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g5-desktop-thermal-validation-trial03

Dell G5 (5000) testing with an Intel Core i5-10400F and nVIDIA GeForce GTX 1660 Super on Ubuntu 21.10.

Automated Executive Summary

Side panel closed without GPU shroud had the most wins, coming in first place for 52% of the tests.

Based on the geometric mean of all complete results, the fastest (Side panel removed without GPU shroud) was 1.024x the speed of the slowest (Side panel closed with GPU shroud). Side panel closed without GPU shroud was 0.999x the speed of Side panel removed without GPU shroud and Side panel closed with GPU shroud was 0.977x the speed of Side panel closed without GPU shroud.

The results with the greatest spread from best to worst included:

Shadow of the Tomb Raider (Resolution: 2560 x 1440 - Graphics Preset: Medium - Anti Aliasing: Off) at 1.45x
Y-Cruncher (Calculating 500M Pi Digits) at 1.077x
Timed LLVM Compilation (Build System: Ninja) at 1.069x
Timed Linux Kernel Compilation (Time To Compile) at 1.059x
srsRAN (Test: OFDM_Test) at 1.055x
GNU Octave Benchmark at 1.054x
srsRAN (Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM) at 1.052x
srsRAN (Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM) at 1.052x

srsRAN (Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM) at 1.05x
srsRAN (Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM) at 1.047x.

Test Systems:

Side panel closed without GPU shroud

Side panel removed without GPU shroud

Processor: Intel Core i5-10400F @ 4.30GHz (6 Cores / 12 Threads), Motherboard: Dell 0M6C7G (1.4.0 BIOS), Chipset: Intel Comet Lake PCH, Memory: 32GB, Disk: SK hynix BC511 NVMe 512GB + 2000GB Seagate ST2000DM008-2FR1 + 500GB Western Digital WDS500G2B0A + 2000GB Seagate ST2000LM007-1R81, Graphics: NVIDIA GeForce GTX 1660 SUPER 6GB, Audio: Realtek ALC3861, Monitor: S2719DGF, Network: Realtek Device 2600 + Intel Comet Lake PCH CNVi WiFi

OS: Ubuntu 21.10, Kernel: 5.13.0-22-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.13, Display Driver: NVIDIA 495.44, OpenGL: 4.6.0, OpenCL: OpenCL 3.0 CUDA 11.5.100, Vulkan: 1.2.186, Compiler: GCC 10.3.0 + Clang 13.0.0-2, File-System: ext4, Screen Resolution: 2560x1440

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-h9G0XI/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-h9G0XI/gcc-10-10.3.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xea - Thermald 2.4.6
Graphics Notes: BAR1 / Visible vRAM Size: 256 MiB
Python Notes: Python 3.9.7
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Side panel closed with GPU shroud

Processor: Intel Core i5-10400F @ 4.30GHz (6 Cores / 12 Threads), Motherboard: Dell 0M6C7G (1.5.1 BIOS), Chipset: Intel Comet Lake PCH, Memory: 32GB, Disk: SK hynix BC511 NVMe 512GB + 2000GB Seagate ST2000DM008-2FR1 + 500GB Western Digital WDS500G2B0A, Graphics: NVIDIA GeForce GTX 1660 SUPER 6GB, Audio: Realtek ALC3861, Network: Realtek Device 2600 + Intel Comet Lake PCH CNVi WiFi

OS: Ubuntu 21.10, Kernel: 5.13.0-25-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.13, Display Driver: NVIDIA 495.46, OpenGL: 4.6.0, OpenCL: OpenCL 3.0 CUDA 11.5.103, Vulkan: 1.2.186, Compiler: GCC 10.3.0 + Clang 13.0.0-2, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-h9G0XI/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-h9G0XI/gcc-10-10.3.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave (EPP: balance_performance) - CPU Microcode: 0xec - Thermald 2.4.6
Graphics Notes: BAR1 / Visible vRAM Size: 256 MiB

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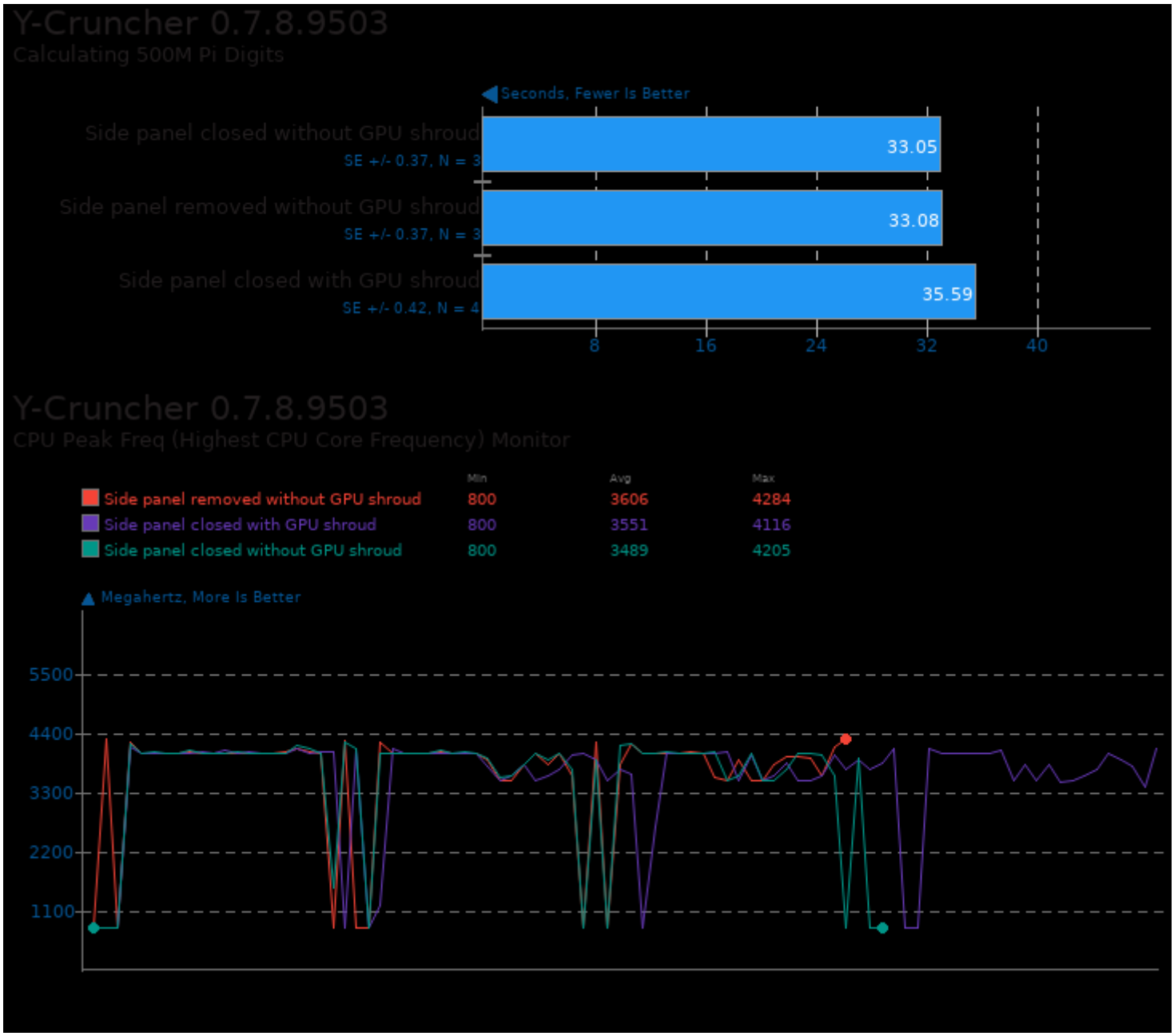
Python Notes: Python 3.9.7
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	Side panel closed without GPU shroud	Side panel removed without GPU shroud	Side panel closed with GPU shroud
Y-Cruncher - C.5.P.D (sec)	**33.045**	33.076	**35.592**
Normalized	100%	99.91%	92.84%
Standard Deviation	1.9%	1.9%	2.4%
srsRAN - 4.P.1.P.S.6.Q (eNb Mb/s)	352.0	**352.9**	**336.1**
Normalized	99.74%	100%	95.24%
Standard Deviation	0.1%	0.3%	0.4%
srsRAN - 4.P.1.P.S.6.Q (UE Mb/s)	**141.2**	139.5	**135.5**
Normalized	100%	98.8%	95.96%
Standard Deviation	0.1%	2.3%	0.2%
srsRAN - 4.P.1.P.S.2.Q (eNb Mb/s)	385.1	**386.5**	**369.3**
Normalized	99.64%	100%	95.55%
Standard Deviation	0.1%	0.2%	0.2%
srsRAN - 4.P.1.P.S.2.Q (UE Mb/s)	149.1	**149.3**	**144.1**
Normalized	99.87%	100%	96.52%
Standard Deviation	0.7%	0.7%	0.3%
srsRAN - 4.P.1.P.M.6.Q (eNb Mb/s)	350.8	**350.9**	**333.6**
Normalized	99.97%	100%	95.07%
Standard Deviation	0.3%	0.3%	0.3%
srsRAN - 4.P.1.P.M.6.Q (UE Mb/s)	**113.5**	113.2	**108.6**
Normalized	100%	99.74%	95.68%
Standard Deviation	0.3%	0.7%	0.3%
srsRAN - 4.P.1.P.M.2.Q (eNb Mb/s)	**384.4**	384.1	**365.4**
Normalized	100%	99.92%	95.06%
Standard Deviation	0.3%	0.2%	0.2%
srsRAN - 4.P.1.P.M.2.Q (UE Mb/s)	**125.0**	124.8	**119.6**
Normalized	100%	99.84%	95.68%
Standard Deviation	0.1%	0.4%	0.1%
srsRAN - 5.P.T.5.P.S.6.Q (eNb Mb/s)	**113.8**	113.7	**108.9**
Normalized	100%	99.91%	95.69%
Standard Deviation	0.3%	0.4%	0.4%
srsRAN - 5.P.T.5.P.S.6.Q (UE Mb/s)	**57.9**	**57.9**	**55.4**
Normalized	100%	100%	95.68%
Standard Deviation	0.4%	0.3%	0.6%
srsRAN - OFDM_Test (Samples / Second)	**115166667**	113866667	**109133333**
Normalized	100%	98.87%	94.76%
Standard Deviation	0.7%	1.2%	0.6%
Timed LLVM Compilation - Ninja (sec)	1025	**1020**	**1090**
Normalized	99.47%	100%	93.58%
Standard Deviation	0%	0%	0.1%
Shadow of the Tomb Raider - 1920 x 1080 - Medium - Off (FPS)	90.2	**91.2**	**87.6**
Normalized	98.9%	100%	96.05%
Standard Deviation	0.1%	0.1%	0.1%

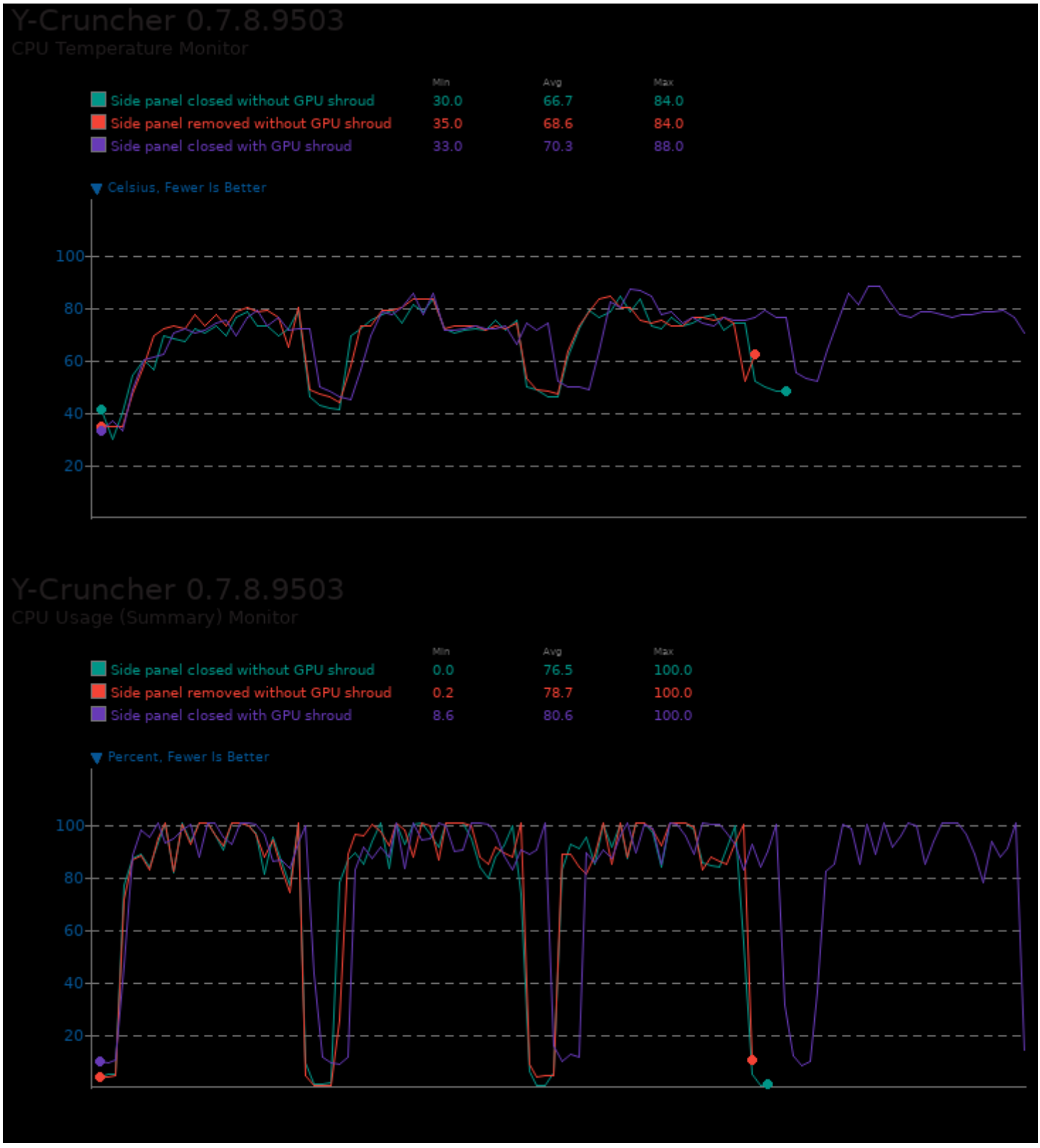
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Shadow of the Tomb Raider - 2560 x 1440 - Medium - Off (FPS)	**60.4**	61.2	**87.6**
Normalized	68.95%	69.86%	100%
Standard Deviation	0.1%	0.1%	0.1%
GNU Octave Benchmark (sec)	**7.343**	7.375	**7.738**
Normalized	100%	99.57%	94.9%
Standard Deviation	0.5%	0.8%	2.4%
Timed Linux Kernel Compilation - Time To Compile (sec)	131.525	**130.701**	**138.379**
Normalized	99.37%	100%	94.45%
Standard Deviation	0.6%	0.4%	0.2%

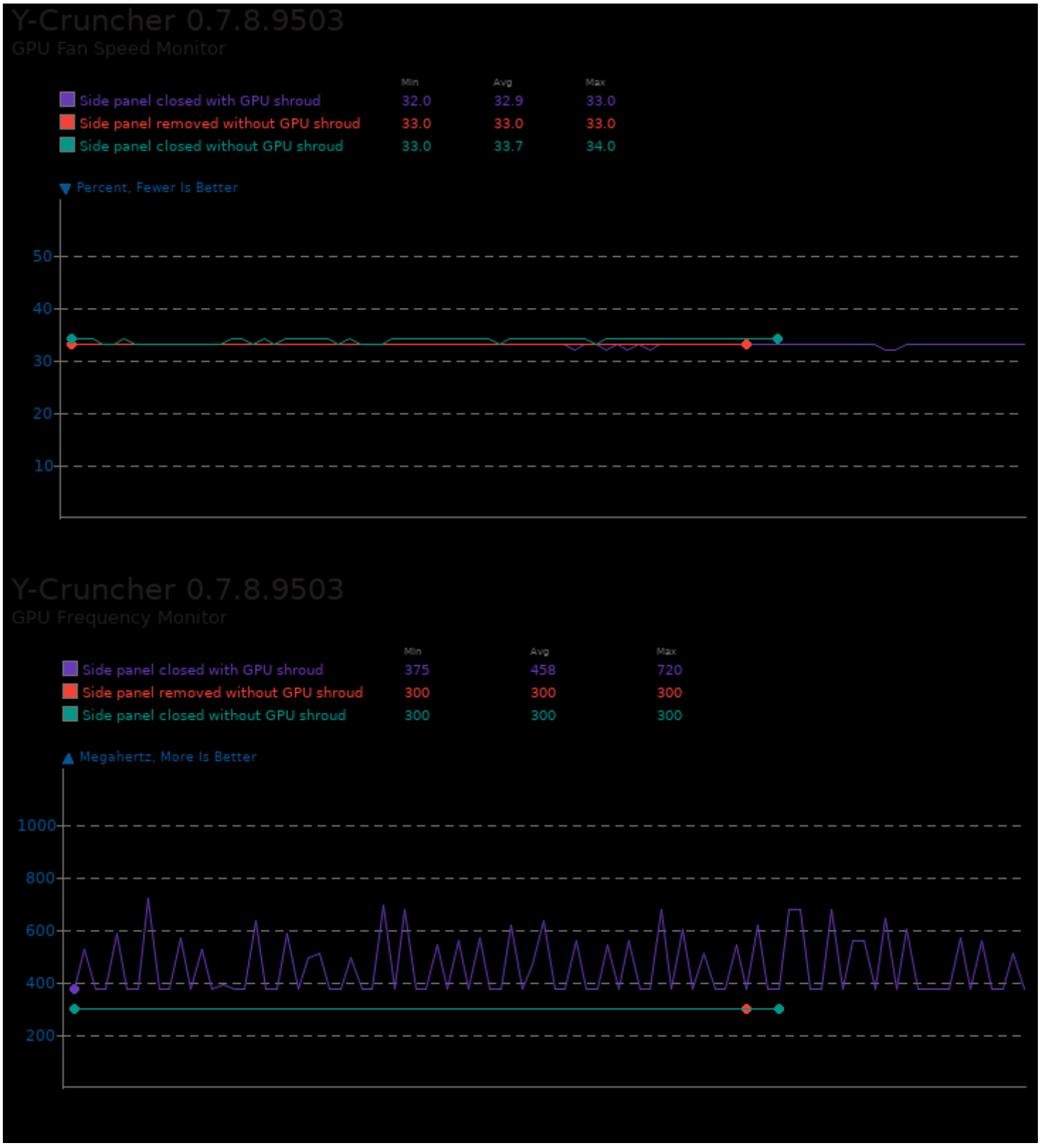
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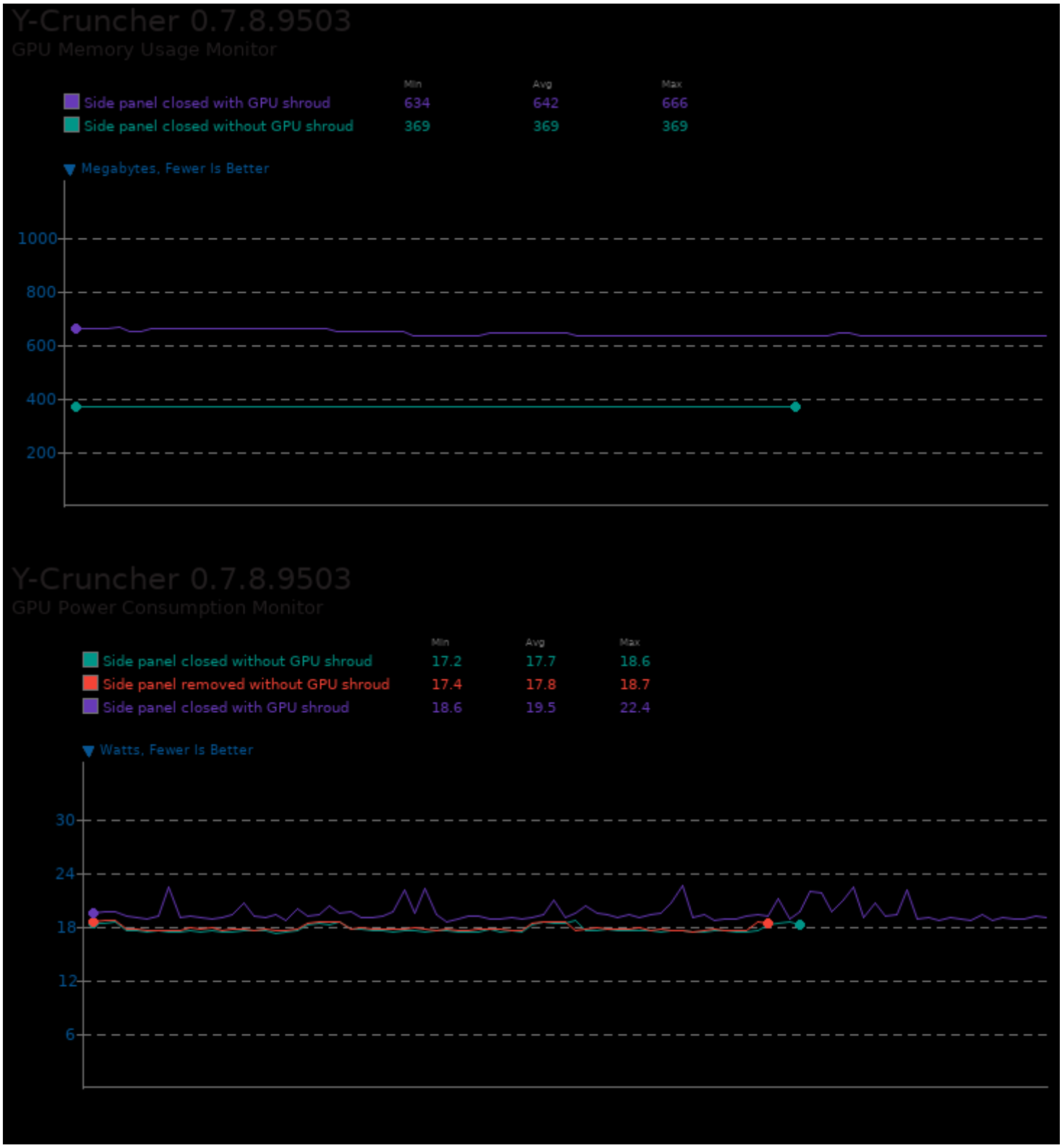
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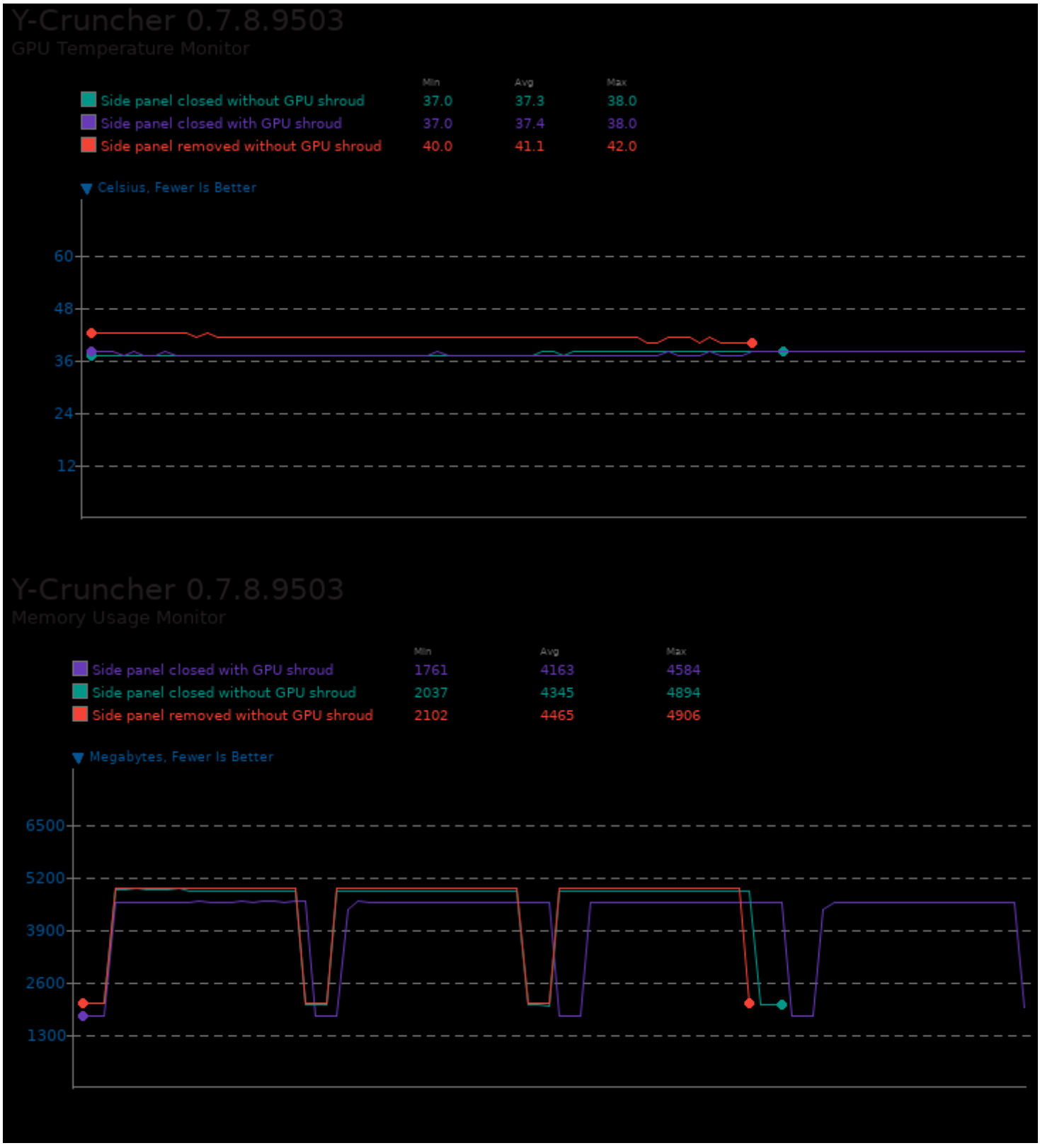
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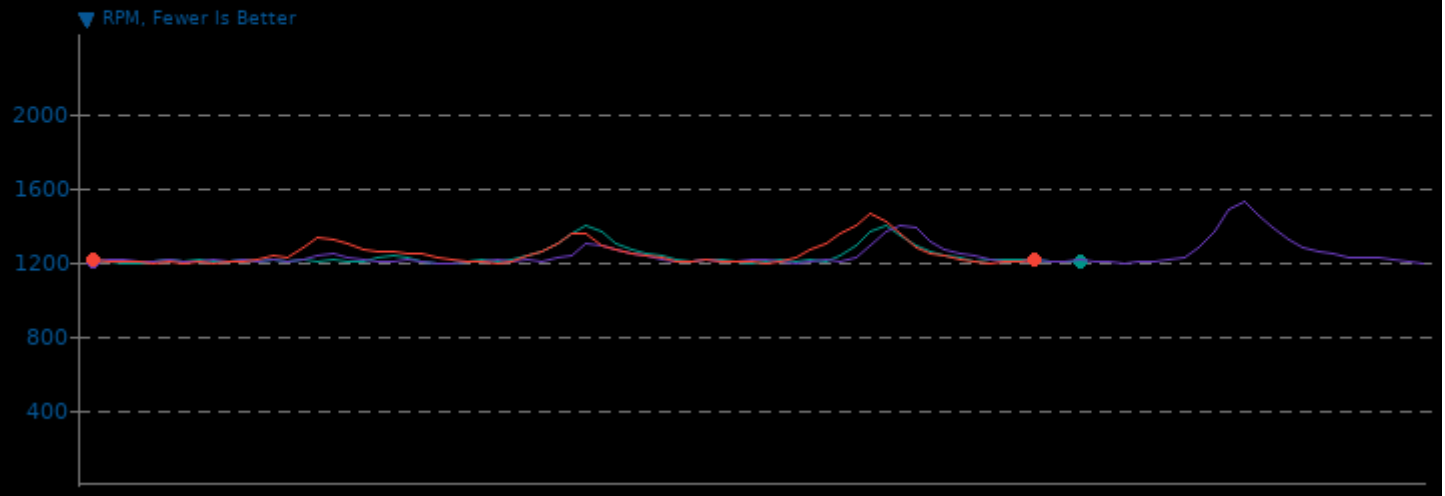
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Y-Cruncher 0.7.8.9503

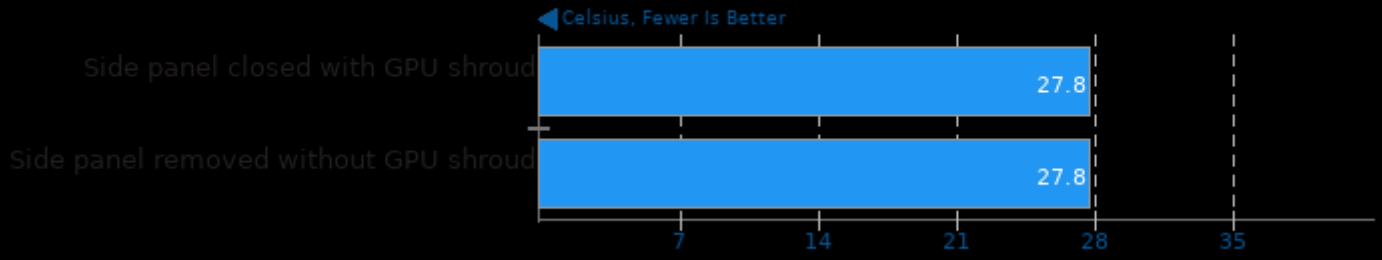
System Fan Speed Monitor

	Min	Avg	Max
Side panel closed without GPU shroud	1185	1228	1397
Side panel closed with GPU shroud	1187	1236	1520
Side panel removed without GPU shroud	1191	1244	1455



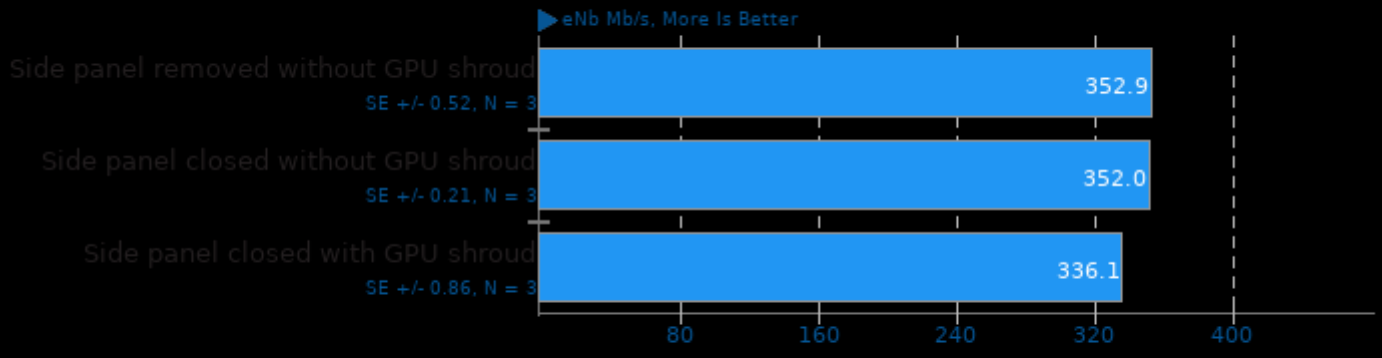
Y-Cruncher 0.7.8.9503

System Temperature Monitor



srsRAN 21.10

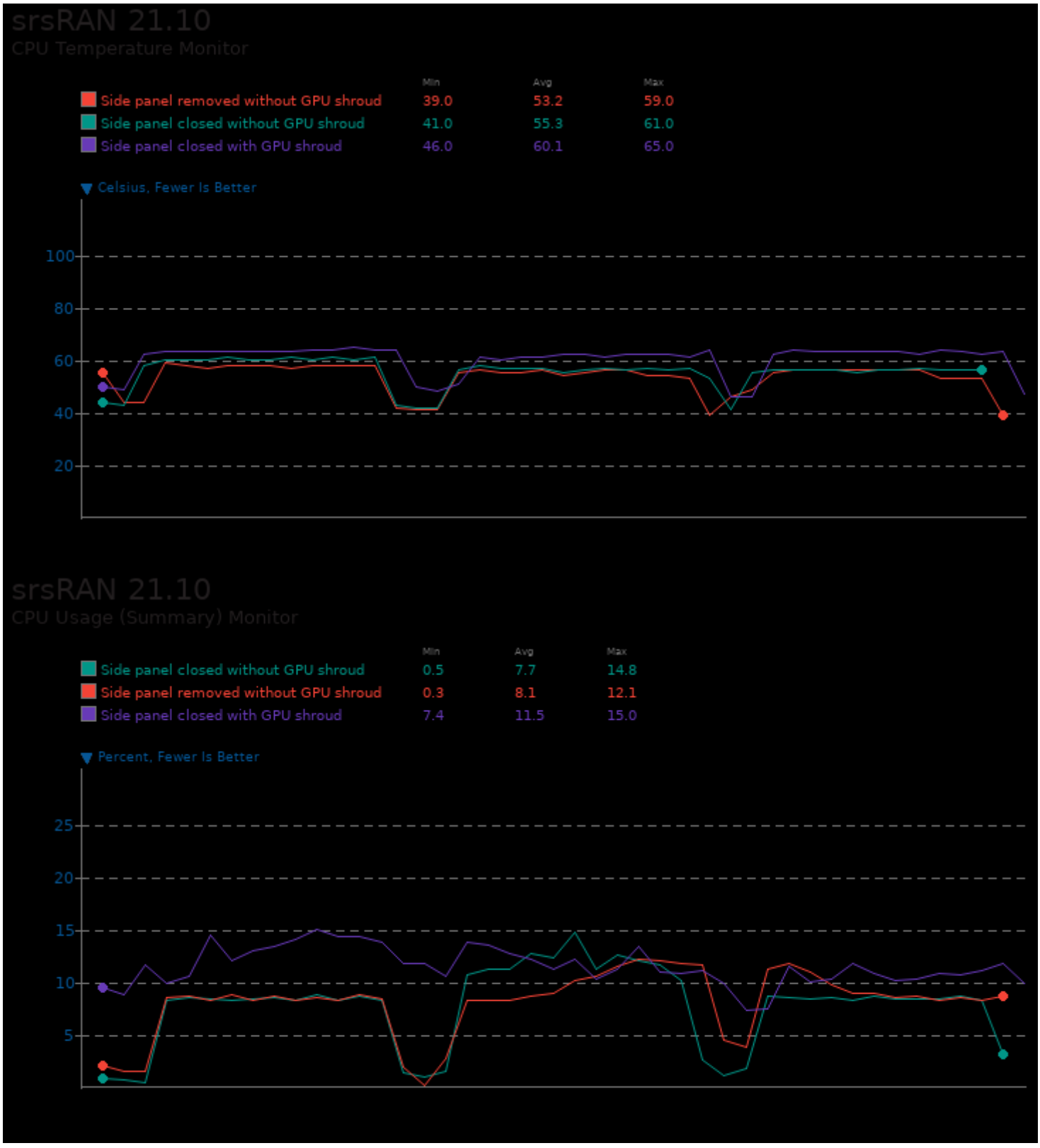
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM

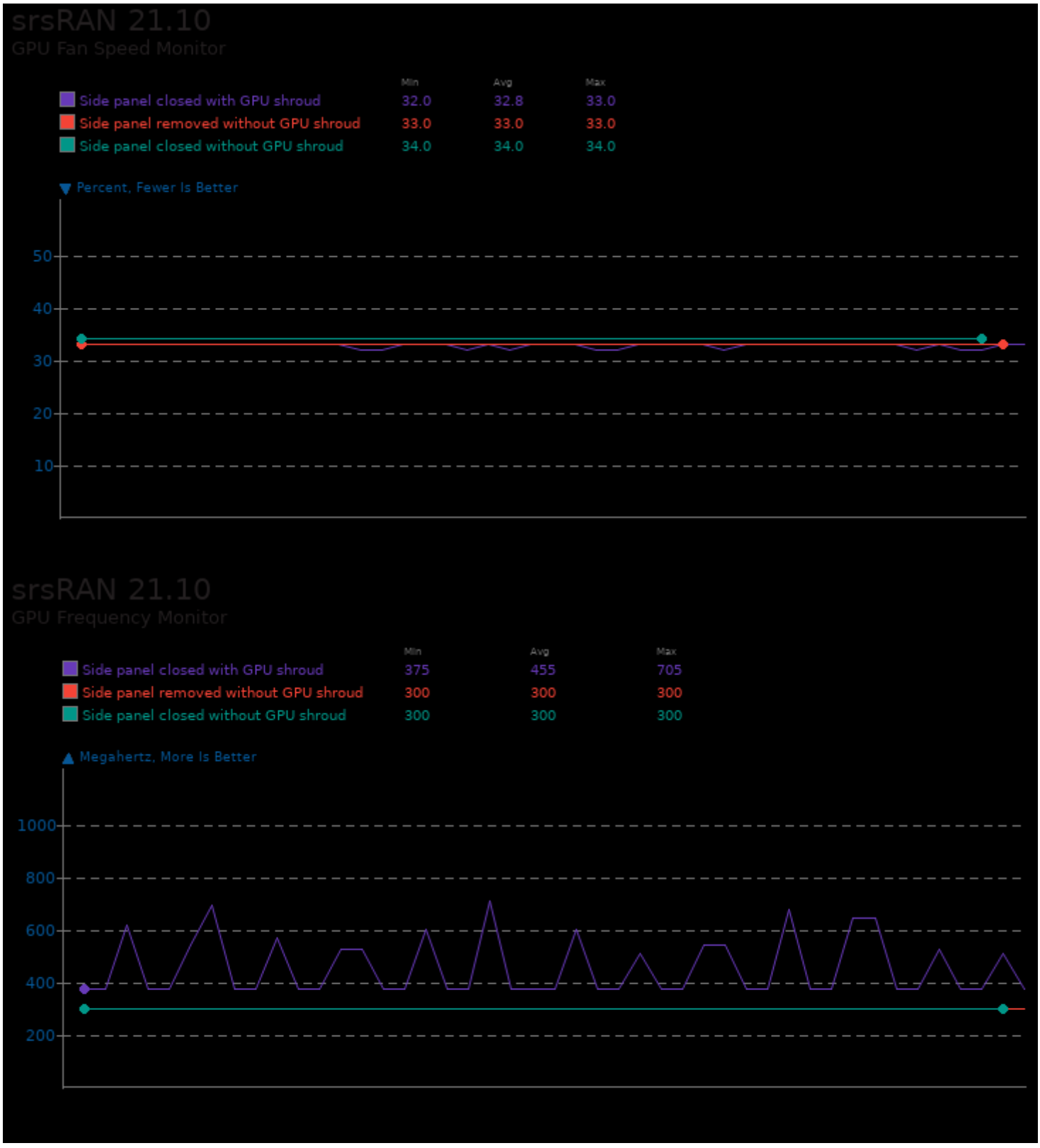


1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

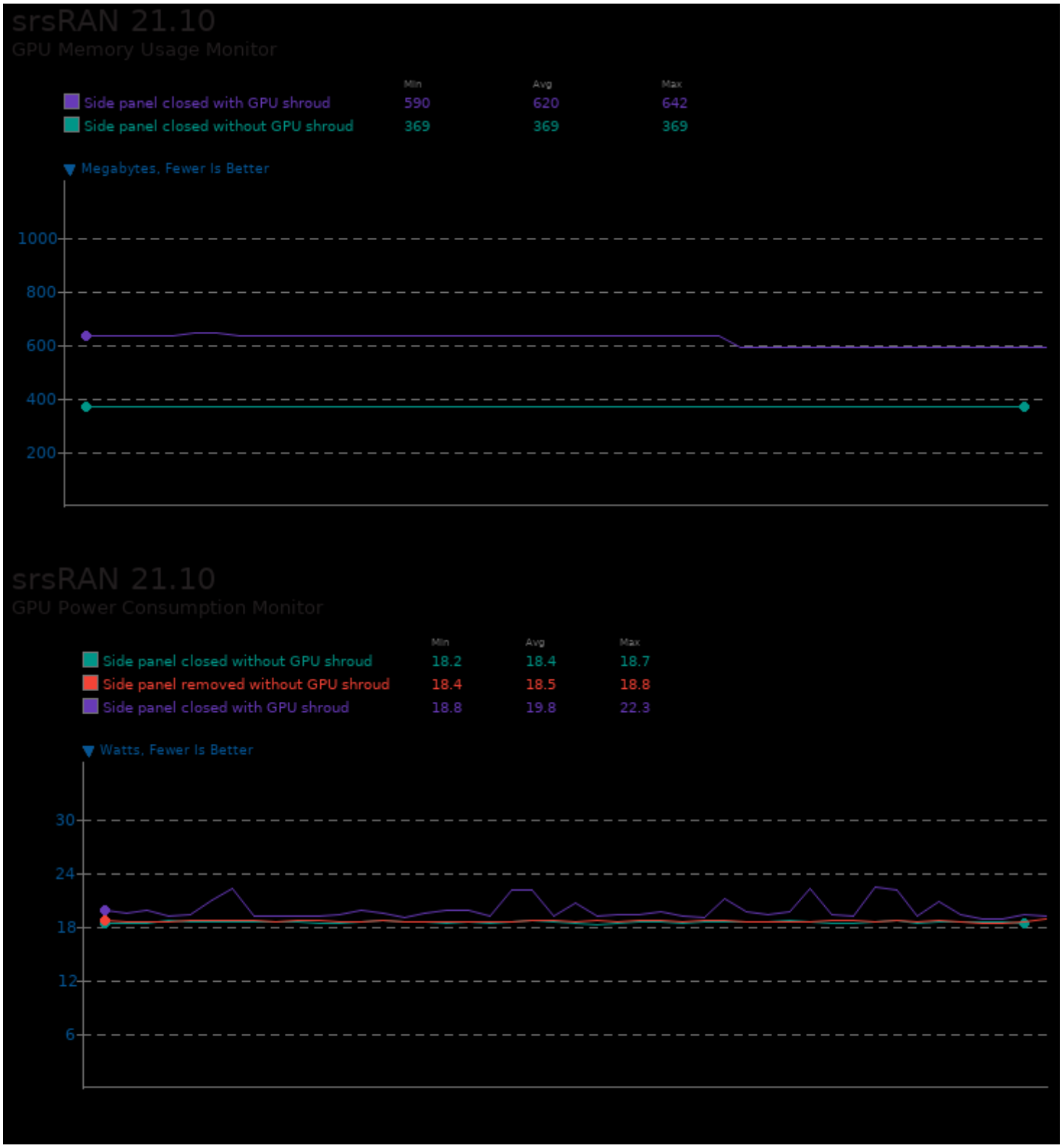

srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM
UE Mb/s, More Is Better
Side panel closed without GPU shroud
SE +/- 0.12, N = 3
141.2
Side panel removed without GPU shroud
SE +/- 1.88, N = 3
139.5
Side panel closed with GPU shroud
SE +/- 0.18, N = 3
135.5
30
60
90
120
150
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.10
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed without GPU shroud 800 3923 4300
Side panel removed without GPU shroud 800 3871 4299
Side panel closed with GPU shroud 800 3777 4116
Megahertz, More Is Better
5500
4400
3300
2200
1100

g5-desktop-thermal-validation-trial03

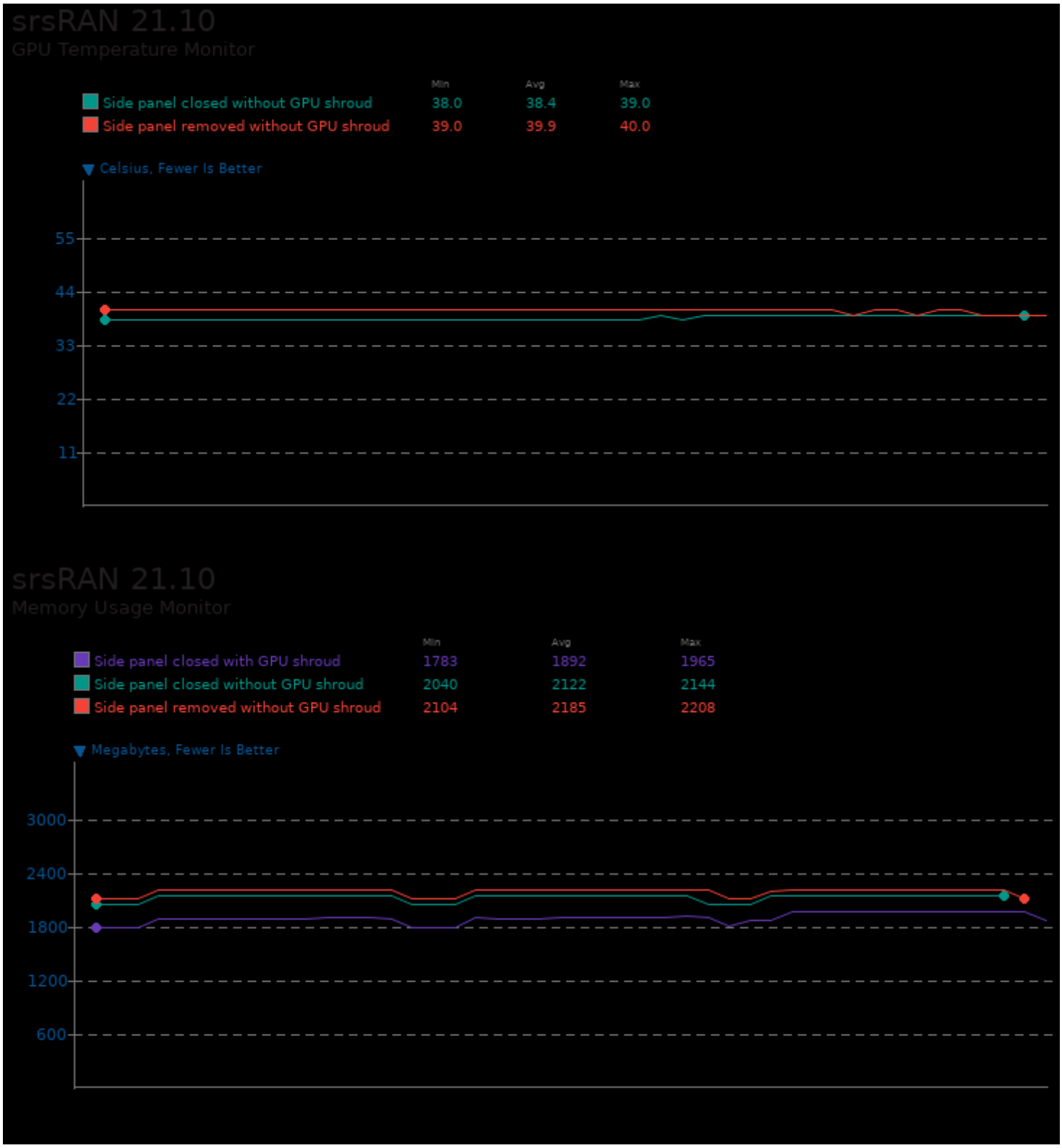


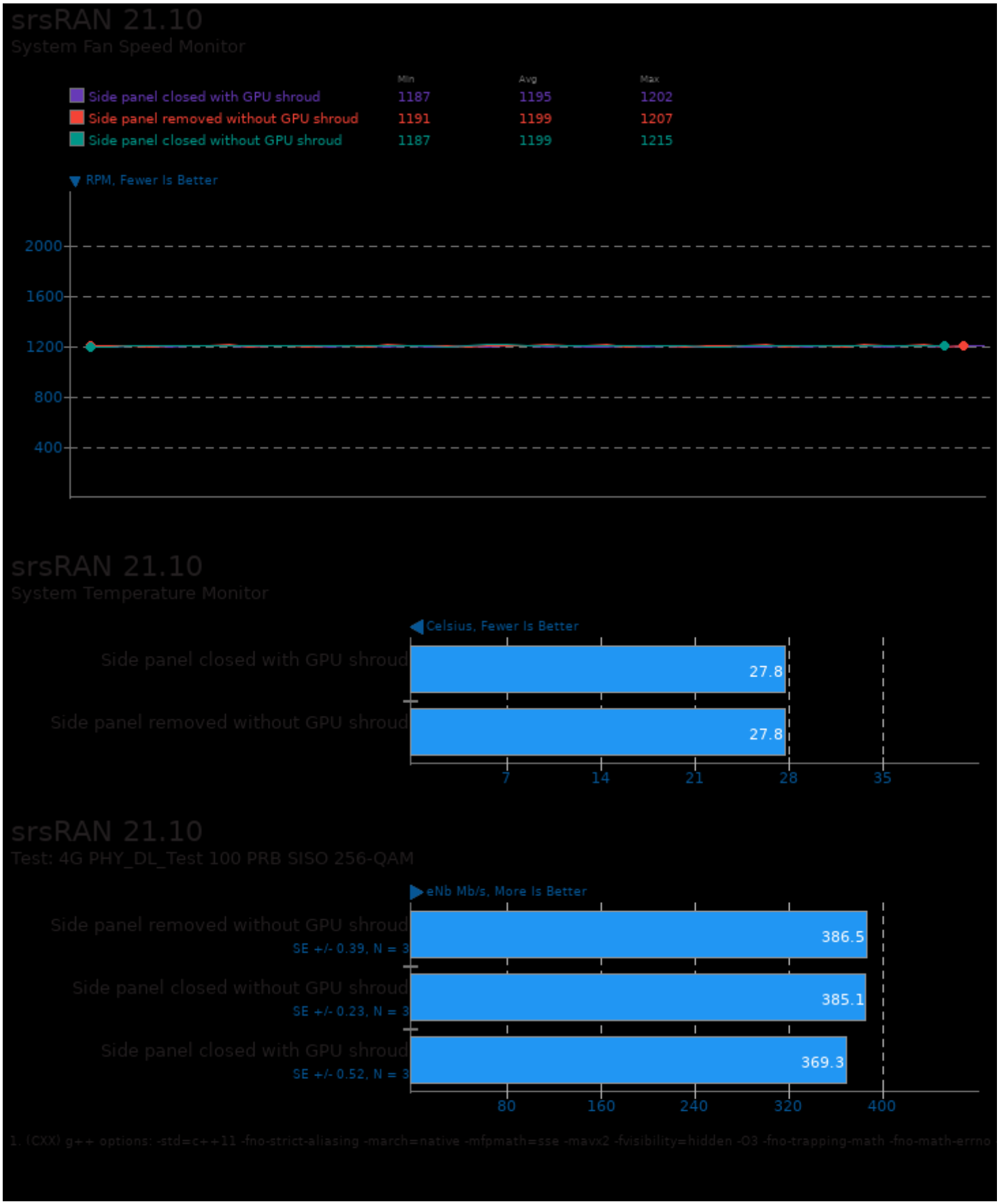

srsRAN 21.10
GPU Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
32.0
32.8
33.0
Side panel removed without GPU shroud
33.0
33.0
33.0
Side panel closed without GPU shroud
34.0
34.0
34.0
Percent, Fewer Is Better
50
40
30
20
10

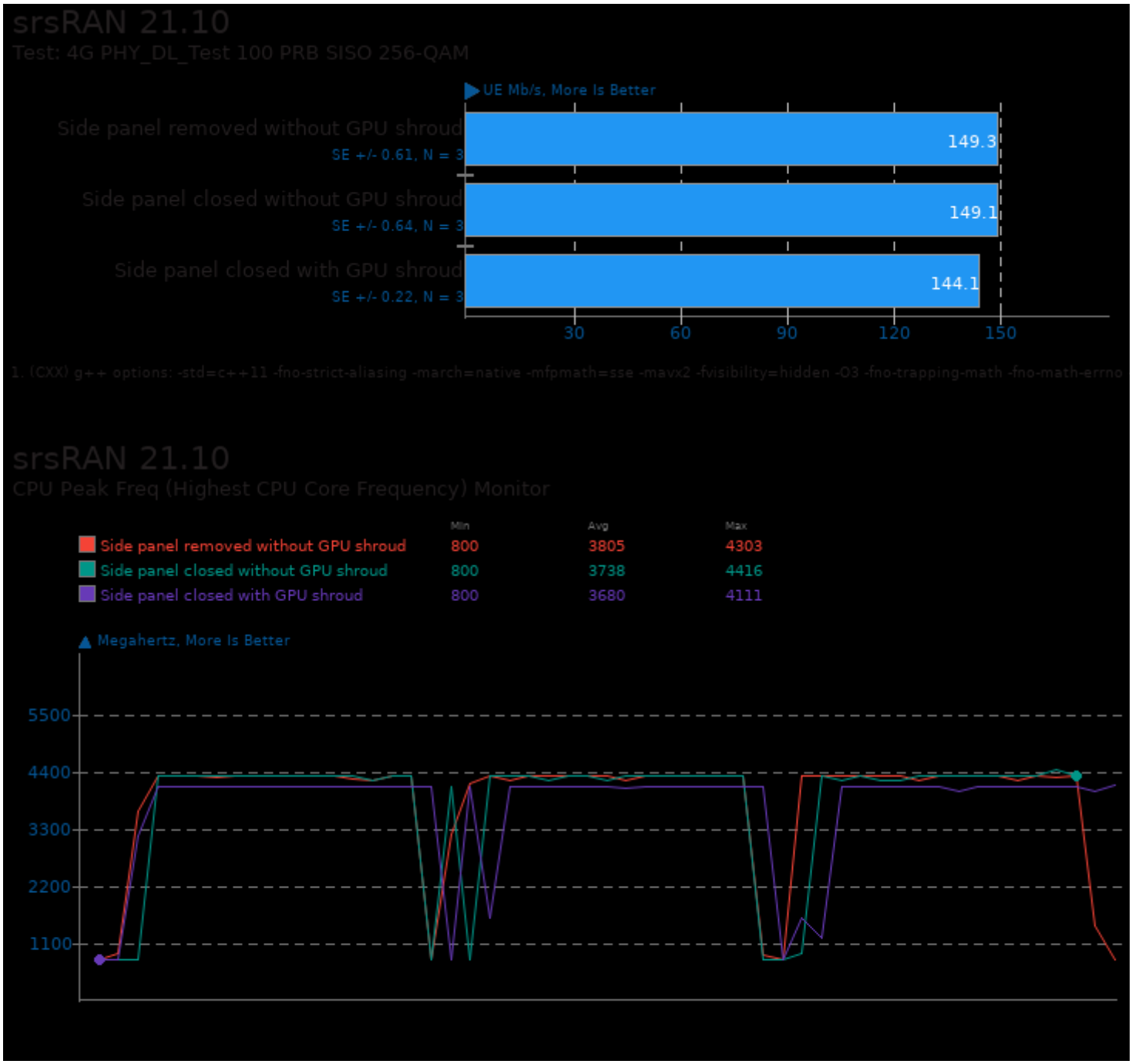
srsRAN 21.10
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
375
455
705
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200


srsRAN 21.10
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
590
620
642
Side panel closed without GPU shroud
369
369
369
Megabytes, Fewer Is Better
1000
800
600
400
200
srsRAN 21.10
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.2
18.4
18.7
Side panel removed without GPU shroud
18.4
18.5
18.8
Side panel closed with GPU shroud
18.8
19.8
22.3
Watts, Fewer Is Better
30
24
18
12
6

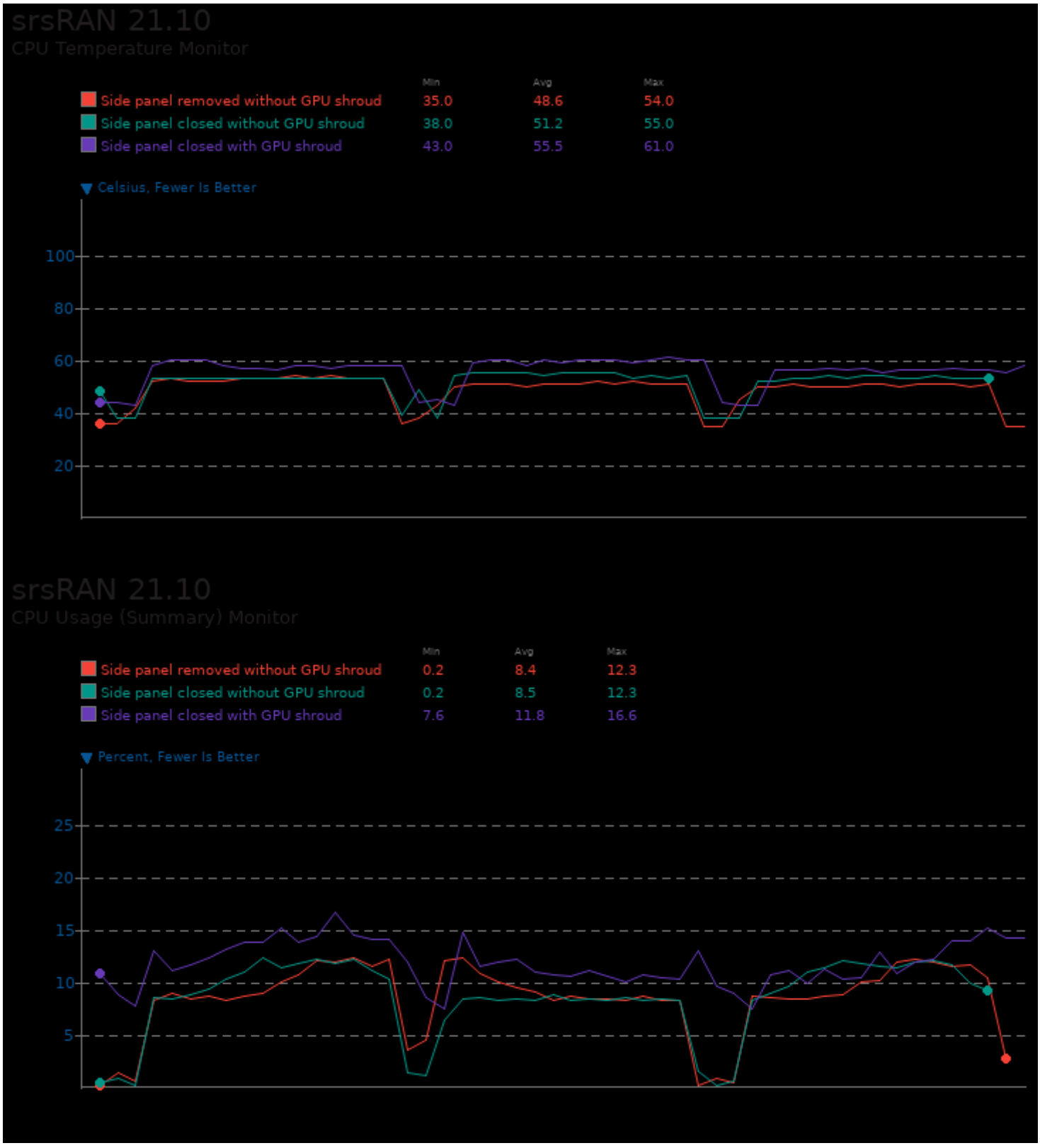
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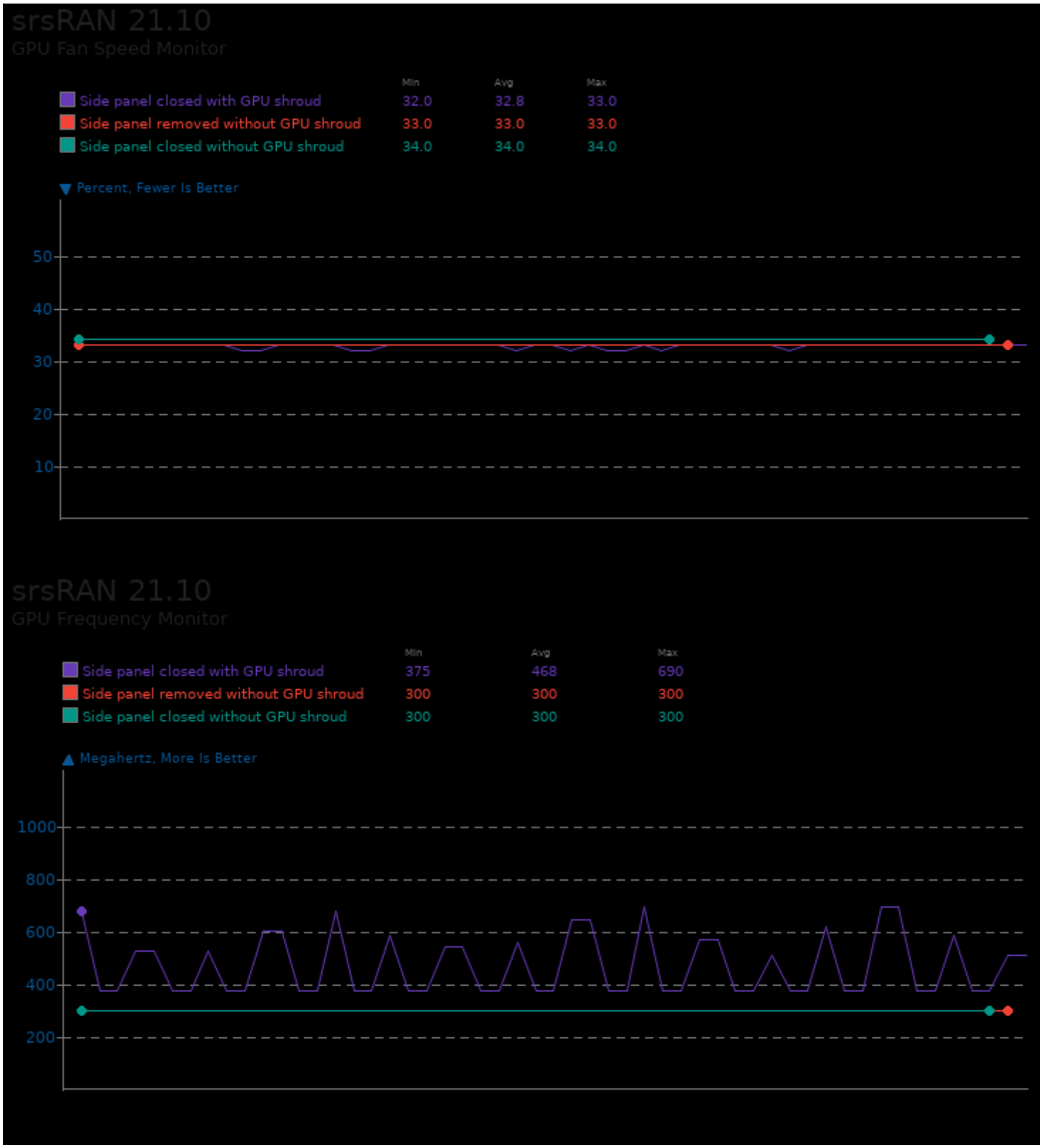


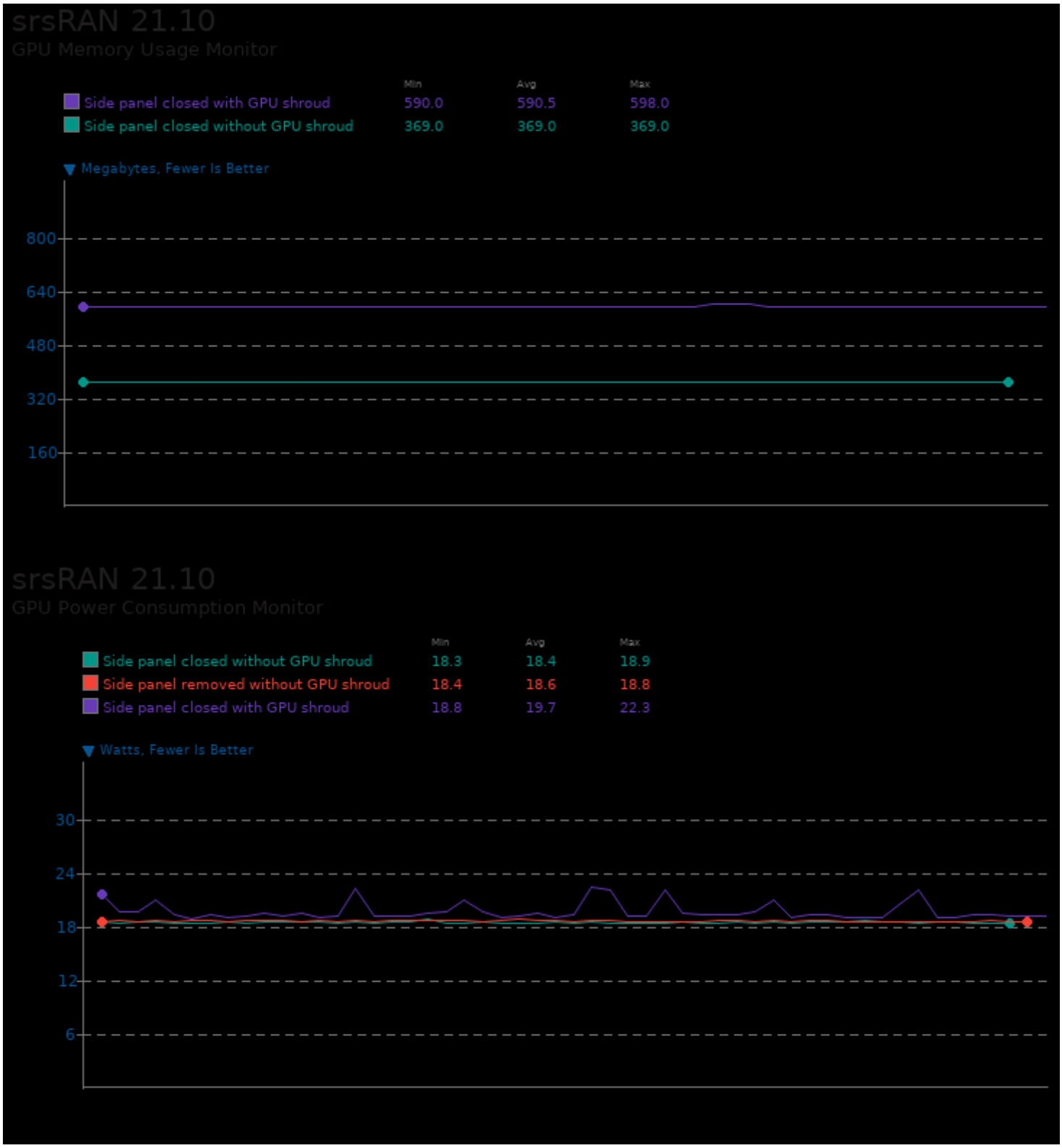

srsRAN 21.10
System Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
1187
1195
1202
Side panel removed without GPU shroud
1191
1199
1207
Side panel closed without GPU shroud
1187
1199
1215
RPM, Fewer Is Better
2000
1600
1200
800
400
srsRAN 21.10
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM
eNb Mb/s, More Is Better
Side panel removed without GPU shroud
SE +/- 0.39, N = 3
386.5
Side panel closed without GPU shroud
SE +/- 0.23, N = 3
385.1
Side panel closed with GPU shroud
SE +/- 0.52, N = 3
369.3
80
160
240
320
400
1: (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

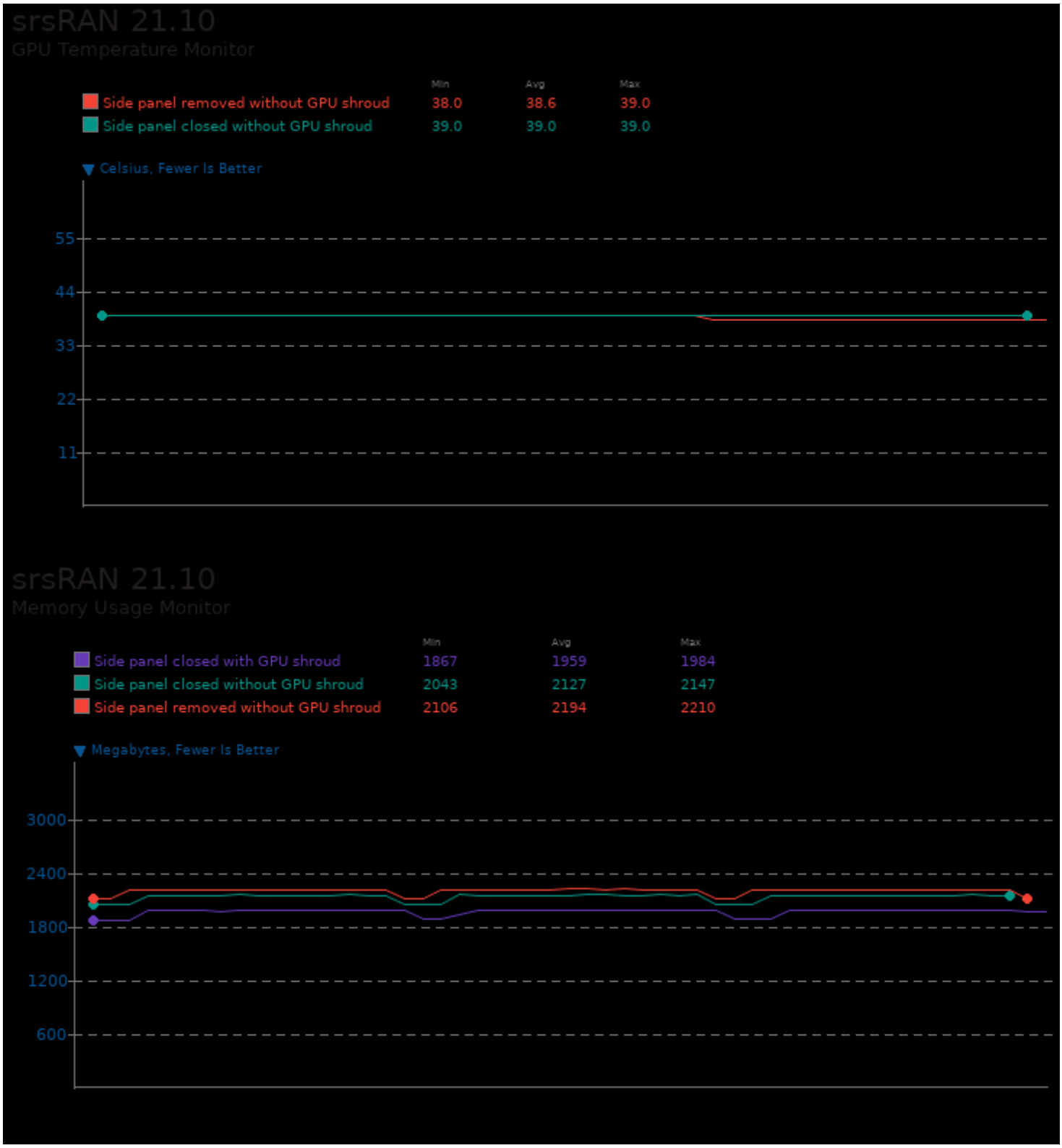

srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM
UE Mb/s, More Is Better
Side panel removed without GPU shroud
SE +/- 0.61, N = 3
149.3
Side panel closed without GPU shroud
SE +/- 0.64, N = 3
149.1
Side panel closed with GPU shroud
SE +/- 0.22, N = 3
144.1
30
60
90
120
150
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.10
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel removed without GPU shroud
800
3805
4303
Side panel closed without GPU shroud
800
3738
4416
Side panel closed with GPU shroud
800
3680
4111
Megahertz, More Is Better
5500
4400
3300
2200
1100

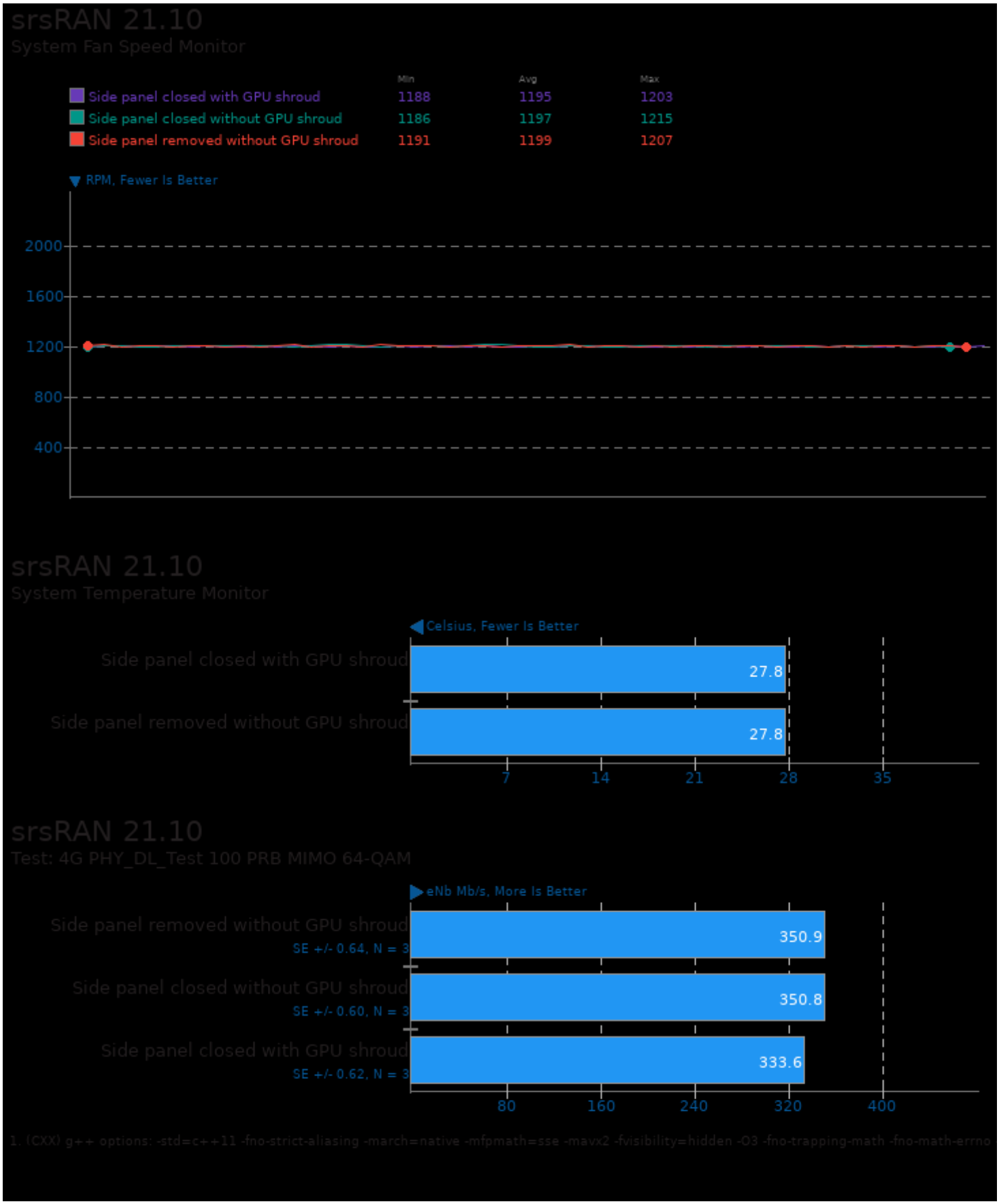
g5-desktop-thermal-validation-trial03




srsRAN 21.10
GPU Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
32.0
32.8
33.0
Side panel removed without GPU shroud
33.0
33.0
33.0
Side panel closed without GPU shroud
34.0
34.0
34.0
Percent, Fewer Is Better
50
40
30
20
10
srsRAN 21.10
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
375
468
690
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200

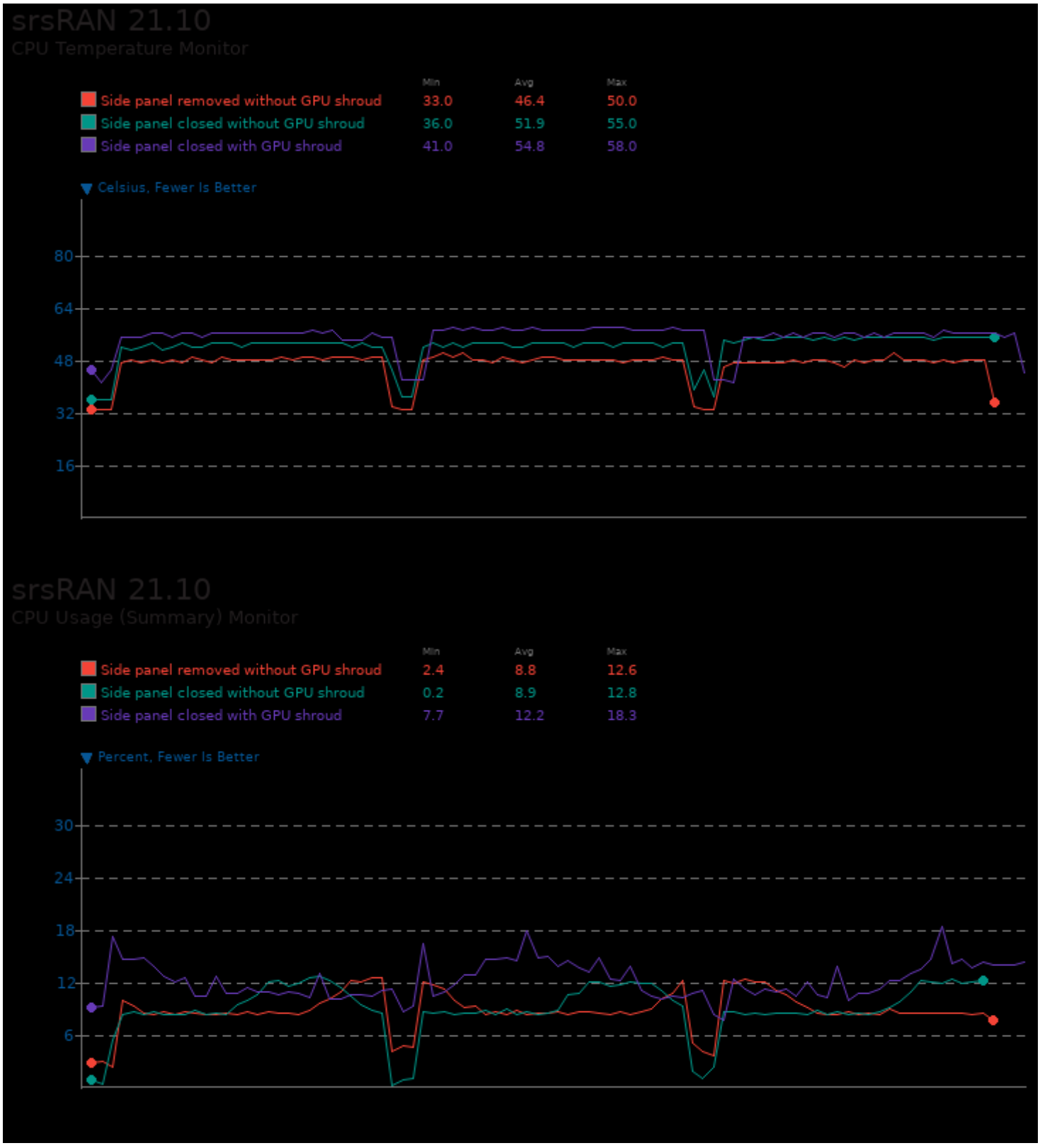

srsRAN 21.10
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
590.0
590.5
598.0
Side panel closed without GPU shroud
369.0
369.0
369.0
Megabytes, Fewer Is Better
800
640
480
320
160
srsRAN 21.10
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.3
18.4
18.9
Side panel removed without GPU shroud
18.4
18.6
18.8
Side panel closed with GPU shroud
18.8
19.7
22.3
Watts, Fewer Is Better
30
24
18
12
6

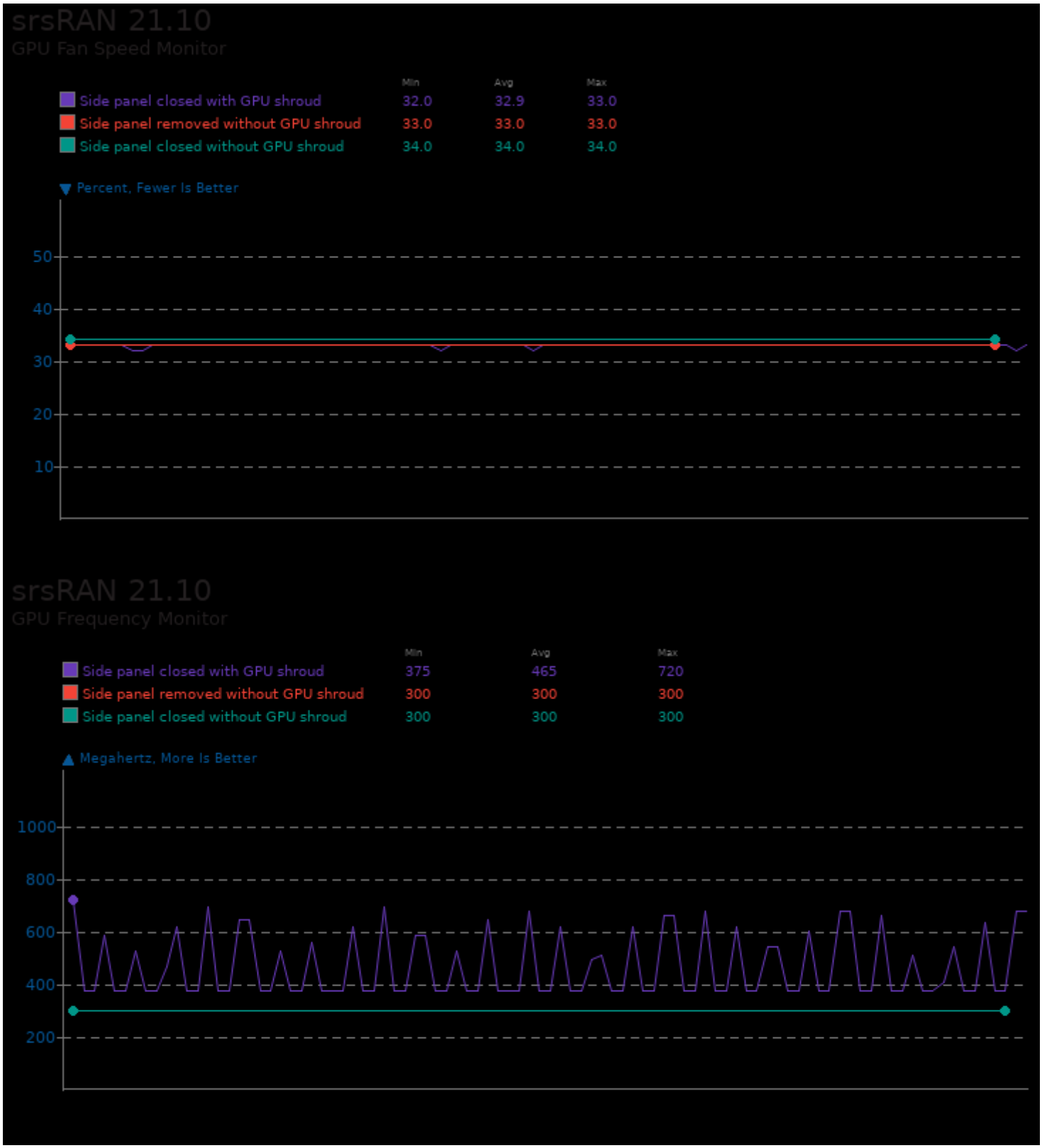

srsRAN 21.10
GPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
38.0
38.6
39.0
Side panel closed without GPU shroud
39.0
39.0
39.0
Celsius, Fewer Is Better
55
44
33
22
11
srsRAN 21.10
Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
1867
1959
1984
Side panel closed without GPU shroud
2043
2127
2147
Side panel removed without GPU shroud
2106
2194
2210
Megabytes, Fewer Is Better
3000
2400
1800
1200
600


srsRAN 21.10
System Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
1188
1195
1203
Side panel closed without GPU shroud
1186
1197
1215
Side panel removed without GPU shroud
1191
1199
1207
RPM, Fewer Is Better
2000
1600
1200
800
400
srsRAN 21.10
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM
eNb Mb/s, More Is Better
Side panel removed without GPU shroud
SE +/- 0.64, N = 3
350.9
Side panel closed without GPU shroud
SE +/- 0.60, N = 3
350.8
Side panel closed with GPU shroud
SE +/- 0.62, N = 3
333.6
80
160
240
320
400
1: (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

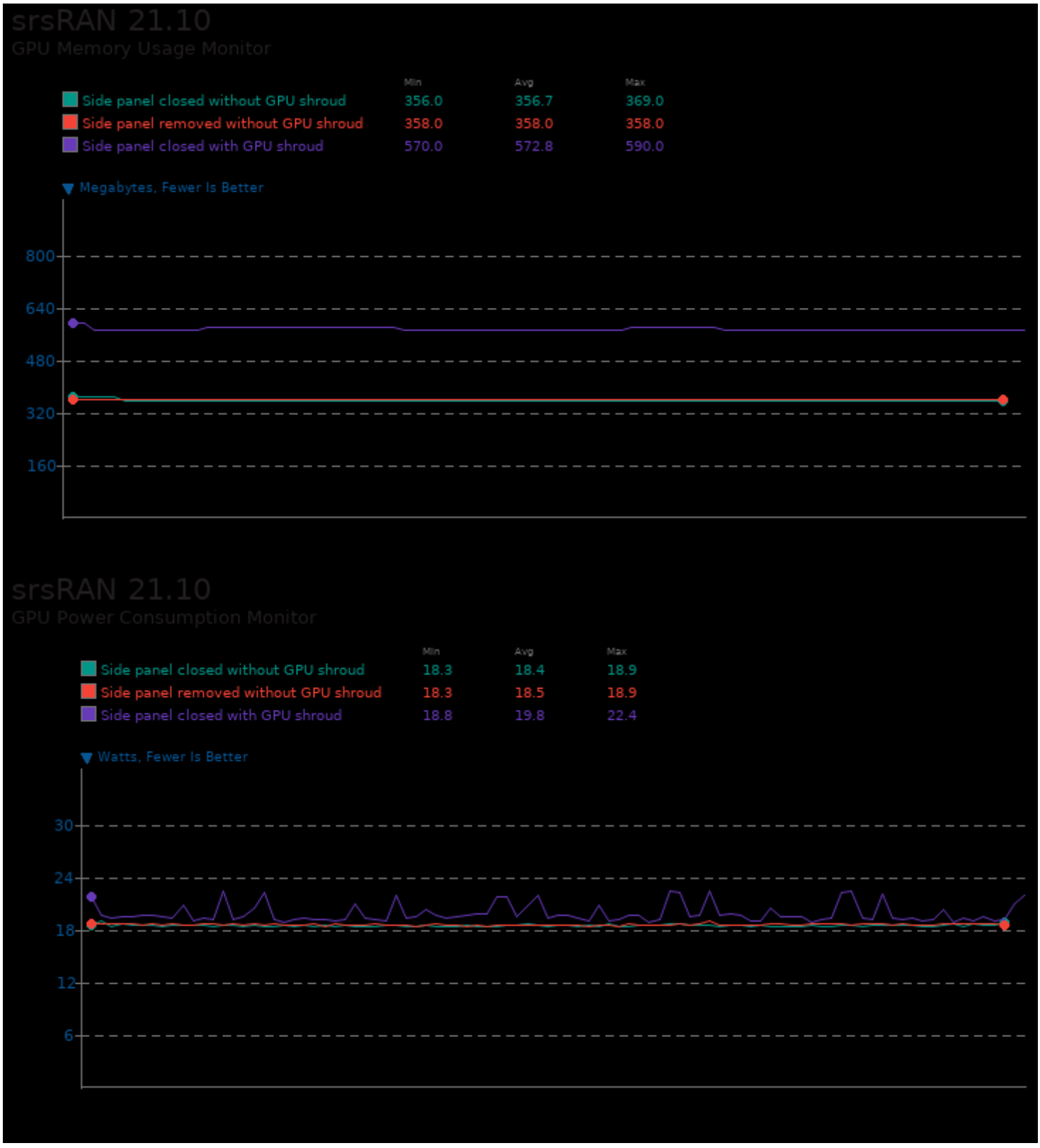

srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM
UE Mb/s, More Is Better
Side panel closed without GPU shroud
SE +/- 0.20, N = 3
113.5
Side panel removed without GPU shroud
SE +/- 0.45, N = 3
113.2
Side panel closed with GPU shroud
SE +/- 0.22, N = 3
108.6
30
60
90
120
150
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.10
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed without GPU shroud 800 4053 4303
Side panel removed without GPU shroud 800 4018 4299
Side panel closed with GPU shroud 800 3787 4132
Megahertz, More Is Better
5500
4400
3300
2200
1100

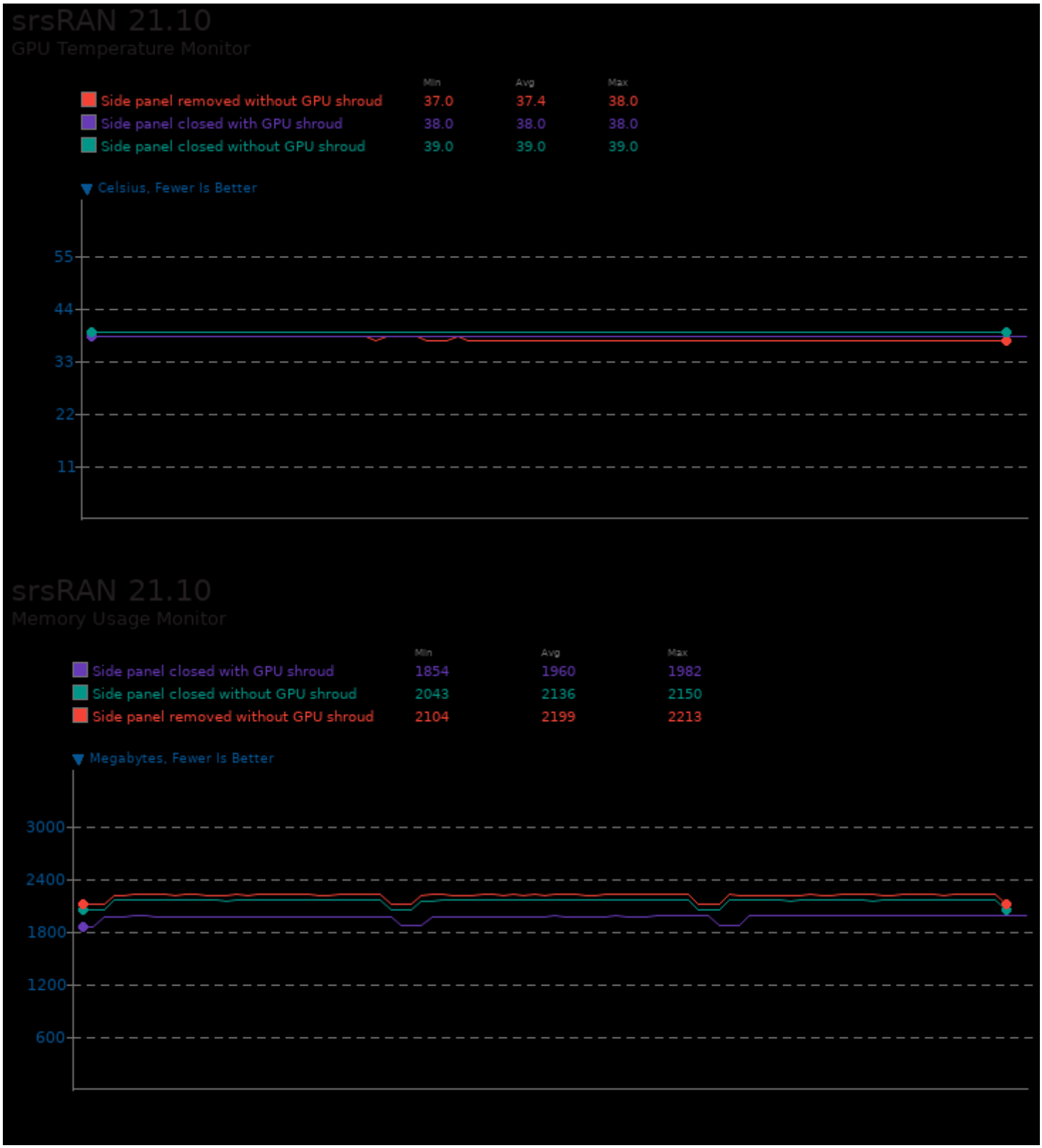
g5-desktop-thermal-validation-trial03

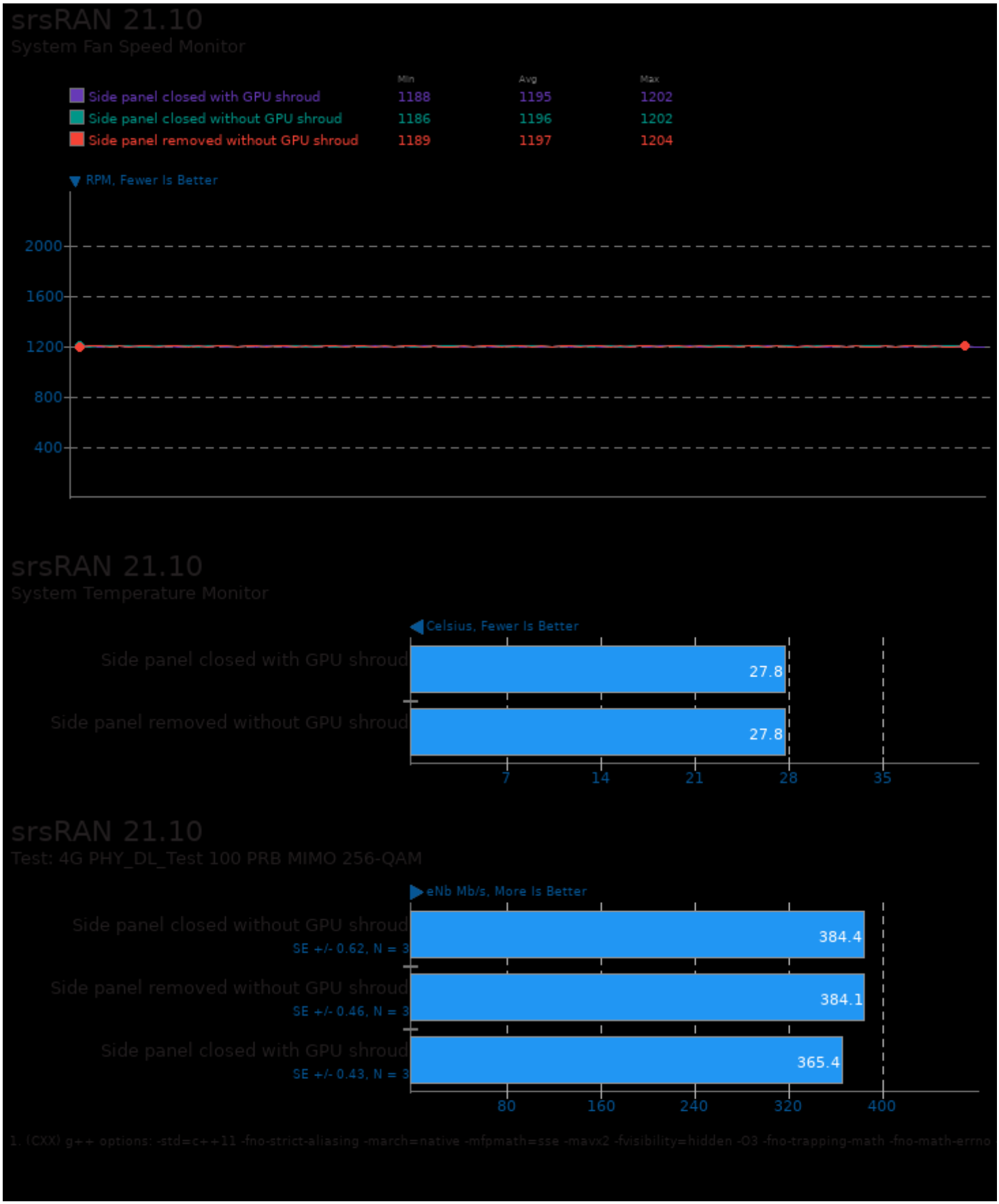


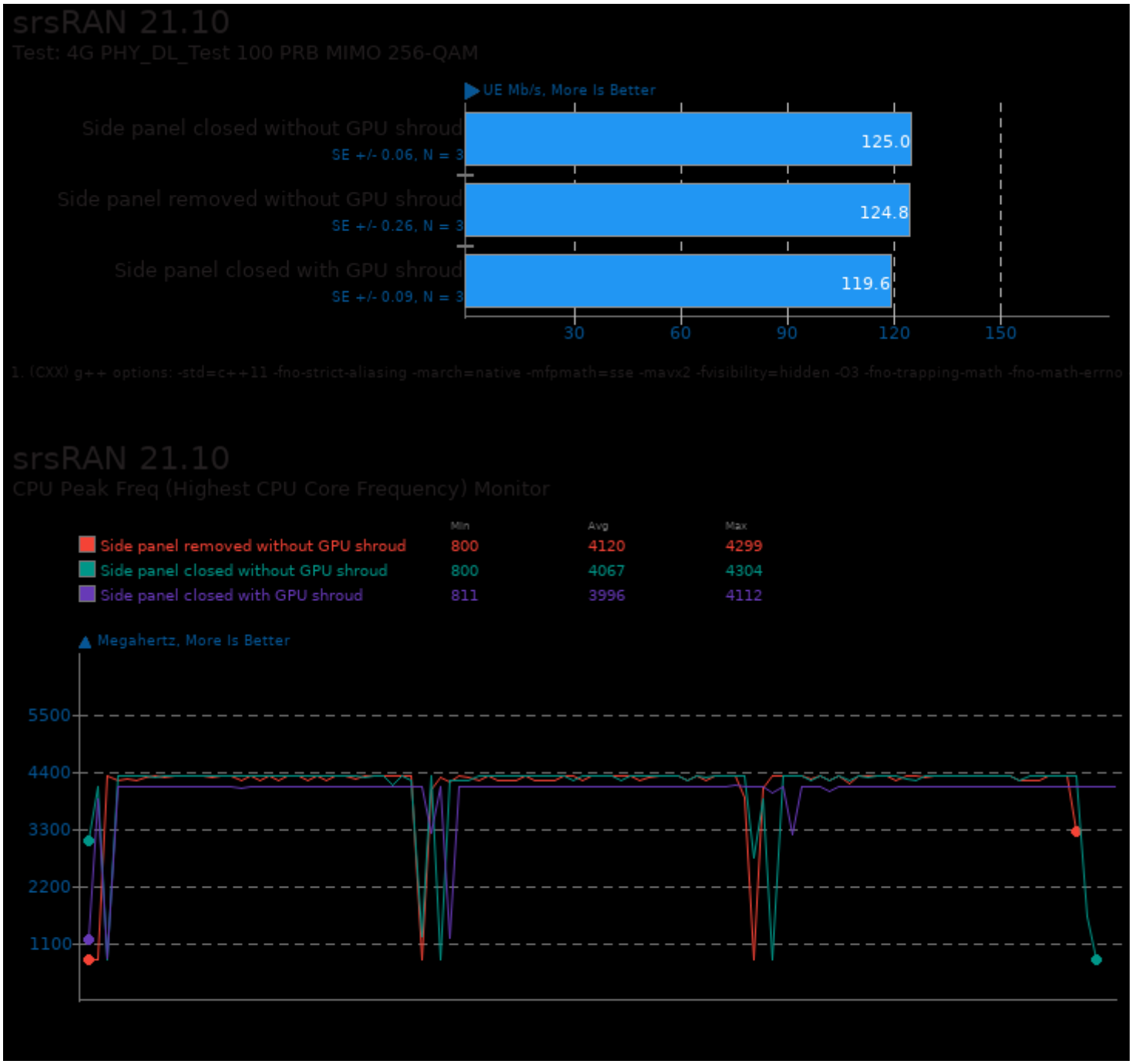

srsRAN 21.10
GPU Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
32.0
32.9
33.0
Side panel removed without GPU shroud
33.0
33.0
33.0
Side panel closed without GPU shroud
34.0
34.0
34.0
Percent, Fewer Is Better
50
40
30
20
10

srsRAN 21.10
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
375
465
720
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200


srsRAN 21.10
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed without GPU shroud
356.0
356.7
369.0
Side panel removed without GPU shroud
358.0
358.0
358.0
Side panel closed with GPU shroud
570.0
572.8
590.0
Megabytes, Fewer Is Better
800
640
480
320
160
srsRAN 21.10
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.3
18.4
18.9
Side panel removed without GPU shroud
18.3
18.5
18.9
Side panel closed with GPU shroud
18.8
19.8
22.4
Watts, Fewer Is Better
30
24
18
12
6

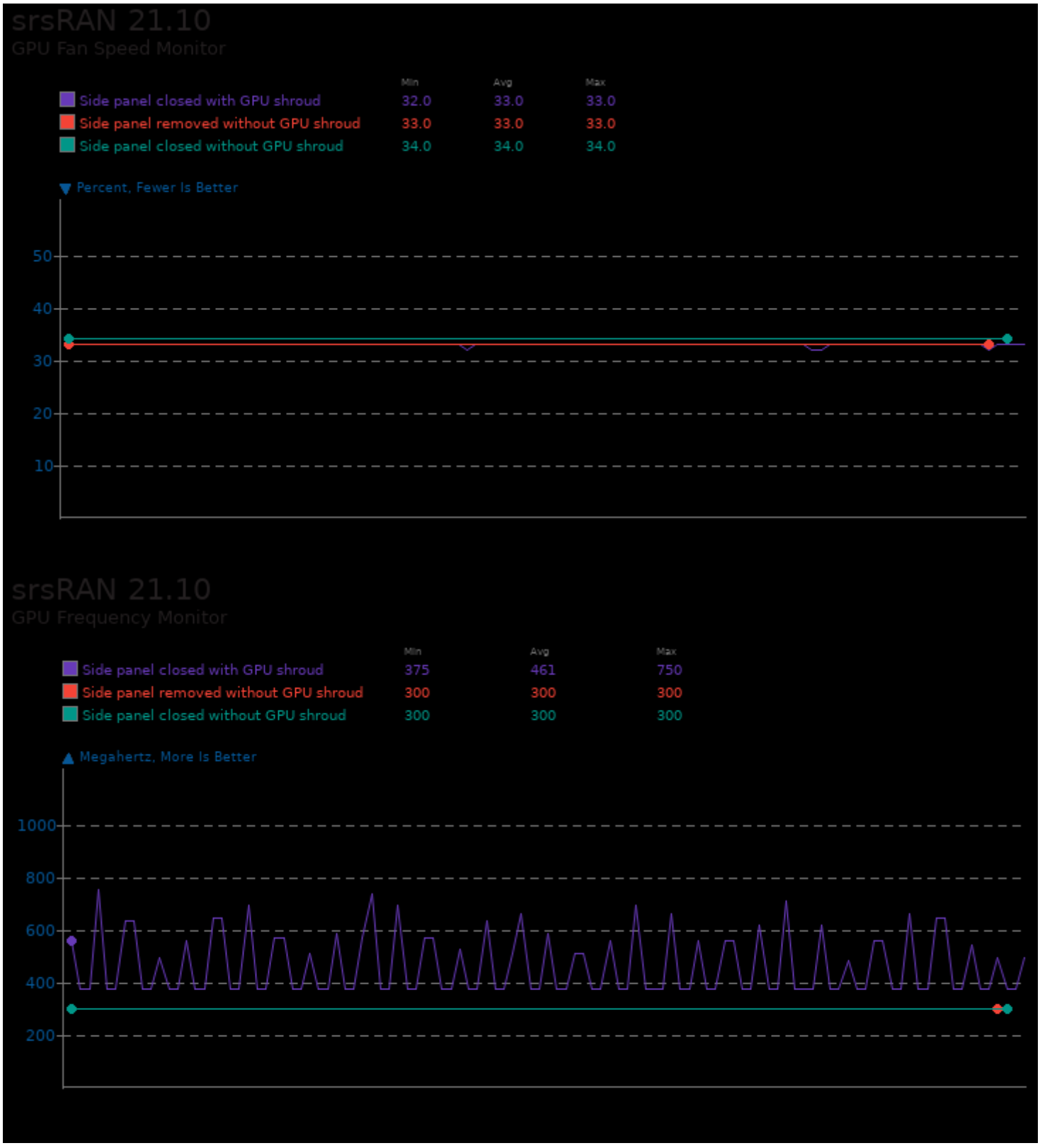

srsRAN 21.10
GPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
37.0
37.4
38.0
Side panel closed with GPU shroud
38.0
38.0
38.0
Side panel closed without GPU shroud
39.0
39.0
39.0
Celsius, Fewer Is Better
55
44
33
22
11
srsRAN 21.10
Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
1854
1960
1982
Side panel closed without GPU shroud
2043
2136
2150
Side panel removed without GPU shroud
2104
2199
2213
Megabytes, Fewer Is Better
3000
2400
1800
1200
600


srsRAN 21.10
System Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
1188
1195
1202
Side panel closed without GPU shroud
1186
1196
1202
Side panel removed without GPU shroud
1189
1197
1204
RPM, Fewer Is Better
2000
1600
1200
800
400
srsRAN 21.10
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
eNb Mb/s, More Is Better
Side panel closed without GPU shroud
SE +/- 0.62, N = 3
384.4
Side panel removed without GPU shroud
SE +/- 0.46, N = 3
384.1
Side panel closed with GPU shroud
SE +/- 0.43, N = 3
365.4
80
160
240
320
400
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

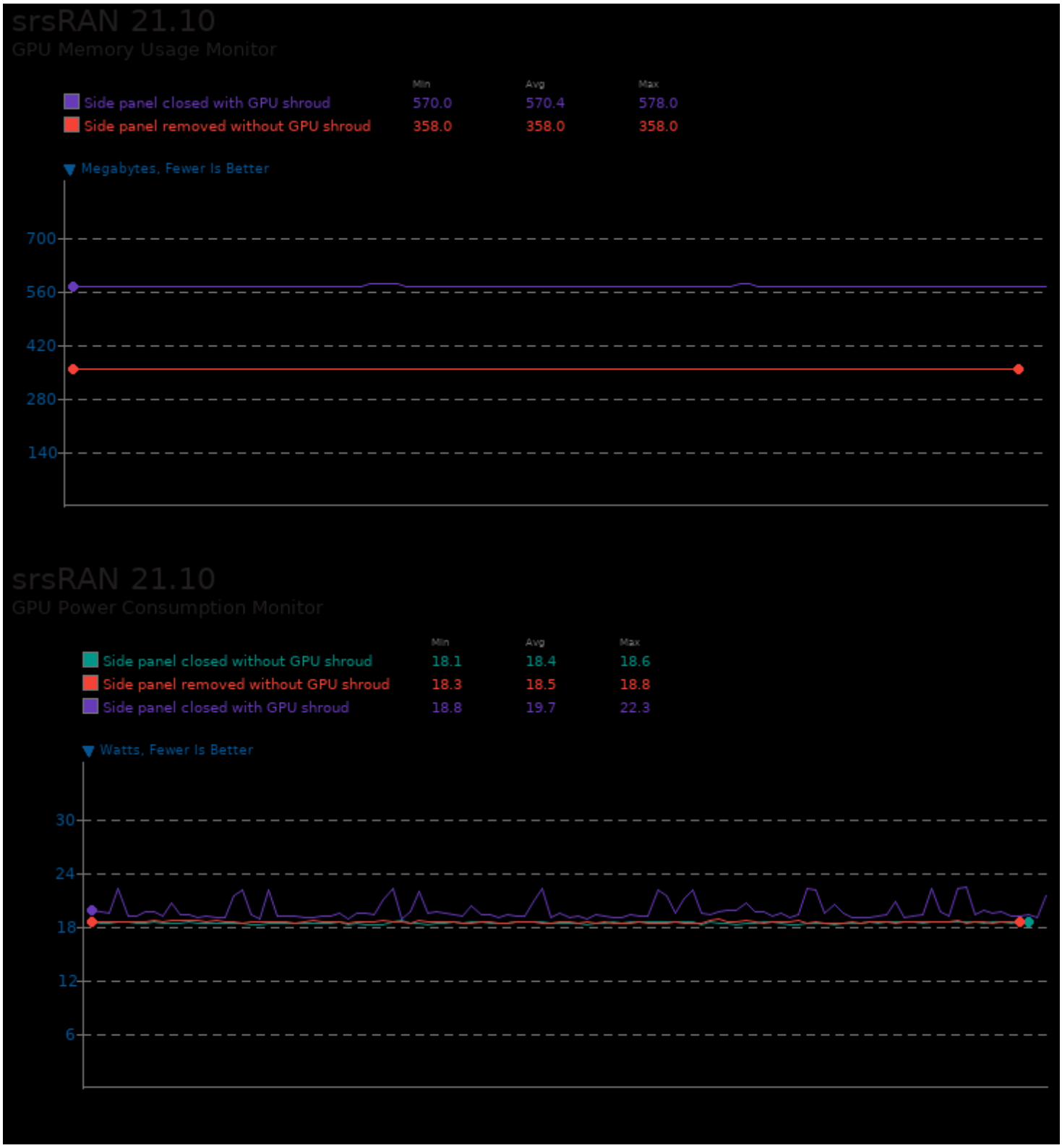

srsRAN 21.10
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
UE Mb/s, More Is Better
Side panel closed without GPU shroud
SE +/- 0.06, N = 3
125.0
Side panel removed without GPU shroud
SE +/- 0.26, N = 3
124.8
Side panel closed with GPU shroud
SE +/- 0.09, N = 3
119.6
30
60
90
120
150
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.10
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel removed without GPU shroud 800 4120 4299
Side panel closed without GPU shroud 800 4067 4304
Side panel closed with GPU shroud 811 3996 4112
Megahertz, More Is Better
5500
4400
3300
2200
1100

g5-desktop-thermal-validation-trial03

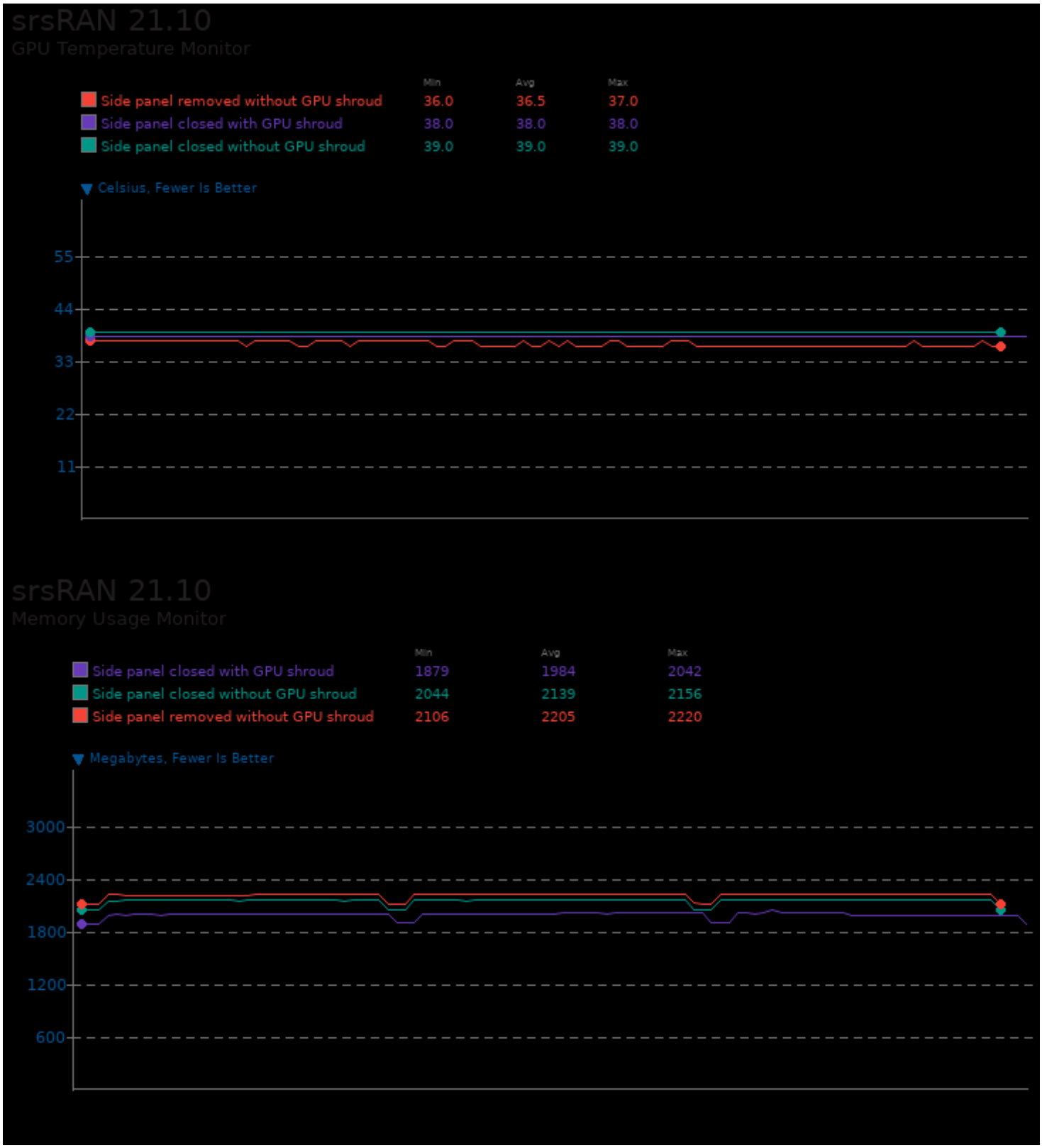


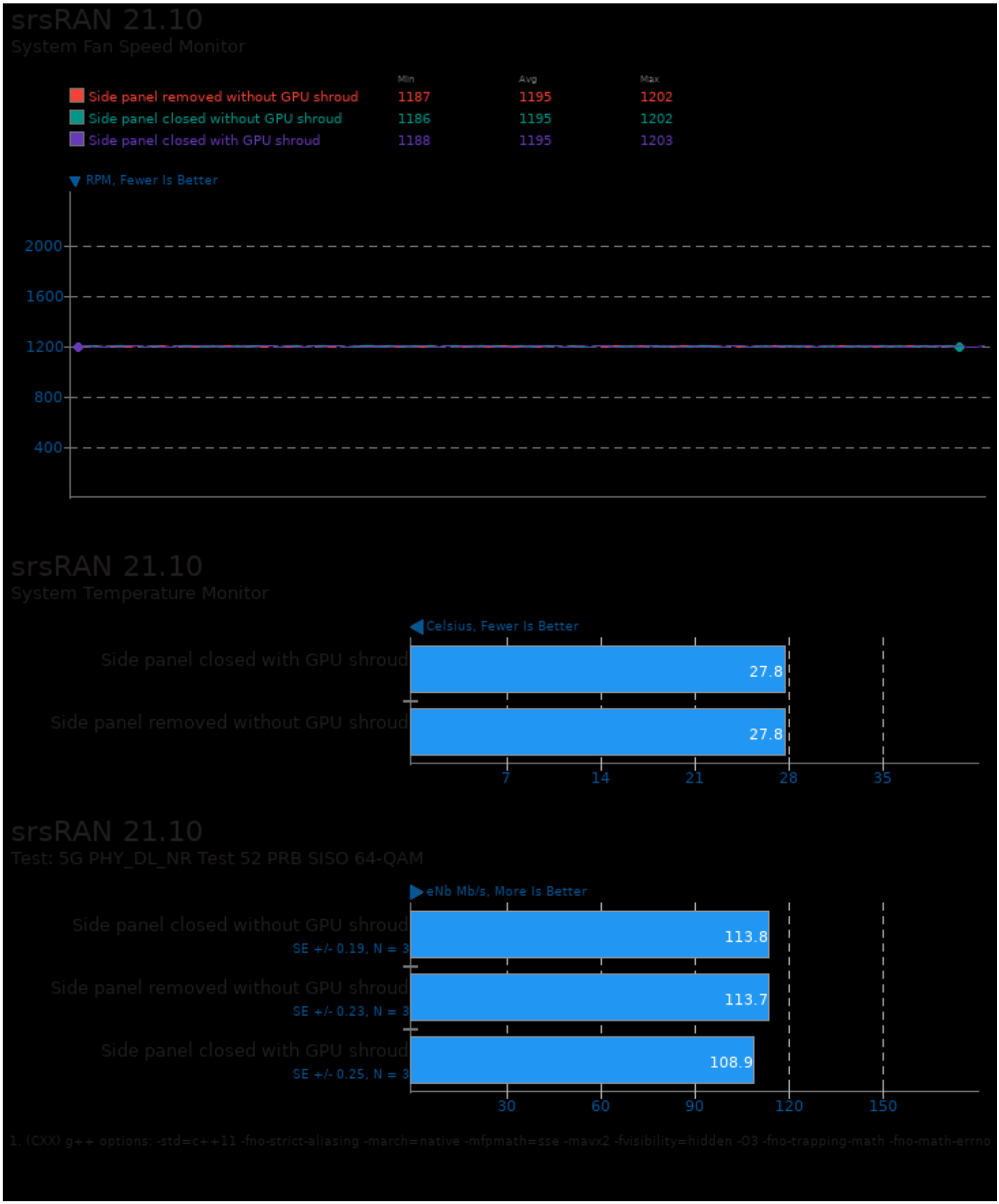

srsRAN 21.10
GPU Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
32.0
33.0
33.0
Side panel removed without GPU shroud
33.0
33.0
33.0
Side panel closed without GPU shroud
34.0
34.0
34.0
Percent, Fewer Is Better
50
40
30
20
10

srsRAN 21.10
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
375
461
750
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200


srsRAN 21.10
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
570.0
570.4
578.0
Side panel removed without GPU shroud
358.0
358.0
358.0
Megabytes, Fewer Is Better
700
560
420
280
140
srsRAN 21.10
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.1
18.4
18.6
Side panel removed without GPU shroud
18.3
18.5
18.8
Side panel closed with GPU shroud
18.8
19.7
22.3
Watts, Fewer Is Better
30
24
18
12
6

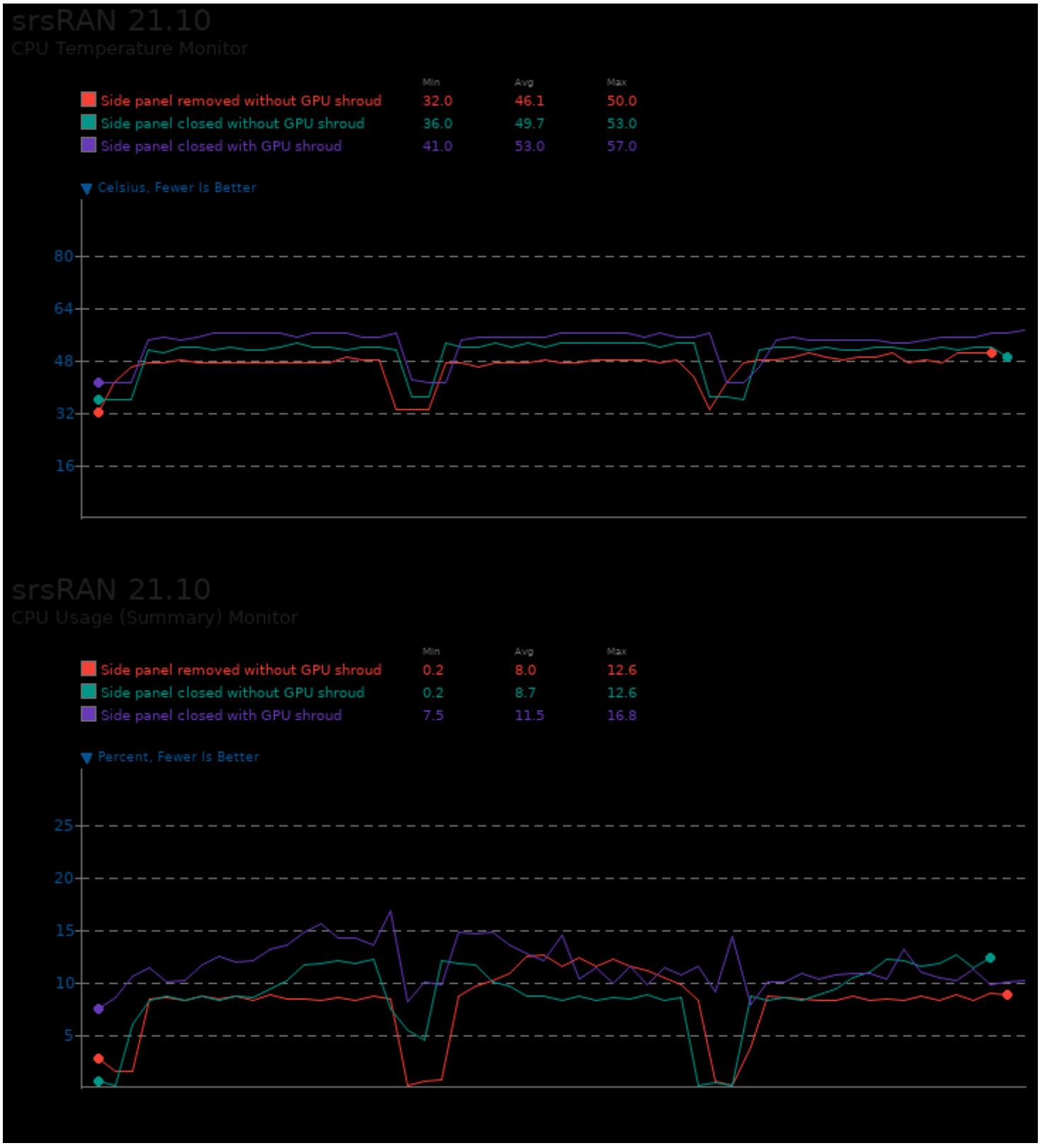
g5-desktop-thermal-validation-trial03

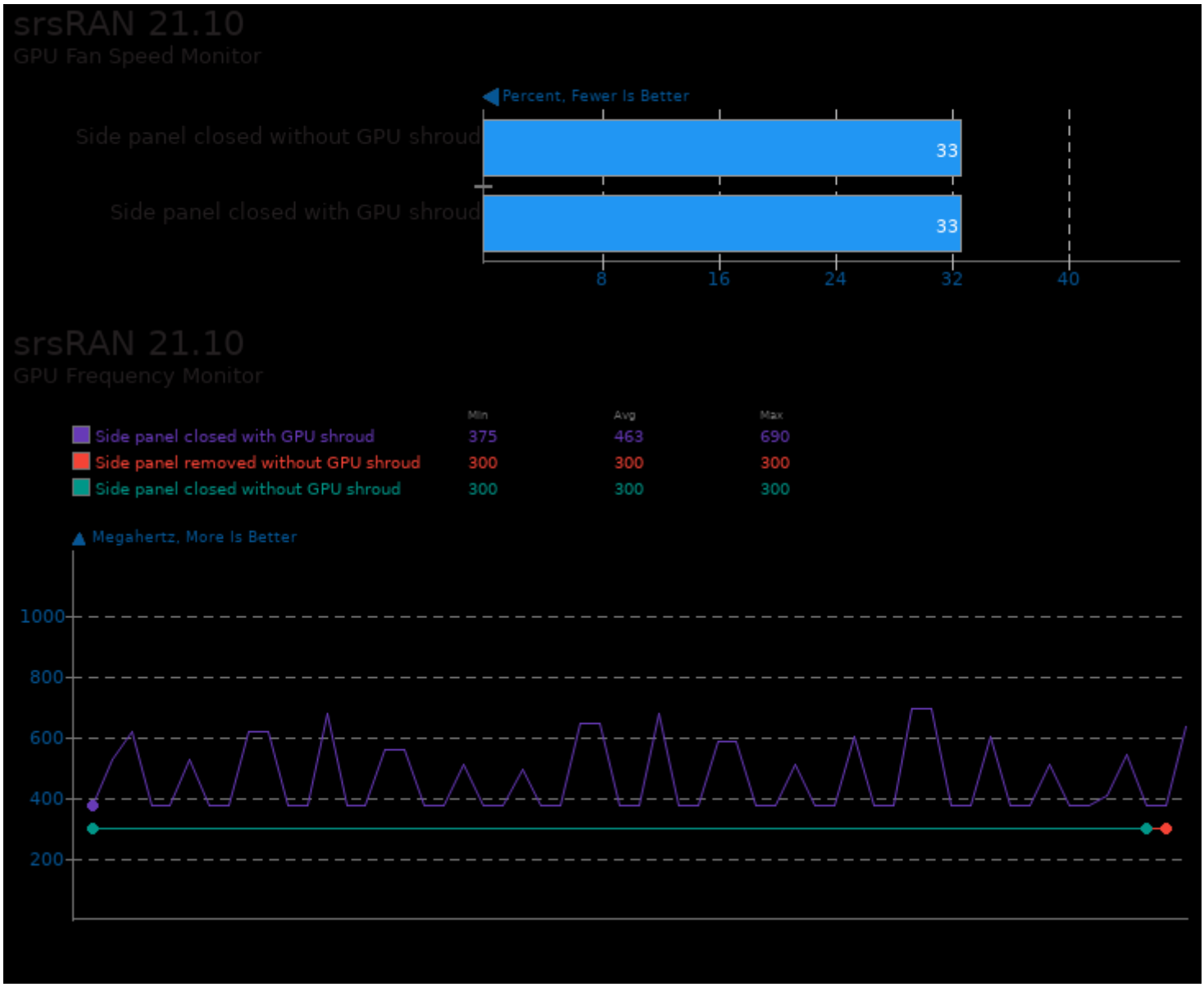


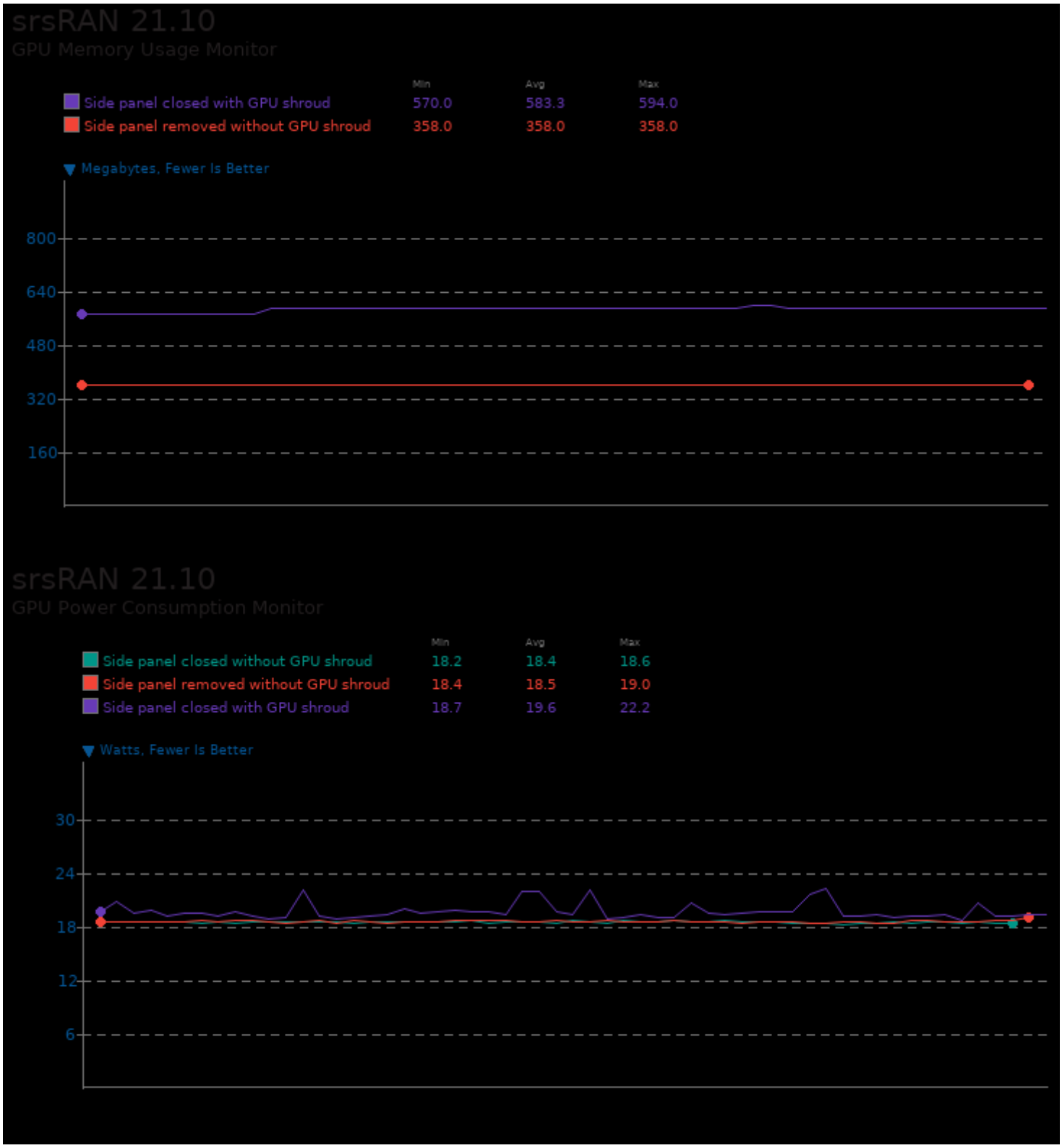

srsRAN 21.10
System Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
1187
1195
1202
Side panel closed without GPU shroud
1186
1195
1202
Side panel closed with GPU shroud
1188
1195
1203
RPM, Fewer Is Better
2000
1600
1200
800
400
srsRAN 21.10
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
srsRAN 21.10
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM
eNb Mb/s, More Is Better
Side panel closed without GPU shroud
SE +/- 0.19, N = 3
113.8
Side panel removed without GPU shroud
SE +/- 0.23, N = 3
113.7
Side panel closed with GPU shroud
SE +/- 0.25, N = 3
108.9
30
60
90
120
150
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

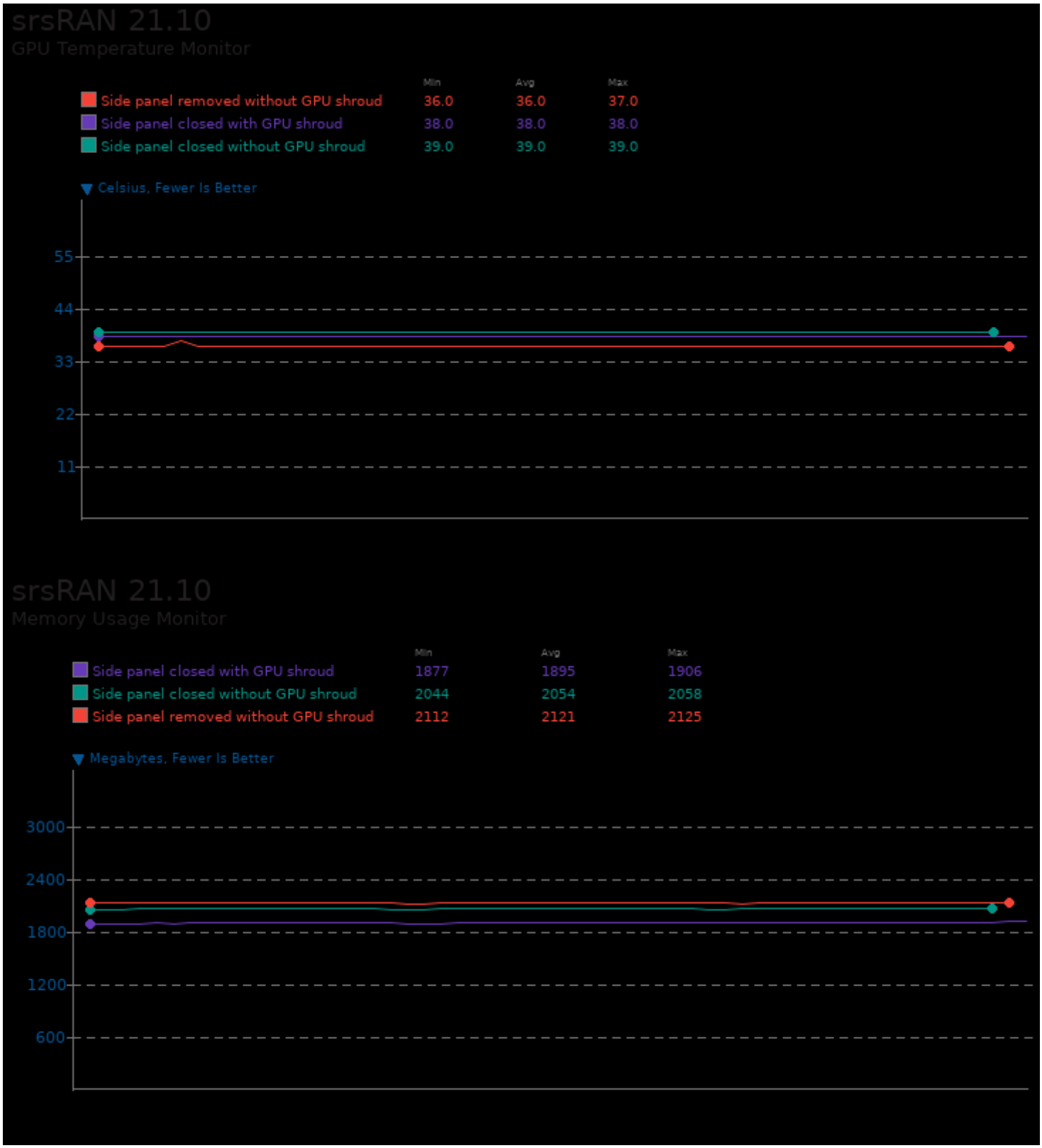

srsRAN 21.10
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM
UE Mb/s, More Is Better
Side panel removed without GPU shroud
SE +/- 0.12, N = 3
57.9
Side panel closed without GPU shroud
SE +/- 0.12, N = 3
57.9
Side panel closed with GPU shroud
SE +/- 0.20, N = 3
55.4
13
26
39
52
65
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.10
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed without GPU shroud 800 4025 4300
Side panel removed without GPU shroud 800 3888 4300
Side panel closed with GPU shroud 800 3795 4115
Megahertz, More Is Better
5500
4400
3300
2200
1100

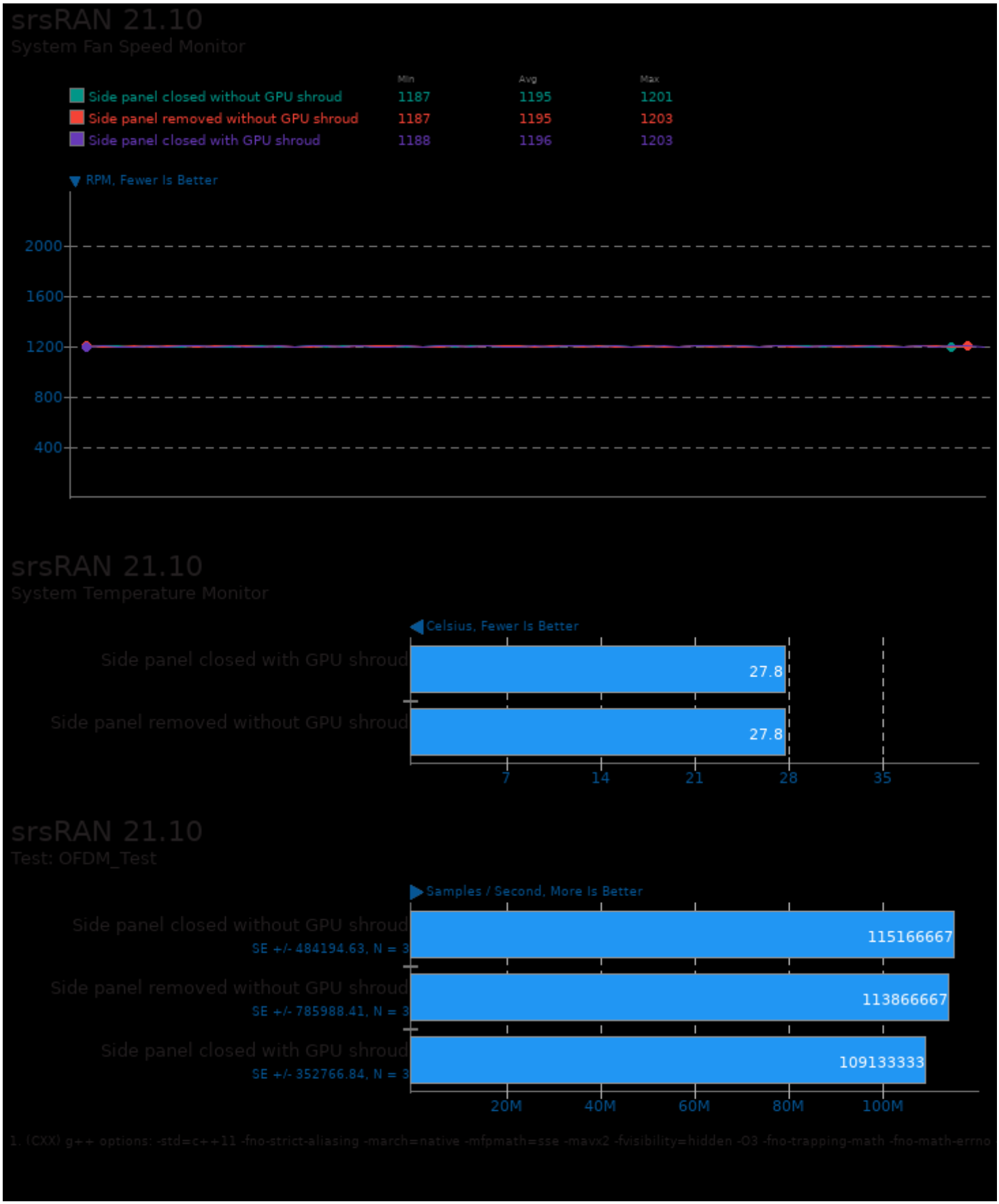
g5-desktop-thermal-validation-trial03

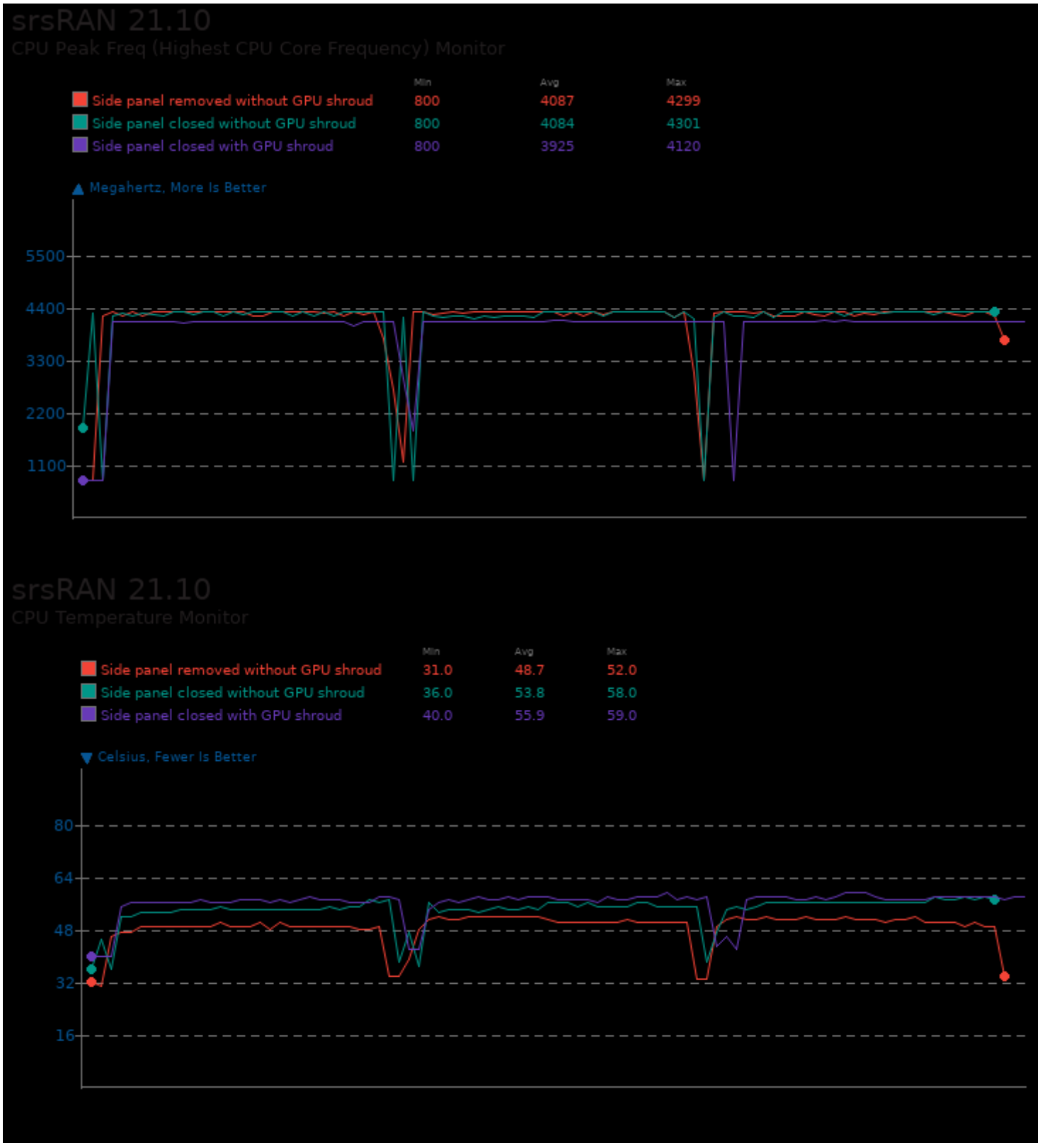


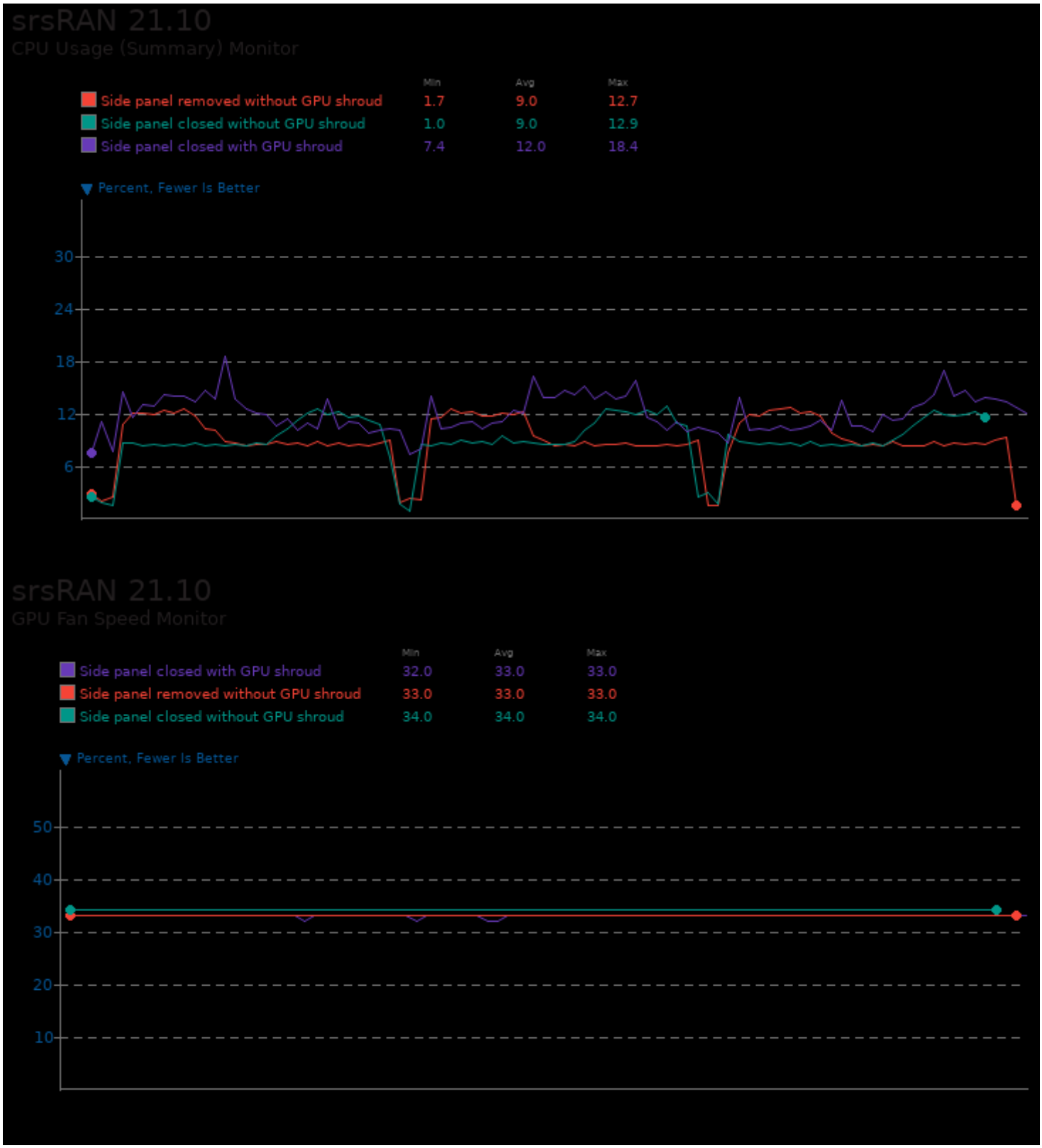

srsRAN 21.10
GPU Fan Speed Monitor
Percent, Fewer Is Better
Side panel closed without GPU shroud
33
Side panel closed with GPU shroud
33
8
16
24
32
40
srsRAN 21.10
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
375
463
690
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200

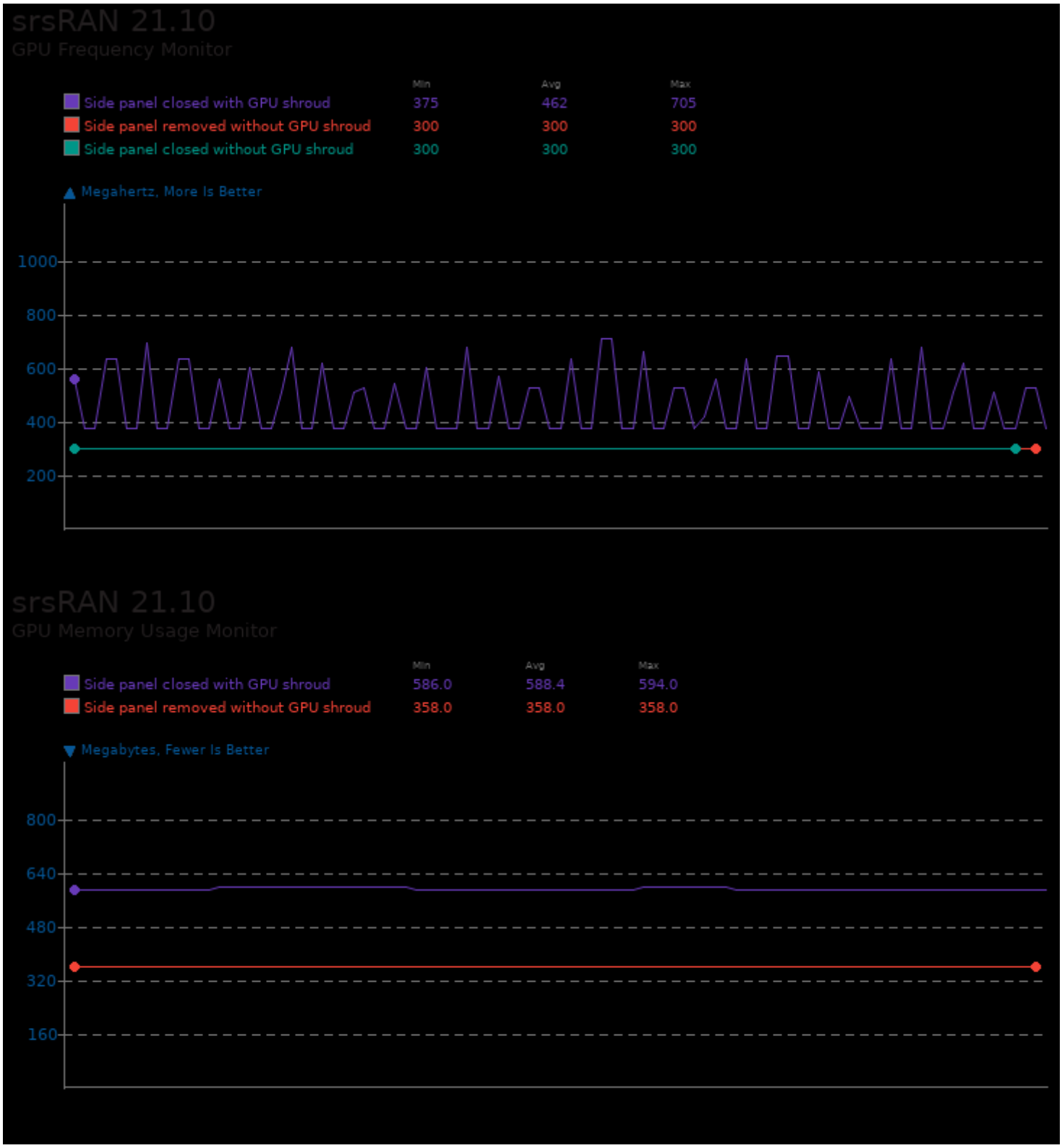

srsRAN 21.10
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
570.0
583.3
594.0
Side panel removed without GPU shroud
358.0
358.0
358.0
Megabytes, Fewer Is Better
800
640
480
320
160
srsRAN 21.10
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.2
18.4
18.6
Side panel removed without GPU shroud
18.4
18.5
19.0
Side panel closed with GPU shroud
18.7
19.6
22.2
Watts, Fewer Is Better
30
24
18
12
6

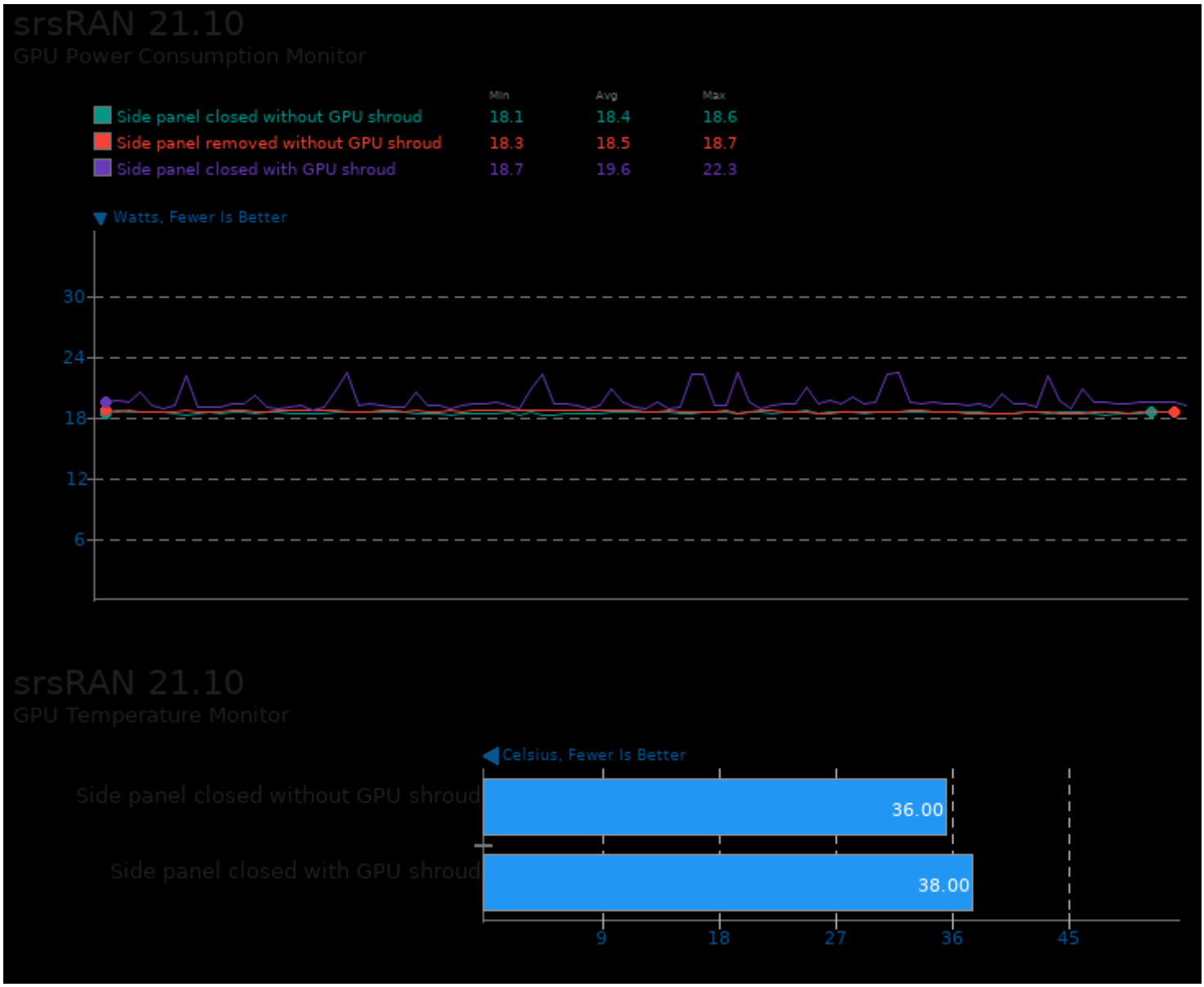

srsRAN 21.10
GPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
36.0
36.0
37.0
Side panel closed with GPU shroud
38.0
38.0
38.0
Side panel closed without GPU shroud
39.0
39.0
39.0
Celsius, Fewer Is Better
55
44
33
22
11
srsRAN 21.10
Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
1877
1895
1906
Side panel closed without GPU shroud
2044
2054
2058
Side panel removed without GPU shroud
2112
2121
2125
Megabytes, Fewer Is Better
3000
2400
1800
1200
600


srsRAN 21.10
System Fan Speed Monitor
Min
Avg
Max
Side panel closed without GPU shroud
1187
1195
1201
Side panel removed without GPU shroud
1187
1195
1203
Side panel closed with GPU shroud
1188
1196
1203
RPM, Fewer Is Better
2000
1600
1200
800
400
srsRAN 21.10
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
srsRAN 21.10
Test: OFDM_Test
Samples / Second, More Is Better
Side panel closed without GPU shroud
SE +/- 484194.63, N = 3
115166667
Side panel removed without GPU shroud
SE +/- 785988.41, N = 3
113866667
Side panel closed with GPU shroud
SE +/- 352766.84, N = 3
109133333
20M
40M
60M
80M
100M
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

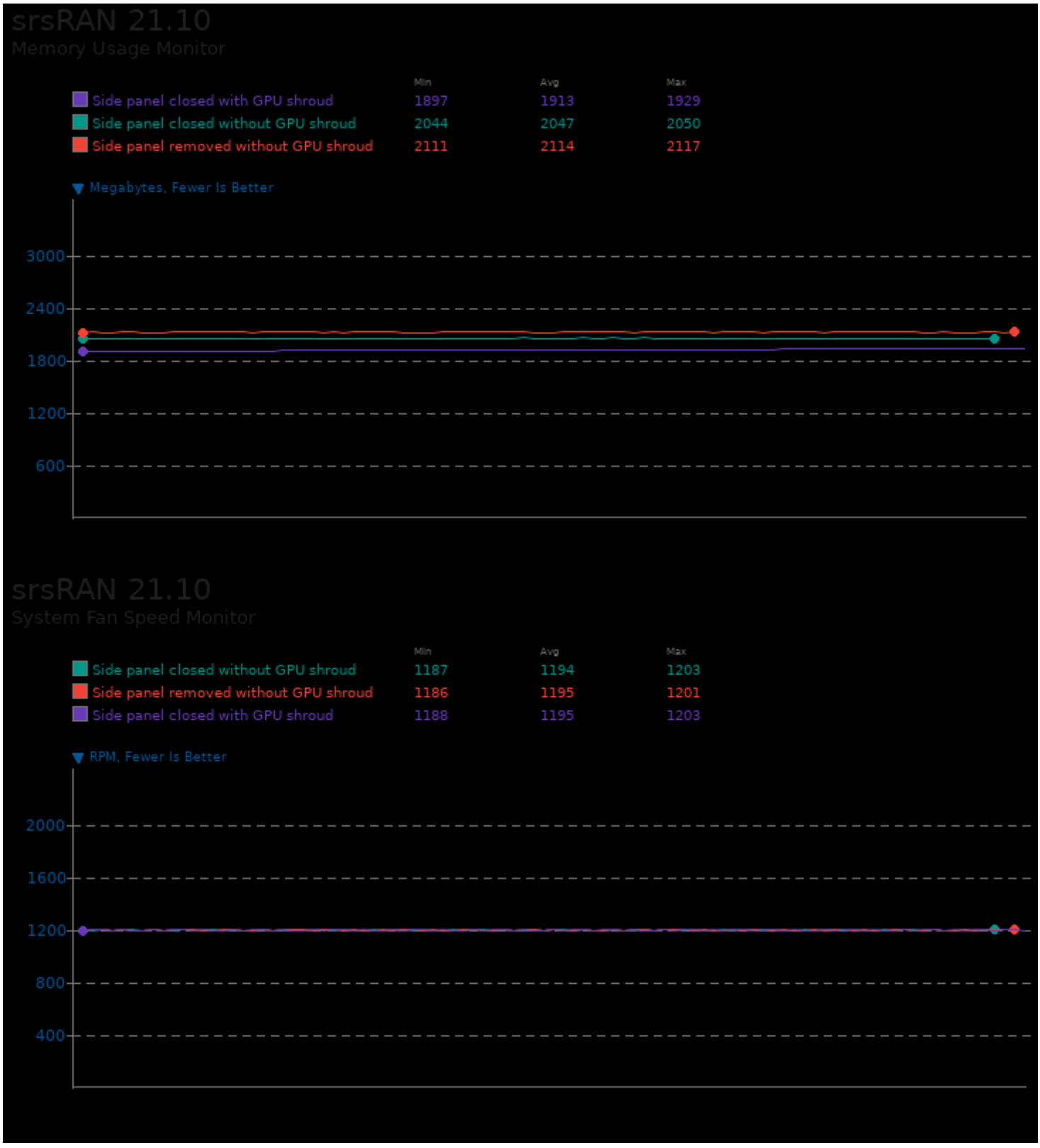

srsRAN 21.10
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel removed without GPU shroud
800
4087
4299
Side panel closed without GPU shroud
800
4084
4301
Side panel closed with GPU shroud
800
3925
4120
Megahertz, More Is Better
5500
4400
3300
2200
1100
srsRAN 21.10
CPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
31.0
48.7
52.0
Side panel closed without GPU shroud
36.0
53.8
58.0
Side panel closed with GPU shroud
40.0
55.9
59.0
Celsius, Fewer Is Better
80
64
48
32
16


srsRAN 21.10
CPU Usage (Summary) Monitor
Min
Avg
Max
Side panel removed without GPU shroud
1.7
9.0
12.7
Side panel closed without GPU shroud
1.0
9.0
12.9
Side panel closed with GPU shroud
7.4
12.0
18.4
Percent, Fewer Is Better
30
24
18
12
6
srsRAN 21.10
GPU Fan Speed Monitor
Min
Avg
Max
Side panel closed with GPU shroud
32.0
33.0
33.0
Side panel removed without GPU shroud
33.0
33.0
33.0
Side panel closed without GPU shroud
34.0
34.0
34.0
Percent, Fewer Is Better
50
40
30
20
10


srsRAN 21.10
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
375
462
705
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200
srsRAN 21.10
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
586.0
588.4
594.0
Side panel removed without GPU shroud
358.0
358.0
358.0
Megabytes, Fewer Is Better
800
640
480
320
160

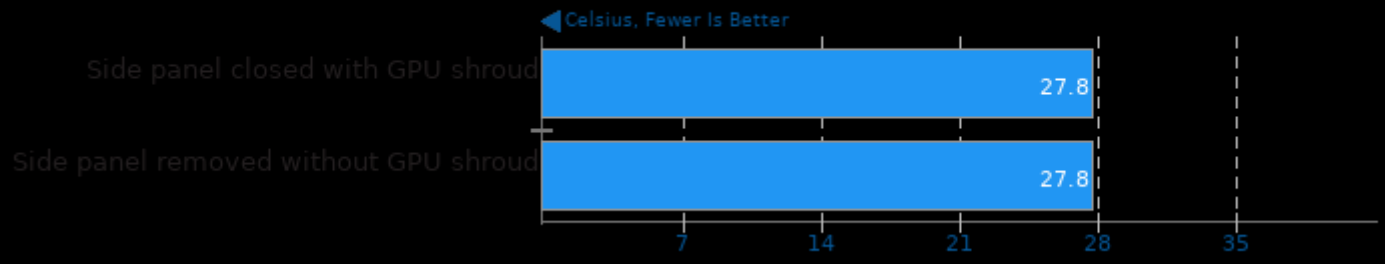

srsRAN 21.10
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.1
18.4
18.6
Side panel removed without GPU shroud
18.3
18.5
18.7
Side panel closed with GPU shroud
18.7
19.6
22.3
Watts, Fewer Is Better
30
24
18
12
6
srsRAN 21.10
GPU Temperature Monitor
Celsius, Fewer Is Better
Side panel closed without GPU shroud
36.00
Side panel closed with GPU shroud
38.00
9
18
27
36
45

g5-desktop-thermal-validation-trial03



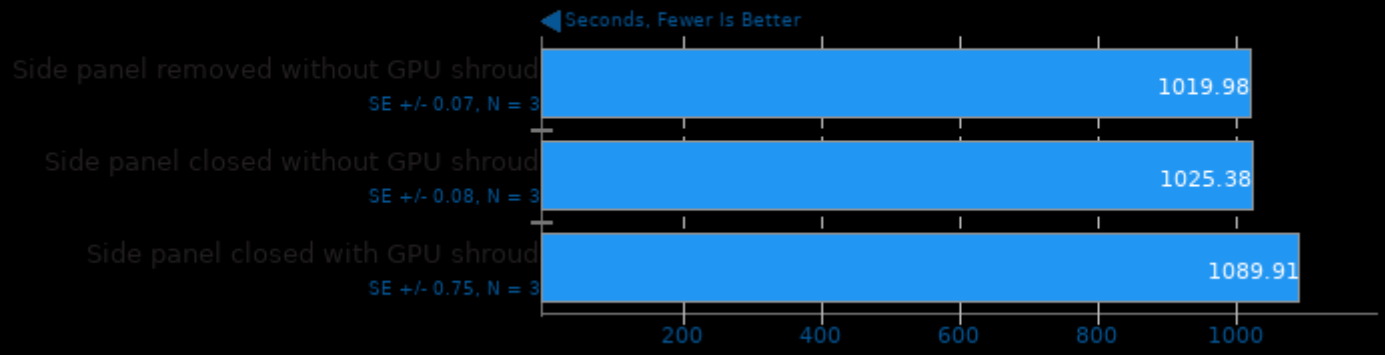
srsRAN 21.10

System Temperature Monitor



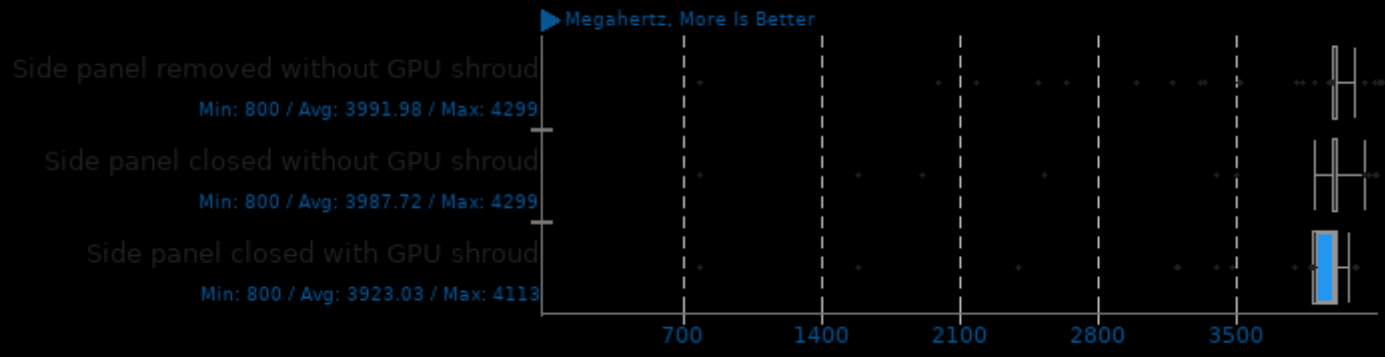
Timed LLVM Compilation 13.0

Build System: Ninja



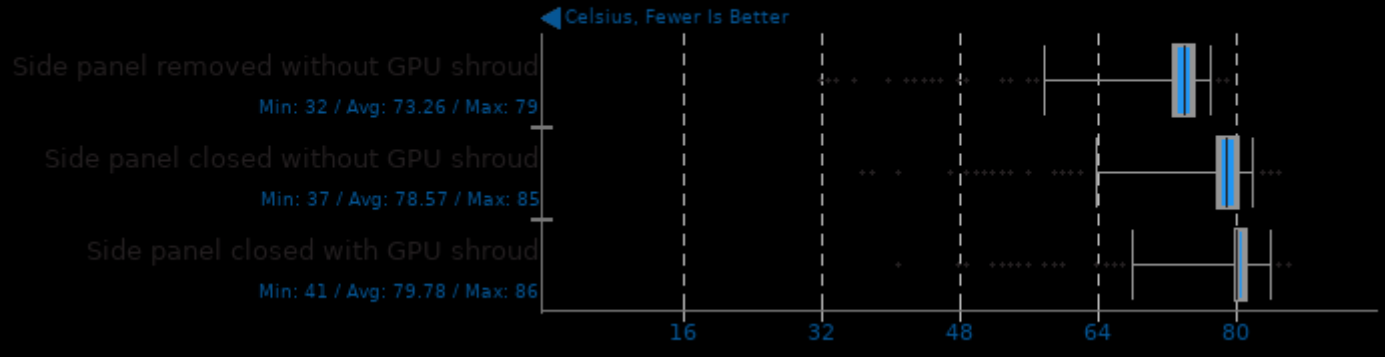
Timed LLVM Compilation 13.0

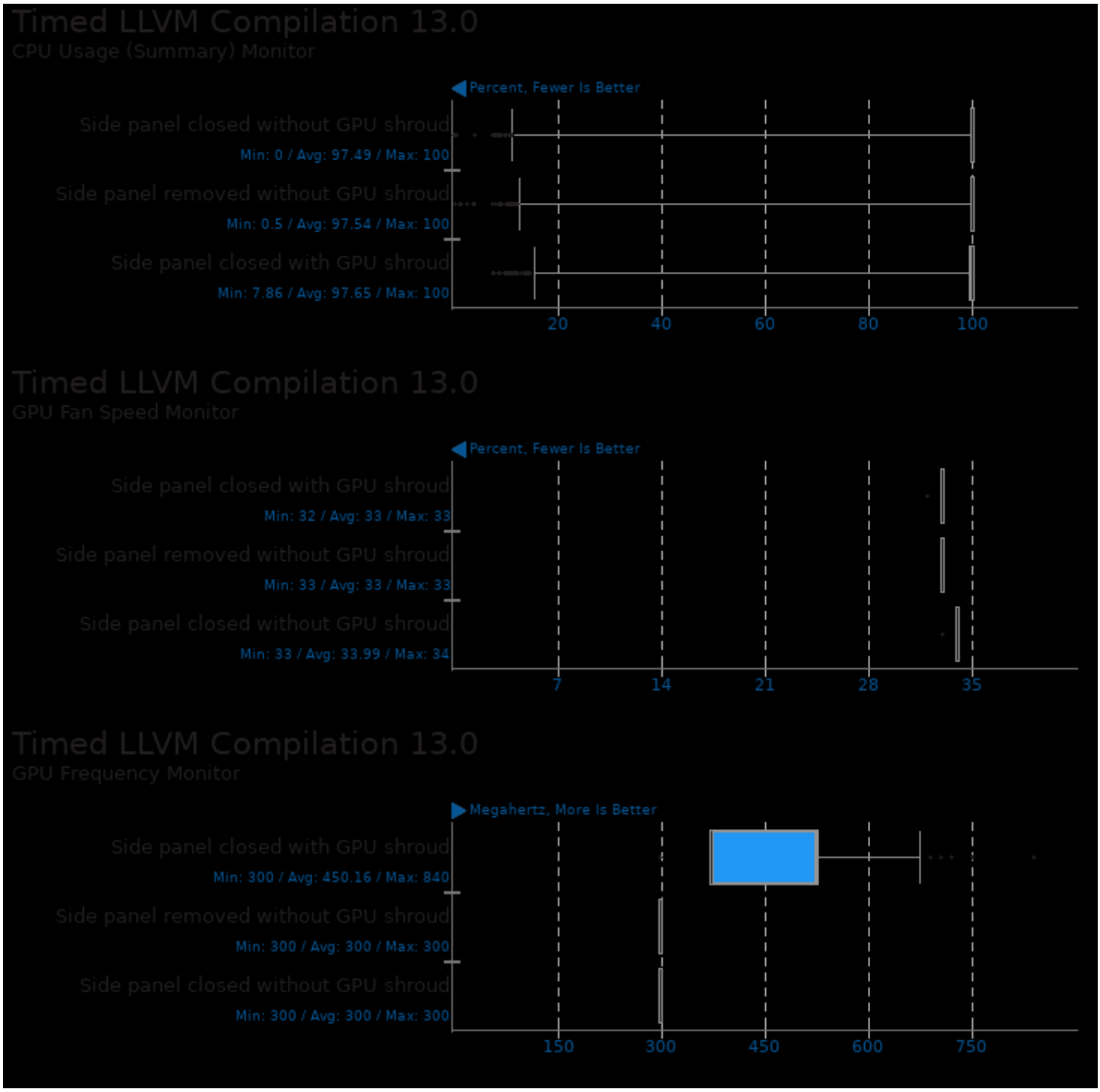
CPU Peak Freq (Highest CPU Core Frequency) Monitor

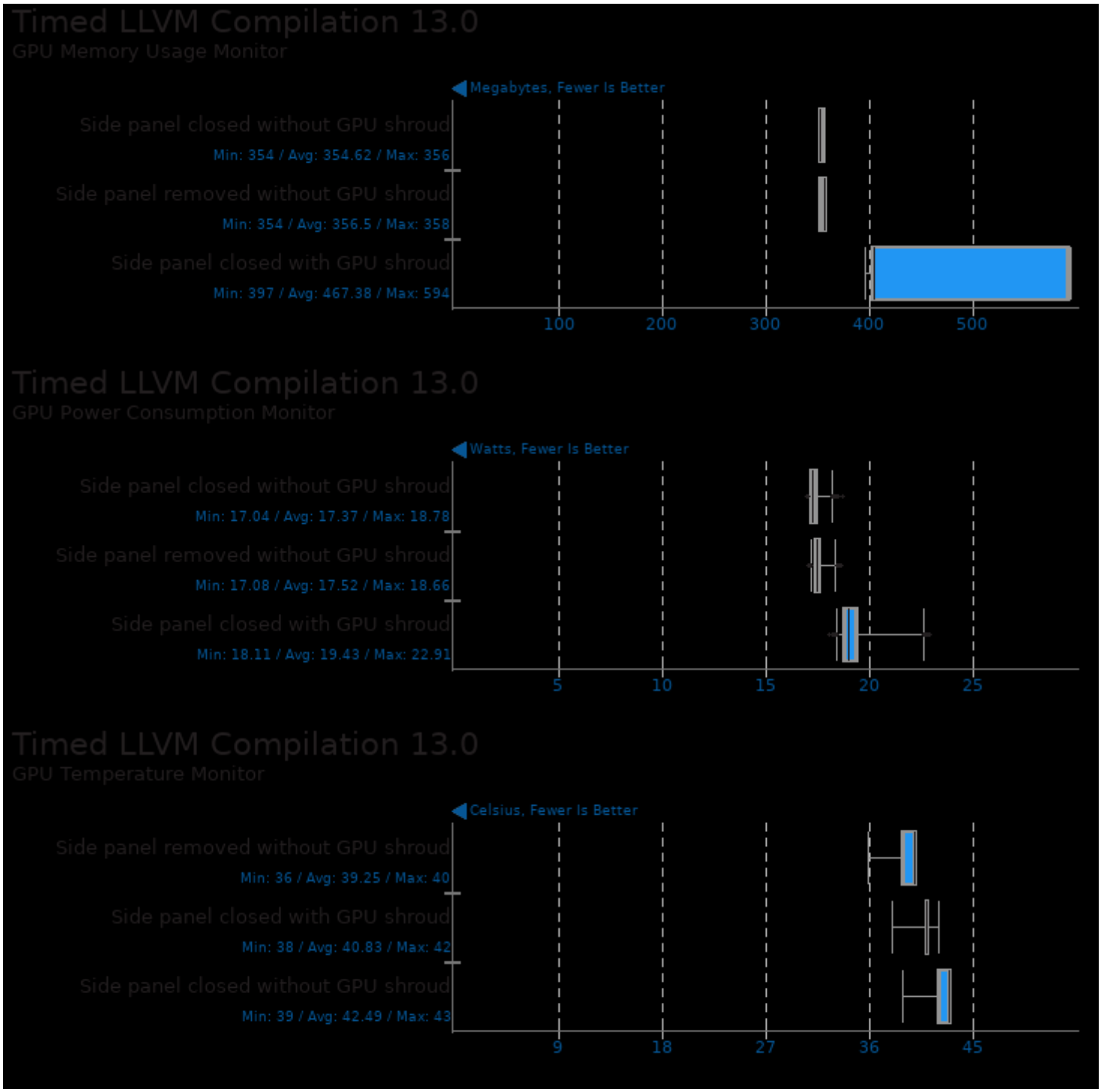


Timed LLVM Compilation 13.0

CPU Temperature Monitor

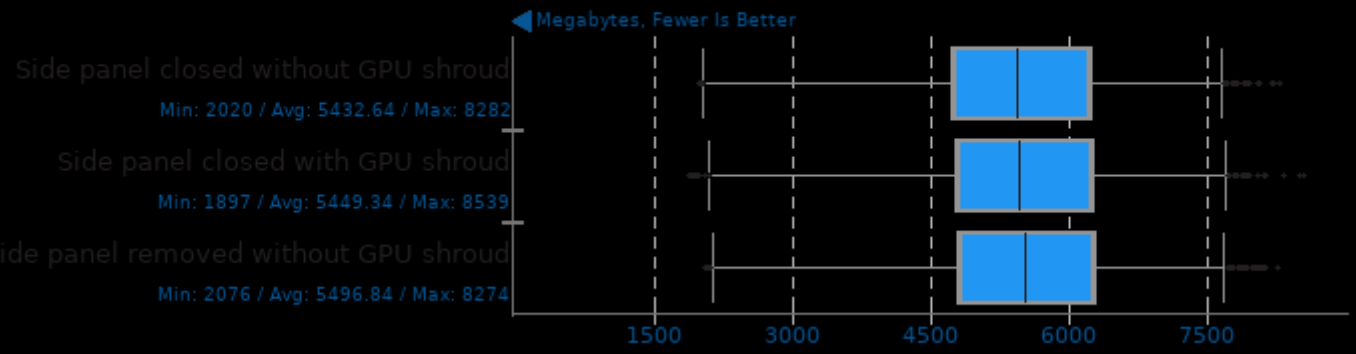



Timed LLVM Compilation 13.0
CPU Usage (Summary) Monitor
Percent, Fewer Is Better
Side panel closed without GPU shroud
Min: 0 / Avg: 97.49 / Max: 100
Side panel removed without GPU shroud
Min: 0.5 / Avg: 97.54 / Max: 100
Side panel closed with GPU shroud
Min: 7.86 / Avg: 97.65 / Max: 100
20
40
60
80
100
Timed LLVM Compilation 13.0
GPU Fan Speed Monitor
Percent, Fewer Is Better
Side panel closed with GPU shroud
Min: 32 / Avg: 33 / Max: 33
Side panel removed without GPU shroud
Min: 33 / Avg: 33 / Max: 33
Side panel closed without GPU shroud
Min: 33 / Avg: 33.99 / Max: 34
7
14
21
28
35
Timed LLVM Compilation 13.0
GPU Frequency Monitor
Megahertz, More Is Better
Side panel closed with GPU shroud
Min: 300 / Avg: 450.16 / Max: 840
Side panel removed without GPU shroud
Min: 300 / Avg: 300 / Max: 300
Side panel closed without GPU shroud
Min: 300 / Avg: 300 / Max: 300
150
300
450
600
750


Timed LLVM Compilation 13.0
GPU Memory Usage Monitor
Megabytes, Fewer Is Better
Side panel closed without GPU shroud
Min: 354 / Avg: 354.62 / Max: 356
Side panel removed without GPU shroud
Min: 354 / Avg: 356.5 / Max: 358
Side panel closed with GPU shroud
Min: 397 / Avg: 467.38 / Max: 594
100
200
300
400
500
Timed LLVM Compilation 13.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
Side panel closed without GPU shroud
Min: 17.04 / Avg: 17.37 / Max: 18.78
Side panel removed without GPU shroud
Min: 17.08 / Avg: 17.52 / Max: 18.66
Side panel closed with GPU shroud
Min: 18.11 / Avg: 19.43 / Max: 22.91
5
10
15
20
25
Timed LLVM Compilation 13.0
GPU Temperature Monitor
Celsius, Fewer Is Better
Side panel removed without GPU shroud
Min: 36 / Avg: 39.25 / Max: 40
Side panel closed with GPU shroud
Min: 38 / Avg: 40.83 / Max: 42
Side panel closed without GPU shroud
Min: 39 / Avg: 42.49 / Max: 43
9
18
27
36
45

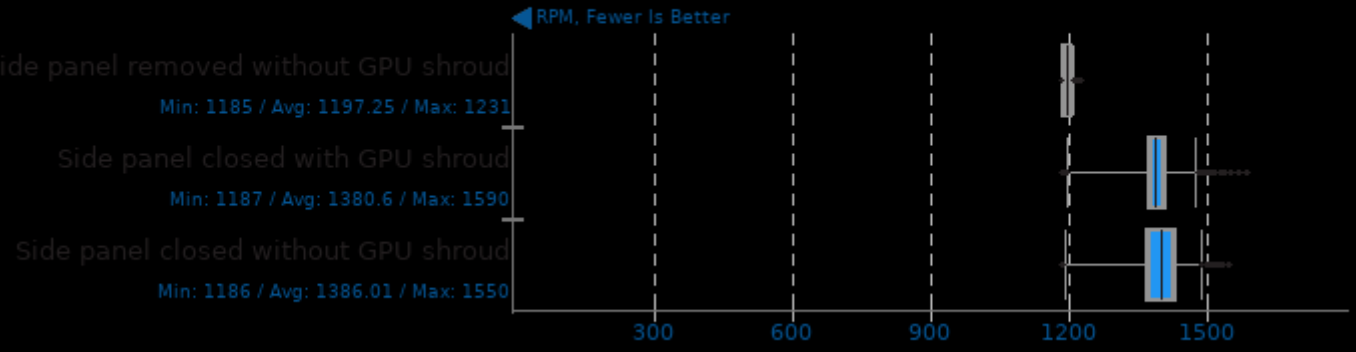
Timed LLVM Compilation 13.0

Memory Usage Monitor



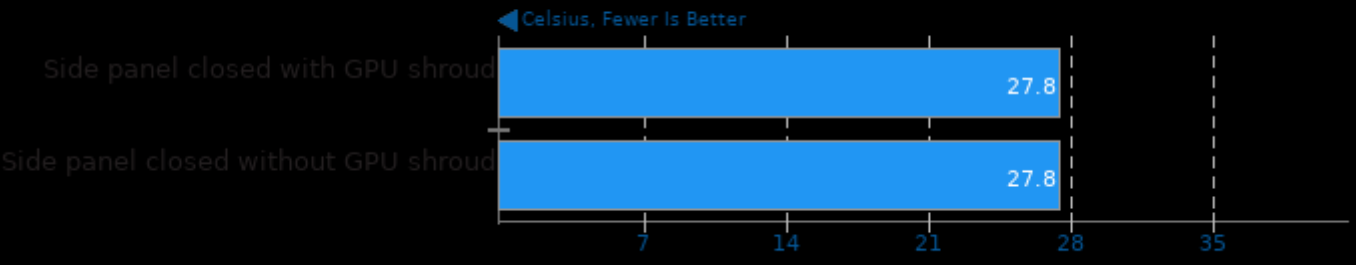
Timed LLVM Compilation 13.0

System Fan Speed Monitor



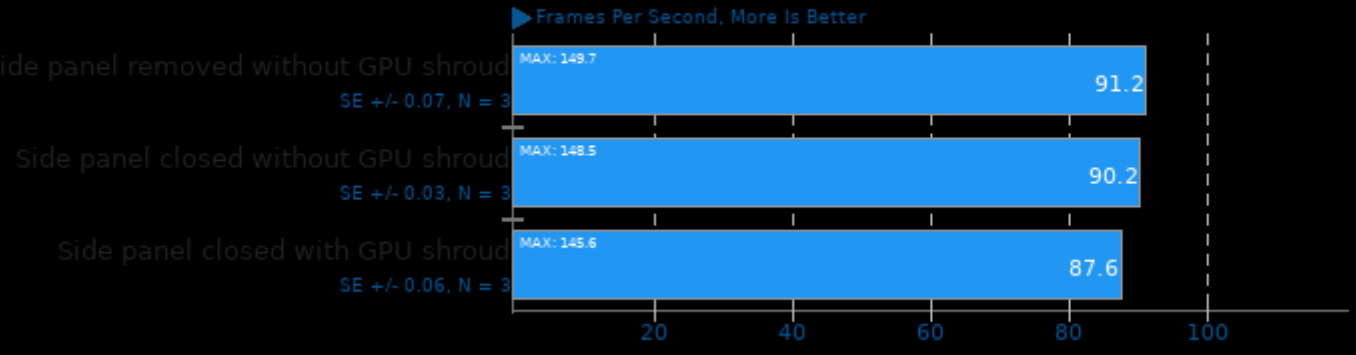
Timed LLVM Compilation 13.0

System Temperature Monitor



Shadow of the Tomb Raider

Resolution: 1920 x 1080 - Graphics Preset: Medium - Anti Aliasing: Off



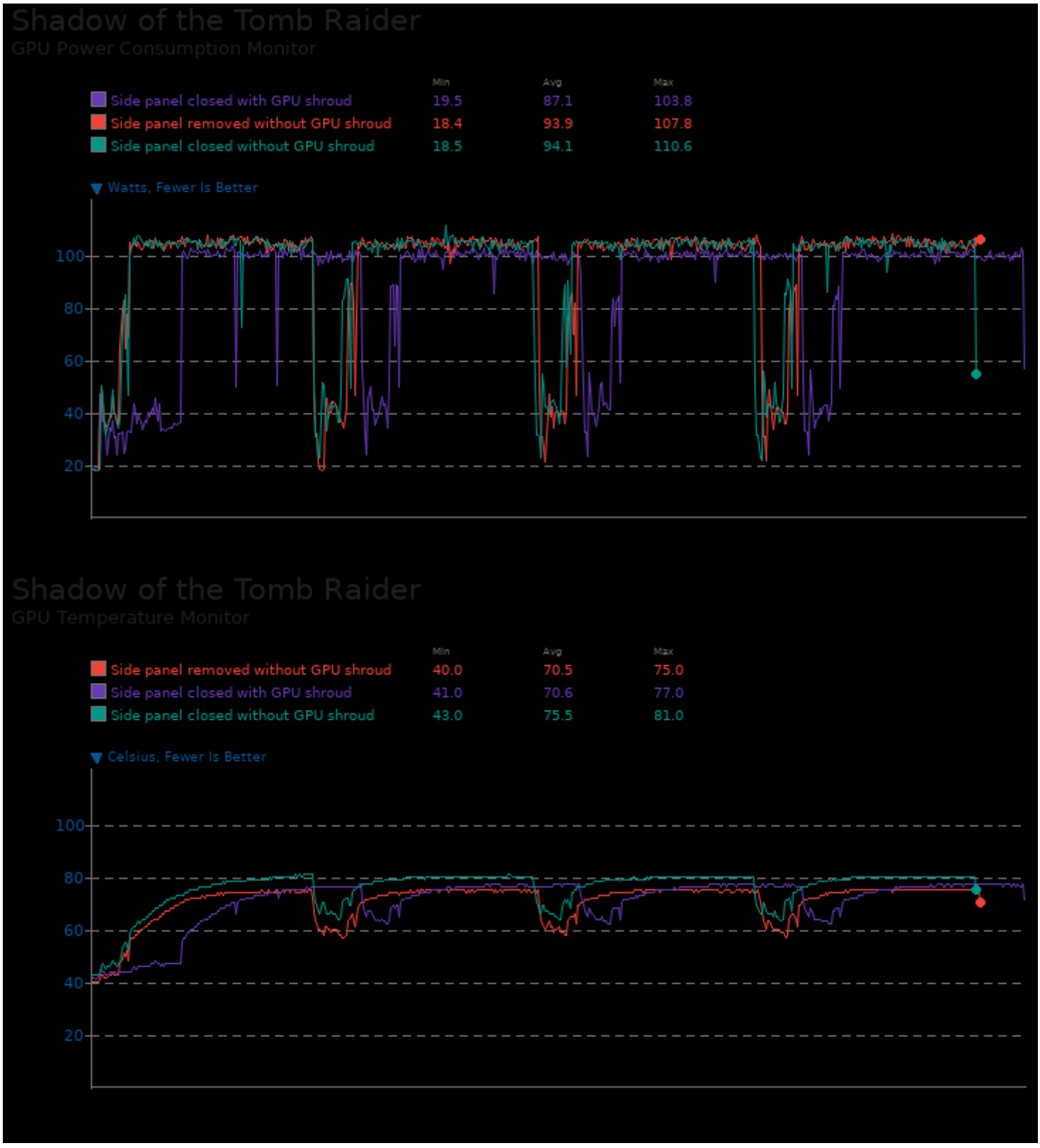

Shadow of the Tomb Raider
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed with GPU shroud
800
3993
4135
Side panel removed without GPU shroud
800
3987
4298
Side panel closed without GPU shroud
800
3987
4300
Megahertz, More Is Better
5500
4400
3300
2200
1100

Shadow of the Tomb Raider
CPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
44.0
58.2
75.0
Side panel closed without GPU shroud
48.0
67.5
85.0
Side panel closed with GPU shroud
52.0
75.9
90.0
Celsius, Fewer Is Better
100
80
60
40
20


Shadow of the Tomb Raider
CPU Usage (Summary) Monitor
Min
Avg
Max
Side panel closed without GPU shroud
1.2
43.7
98.5
Side panel removed without GPU shroud
1.7
44.9
99.2
Side panel closed with GPU shroud
7.1
54.2
100.0
Percent, Fewer Is Better
100
80
60
40
20
Shadow of the Tomb Raider
GPU Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
33.0
57.5
69.0
Side panel closed with GPU shroud
33.0
61.7
74.0
Side panel closed without GPU shroud
33.0
72.4
83.0
Percent, Fewer Is Better
100
80
60
40
20


Shadow of the Tomb Raider
GPU Frequency Monitor
Min
Avg
Max
Side panel removed without GPU shroud
300
1655
1935
Side panel closed without GPU shroud
300
1638
1935
Side panel closed with GPU shroud
360
1577
1935
Megahertz, More Is Better
2500
2000
1500
1000
500
Shadow of the Tomb Raider
GPU Memory Usage Monitor
Min
Avg
Max
Side panel removed without GPU shroud
354
2674
5058
Side panel closed with GPU shroud
397
2677
3125
Side panel closed without GPU shroud
342
2690
5326
Megabytes, Fewer Is Better
6500
5200
3900
2600
1300

g5-desktop-thermal-validation-trial03



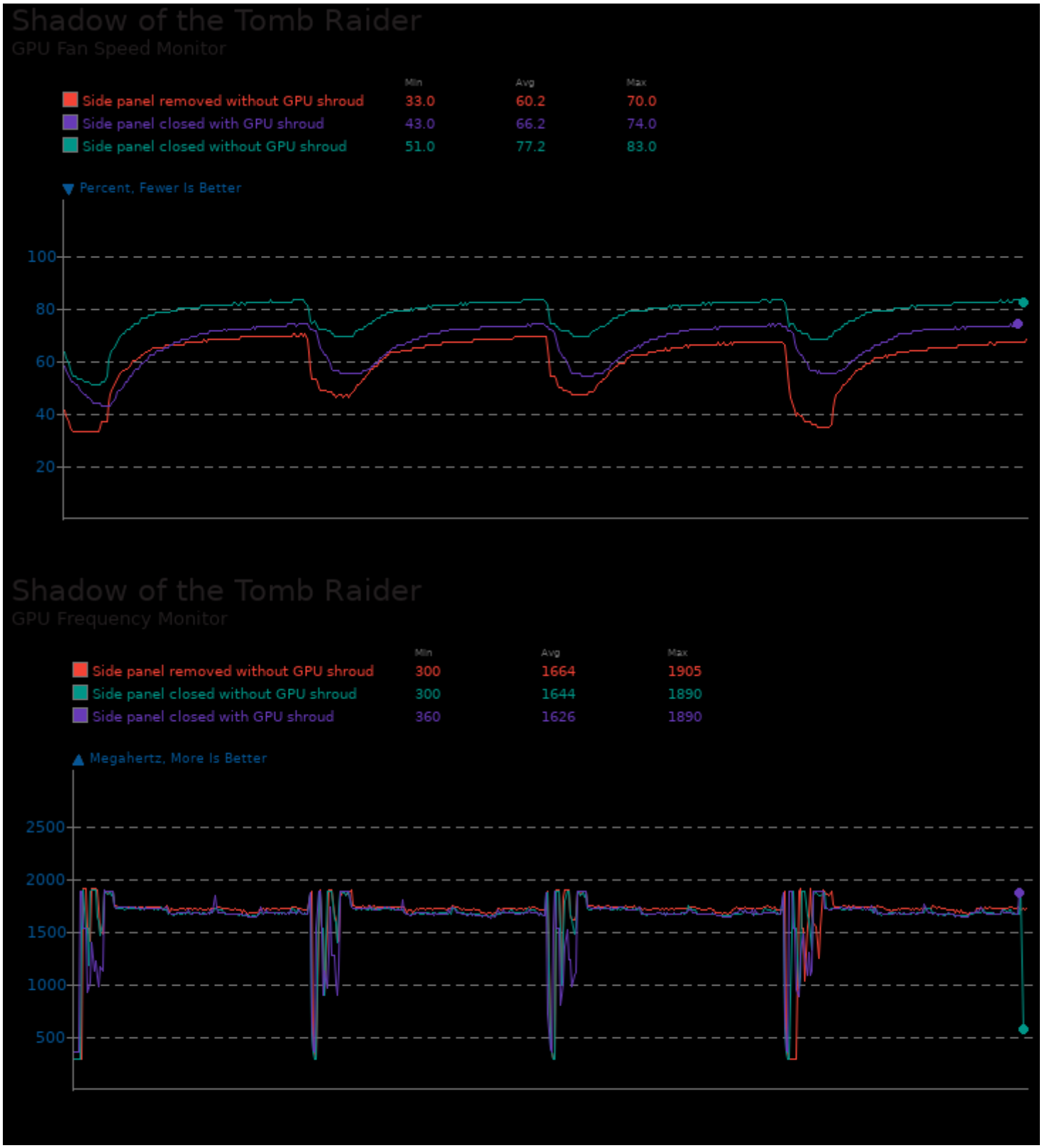

Shadow of the Tomb Raider
Memory Usage Monitor
Min
Avg
Max
Side panel removed without GPU shroud
2087
5375
5880
Side panel closed without GPU shroud
2032
5383
5858
Side panel closed with GPU shroud
2134
5531
6118
Megabytes, Fewer Is Better
8000
6400
4800
3200
1600

Shadow of the Tomb Raider
System Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
1185
1236
1323
Side panel closed with GPU shroud
1187
1481
1782
Side panel closed without GPU shroud
1185
1513
1734
RPM, Fewer Is Better
2500
2000
1500
1000
500

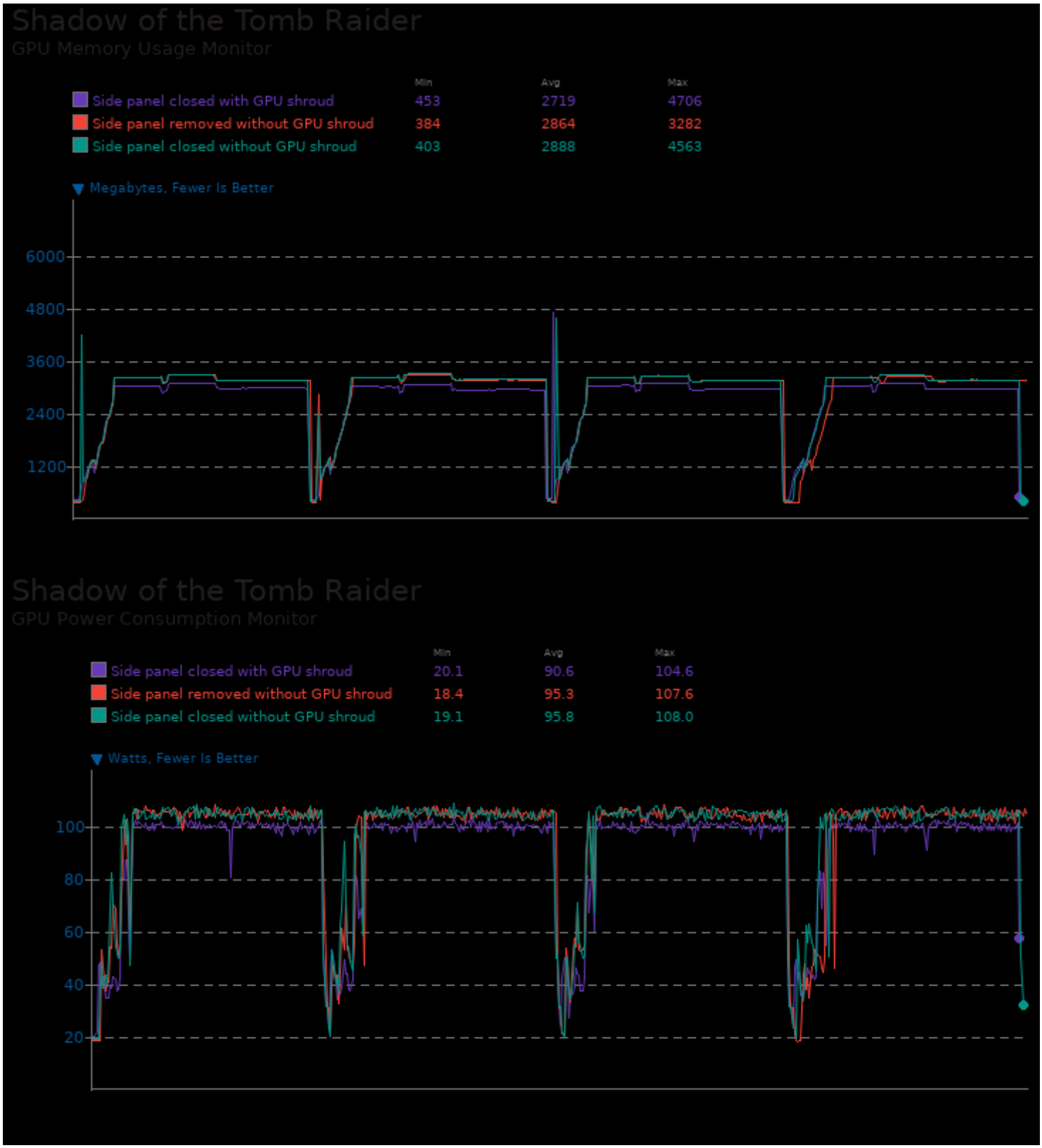

Shadow of the Tomb Raider
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed without GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
Shadow of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Medium - Anti Aliasing: Off
Frames Per Second, More Is Better
Side panel closed with GPU shroud
MAX: 149.2
87.6
SE +/- 0.03, N = 3
Side panel removed without GPU shroud
MAX: 96.5
61.2
SE +/- 0.03, N = 3
Side panel closed without GPU shroud
MAX: 93.2
60.4
SE +/- 0.03, N = 3
20
40
60
80
100
Shadow of the Tomb Raider
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed with GPU shroud
3982
4004
4112
Side panel removed without GPU shroud
800
3993
4297
Side panel closed without GPU shroud
800
3975
4298
Megahertz, More Is Better
5500
4400
3300
2200
1100

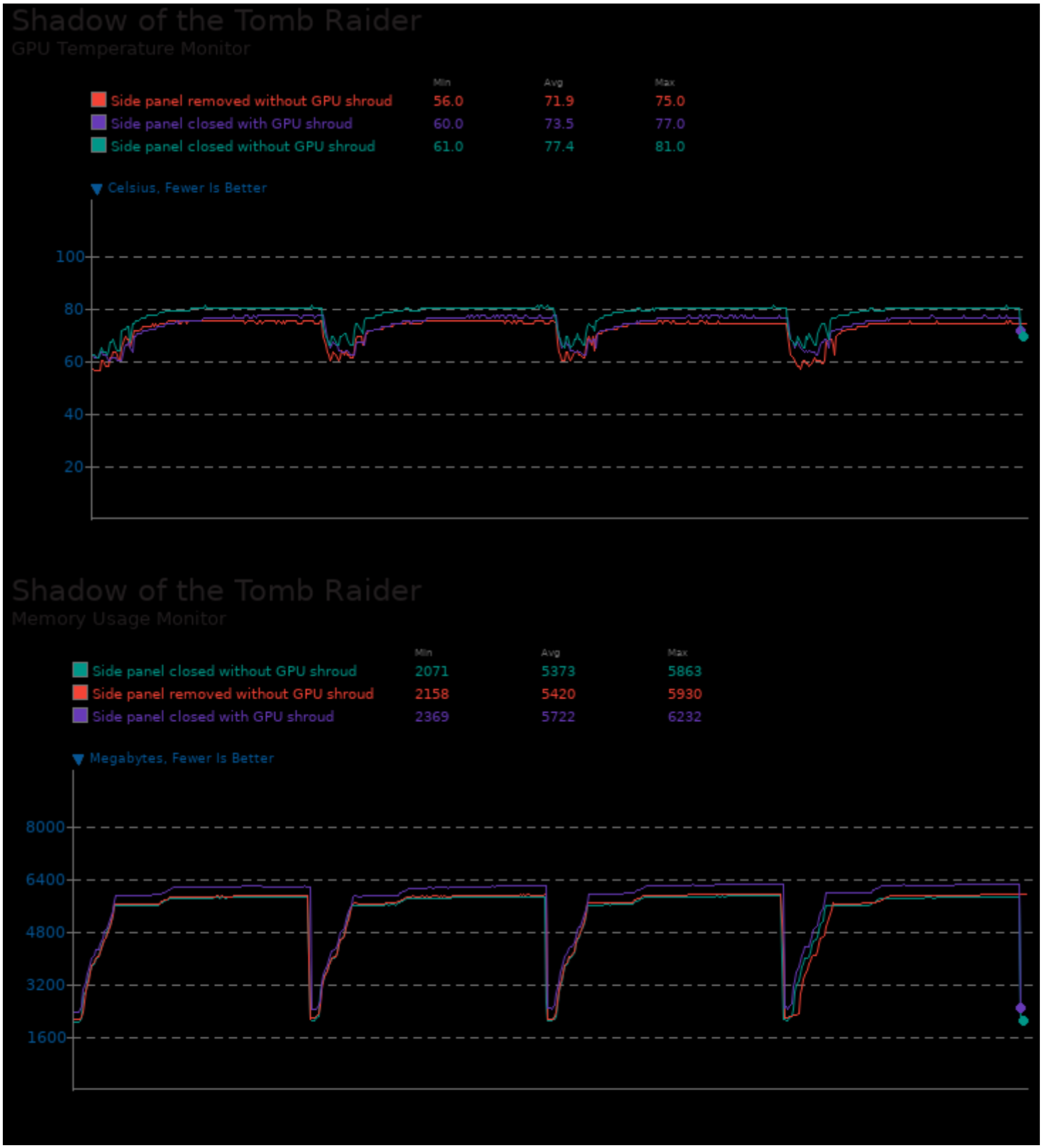
g5-desktop-thermal-validation-trial03



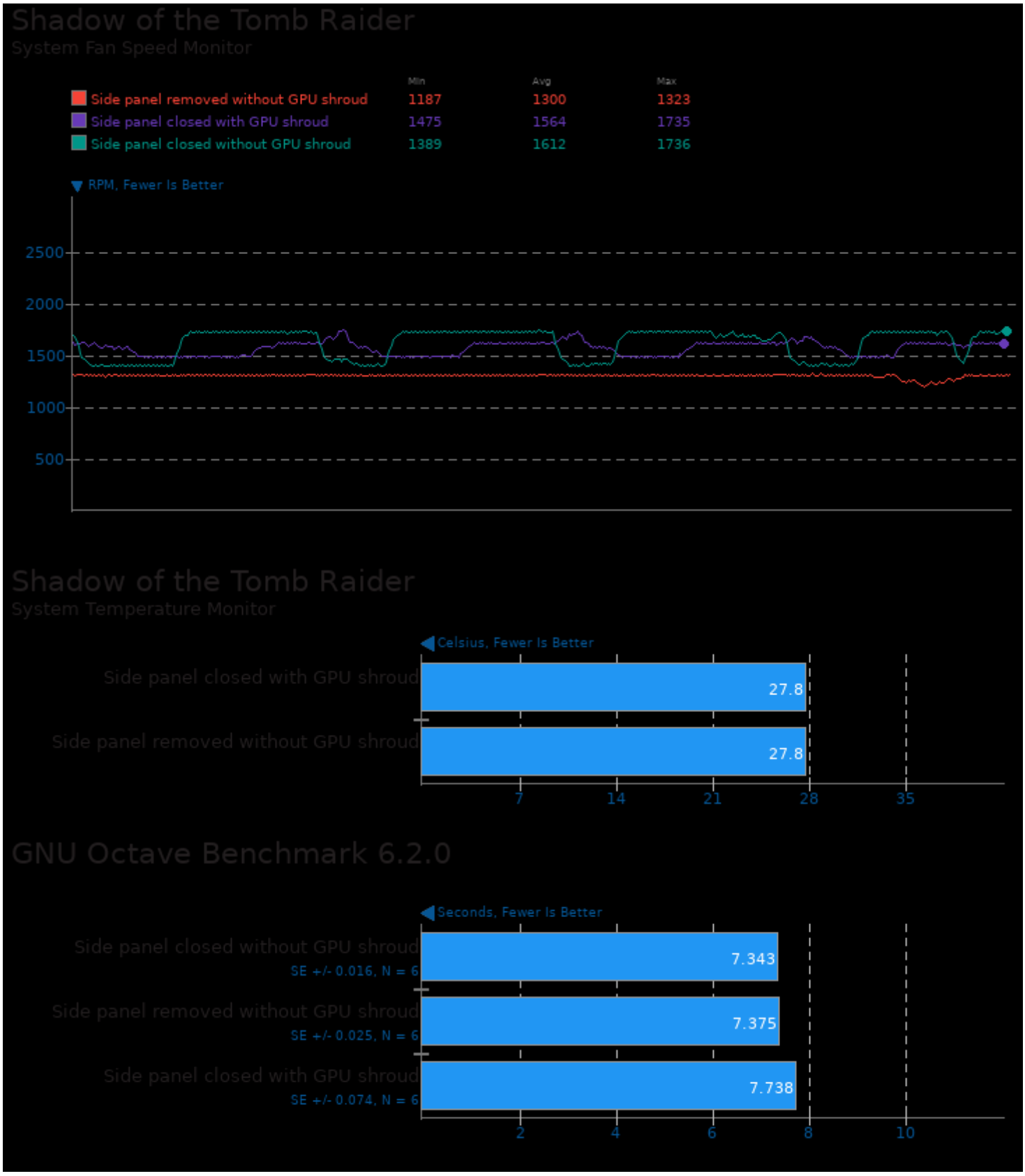

Shadow of the Tomb Raider
GPU Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
33.0
60.2
70.0
Side panel closed with GPU shroud
43.0
66.2
74.0
Side panel closed without GPU shroud
51.0
77.2
83.0
Percent, Fewer Is Better
100
80
60
40
20

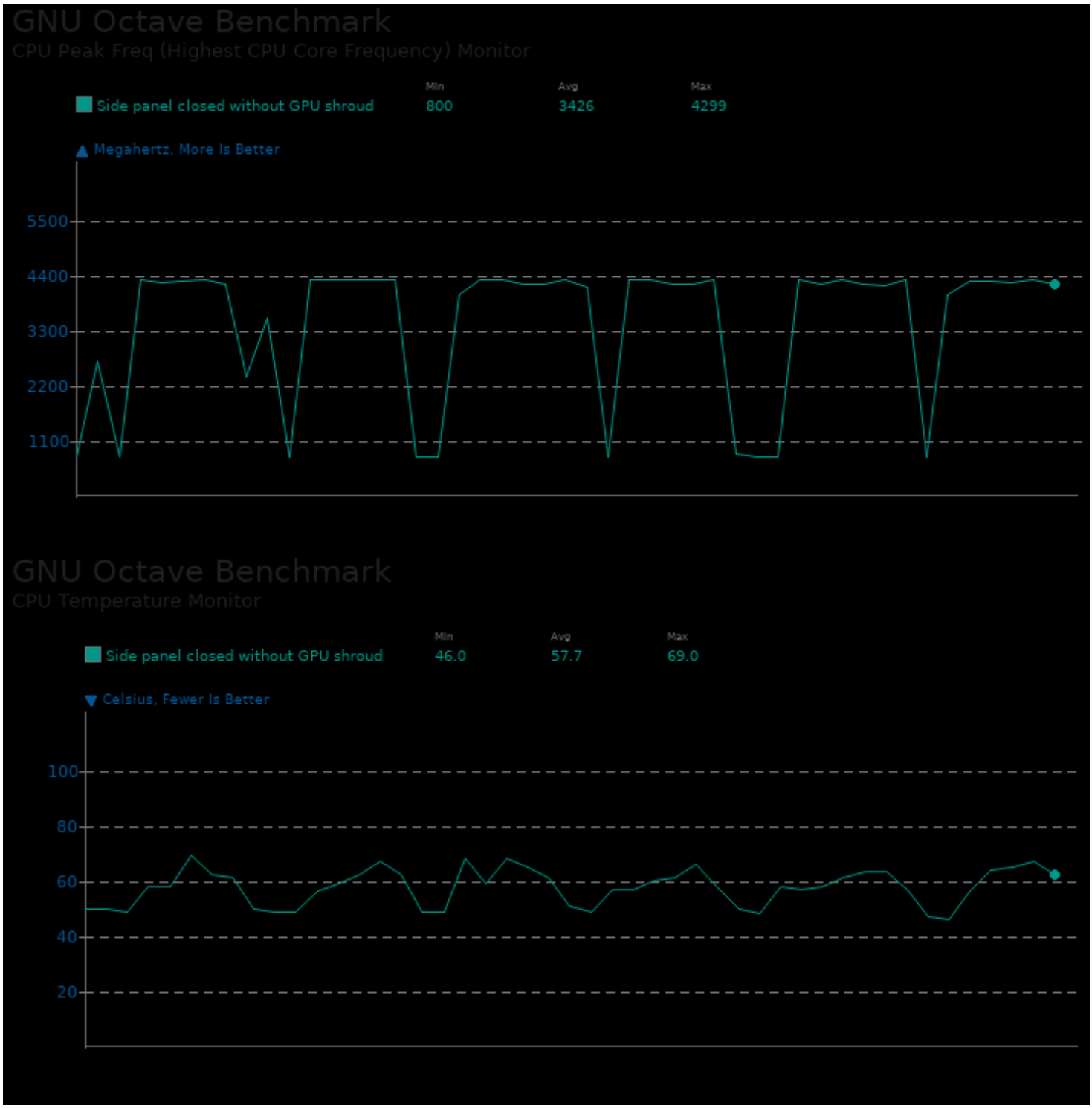
Shadow of the Tomb Raider
GPU Frequency Monitor
Min
Avg
Max
Side panel removed without GPU shroud
300
1664
1905
Side panel closed without GPU shroud
300
1644
1890
Side panel closed with GPU shroud
360
1626
1890
Megahertz, More Is Better
2500
2000
1500
1000
500

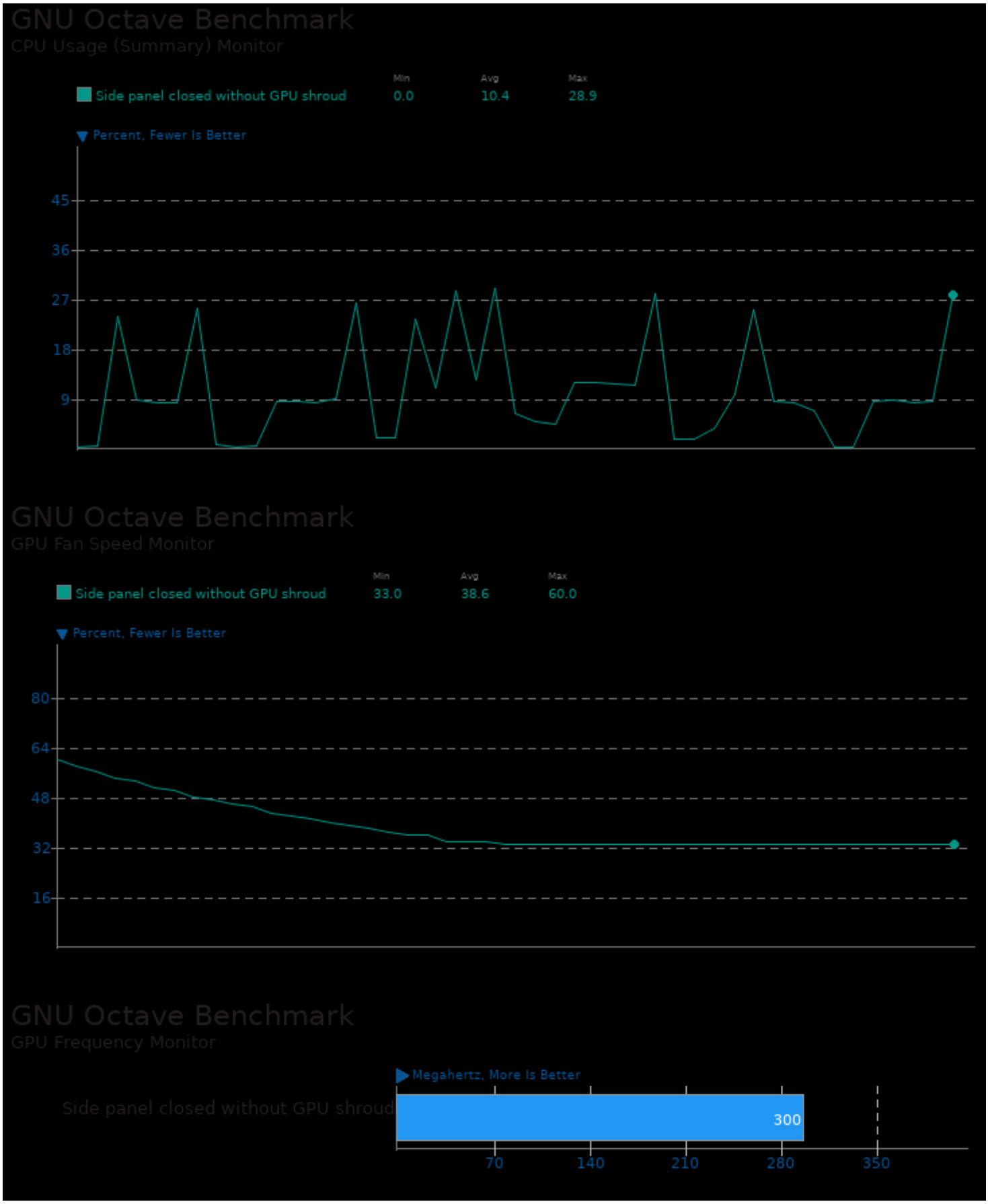

Shadow of the Tomb Raider
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed with GPU shroud
453
2719
4706
Side panel removed without GPU shroud
384
2864
3282
Side panel closed without GPU shroud
403
2888
4563
Megabytes, Fewer Is Better
6000
4800
3600
2400
1200
Shadow of the Tomb Raider
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed with GPU shroud
20.1
90.6
104.6
Side panel removed without GPU shroud
18.4
95.3
107.6
Side panel closed without GPU shroud
19.1
95.8
108.0
Watts, Fewer Is Better
100
80
60
40
20

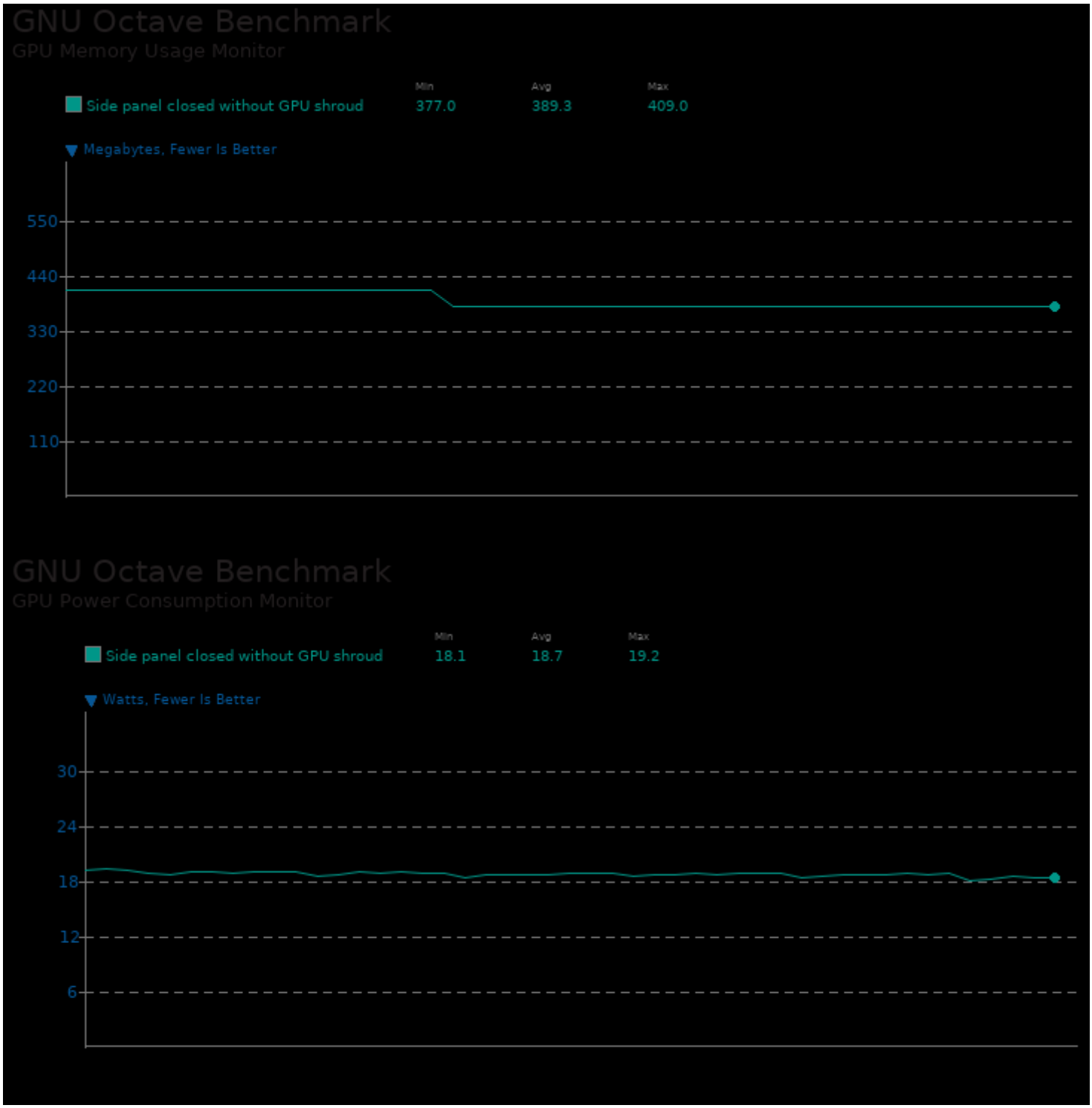

Shadow of the Tomb Raider
GPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
56.0
71.9
75.0
Side panel closed with GPU shroud
60.0
73.5
77.0
Side panel closed without GPU shroud
61.0
77.4
81.0
Celsius, Fewer Is Better
100
80
60
40
20

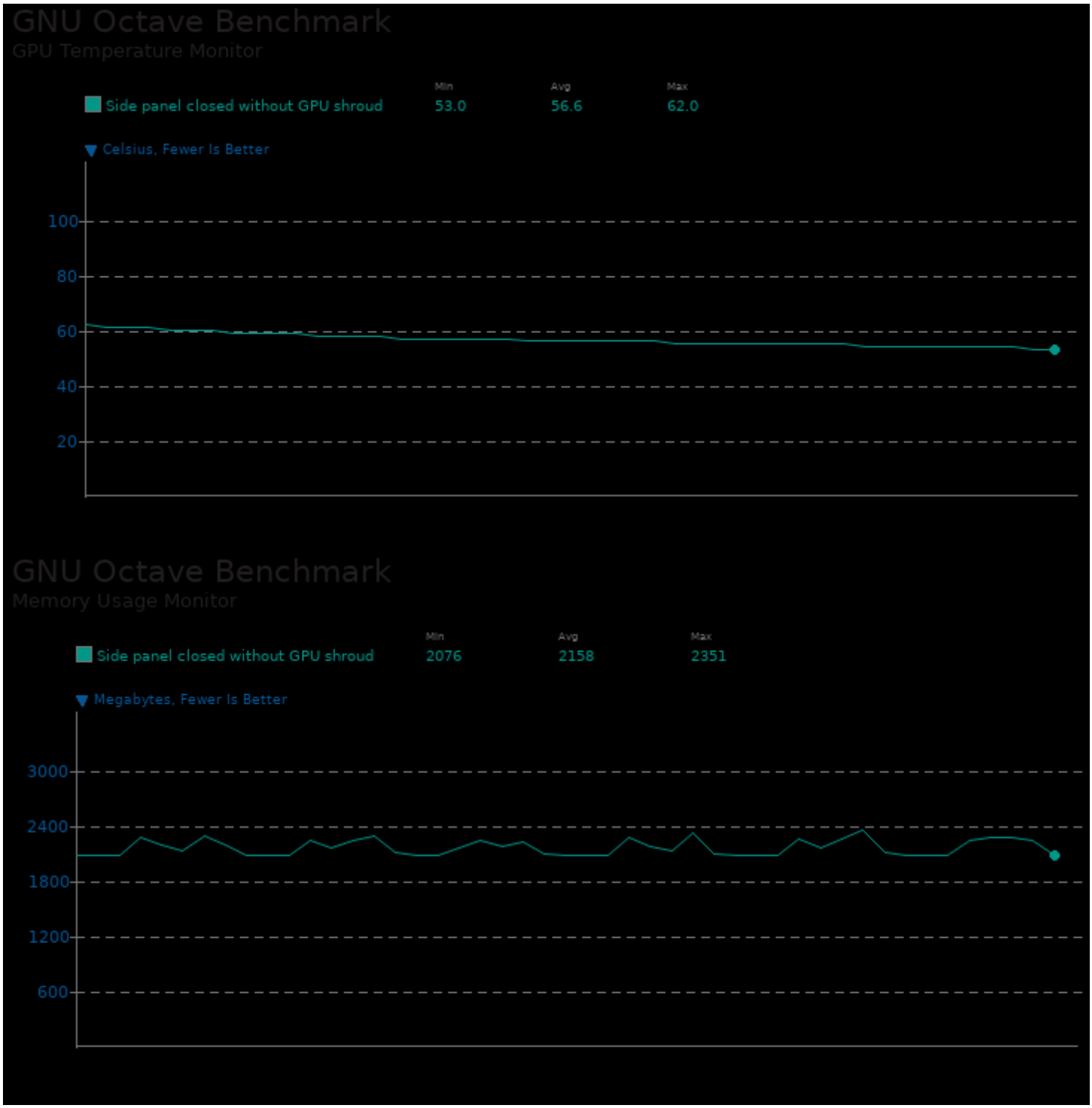
Shadow of the Tomb Raider
Memory Usage Monitor
Min
Avg
Max
Side panel closed without GPU shroud
2071
5373
5863
Side panel removed without GPU shroud
2158
5420
5930
Side panel closed with GPU shroud
2369
5722
6232
Megabytes, Fewer Is Better
8000
6400
4800
3200
1600

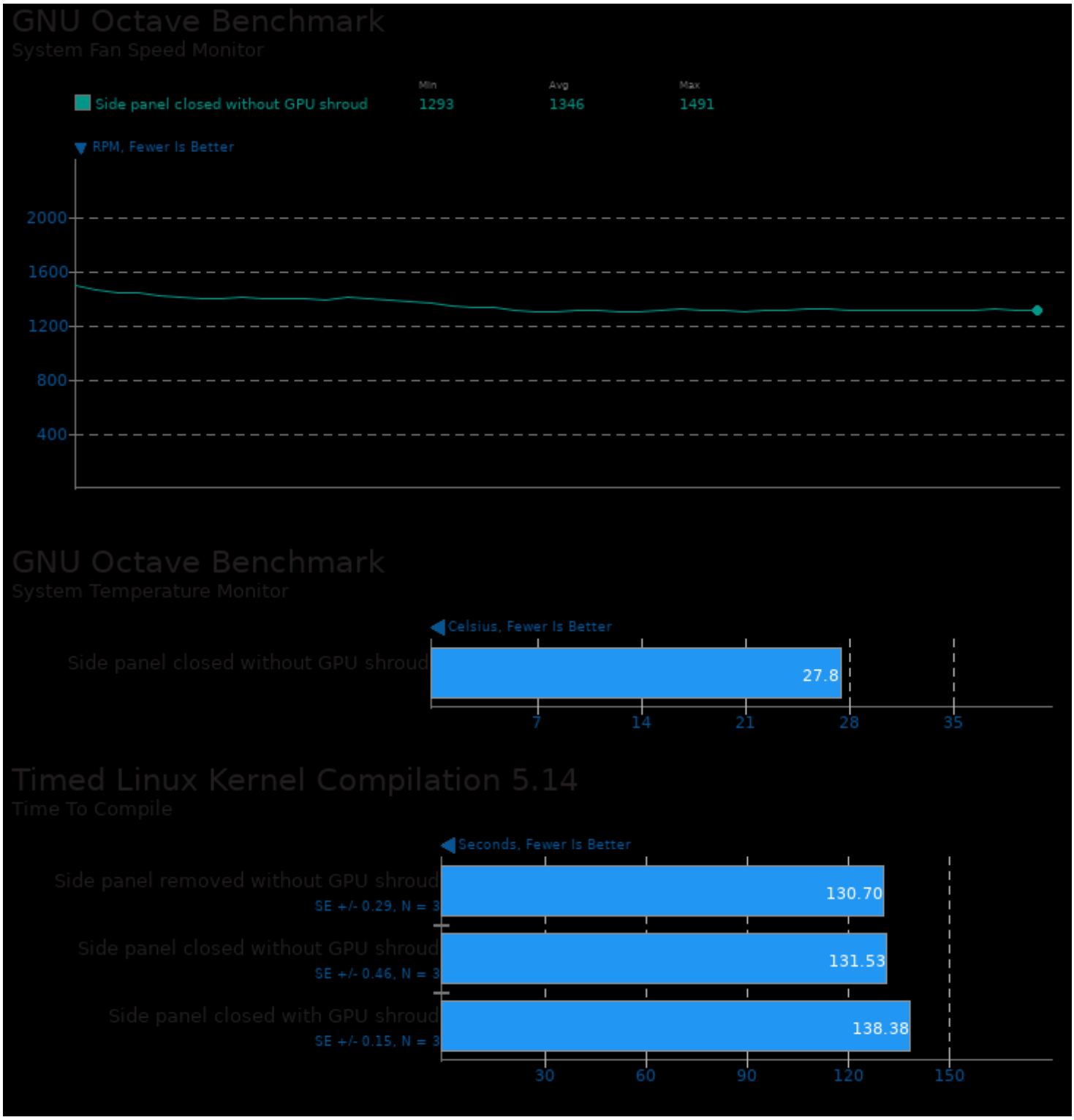

Shadow of the Tomb Raider
System Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
1187
1300
1323
Side panel closed with GPU shroud
1475
1564
1735
Side panel closed without GPU shroud
1389
1612
1736
RPM, Fewer Is Better
2500
2000
1500
1000
500
Shadow of the Tomb Raider
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
GNU Octave Benchmark 6.2.0
Seconds, Fewer Is Better
Side panel closed without GPU shroud
SE +/- 0.016, N = 6
7.343
Side panel removed without GPU shroud
SE +/- 0.025, N = 6
7.375
Side panel closed with GPU shroud
SE +/- 0.074, N = 6
7.738
2
4
6
8
10

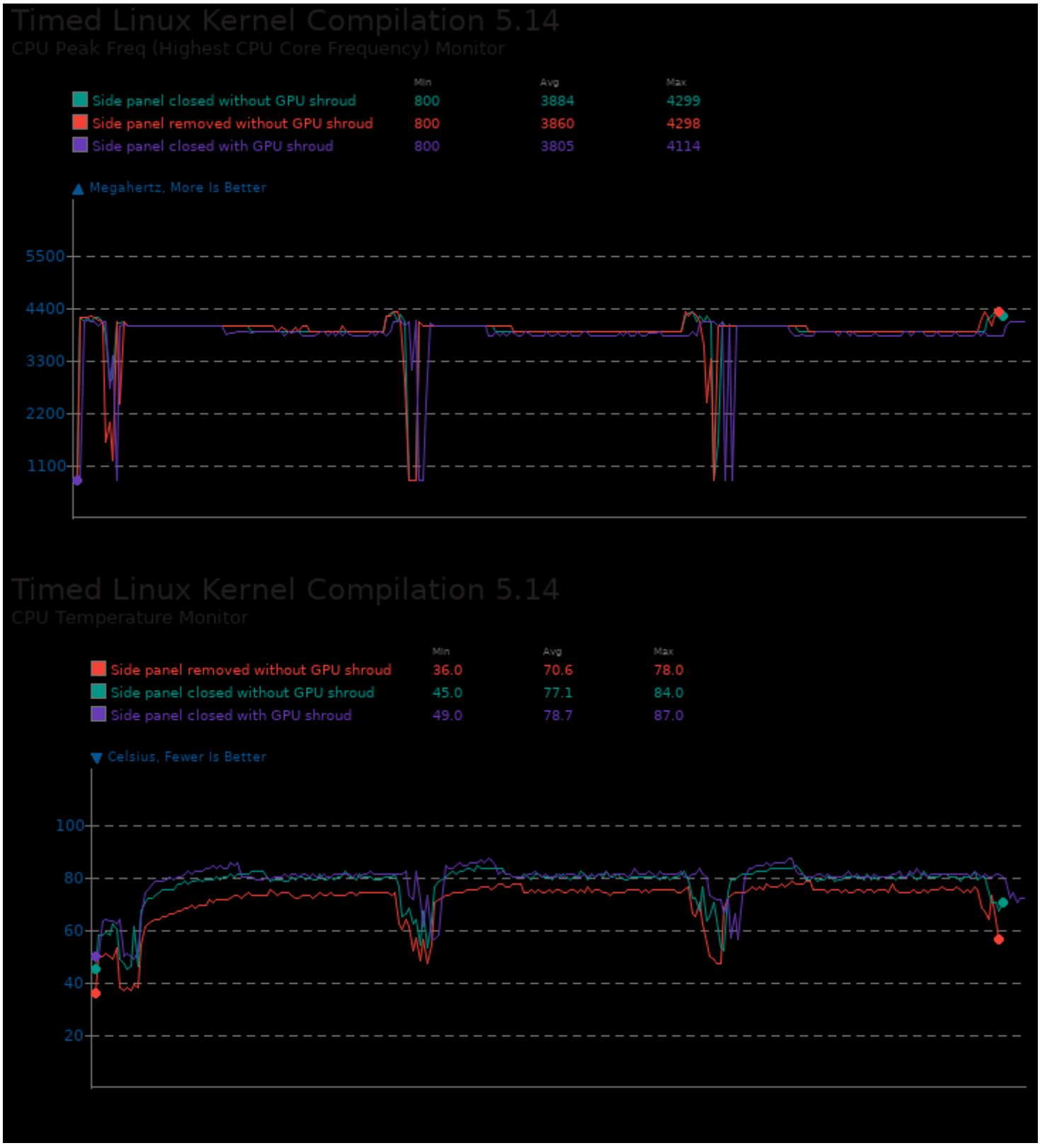

GNU Octave Benchmark
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed without GPU shroud
800
3426
4299
Megahertz, More Is Better
5500
4400
3300
2200
1100
GNU Octave Benchmark
CPU Temperature Monitor
Min
Avg
Max
Side panel closed without GPU shroud
46.0
57.7
69.0
Celsius, Fewer Is Better
100
80
60
40
20

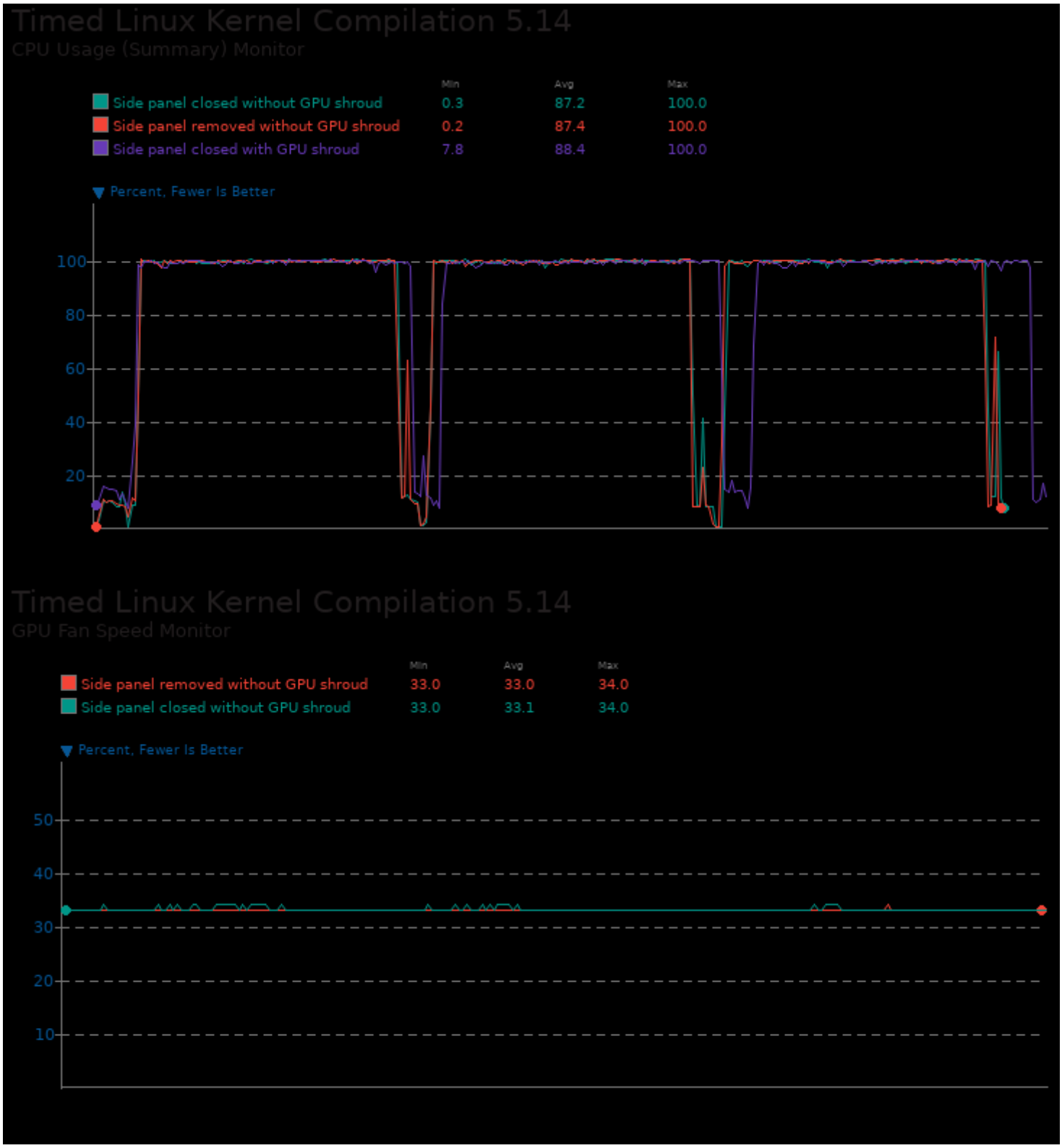

GNU Octave Benchmark
CPU Usage (Summary) Monitor
Min
Avg
Max
Side panel closed without GPU shroud
0.0
10.4
28.9
Percent, Fewer Is Better
45
36
27
18
9
GNU Octave Benchmark
GPU Fan Speed Monitor
Min
Avg
Max
Side panel closed without GPU shroud
33.0
38.6
60.0
Percent, Fewer Is Better
80
64
48
32
16
GNU Octave Benchmark
GPU Frequency Monitor
Megahertz, More Is Better
Side panel closed without GPU shroud
300
70
140
210
280
350

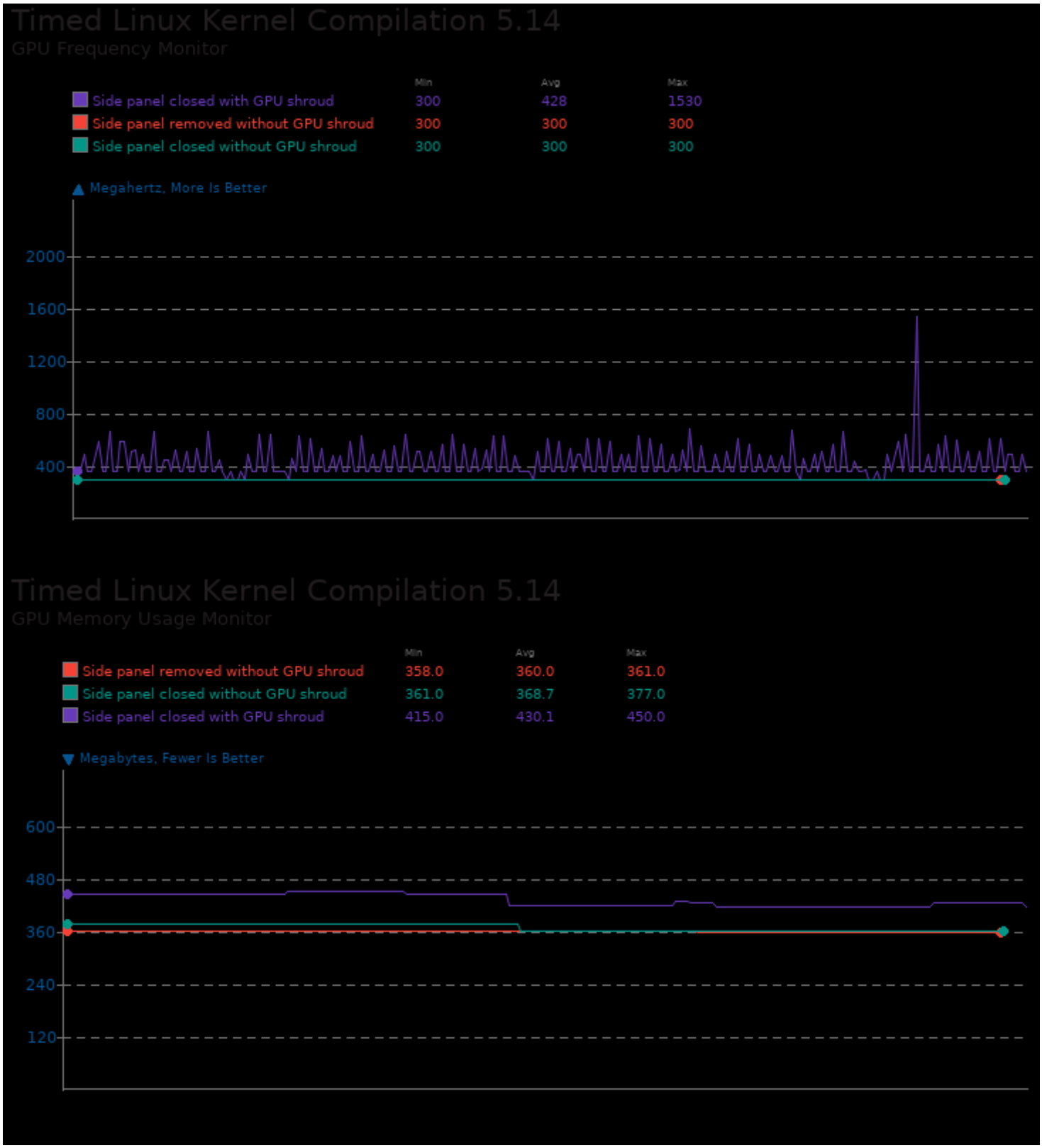

GNU Octave Benchmark
GPU Memory Usage Monitor
Min
Avg
Max
Side panel closed without GPU shroud
377.0
389.3
409.0
Megabytes, Fewer Is Better
550
440
330
220
110
GNU Octave Benchmark
GPU Power Consumption Monitor
Min
Avg
Max
Side panel closed without GPU shroud
18.1
18.7
19.2
Watts, Fewer Is Better
30
24
18
12
6

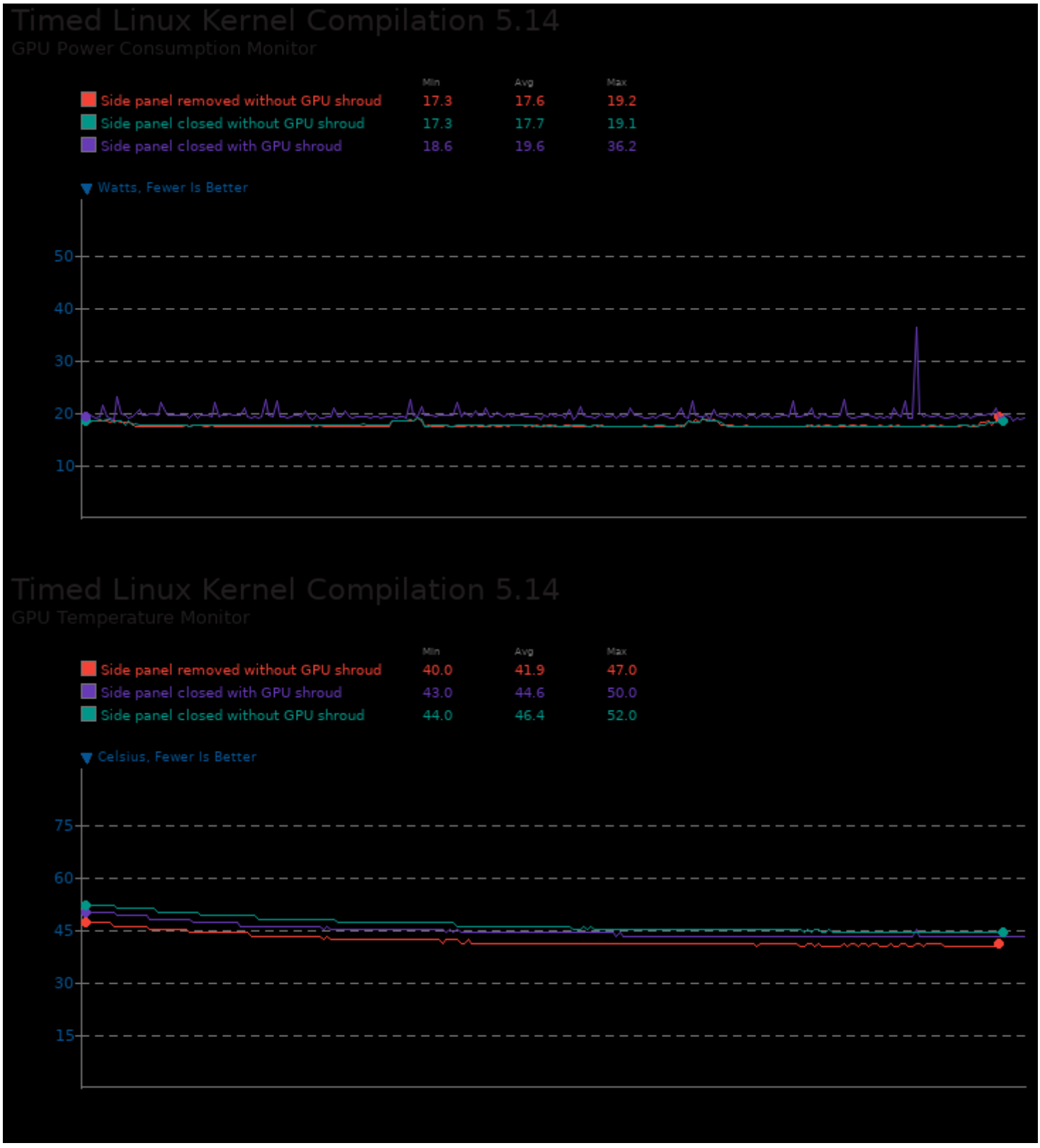

GNU Octave Benchmark
GPU Temperature Monitor
Min
Avg
Max
Side panel closed without GPU shroud
53.0
56.6
62.0
Celsius, Fewer Is Better
100
80
60
40
20
GNU Octave Benchmark
Memory Usage Monitor
Min
Avg
Max
Side panel closed without GPU shroud
2076
2158
2351
Megabytes, Fewer Is Better
3000
2400
1800
1200
600

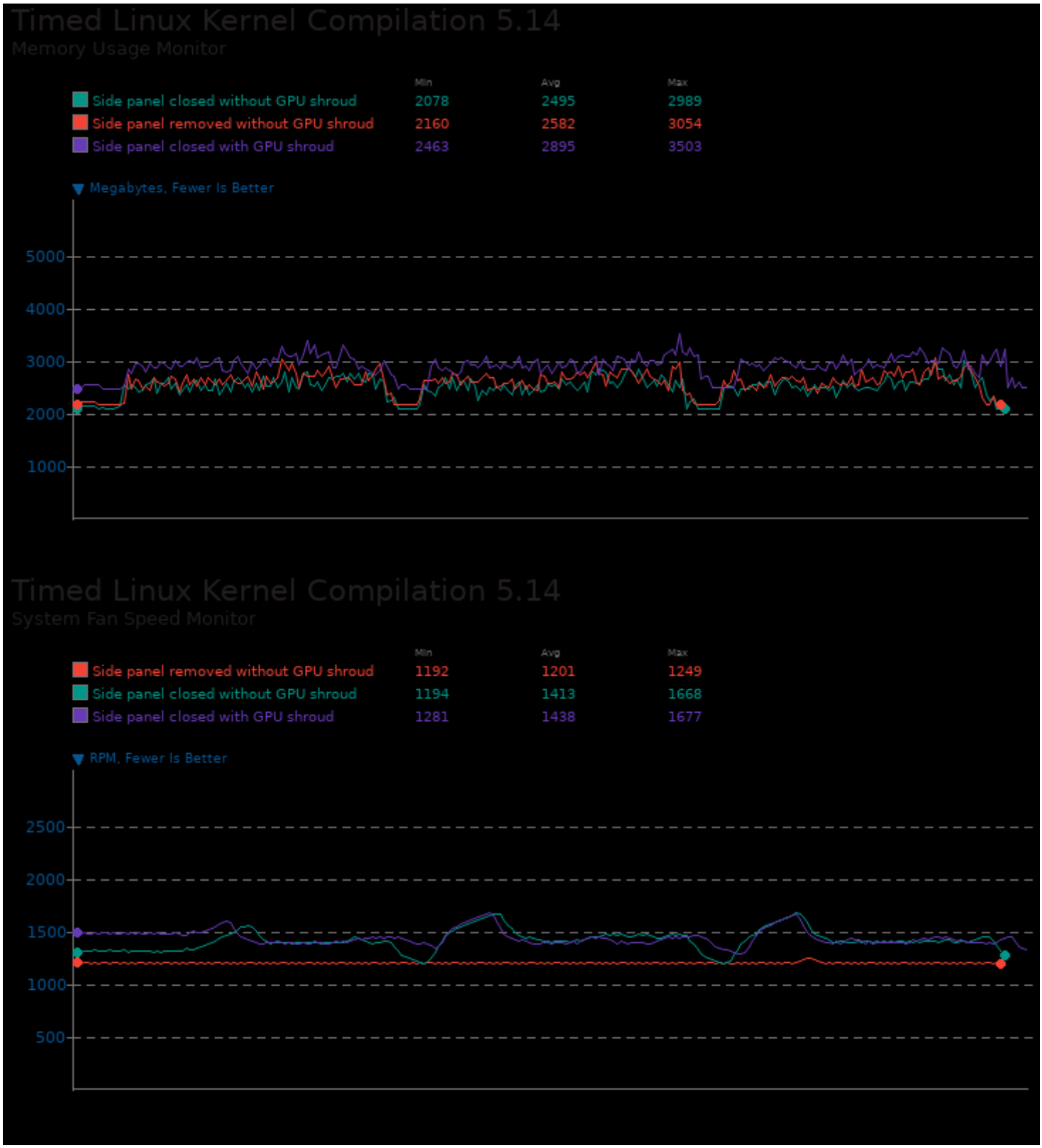

GNU Octave Benchmark
System Fan Speed Monitor
Min
Avg
Max
Side panel closed without GPU shroud
1293
1346
1491
RPM, Fewer Is Better
2000
1600
1200
800
400
GNU Octave Benchmark
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed without GPU shroud
27.8
7
14
21
28
35
Timed Linux Kernel Compilation 5.14
Time To Compile
Seconds, Fewer Is Better
Side panel removed without GPU shroud
SE +/- 0.29, N = 3
130.70
Side panel closed without GPU shroud
SE +/- 0.46, N = 3
131.53
Side panel closed with GPU shroud
SE +/- 0.15, N = 3
138.38
30
60
90
120
150


Timed Linux Kernel Compilation 5.14
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed without GPU shroud
800
3884
4299
Side panel removed without GPU shroud
800
3860
4298
Side panel closed with GPU shroud
800
3805
4114
Megahertz, More Is Better
5500
4400
3300
2200
1100
Timed Linux Kernel Compilation 5.14
CPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
36.0
70.6
78.0
Side panel closed without GPU shroud
45.0
77.1
84.0
Side panel closed with GPU shroud
49.0
78.7
87.0
Celsius, Fewer Is Better
100
80
60
40
20


Timed Linux Kernel Compilation 5.14
CPU Usage (Summary) Monitor
Min
Avg
Max
Side panel closed without GPU shroud
0.3
87.2
100.0
Side panel removed without GPU shroud
0.2
87.4
100.0
Side panel closed with GPU shroud
7.8
88.4
100.0
Percent, Fewer Is Better
100
80
60
40
20
Timed Linux Kernel Compilation 5.14
GPU Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
33.0
33.0
34.0
Side panel closed without GPU shroud
33.0
33.1
34.0
Percent, Fewer Is Better
50
40
30
20
10

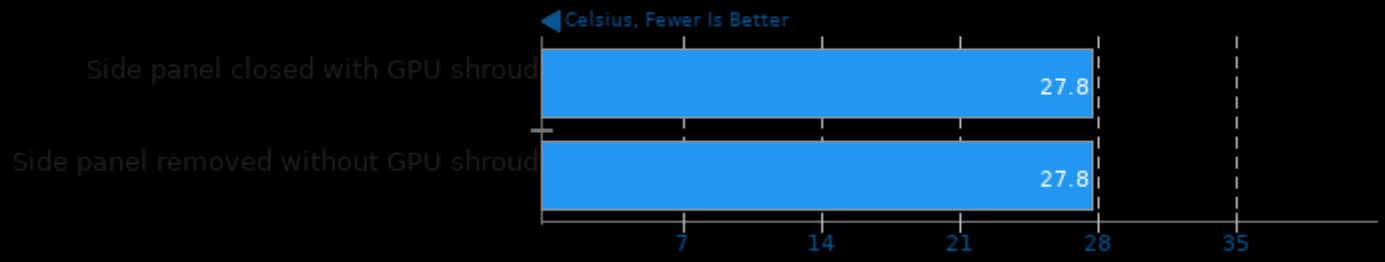

Timed Linux Kernel Compilation 5.14
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
300
428
1530
Side panel removed without GPU shroud
300
300
300
Side panel closed without GPU shroud
300
300
300
Megahertz, More Is Better
2000
1600
1200
800
400
Timed Linux Kernel Compilation 5.14
GPU Memory Usage Monitor
Min
Avg
Max
Side panel removed without GPU shroud
358.0
360.0
361.0
Side panel closed without GPU shroud
361.0
368.7
377.0
Side panel closed with GPU shroud
415.0
430.1
450.0
Megabytes, Fewer Is Better
600
480
360
240
120


Timed Linux Kernel Compilation 5.14
GPU Power Consumption Monitor
Min
Avg
Max
Side panel removed without GPU shroud
17.3
17.6
19.2
Side panel closed without GPU shroud
17.3
17.7
19.1
Side panel closed with GPU shroud
18.6
19.6
36.2
Watts, Fewer Is Better
50
40
30
20
10
Timed Linux Kernel Compilation 5.14
GPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
40.0
41.9
47.0
Side panel closed with GPU shroud
43.0
44.6
50.0
Side panel closed without GPU shroud
44.0
46.4
52.0
Celsius, Fewer Is Better
75
60
45
30
15


Timed Linux Kernel Compilation 5.14
Memory Usage Monitor
Min
Avg
Max
Side panel closed without GPU shroud
2078
2495
2989
Side panel removed without GPU shroud
2160
2582
3054
Side panel closed with GPU shroud
2463
2895
3503
Megabytes, Fewer Is Better
5000
4000
3000
2000
1000
Timed Linux Kernel Compilation 5.14
System Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
1192
1201
1249
Side panel closed without GPU shroud
1194
1413
1668
Side panel closed with GPU shroud
1281
1438
1677
RPM, Fewer Is Better
2500
2000
1500
1000
500

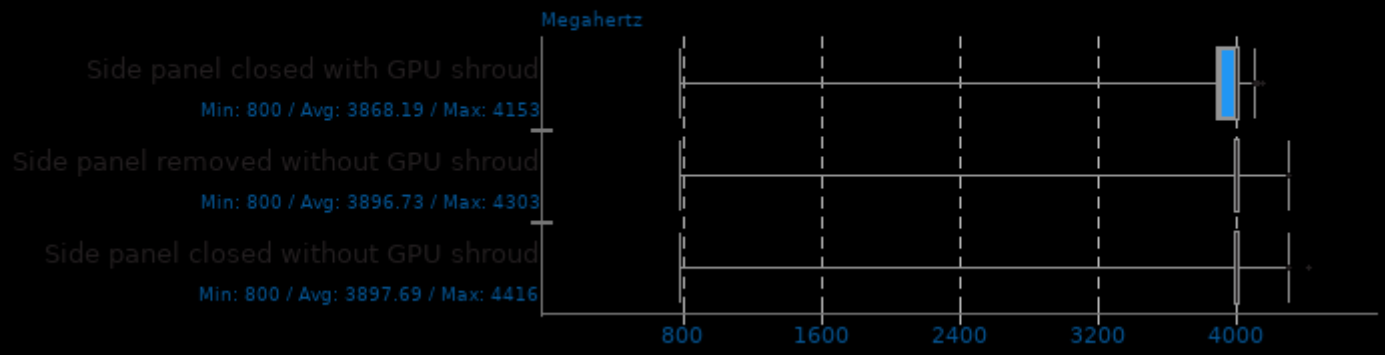
Timed Linux Kernel Compilation 5.14

System Temperature Monitor



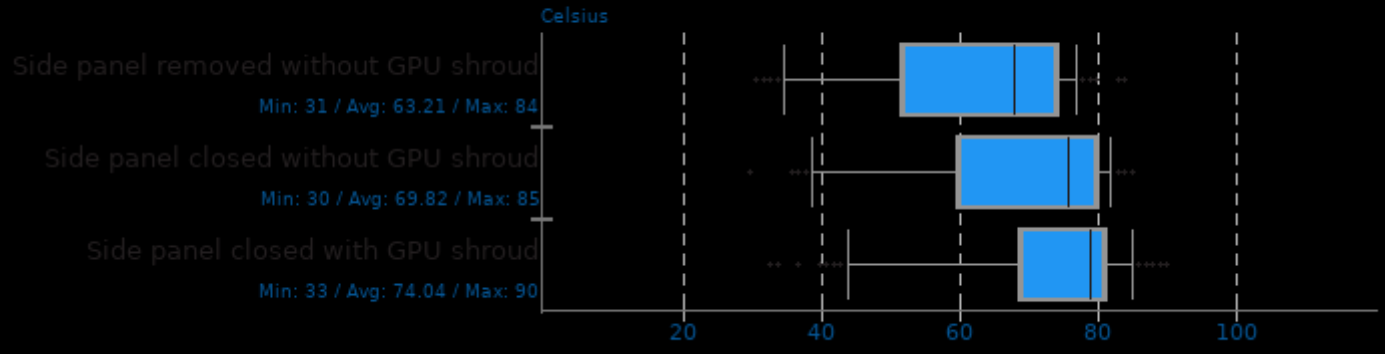
CPU Peak Freq (Highest CPU Core Frequency) Monitor

Phoronix Test Suite System Monitoring



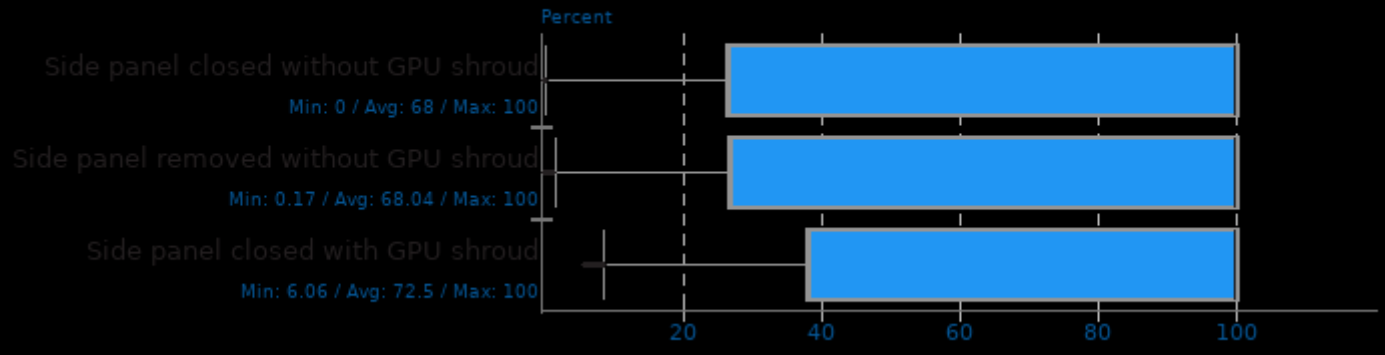
CPU Temperature Monitor

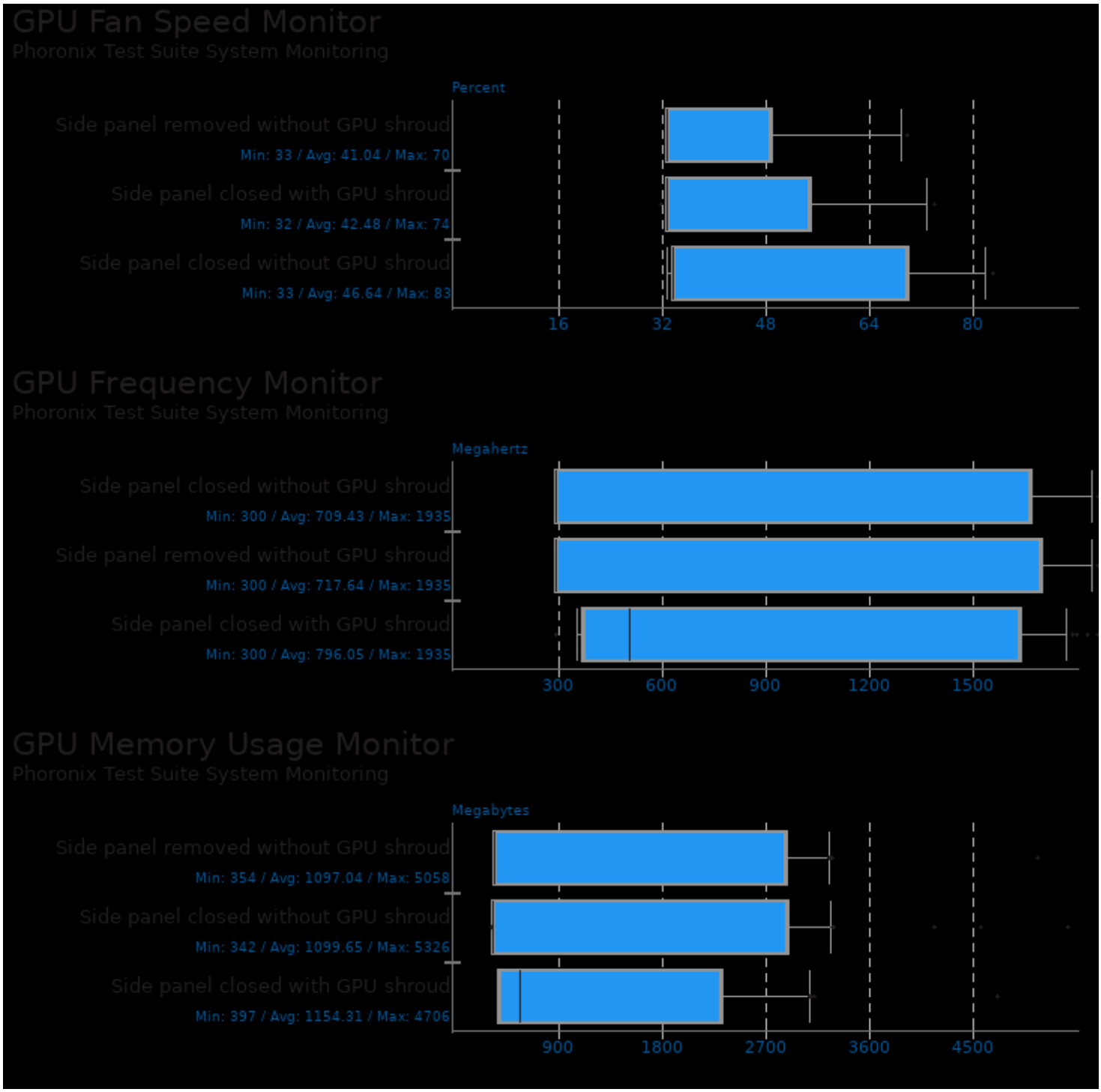
Phoronix Test Suite System Monitoring

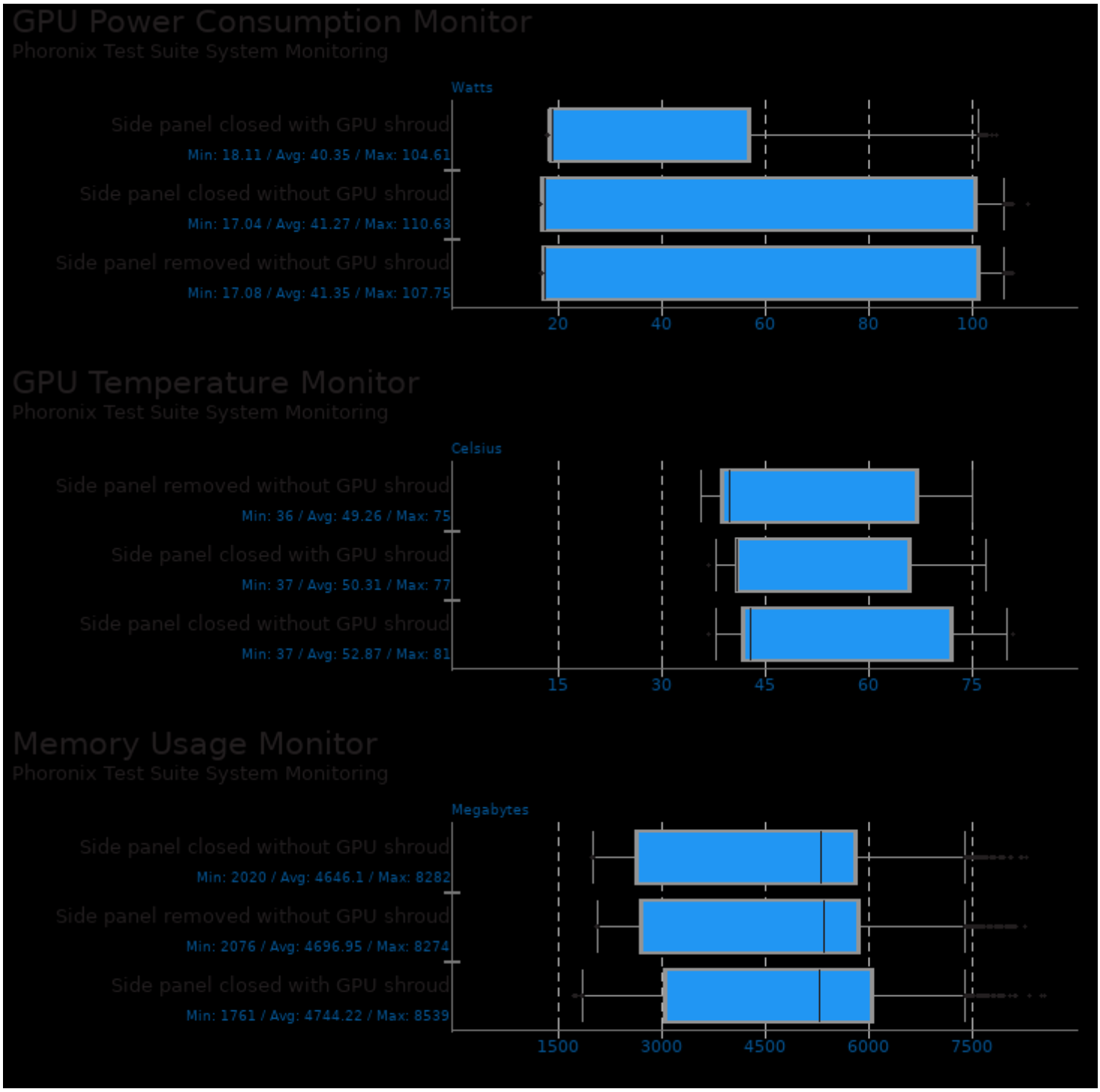


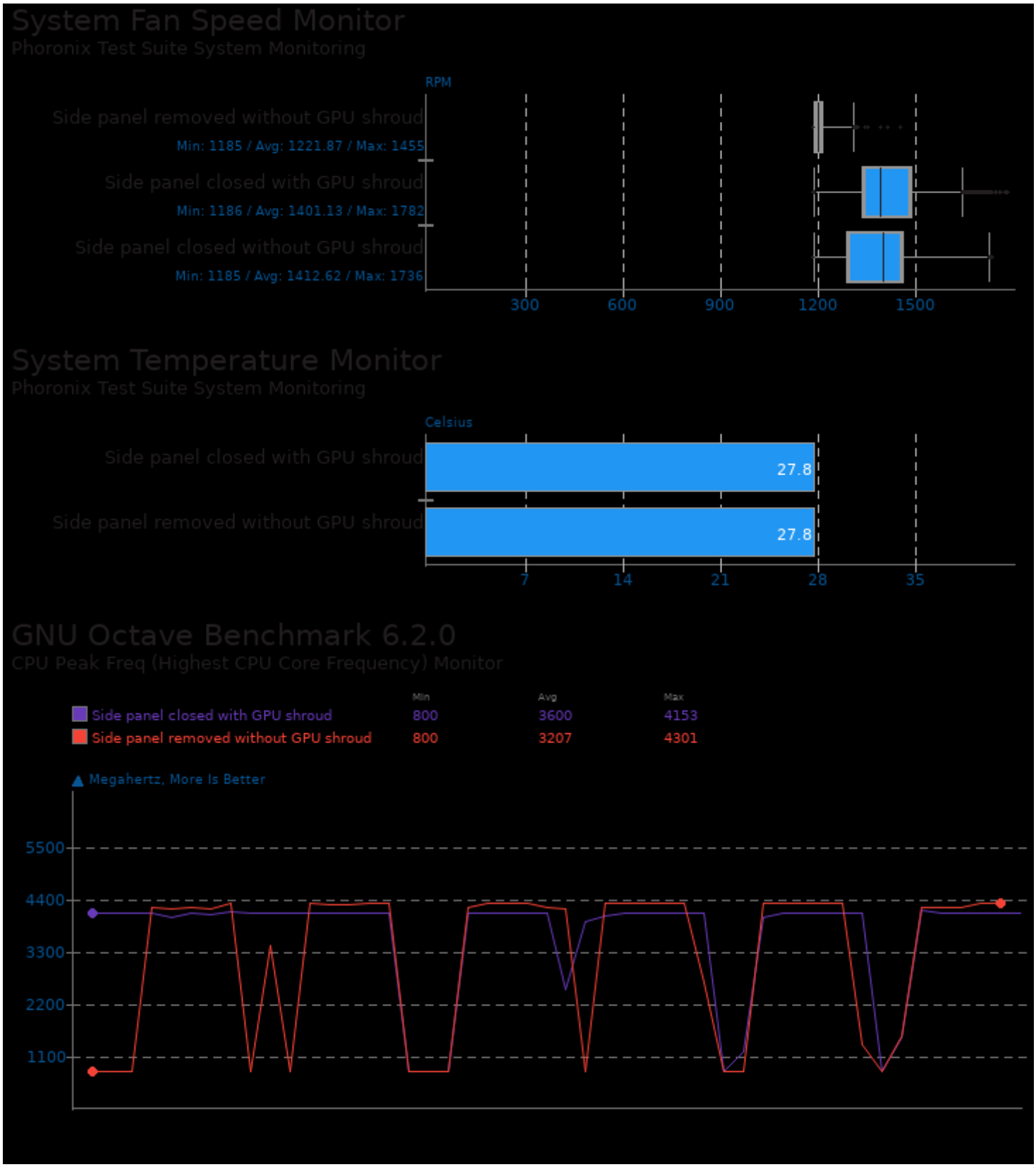
CPU Usage (Summary) Monitor

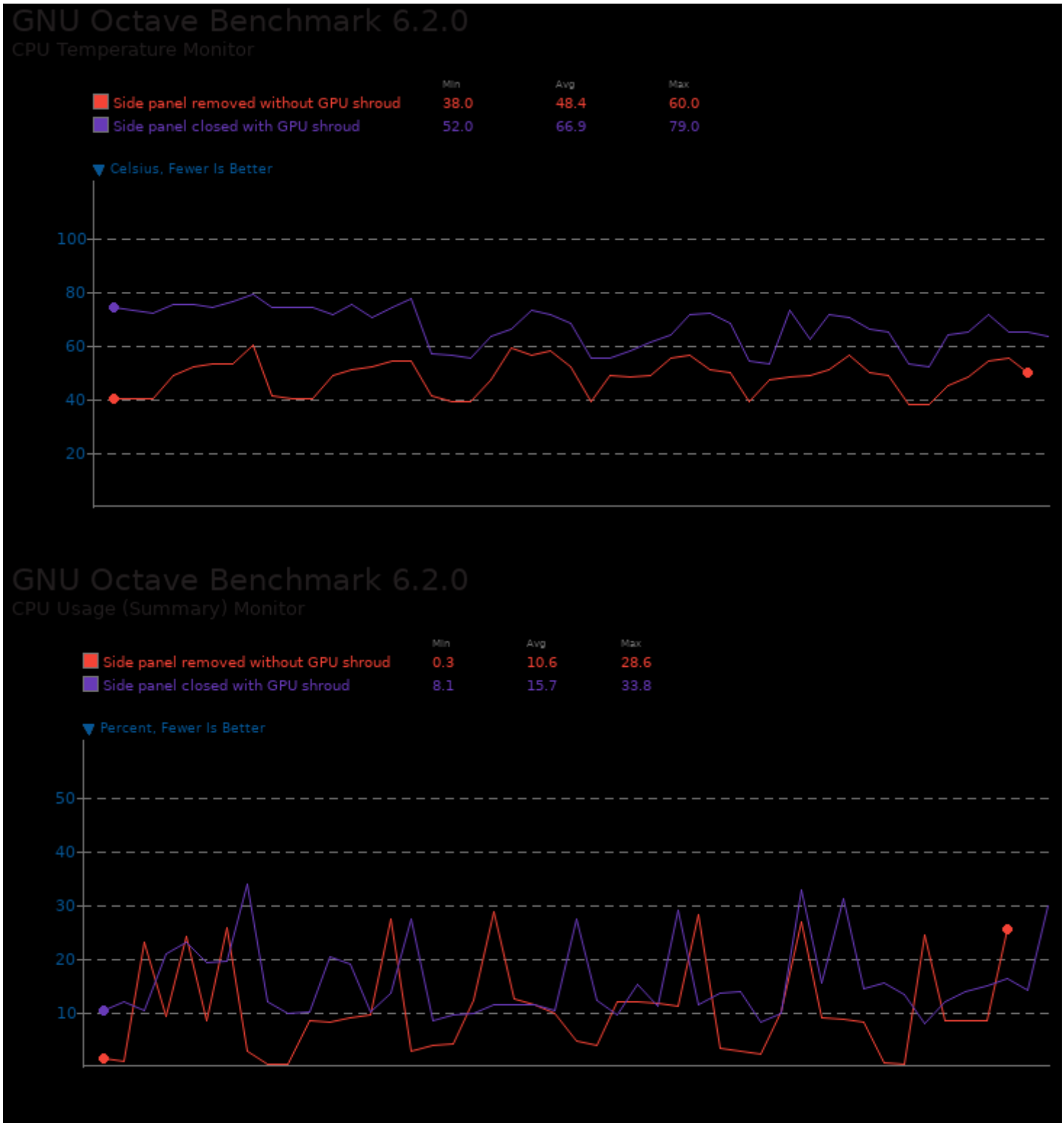
Phoronix Test Suite System Monitoring

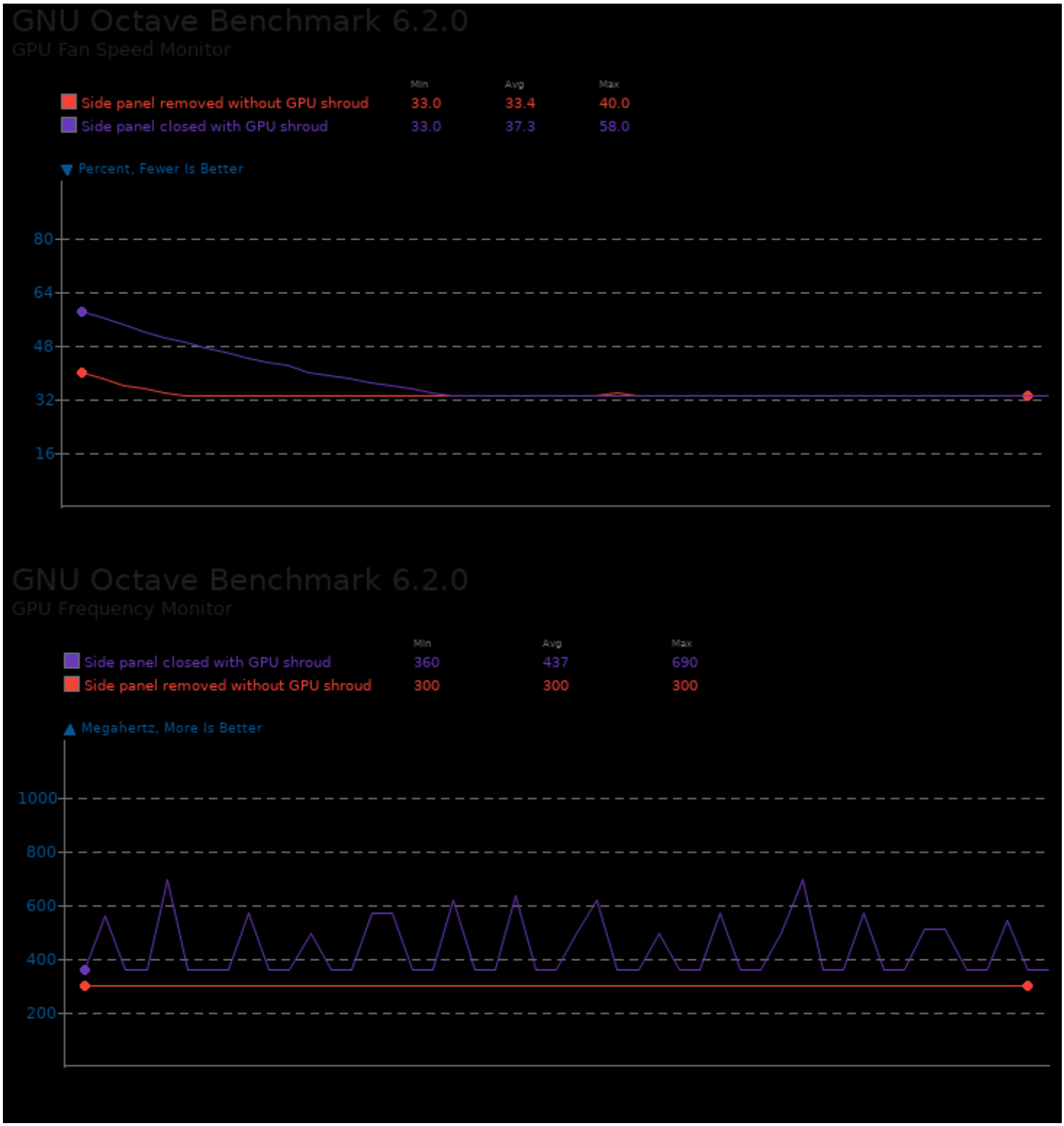



GPU Fan Speed Monitor
Phoronix Test Suite System Monitoring
Percent
Side panel removed without GPU shroud
Min: 33 / Avg: 41.04 / Max: 70
Side panel closed with GPU shroud
Min: 32 / Avg: 42.48 / Max: 74
Side panel closed without GPU shroud
Min: 33 / Avg: 46.64 / Max: 83
16
32
48
64
80
GPU Frequency Monitor
Phoronix Test Suite System Monitoring
Megahertz
Side panel closed without GPU shroud
Min: 300 / Avg: 709.43 / Max: 1935
Side panel removed without GPU shroud
Min: 300 / Avg: 717.64 / Max: 1935
Side panel closed with GPU shroud
Min: 300 / Avg: 796.05 / Max: 1935
300
600
900
1200
1500
GPU Memory Usage Monitor
Phoronix Test Suite System Monitoring
Megabytes
Side panel removed without GPU shroud
Min: 354 / Avg: 1097.04 / Max: 5058
Side panel closed without GPU shroud
Min: 342 / Avg: 1099.65 / Max: 5326
Side panel closed with GPU shroud
Min: 397 / Avg: 1154.31 / Max: 4706
900
1800
2700
3600
4500

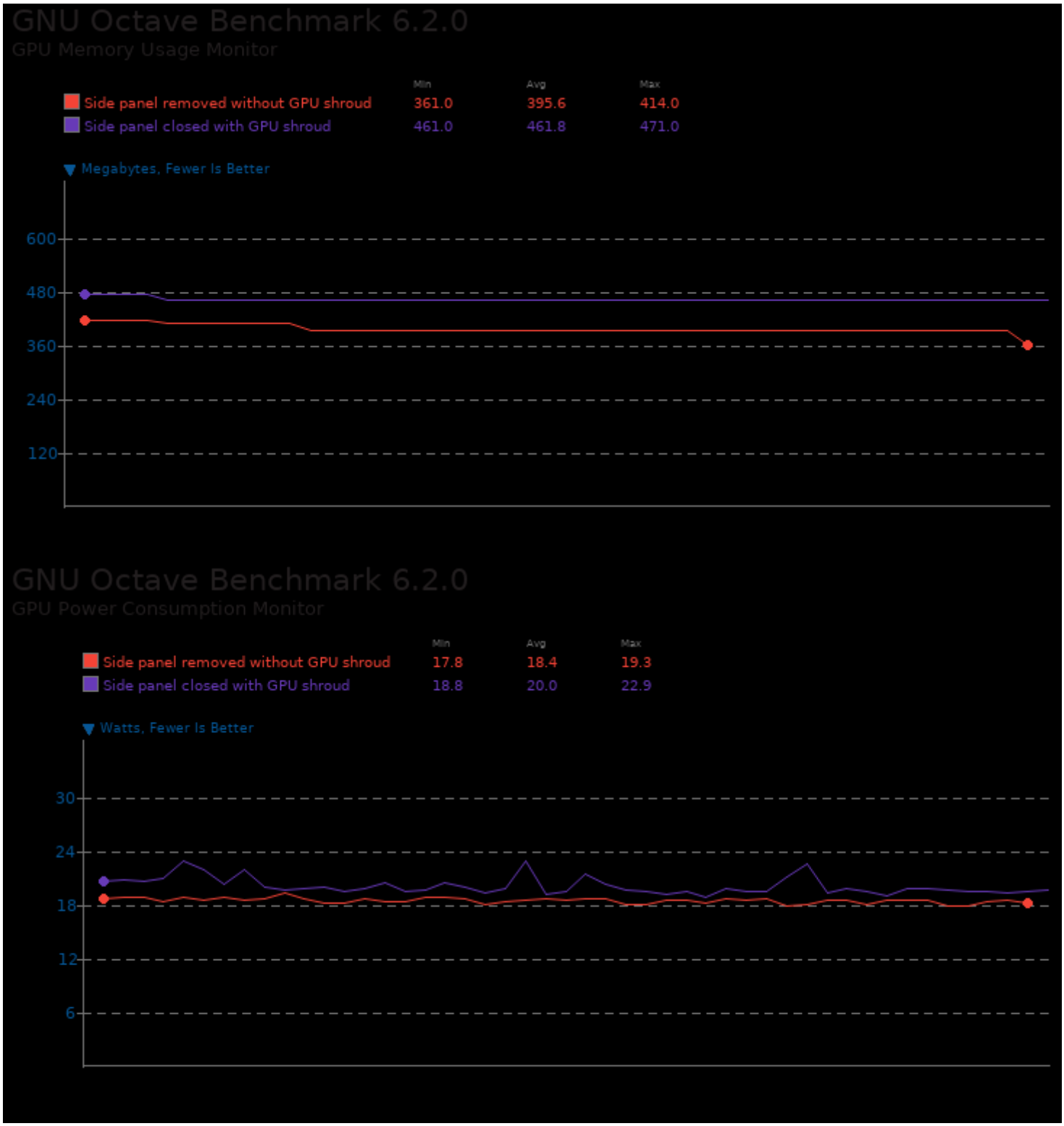

GPU Power Consumption Monitor
Phoronix Test Suite System Monitoring
Watts
Side panel closed with GPU shroud
Min: 18.11 / Avg: 40.35 / Max: 104.61
Side panel closed without GPU shroud
Min: 17.04 / Avg: 41.27 / Max: 110.63
Side panel removed without GPU shroud
Min: 17.08 / Avg: 41.35 / Max: 107.75
20
40
60
80
100
GPU Temperature Monitor
Phoronix Test Suite System Monitoring
Celsius
Side panel removed without GPU shroud
Min: 36 / Avg: 49.26 / Max: 75
Side panel closed with GPU shroud
Min: 37 / Avg: 50.31 / Max: 77
Side panel closed without GPU shroud
Min: 37 / Avg: 52.87 / Max: 81
15
30
45
60
75
Memory Usage Monitor
Phoronix Test Suite System Monitoring
Megabytes
Side panel closed without GPU shroud
Min: 2020 / Avg: 4646.1 / Max: 8282
Side panel removed without GPU shroud
Min: 2076 / Avg: 4696.95 / Max: 8274
Side panel closed with GPU shroud
Min: 1761 / Avg: 4744.22 / Max: 8539
1500
3000
4500
6000
7500

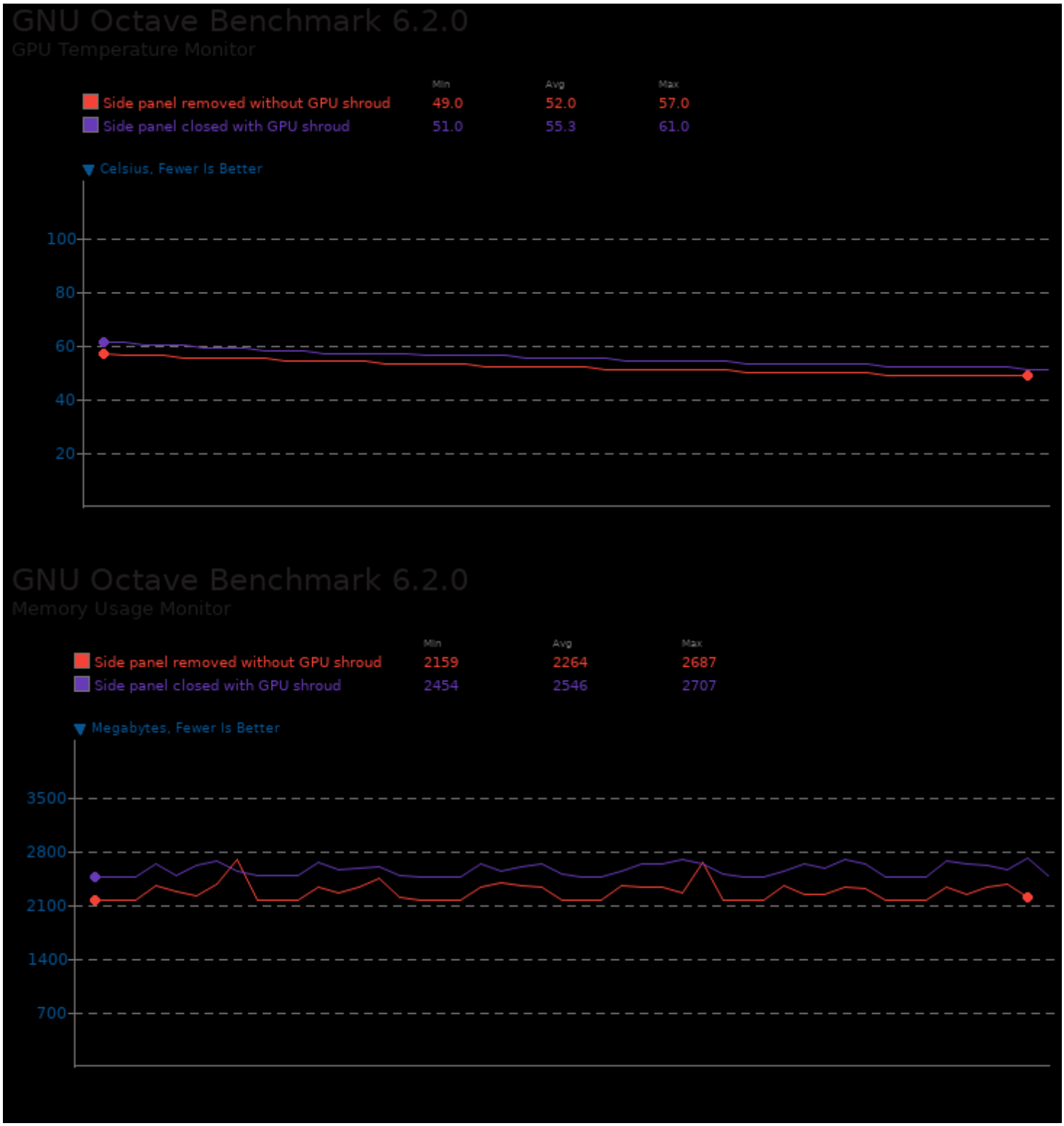

System Fan Speed Monitor
Phoronix Test Suite System Monitoring
RPM
Side panel removed without GPU shroud
Min: 1185 / Avg: 1221.87 / Max: 1455
Side panel closed with GPU shroud
Min: 1186 / Avg: 1401.13 / Max: 1782
Side panel closed without GPU shroud
Min: 1185 / Avg: 1412.62 / Max: 1736
300
600
900
1200
1500
System Temperature Monitor
Phoronix Test Suite System Monitoring
Celsius
Side panel closed with GPU shroud
27.8
Side panel removed without GPU shroud
27.8
7
14
21
28
35
GNU Octave Benchmark 6.2.0
CPU Peak Freq (Highest CPU Core Frequency) Monitor
Min
Avg
Max
Side panel closed with GPU shroud
800
3600
4153
Side panel removed without GPU shroud
800
3207
4301
Megahertz, More Is Better
5500
4400
3300
2200
1100

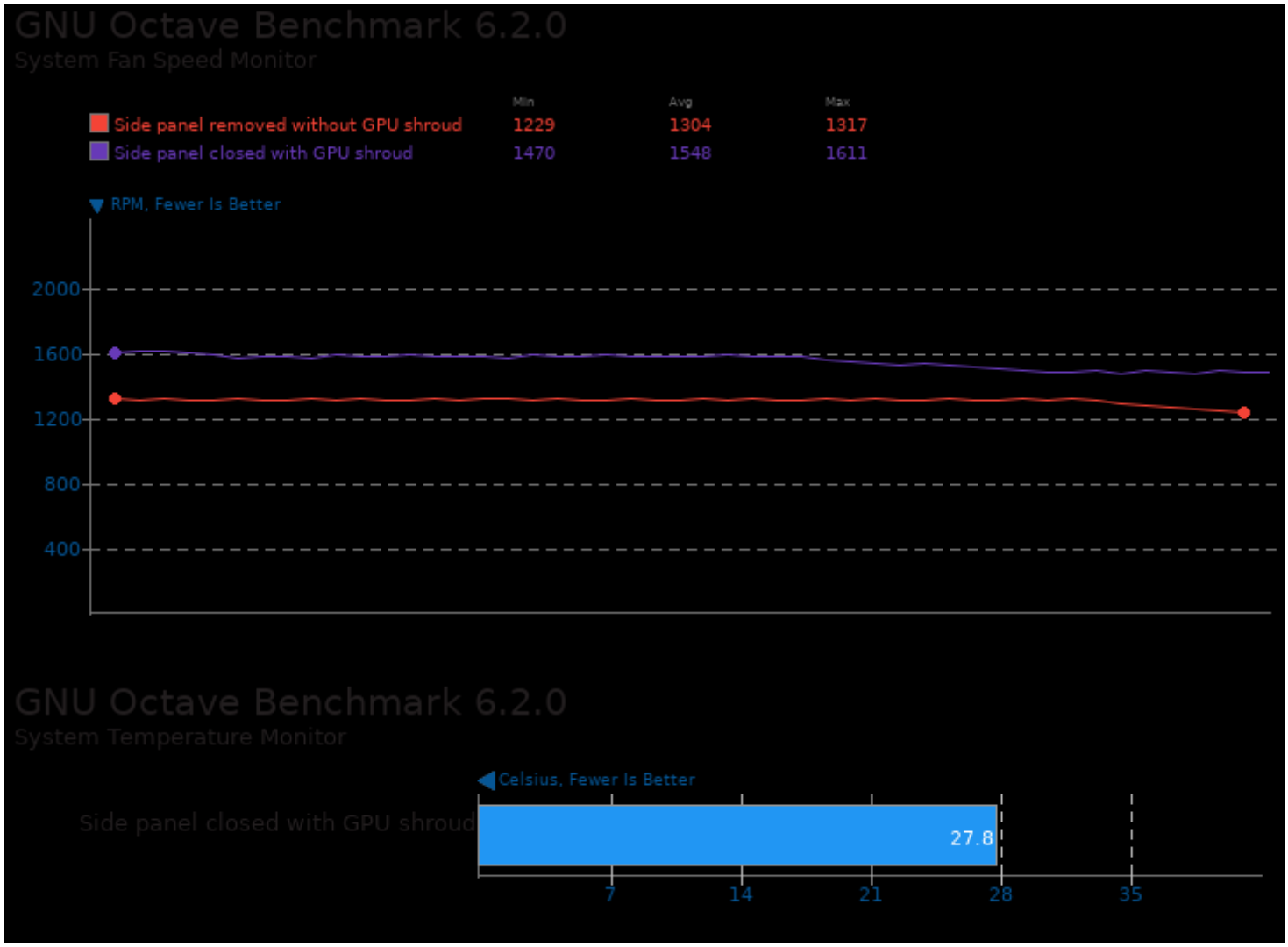

GNU Octave Benchmark 6.2.0
CPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
38.0
48.4
60.0
Side panel closed with GPU shroud
52.0
66.9
79.0
Celsius, Fewer Is Better
100
80
60
40
20
GNU Octave Benchmark 6.2.0
CPU Usage (Summary) Monitor
Min
Avg
Max
Side panel removed without GPU shroud
0.3
10.6
28.6
Side panel closed with GPU shroud
8.1
15.7
33.8
Percent, Fewer Is Better
50
40
30
20
10


GNU Octave Benchmark 6.2.0
GPU Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
33.0
33.4
40.0
Side panel closed with GPU shroud
33.0
37.3
58.0
Percent, Fewer Is Better
80
64
48
32
16

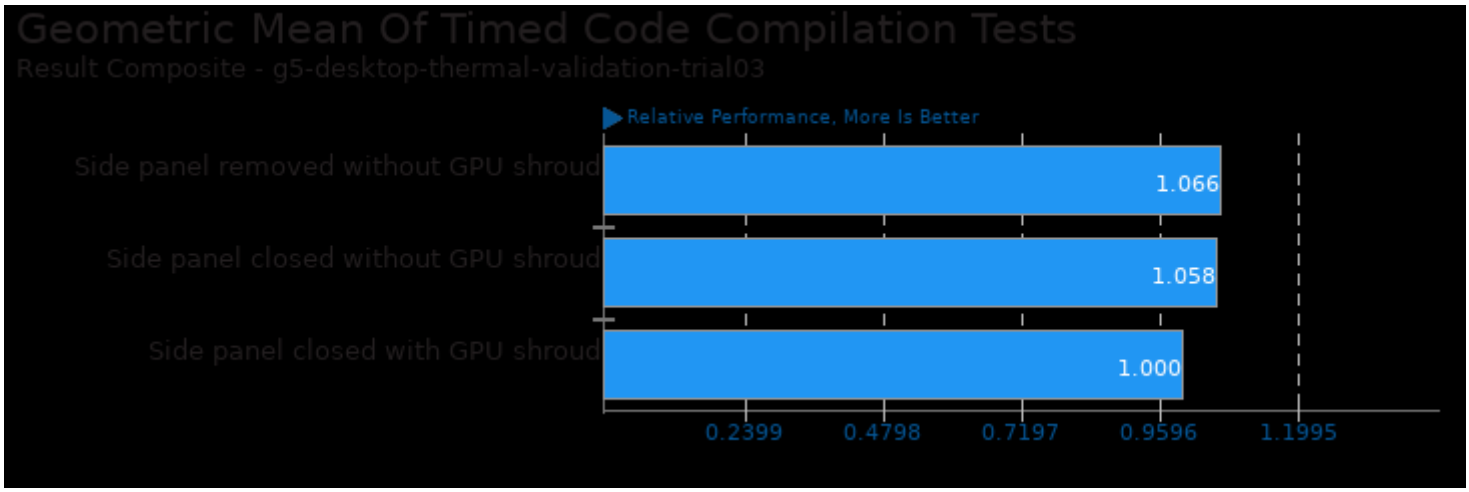
GNU Octave Benchmark 6.2.0
GPU Frequency Monitor
Min
Avg
Max
Side panel closed with GPU shroud
360
437
690
Side panel removed without GPU shroud
300
300
300
Megahertz, More Is Better
1000
800
600
400
200


GNU Octave Benchmark 6.2.0
GPU Memory Usage Monitor
Min
Avg
Max
Side panel removed without GPU shroud
361.0
395.6
414.0
Side panel closed with GPU shroud
461.0
461.8
471.0
Megabytes, Fewer Is Better
600
480
360
240
120
GNU Octave Benchmark 6.2.0
GPU Power Consumption Monitor
Min
Avg
Max
Side panel removed without GPU shroud
17.8
18.4
19.3
Side panel closed with GPU shroud
18.8
20.0
22.9
Watts, Fewer Is Better
30
24
18
12
6

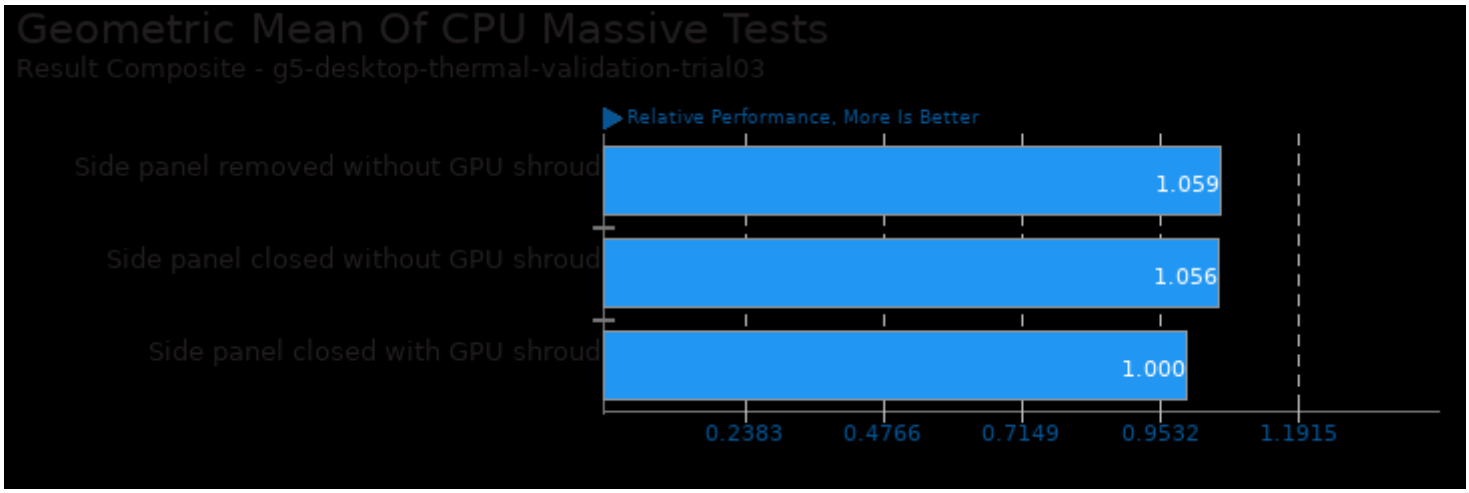

GNU Octave Benchmark 6.2.0
GPU Temperature Monitor
Min
Avg
Max
Side panel removed without GPU shroud
49.0
52.0
57.0
Side panel closed with GPU shroud
51.0
55.3
61.0
Celsius, Fewer Is Better
100
80
60
40
20
GNU Octave Benchmark 6.2.0
Memory Usage Monitor
Min
Avg
Max
Side panel removed without GPU shroud
2159
2264
2687
Side panel closed with GPU shroud
2454
2546
2707
Megabytes, Fewer Is Better
3500
2800
2100
1400
700


GNU Octave Benchmark 6.2.0
System Fan Speed Monitor
Min
Avg
Max
Side panel removed without GPU shroud
1229
1304
1317
Side panel closed with GPU shroud
1470
1548
1611
RPM, Fewer Is Better
2000
1600
1200
800
400
GNU Octave Benchmark 6.2.0
System Temperature Monitor
Celsius, Fewer Is Better
Side panel closed with GPU shroud
27.8
7
14
21
28
35

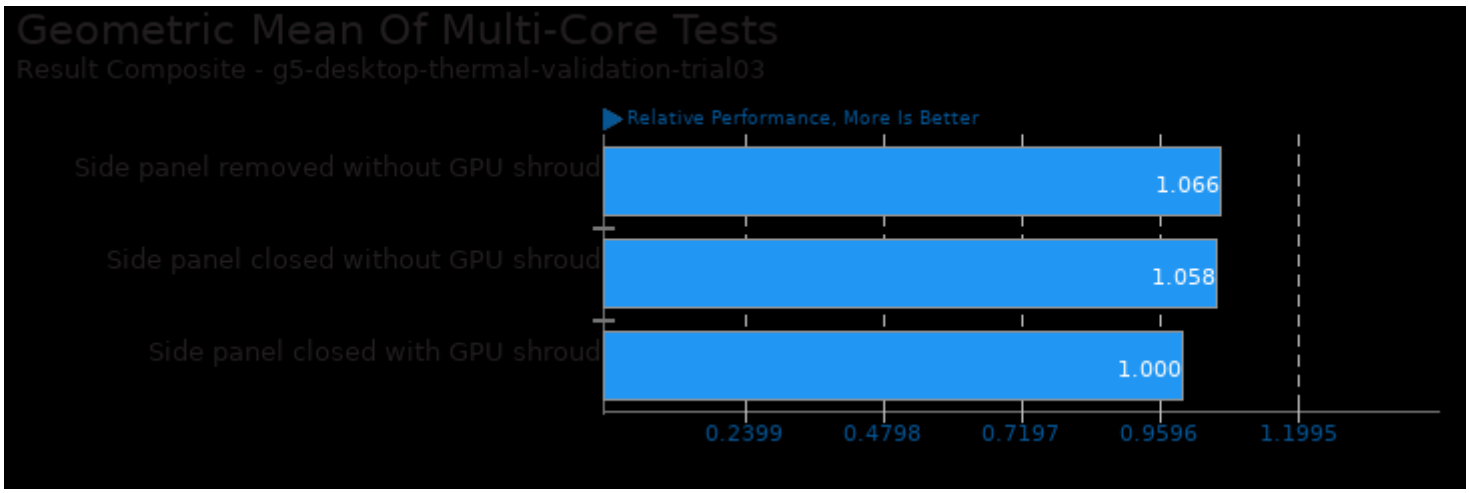
These geometric means are based upon test groupings / test suites for this result file.



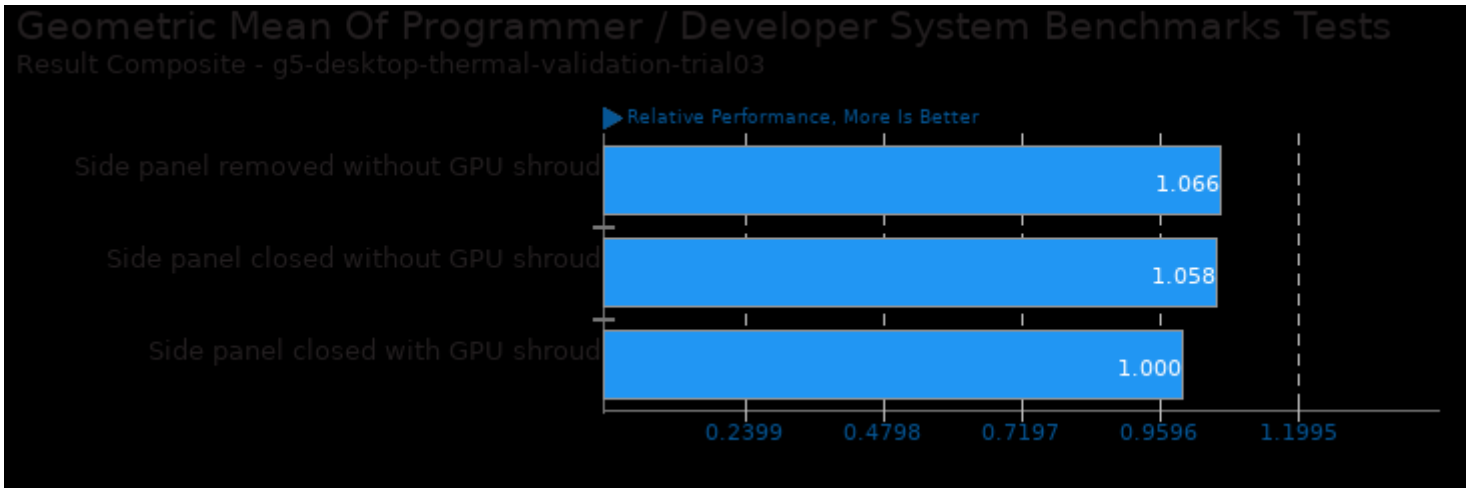
Geometric mean based upon tests: pts/build-linux-kernel and pts/build-llvm



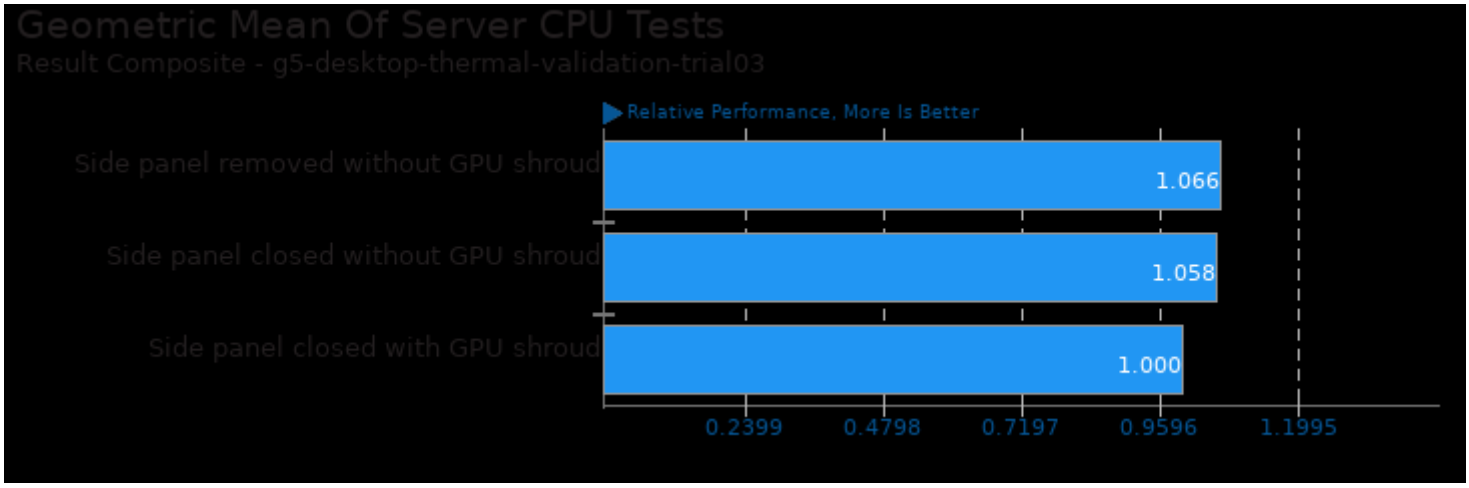
Geometric mean based upon tests: pts/build-llvm, pts/build-linux-kernel and system/octave-benchmark



Geometric mean based upon tests: pts/build-linux-kernel and pts/build-llvm



Geometric mean based upon tests: pts/build-linux-kernel and pts/build-llvm



Geometric mean based upon tests: pts/build-linux-kernel and pts/build-llvm

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 17:33.