

AMD Ryzen™ PRO Processors for Commercial Desktops

AMD		Core/Thread	Frequency Boost/Base	Cache L2+L3	Node	TDP	Security AMD GuardMI	Manageability DASH	COMPARE TO ¹	Core/Thread	Frequency Boost/Base	Cache L2+L3	Node	TDP	Security Intel vPro	Manageability Intel vPro	
	AMD Ryzen™ 7 PRO 1700X	8/16	3.8/3.4 GHz	4+16MB	14nm	95W	✓	✓		Intel Core i7 7700K	4/8	4.5/4.2 GHz	1+8MB	14nm	84W	✓	✓
	AMD Ryzen™ 7 PRO 1700	8/16	3.7/3.0 GHz	4+16MB	14nm	65W	✓	✓		Intel Core i7 7700	4/8	4.2/3.6 GHz	1+8MB	14nm	65W	✓	✓
	AMD Ryzen™ 5 PRO 1600	6/12	3.6/3.2 GHz	3+16MB	14nm	65W	✓	✓		Intel Core i5 7600/7500	4/4	4.1/3.5 GHz	1+6MB	14nm	65W	✓	✓
	AMD Ryzen™ 5 PRO 1500	4/8	3.7/3.5 GHz	2+16MB	14nm	65W	✓	✓		Intel Core i5 7500/7400	4/4	3.5/3.0 GHz	1+6MB	14nm	65W		
	AMD Ryzen™ 3 PRO 1300	4/4	3.7/3.5 GHz	2+8MB	14nm	65W	✓	✓		Intel Core i3 7300	2/4	4.0 GHz	0.5+4MB	14nm	51W		
	AMD Ryzen™ 3 PRO 1200	4/4	3.4/3.1 GHz	2+8MB	14nm	65W	✓	✓		Intel Core i3 7100	2/4	3.9 GHz	0.5+3MB	14nm	51W		

More cores, more threads, more performance compared to prior generations of AMD Pro products.²

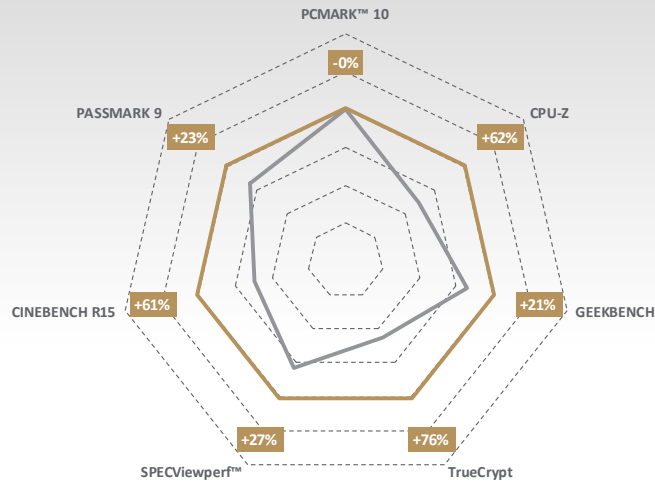
The powerful, newly-designed AMD Ryzen PRO provides a quantum leap in generational performance. The first-ever CPU to offer up to 8 cores and 16 threads for commercial-grade PCs delivers a workstation-class experience for the desktop. Newly designed from the ground up, AMD Ryzen Pro has it all—unparalleled performance with up to 8 cores, 16 threads and AMD SenseMI processor-level machine intelligence. AMD GuardMI Technologies with advanced silicon-level security and commercial-grade reliability and manageability are provided across the entire AMD Ryzen PRO family without artificial differentiation and premiums.

This chart illustrates competitive positioning and is not necessarily an indication of relative performance.

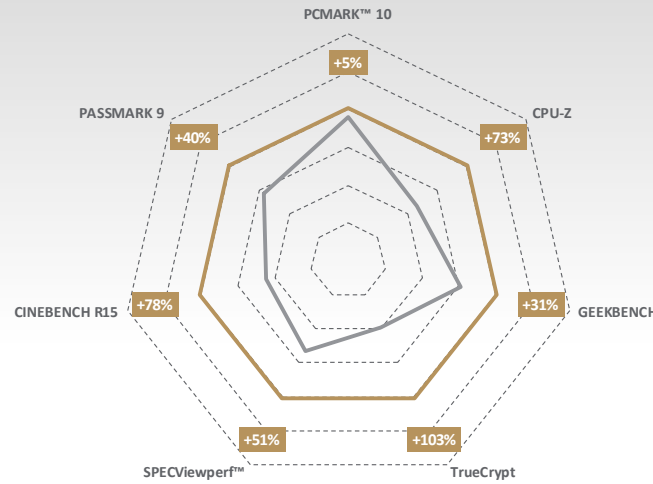
1. Taken from ark.intel.com May 2017. Support of new features may only be added by exception process. 2. For full footnotes see <http://subscriptions.amd.com/assets/RZP-QRG.pdf>



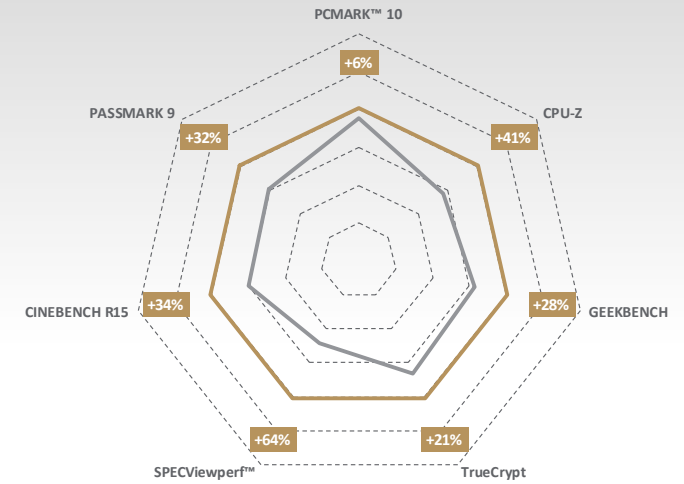
AMD Ryzen™ 7 PRO 1700X VS Intel Core i7 7700K³



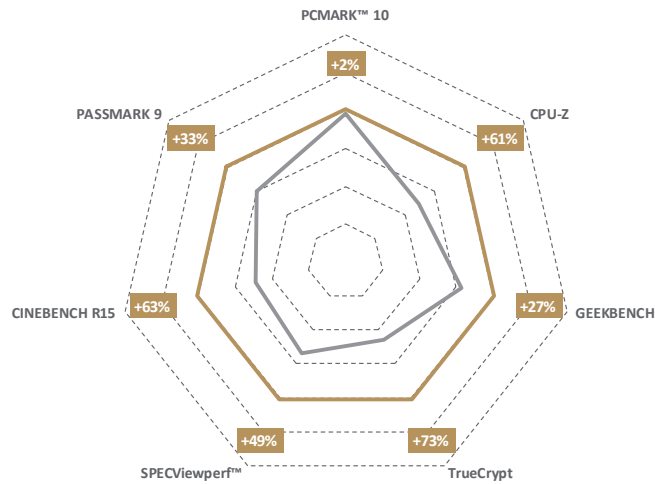
AMD Ryzen™ 5 PRO 1600 VS Intel Core i5 7600⁵



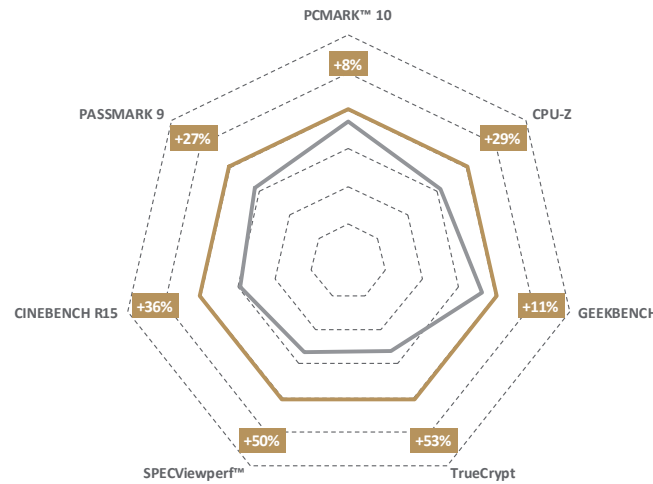
AMD Ryzen™ 3 PRO 1300 VS Intel Core i3 7100⁷



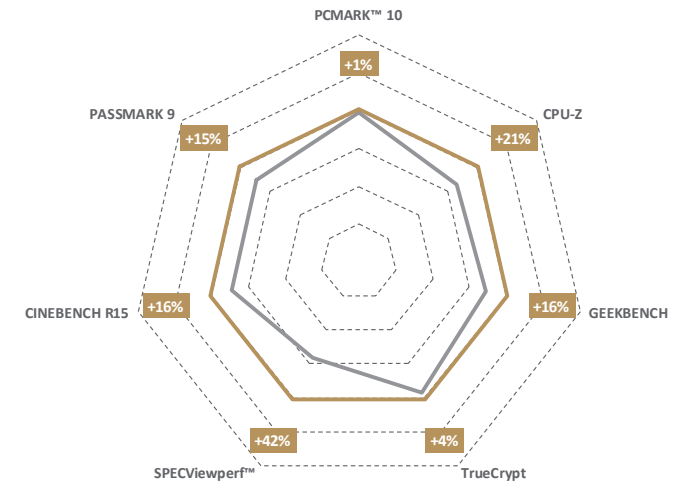
AMD Ryzen™ 7 PRO 1700 VS Intel Core i7 7700⁴



AMD Ryzen™ 5 PRO 1500 VS Intel Core i5 7500⁶



AMD Ryzen™ 3 PRO 1200 VS Intel Core i3 7100⁸



3,4,5,6,7,8, For full footnotes see <http://subscriptions.amd.com/assets/RZP-ORG.pdf>.

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1. Taken from ark.intel.com May 2017. Support of new features may only be added by exception process.
2. AMD PRO A12-9800B with 4 CPU cores and 4 CPU threads versus Ryzen 7 PRO 1700/1700X with 8 CPU cores and 16 CPU threads. RZP-9
3. Testing by AMD Performance labs with the following Benchmarks : PCMARK™ 10 (v1.0.1198 - Default Score), SYSMARK 2014 (v1.5 - Overall Score), CPU-Z (v1.79 - Multi Thread Score), GEEKBENCH (v4.1.0 64bit - CPU Multicore Score), TrueCrypt (v7.1a - AES Encryption (Mean) over a 1GB memory drive), SPECViewperf™ (v12.0.1 - catia-04 Score), CINEBENCH R15 (RC83328DEMO - CPU (nCore) Score), PASSMARK 9 (build 10014 - CPU Score), 3DMark™ 11 (v2.3.3693 - Fire Strike Score)
AMD Ryzen™ 7 PRO 1700X scored respectively 3890, 2056, 4316, 22635, 9728, 18.7, 1540, 15191, 1602 and Intel Core i7 7700K scored respectively 3904, 2196, 2659, 18685, 5529, 14.71, 957, 12371, 1159 for a respective benchmark score comparison of 3890/3904-1=-0%, 2056/2196-1=-6%, 4316/2659-1=+62%, 22635/18685-1=+21%, 9728/5529-1=+76%, 18.7/14.71-1=+27%, 1540/957-1=+61%, 15191/12371-1=+23%, 1602/1159-1=+38%
Scores are estimates based on AMD internal lab measurements/modelling and may vary. Additional information about SPECviewperf can be found at www.spec.org. PC manufacturers may vary configurations yielding different results. Performance may vary based on use of latest drivers.
System Configurations:
AMD Ryzen™ 7 PRO 1700X: AMD Myrtle - SM, AMD Ryzen™ 7 PRO 1700X with AMD Radeon R7 430, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.19.512.4, 06/08/2017
Intel Core i7 7700K: HP EliteDesk 800 G3, Intel Core i7 7700K with Intel® HD Graphics 630, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.20.16.4574, 06/08/2017 - RZP-3
4. Testing by AMD Performance labs with the following Benchmarks : PCMARK™ 10 (v1.0.1198 - Default Score), SYSMARK 2014 (v1.5 - Overall Score), CPU-Z (v1.79 - Multi Thread Score), GEEKBENCH (v4.1.0 64bit - CPU Multicore Score), TrueCrypt (v7.1a - AES Encryption (Mean) over a 1GB memory drive), SPECViewperf™ (v12.0.1 - catia-04 Score), CINEBENCH R15 (RC83328DEMO - CPU (nCore) Score), PASSMARK 9 (build 10014 - CPU Score), 3DMark™ 11 (v2.3.3693 - Fire Strike Score)
AMD Ryzen™ 7 PRO 1700 scored respectively 3764, 1956, 3906, 21182, 8704, 20.11, 1419, 14392, 1740 and Intel Core i7 7700 scored respectively 3686, 2030, 2430, 16682, 5017, 13.49, 871, 10803, 1022 for a respective benchmark score comparison of 3764/3686-1=+2%, 1956/2030-1=-4%, 3906/2430-1=+61%, 21182/16682-1=+27%, 8704/5017-1=+73%, 20.11/13.49-1=+49%, 1419/871-1=+63%, 14392/10803-1=+33%, 1740/1022-1=+70%
Scores are estimates based on AMD internal lab measurements/modelling and may vary. Additional information about SPECviewperf can be found at www.spec.org. PC manufacturers may vary configurations yielding different results. Performance may vary based on use of latest drivers.
System Configurations:
AMD Ryzen™ 7 PRO 1700: AMD Myrtle - SM, AMD Ryzen™ 7 PRO 1700 with AMD Radeon R7 430, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.19.512.4, 06/08/2017
Intel Core i7 7700: HP EliteDesk 800 G3, Intel Core i7 7700 with Intel® HD Graphics 630, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.20.16.4574, 06/08/2017 - RZP-4
5. Testing by AMD Performance labs with the following Benchmarks : PCMARK™ 10 (v1.0.1198 - Default Score), SYSMARK 2014 (v1.5 - Overall Score), CPU-Z (v1.79 - Multi Thread Score), GEEKBENCH (v4.1.0 64bit - CPU Multicore Score), TrueCrypt (v7.1a - AES Encryption (Mean) over a 1GB memory drive), SPECViewperf™ (v12.0.1 - catia-04 Score), CINEBENCH R15 (RC83328DEMO - CPU (nCore) Score), PASSMARK 9 (build 10014 - CPU Score), 3DMark™ 11 (v2.3.3693 - Fire Strike Score)
AMD Ryzen™ 5 PRO 1600 scored respectively 3714, 1835, 3170, 18782, 7065, 20.13, 1144, 12691, 1597 and Intel Core i5 7600 scored respectively 3544, 1783, 1828, 14387, 3481, 13.3, 642, 9097, 1044 for a respective benchmark score comparison of 3714/3544-1=+5%, 1835/1783-1=+3%, 3170/1828-1=+73%, 18782/14387-1=+31%, 7065/3481-1=+103%, 20.13/13.3-1=+51%, 1144/642-1=+78%, 12691/9097-1=+40%, 1597/1044-1=+53%
Scores are estimates based on AMD internal lab measurements/modelling and may vary. Additional information about SPECviewperf can be found at www.spec.org. PC manufacturers may vary configurations yielding different results. Performance may vary based on use of latest drivers.
System Configurations:
AMD Ryzen™ 5 PRO 1600: AMD Myrtle - SM, AMD Ryzen™ 5 PRO 1600 with AMD Radeon R7 430, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.19.512.4, 06/08/2017
Intel Core i5 7600: HP EliteDesk 800 G3, Intel Core i5 7600 with Intel® HD Graphics 630, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.20.16.4574, 06/08/2017 - RZP-10
6. Testing by AMD Performance labs with the following Benchmarks : PCMARK™ 10 (v1.0.1198 - Default Score), SYSMARK 2014 (v1.5 - Overall Score), CPU-Z (v1.79 - Multi Thread Score), GEEKBENCH (v4.1.0 64bit - CPU Multicore Score), TrueCrypt (v7.1a - AES Encryption (Mean) over a 1GB memory drive), SPECViewperf™ (v12.0.1 - catia-04 Score), CINEBENCH R15 (RC83328DEMO - CPU (nCore) Score), PASSMARK 9 (build 10014 - CPU Score), 3DMark™ 11 (v2.3.3693 - Fire Strike Score)
AMD Ryzen™ 5 PRO 1500 scored respectively 3692, 1574, 2163, 14951, 5017, 20, 810, 10652, 1731 and Intel Core i5 7500 scored respectively 3434, 1608, 1681, 13527, 3276, 13.35, 595, 8412, 985 for a respective benchmark score comparison of 3692/3434-1=+8%, 1574/1608-1=-2%, 2163/1681-1=+29%, 14951/13527-1=+11%, 5017/3276-1=+53%, 20/13.35-1=+50%, 810/595-1=+36%, 10652/8412-1=+27%, 1731/985-1=+76%
Scores are estimates based on AMD internal lab measurements/modelling and may vary. Additional information about SPECviewperf can be found at www.spec.org. PC manufacturers may vary configurations yielding different results. Performance may vary based on use of latest drivers.
System Configurations:
AMD Ryzen™ 5 PRO 1500: AMD Myrtle - SM, AMD Ryzen™ 5 PRO 1500 with AMD Radeon R7 430, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.19.512.4, 06/08/2017
Intel Core i5 7500: HP EliteDesk 800 G3, Intel Core i5 7500 with Intel® HD Graphics 630, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.20.16.4574, 06/08/2017 - RZP-6
7. Testing by AMD Performance labs with the following Benchmarks : PCMARK™ 10 (v1.0.1198 - Default Score), SYSMARK 2014 (v1.5 - Overall Score), CPU-Z (v1.79 - Multi Thread Score), GEEKBENCH (v4.1.0 64bit - CPU Multicore Score), TrueCrypt (v7.1a - AES Encryption (Mean) over a 1GB memory drive), SPECViewperf™ (v12.0.1 - catia-04 Score), CINEBENCH R15 (RC83328DEMO - CPU (nCore) Score), PASSMARK 9 (build 10014 - CPU Score), 3DMark™ 11 (v2.3.3693 - Fire Strike Score)
AMD Ryzen™ 3 PRO 1300 scored respectively 3511, 1285, 1654, 11872, 2969, 20.16, 554, 8139, 1570 and Intel Core i3 7100 scored respectively 3301, 1453, 1175, 9293, 2457, 12.29, 414, 6189, 941 for a respective benchmark score comparison of 3511/3301-1=+6%, 1285/1453-1=-12%, 1654/1175-1=+41%, 11872/9293-1=+28%, 2969/2457-1=+21%, 20.16/12.29-1=+64%, 554/414-1=+34%, 8139/6189-1=+32%, 1570/941-1=+67%
Scores are estimates based on AMD internal lab measurements/modelling and may vary. Additional information about SPECviewperf can be found at www.spec.org. PC manufacturers may vary configurations yielding different results. Performance may vary based on use of latest drivers.
System Configurations:
AMD Ryzen™ 3 PRO 1300: AMD Myrtle - SM, AMD Ryzen™ 3 PRO 1300 with AMD Radeon R7 430, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.19.512.4, 06/08/2017
Intel Core i3 7100: HP EliteDesk 800 G3, Intel Core i3 7100 with Intel® HD Graphics 630, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.20.16.4574, 06/08/2017 - RZP-7
8. Testing by AMD Performance labs with the following Benchmarks : PCMARK™ 10 (v1.0.1198 - Default Score), SYSMARK 2014 (v1.5 - Overall Score), CPU-Z (v1.79 - Multi Thread Score), GEEKBENCH (v4.1.0 64bit - CPU Multicore Score), TrueCrypt (v7.1a - AES Encryption (Mean) over a 1GB memory drive), SPECViewperf™ (v12.0.1 - catia-04 Score), CINEBENCH R15 (RC83328DEMO - CPU (nCore) Score), PASSMARK 9 (build 10014 - CPU Score), 3DMark™ 11 (v2.3.3693 - Fire Strike Score)
AMD Ryzen™ 3 PRO 1200 scored respectively 3331, 1158, 1425, 10740, 2560, 17.4, 480, 7111, 1564 and Intel Core i3 7100 scored respectively 3301, 1453, 1175, 9293, 2457, 12.29, 414, 6189, 941 for a respective benchmark score comparison of 3331/3301-1=+1%, 1158/1453-1=-20%, 1425/1175-1=+21%, 10740/9293-1=+16%, 2560/2457-1=+4%, 17.4/12.29-1=+42%, 480/414-1=+16%, 7111/6189-1=+15%, 1564/941-1=+66%
Scores are estimates based on AMD internal lab measurements/modelling and may vary. Additional information about SPECviewperf can be found at www.spec.org. PC manufacturers may vary configurations yielding different results. Performance may vary based on use of latest drivers.
System Configurations:
AMD Ryzen™ 3 PRO 1200: AMD Myrtle - SM, AMD Ryzen™ 3 PRO 1200 with AMD Radeon R7 430, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.19.512.4, 06/08/2017
Intel Core i3 7100: HP EliteDesk 800 G3, Intel Core i3 7100 with Intel® HD Graphics 630, 2x4096 DDR4-2400 RAM, 500GB HDD 7200rpm Drive, Microsoft Windows 10 Pro, Graphics Driver 21.20.16.4574, 06/08/2017 - RZP-8

