 44 cores, 2 chips, 22 cores/chip
- **CPU(s) orderable:** 1.2 Chips
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 55 MB I+D on chip per chip
- **Secondary Cache:** None
- **Memory:** 384 GB (12 x 32 GB 2Rx4 PC4-2400T-R)
- **Disk Subsystem:** 2 x 300GB SEAGATE ST300MM0008 SAS RAID0
- **Other Hardware:** None
- **Base Threads Run:** 88

**Software**

- **Operating System:** CentOS Linux release 7.7.1908 (Core)
- **Compiler:**
  - C/C++/Fortran: Version 18.0.1.163 of Intel Composer XE for Linux Build 20171018
- **Auto Parallel:** No
- **File System:** xfs
- **System State:** Multi-user, run level 3
- **Base Pointers:** 64-bit
- **Peak Pointers:** Not Applicable
- **Other Software:** None

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*info@spec.org*

*http://www.spec.org/*
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<thead>
<tr>
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**Hardware Availability:** May-2017  
**Software Availability:** Dec-2018

Minimum Peak Threads: --  
Maximum Peak Threads: --

---

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Base Threads</th>
<th>Base Seconds</th>
<th>Base Ratio</th>
<th>Base Seconds</th>
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<td>389</td>
<td>11.6</td>
</tr>
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</table>

**Platform Notes**

Sysinfo program /usr/omp2012/Docs/sysinfo  
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647  
running on uniwide-rb128 Wed Nov 13 13:08:54 2019

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:  
http://www.spec.org/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo

```
model name : Intel(R) Xeon(R) CPU E5-2699 v4 @ 2.20GHz
2 "physical id"s (chips)
44 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 22
siblings : 22
physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 16 17 18 19 20 21 24 25 26 27 28
physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 16 17 18 19 20 21 24 25 26 27 28
cache size : 56320 KB
```

Continued on next page
platform Notes (Continued)

From /proc/meminfo
  MemTotal: 395982468 kB
  HugePages_Total: 0
  Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
  centos-release: CentOS Linux release 7.7.1908 (Core)
  centos-release-upstream: Derived from Red Hat Enterprise Linux 7.7 (Source)
  os-release:
    NAME="CentOS Linux"
    VERSION="7 (Core)"
    ID="centos"
    ID_LIKE="rhel fedora"
    VERSION_ID="7"
    PRETTY_NAME="CentOS Linux 7 (Core)"
    ANSI_COLOR="0;31"
    CPE_NAME=cpe:/o:centos:centos:7
  redhat-release: CentOS Linux release 7.7.1908 (Core)
  system-release: CentOS Linux release 7.7.1908 (Core)
  system-release-cpe: cpe:/o:centos:centos:7

uname -a:
  Linux uniwide-rb128 3.10.0-957.el7.x86_64 #1 SMP Thu Nov 8 23:39:32 UTC 2018
  x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Oct 28 11:04

SPEC is set to: /usr/omp2012
  Filesystem Type Size Used Avail Use% Mounted on
  /dev/mapper/centos-root xfs 50G 6.5G 44G 13% /

Additional information from dmidecode:
  BIOS American Megatrends Inc. 3407 01/11/2017
  Memory:
    12x 32 GB
    9x Hynix Semiconductor HMA84GR7AFR4N-UH 32 GB 2133 MT/s 2 rank
    3x Hynix Semiconductor HMA84GR7MFR4N-UH 32 GB 2133 MT/s 2 rank
    12x NO DIMM NO DIMM

(End of data from sysinfo program)

General Notes

System settings notes:
  Intel Turbo Boost Technology (Turbo) : Enabled

General OMP Library Settings
  KMP_AFFINITY=compact,0

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SPECCompG_base2012 = 9.50

General Notes (Continued)

KMP_LIBRARY=turnaround
KMP_STACKSIZE=512M
KMP_BLOCKTIME=infinite
OMP_DYNAMIC=FALSE
OMP_NESTED=FALSE
OMP_SCHEDULE=static

Environment Variables Settings
ulimit -s unlimited

Spectre and Meltdown
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

Base Compiler Invocation

C benchmarks:
  icc

C++ benchmarks:
  icpc

Fortran benchmarks:
  ifort

Base Portability Flags

350.md: -FR
357.bt331: -mcmodel=medium
363.swim: -mcmodel=medium
367.imagick: -std=c99

Base Optimization Flags

C benchmarks:
  -ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt
  -fp-model fast=2 -xHost

C++ benchmarks:
  -ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt
  -fp-model fast=2 -xHost

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Base Optimization Flags (Continued)

Fortran benchmarks:
-qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt -fp-model fast=2
-xHost

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/icc_linux_flags.xml

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