



AMD Windows Catalyst Driver
Release Notes

Table of Contents

- 1. Overview 3
- 2. New in this Release 3
- 3. Windows Driver Support..... 3
- 4. SW Driver & SoC support 4
- 5. Supported feature list 5
- 6. SoC Display support 7
- 7. Multi GPU (APU+ dGPU) pairing support..... 8
 - a. Below table states the dGPUs and platforms pairing support..... 8
 - b. Side-by-Side Installation..... 8
- 8. Platform configurations 9
 - a. R2000 Platform (Bilby) 9
 - b. V2000 Platform (Celadon)..... 9
 - c. R1000 Platform (Bilby) 9
 - d. V1000 Platform (Bilby) 10
 - e. Pademelon 10
 - f. OH+ 11
 - g. Lamar 11
 - h. dGPU 12
- 9. SW Package 14
- 10. SW Package - Graphics Driver Version..... 15
- 11. Issues Fixed from previous SW package release..... 16
 - a. R2000 Platform (Bilby) 16

- 12. Known Issues/Limitations 16
 - a. R2000 Platform (Bilby) 16
 - b. V2000 Platform (Celadon)..... 17
 - c. R1000 & V1000 Platform (Bilby) 18
 - d. Eyefinity (R1000, V1000, V2000) 18
 - e. XGBE (R1000 / V1000 Series Bilby) 18
 - f. Prairie Falcon 20
 - g. Multi-GPU (mGPU)..... 20
 - h. Side-by-Side usecase 20
- 13. Notes on Validation 20
- 14. Notes on older legacy dGPU 21
- 15. Support..... 21

1. Overview

Windows Embedded Catalyst Drivers include a set of drivers to enable Graphics and peripheral devices on selected development platforms.

2. New in this Release

- Catalyst (Graphics):
 - o Enabled R2514, R2544 with GA quality
 - o Driver validation is done only on R2000 OPNs.

3. Windows Driver Support

Non-Legacy Graphics Driver Support Win 10 & Win11, 64 bit	22.20.34
Windows Chipset Driver	AMD_Software_4.09.19.235
OS Support	Windows 11 x64 Windows 10 21H2 x64
SoC Family (Platform)	R2000 Platform (Bilby) V2000 Platform (Celadon) R1000 Platform (Bilby) V1000 Platform (Bilby) dGPU: Polaris+ (E9260, E9550, E9171x Series, E9390, E9560, E9565)

4. SW Driver & SoC support

SoC	AMD Program	Windows 10 21H2	Windows 11 21H2	Catalyst Driver
		64 bit	64 bit	Non-Legacy
R2000 Series	Picasso FP5	X	X	X
V2000 Series	Renoir FP6	X	X	X
R1000 Series	RV2 FP5	X		X
V1000 Series	RV1 FP5	X		X

dGPU	Program	Windows 10 21H2	Windows 11 21H2	Catalyst Driver
		64 bit	64 bit	Non-Legacy
E9260	Coruja	X		X
E9550	Hontza	X		X
E9171x Series	Boum	X		X
E9390	Ellesmere	X		X
E9560	Ellesmere	X		X
E9565	Ellesmere	X		X

Note:

Win10 RS5 is not supported in this release. 2021.40 is the last driver to support RS5

Legend:

- X- supported
- Blank- Not supported

5. Supported feature list

Features Group	Features Category	V2000 Series	R2000 Series	R1000 Series	V1000 Series	dGPU
3D	OGL 4.6	Yes	Yes	Yes	Yes	Yes
3D	Vulkan	Yes	Yes	Yes	Yes	Yes
Display	4K Cinema	Yes	Yes	Yes	Yes	Yes
Display	Number of displays	Refer display support table below	Refer display support table below	Refer display support table below	Refer display support table below	Refer display support table below
Display	DP MST	Yes	Yes	Yes	Yes	Yes
Multimedia	H.264 decode	Yes	Yes	Yes	Yes	Yes
Multimedia	H.265 decode	Yes	Yes	Yes	Yes	No
Multimedia	VP9 decode	Yes	Yes	Yes	Yes	No
Multimedia	10-bit decode	Yes	Yes	Yes	Yes	No
Audio	DP Audio	Yes	Yes	Yes	Yes	Yes
External discrete graphics card (dGPU) validation	Refer table for dGPU pairing	No	No	R1305G & R1102G: No, R1505G & R1606G: Yes	Yes	Yes
Eyefinity	Auto Eyefinity (MST)	Yes	Yes	Yes	Yes	Yes
Eyefinity	Tiled display SLS(4x1,3x1,2x1etc..)	Yes	Yes	Yes	Yes	Yes
Eyefinity	Mixed Tiled display (2x2 ,1x3 etc...)	Yes	Yes	Yes	Yes	Yes
Eyefinity	Tiled Groups (1x2+1 ,1x2 + 1x2 etc...)	Yes	Yes	Yes	Yes	Yes
Eyefinity	Multi GPU (Eyefinity on single GPU)	No	No	R1305G & R1102G: No, R1505G & R1606G: Yes	Yes	Yes
Eyefinity	Bezel Compensation	Yes	Yes	Yes	Yes	Yes

EDID management	Advance Feature	Yes	Yes	Yes	Yes	Yes
Custom timing	Advance Feature	No	No	Yes	Yes	Yes
10-bit color	Advance Feature	Yes	No	Yes	Yes	Yes
dGMA	OpenGL	No	No	R1305G& R1102G: No, R1505G &R1606G: Yes	Yes	Yes
dGMA	OpenCL	No	No	R1305G& R1102G: No, R1505G &R1606G: Yes	Yes	Yes
OpenGL	OpenGL	Yes	Yes	Yes	Yes	Yes
OpenCL	OpenCL	Yes	Yes	Yes	Yes	No
Peripherals	AHCI Drivers	Yes	Yes	Yes	Yes	No
Peripherals	AMD PSP Drivers	Yes	Yes	Yes	Yes	No
Peripherals	USB 3.0 Driver (ITB)	Yes	Yes	Yes	Yes	No
Peripherals	eMMC driver (ITB) (HS400 mode only)	No	Yes	Yes	Yes	No
Peripherals	Ethernet driver	No	No	Yes	Yes	No
Peripherals	Audio driver	Yes	Yes	Yes	Yes	No
Peripherals	GPIO2	Yes	Yes	Yes	Yes	No
Peripherals	I2C	Yes	Yes	Yes	Yes	No
Peripherals	UART	Yes	Yes	Yes	Yes	No
Peripherals	SMBUS	Yes	Yes	Yes	Yes	No
Peripherals	Watchdog	Yes	Yes	Yes	Yes	No
Peripherals	SPI	Yes	Yes	Yes	Yes	No
Peripherals	GPIO	Yes	Yes	Yes	Yes	No
Peripherals	Serial (UART w/ COM interface)	Yes	Yes	Yes	Yes	No

6. SoC Display support

APUs	Max No of display
R2000 Series <ul style="list-style-type: none"> • R2544 • R2514 & R2314 • R2312 	<ul style="list-style-type: none"> • 4x 4K60 • 4x 1080p60 / 3x 4K60 • 3x 4K60
V2000 Series	<ul style="list-style-type: none"> • 4x 4K60
R1000 Series <ul style="list-style-type: none"> • R1305G • R1102G • R1505G & R1606G 	<ul style="list-style-type: none"> • 3x 1080p • 2x 1080p • 3x 4K60
V1000 Series <ul style="list-style-type: none"> • V1202B, V1404I & V1605B • V1756B & V1807B 	<ul style="list-style-type: none"> • 3x 4K60 / 4x 1080p60 • 4x 4K60
MF, BF	3
PF	2
BE	3
SE, LX	2
eKB	2
E9260	5
E9550	6
E9171	5
E9172	5
E9173	3
E9174	5
E9175	5
E9390	4
E9560	4
E9565	6

7. Multi GPU (APU+ dGPU) pairing support

a. Below table states the dGPUs and platforms pairing support

APU (iGPU)	dGPU
R1505G, R1606G	E9260, E9550, E9171, E9172, E9173, E9174, E9175, E9390, E9560,
V1000 Series	E9565,
MF, BF, PF	E8860, E8870, E8950

Note: Section 4 lists the details of Legacy/Non-Legacy platforms/dGPUs.

b. Side-by-Side Installation

This feature enables users to continue using legacy dGPUs on non-legacy platforms and vice-versa. In this combination, user need to install both the legacy & non-legacy catalyst drivers.

If the platform & dGPU are of same type, i.e: either both are legacy or both are non-legacy, then one catalyst driver installation (either legacy driver or non-legacy driver respectively) is enough.

APU	dGPU	Legacy Driver 21.09.04.02	Non-Legacy Driver 22.20.12
Pre-Raven*	Pre-Polaris	X	
Pre-Raven*	Polaris+	X	X

*: Excludes V1000, R1000, R2000, V2000 Series

8. Platform configurations

a. R2000 Platform (Bilby)

R2000 Platform	
SoC	R2000 Series
Model (CPU config, CPU Base Frequency, GPU config, nominal TDP)	R2312 (2C/4T, 2.7 GHz CPU, 3 Vega CUs, 15W) R2314 (4C/4T, 2.1 GHz CPU, 6 Vega CUs, 15W) R2514 (4C/8T, 2.1 GHz CPU, 8 Vega CUs, 15W) R2544 (4C/8T, 3.35 GHz CPU, 8 Vega CUs, 45W)
BIOS version	RBP1001A
VRAM setting	R2312 & R2314 : 4GB R2514 & R2544 : 8GB
RAM (DDR4)	R2312 : 2x8GB 2400 MT/s non-ECC R2314 : 2x8GB 2667 MT/s non-ECC R2514 : 2x16GB 2667 MT/s ECC R2544 : 2x16GB 3200 MT/s ECC
Display Convertors / Dongles Used	DP Direct Cable, HDMI Direct Cable, DP-HDMI converter
Storage disk	M.2 SATA SSD, eMMC

b. V2000 Platform (Celadon)

V2000 Platform (Celadon)	
SoC	V2000 Series
Model (CPU config, CPU Base Frequency, GPU config, nominal TDP)	V2516 (6C/12T 2.1GHz CPU, 6CUs GPU, 15W) V2718 (8C/16T 1.7GHz CPU, 7CUs GPU, 15W) V2546 (6C/12T 3.0GHz CPU, 6CUs GPU, 45W) V2748 (8C/16T 2.9GHz CPU, 7CUs GPU, 45W)
BIOS version	RCO1006A
VRAM setting	8GB
RAM (DDR4)	2x8GB SODIMM 2667 MT/s (Celadon socketed) 2x16GB SODIMM 3200 MT/s (Celadon DM Non-Nova)
Display Convertors / Dongles Used	DP Direct Cable, HDMI Direct Cable, DP-HDMI converter, Type C- DP, Type C -HDMI, Type C Direct Cable
Storage disk	M.2 NVME

c. R1000 Platform (Bilby)

R1000 Platform (Bilby)	
SoC	R1000 Series
Model (nominal TDP), CPU Base Frequency	R1505G (B2 15W), 2.4 GHz R1606G (B4 15W), 2.6 GHz R1305G (LP B4 8W) 1.5 GHz

	R1102G (LP B2 6W) 1.2 GHz
BIOS version	RBB1208A
VRAM setting	4 GB
RAM (DDR4)	2x 8GB (LP B2 6W supports single 8GB DIMM)
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	M.2 SATA SSD

d. V1000 Platform (Bilby)

V1000 Platform (Bilby)	
SoC	V1000 Series
Model (CPU config, nominal TDP, CPU Base Frequency, GPU config)	V1807B (4C 45W 3.35GHz CPU, 11 GPU CUs) V1756B (4C 45W 3.25GHz CPU, 8 GPU CUs) V1605B (4C 15W 2GHz, 8 GPU CUs) V1202B (2C 15W 2.3GHz, 3 GPU CUs) V1500B (16W NPU), 2.2 GHz V1780B (45W NPU), 3.35 GHz
BIOS version	RBB1208A
VRAM setting	4 GB
RAM (DDR4)	2x 8 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	M.2 SATA SSD

e. Pademelon

Merlin Falcon Based DB-FP4 Pademelon Platform	
SoC	Merlin Falcon Series
OPN Details, Base Frequency	RE421BAAY43KA, 2100 MHz RE418GAAY43KA, 1800 MHz RE216GAAY23KA, 1600 MHz
BIOS version	RPD130CB – Pademelon BIOS
VRAM setting	2 GB
RAM	8 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	Magnetic Disk

Brown Falcon Based DB-FP4 Pademelon Platform	
SoC	Brown Falcon Series
OPN Details, Base Frequency	GE217GAAY23KA, 1700 MHz
BIOS version	RPD130CB– Pademelon BIOS
VRAM setting	2 GB

RAM	8 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	Magnetic Disk

Prairie Falcon Based DB-FP4 Pademelon Platform	
SoC	Prairie Falcon Series
OPN Details, Base Frequency	GE224IAVY23AC, 2400 MHz GE215JAWY23AC, 2000 MHz GE220IAVY23AC, 2200 MHz GE212JAWY23AC, 1200 MHz
BIOS version	RPD130CB– Pademelon BIOS
VRAM setting	1 GB
RAM	4 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	Magnetic Disk

f. OH+

Steppe Eagle Based DB-FP4 Eagle Platform	
SoC	Steppe Eagle Series
OPN Details, Base Frequency	GE424HIYJ44JB, 2400 MHz GE412HIYJ44JB, 1200 MHz GE222GITJ23JB, 2200 MHz GE212JIYJ23JB, 1200 MHz
BIOS version	ROP100J
VRAM setting	2 GB
RAM	8 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	Magnetic Disk

g. Lamar

Bald Eagle Based DB-FP4 Eagle Platform	
SoC	Bald Eagle Series
OPN Details, Base Frequency	RE427BDGH44JA, 2700 MHz RE425BDGH44JA, 2500 MHz
BIOS version	TALAM142
VRAM setting	2 GB
RAM	8 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	Magnetic Disk

h. dGPU

E9260 dGPU	
VBIOS version	015.050.000.001.000000 E9260 - D1170100_103 015.050.000.000.007442 E9260 - D0151100_102 015.050.000.001.000000 E9260 – D0151200_106
VRAM setting	1 GB
RAM	4 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	HDD

E9390 MXM dGPU	
VBIOS version	015.050.000.001.010957 E9390 – C954e101_101
VRAM setting	2GB
RAM	8GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	HDD

E9550 MXM dGPU	
VBIOS version	015.050.000.001.008379 E9550 - E9580100_102
VRAM setting	2 GB
RAM	8 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	HDD

E9560 MXM dGPU	
VBIOS version	015.050.000.001.010957 E9560 – C954e101_101
VRAM setting	2GB
RAM	8GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
E9565 dGPU	
VBIOS version	015.050.000.001 E9565 102-D50101-00
VRAM setting	2GB
RAM	8GB
Display Convertors / Dongles Used	mDP
Storage disk	M.2, HDD

E917X dGPU	
VBIOS version	015.050.002.001.009207 E9171 - D1240300.004 015.050.002.001.009143 E9172 - D1171200.103 015.050.002.001.009506 E9173 - D0912400.103 0.15.050.002.001.009559 E9173 - D0912200-103 015.050.002.001.000000 E9173 - D3620100-103 015.050.002.001.009142 E9174 - D1171100.101 0.15.050.002.001.009509 E9175 - D1380100.103
VRAM setting	1 - 2GB
RAM	2 - 4 GB
Display Convertors / Dongles Used	DP to HDMI, DP to VGA, DP to DVI, mDP
Storage disk	HDD

9. SW Package

SW Component	WHQL certified drivers	Catalyst Installer Package	Chipset Installer Package	Comments
Display	Yes	Yes	No	Includes Graphics Drivers
PSP	Yes	No	Yes	
SBDrv:acpi	Yes	No	Yes	
SBDrv:SFH	Yes	No	Yes	Not supported on V1000, R1000, V2000, R2000
SBDrv:SFHI2C	Yes	No	Yes	
SBDrv:I2C	Yes	No	Yes	
SBDrv:SMBus	Yes	No	Yes	Null driver (AMD SMBUS Driver)
SBDrv:UART	Yes	No	Yes	Max 4M baud-rates
Audio:ACPBus	Yes	Yes	No	
Audio:HDMI	Yes	Yes	No	
Audio:HDABus	Yes	No	No	I2S & I2STDM not applicable on V2000. I2STDM not applicable to R2000.
Audio:I2S	Yes	Yes	No	
Audio:I2STDM	Yes	Yes	No	
XGBE	Yes	No	Yes	Not applicable for V2000 and R2000.
Ryzen Power Plan	Yes	No	Yes	For V2000, “ AMD Processor Power Management Support ” gets installed as provisional package.
IOV	Yes	No	Yes	Null driver
SMBUS	Yes	No	Yes	Functional driver (AMD Emb SMBUS Driver) Block R/W Ops has data mismatch error on first byte.
CIR	Yes	No	Yes	Null driver (Feature not supported on V1000, R1000, R2000, V2000)
USB 3.1	Yes	No	Yes	
GPIO	Yes	No	Yes	
Serial	Yes	No	Yes	Drivers: UART with COM interface. Max Baud rate: 115200, 3M, 4M bauds
Watchdog	Yes	No	Yes	

10. SW Package - Graphics Driver Version

The graphics driver package is also termed as 'ESE Q4 Driver' or 'Radeon Software'.

Below are its release number and AMDVER details.

Release Number	AMDVER
22.20.34	31.0.12034.4

This package contains various independent drivers. Below are the version numbers of Radeon software and other drivers included. The same should also be visible with Radeon Software->System->Software & Driver Details.

S. No	SW Driver Description	Version
1	Radeon Software Version	2022.0921.0906.1936
2	Radeon Software Edition	Adrenalin
3	Driver Packaging Version	22.20.34-220920a-384244C
4	2D Driver Version	8.1.1.1634
5	Direct3D®	9.14.10.01523
6	OpenGL®	22.09.220901_6eeec18
7	AMD Audio Driver	10.0.1.24
8	Vulkan™ Driver	2.0.233
9	Vulkan™ API	1.3.217

11. Issues Fixed from previous SW package release

- a. R2000 Platform (Bilby)
 1. 1x4 Eyefinity creation is not working.
 2. EDID Option not available in display settings of AMD Radeon software.
 3. EDID Emulation functionality is not working.

12. Known Issues/Limitations

- a. R2000 Platform (Bilby)
 1. Stutters observed during video playback with EDID emulated.
 2. TDR Observed during Unigine Heaven OGL overnight stress
 3. Stutters observed while playing 4K to 1080p transcoded video samples.
 4. Sporadically MPEG, H.264 playback stutter observed after switching from windowed mode to full screen and vice-versa.
 5. Observed overlapping issue on maximizing Tiny renderers Vulkan samples. Issue not seen with DirectX samples.
 6. Stutter observed when video played with MSFT Edge Browser.
 7. Audio & Video Lag observed in Teams/Zoom call with PPT slide show and Edge browser launched individually in 3x4K setup.
 8. Stutter observed on Movies &TV full screen video playback while moving mouse pointer to bring up the seek bar.
 9. EDID UI closes automatically while emulating from secondary display. Primary display can be used.
 10. Orientation tab is grayed out in Display settings with Eyefinity enabled
 11. Sporadically (4/10 times) Green color display observed while performing reboot function with HDMI display (Pixel Format: YCbCr 4:2:0), with LG27UK650 panel.
 12. Sporadically (2/5 times) green display observed with 2x1/1X2 Eyefinity arrangement during restart cycles with HDMI.
 13. Depth Bounds Test Dx11 application crashes while launching.
 14. SD Card hot plug is not detected.
 15. Secondary monitors light up even with MST option turned OFF in monitors (Daisy chain mode).
 16. Stutters & Video Lags observed for all Media formats
 17. Stutters observed for playback through edge browser with multi-monitor connected
 18. Glitches observed in Audio on Zoom calls with multi-monitors connected.
 19. Sporadically observing “can't play error 0x800706ba” on Movies and TV App with VP9 video after resuming from sleep.
 20. I2STDM driver supports both I2S & I2STDM functionality.
For I2S functionality, use below workaround.

Workaround: Uninstall ACPBus & I2STDM drivers obtained by default from Catalyst driver. Install explicitly provided ACPBus and I2STDM drivers after reboot.

20. Sporadically resolution mismatch observed after creating Eyefinity using Quick Setup.
21. Video hang and TDR observed when forward and rewind the H265 video.
22. Position Windows Taskbar functionality not working in Radeon Additional settings
23. Display light up fails on 2nd and 3rd DP display with LG monitor after reboot.
24. 2x2 Eyefinity is not working with FIT and Expand layout.

R2544/R2514 Only

21. System hang observed after resume from S3 on few systems

b. V2000 Platform (Celadon)

22. Performance drops in Passmark 10(2D Graphics Mark) and Passmark rating on Win11 OS compared to Win10. Disabling VBS & HVC improves performance.
23. Modern Standby is not supported on RS5 with SATA SSD.
Workaround: Use NVMe M.2 disk
24. BIOS settings to enable S3 (default settings):
 - I. AMD PBS ->S3/Modern Standby S3 enable
 - II. Boot UEFI OS Fast Boot Option --> Disable
25. BIOS settings required for Modern Standby:
 - I. AMD PBS -> S3/Modern Standby Support = <Modern Standby Enable>
 - II. AMD PBS -> Modern Standby Type = <Modern Standby + S0i3>
 - III. AMD PBS -> Reduced Hardware Support = <Enabled>
26. BIOS Settings to avoid yellow bang with I2C and UART enabled in BIOS:
 - I. Setup Utility->AMD PBS->NFC Support->Disabled
 - II. Setup Utility->AMD PBS->ALS Support->Disabled
 - III. Setup Utility->AMD PBS->Touch Panel Support->Disabled
 - IV. Setup Utility->AMD PBS->Touch Pad Support->Disabled
27. S3 is enabled by default in BIOS. If switched to MSB, re-install graphics and chipset drivers.
28. Display or media player blank out observed only once for few seconds, on playing video after shutdown & boot. If media player is not recovering, re-open the media player.

c. **R1000 & V1000 Platform (Bilby)**

29. SD Card as bootable device does not support High Speed (HS) and at UHS I – DDR50
30. MPEG/H.264 playback stutter observed after switching from windowed mode to full screen and vice versa
31. ROM Armor is an unsupported feature for SPI ROM driver. No plan to enable ROM Armor in the future.
32. Radeon Pro Settings UI not opening after EDID emulation and Reboot.
Workaround: Close Radeon Pro UI before reboot
33. I2STDM driver supports both I2S & I2STDM functionality but are not validated. For I2S & I2STDM functionality, use below workaround.
Workaround: Uninstall ACPBus & I2STDM driver obtained by default from Catalyst driver. Install ACPBus and I2STDM provided explicitly after reboot.
34. Frequently (7/10 times) video playback corruption observed while performing windowed to full screen mode with Eyefinity enabled"
35. Frame Rate displays as N/A in metrics under performance of AMD Radeon software
36. VC1 Video getting Paused during Hot plug
37. Multiple tests failure observed while running OCL_Conformance 2.0
38. Sporadically Uninstall fails after catalyst driver installed in Minimal method

R1000-LP R1305G / R1102G Only

39. On R1102, 4K display light up fails.
40. S3 resume fails after around 250 cycles

d. **Eyefinity (R1000, V1000, V2000)**

41. Setup failed Error during hot unplug after quick Eyefinity
42. Tearing with Eyefinity: All displays will be tear free only if all displays are using the same timing and same connector type
43. Display blank out is observed for Eyefinity in portrait mode.
44. Sporadically Display blank out, system hang, BSOD is observed during video playback with Eyefinity arrangement
45. Resolution mismatch occurs with 5x1 SLS configuration. This is applicable only to dGPU
46. Eyefinity is not functional with mix of DP and HDMI monitors
47. Using Quick Setup Vertical position Eyefinity configuration fails for 1st time
48. Sporadically observing system hung during reboot with 2x1 or 1x2 Eyefinity configuration.

e. **XGBE (R1000 / V1000 Series Bilby)**

49. 1G & 10G network do not establish with backplane mode selected in BIOS.
50. Link UP fails in normal reboot following to PXE boot.

- Workaround: Do complete power cycle or hot-plug of ethernet ports.
51. High CPU Utilization noticed on few boards while running TCP/UDP IPv4 dual-port bidirectional traffic using NTTTCP Tool
 52. Direct Peer to Peer network connection using 1G, 10G fiber channel is not supported on both SFP+ and RJ45 ports.
Workaround: Use External Switch for e.g. NetGear to perform Peer to Peer data transfer.
 53. Can't concurrently enable SFP+ and RJ45 interfaces. No plan to fix it.
 54. On RJ45 rework boards, use Marvel-Phy-firmware (default version x3310fw_0_3_4_0_9445) for both 1G/10G. Check required BIOS settings to enable RJ45 interfaces.
 55. 2.5G mode works only with SFP+ DAC cable without using any switch. Verified using FS DAC cable attached with SFP transceivers. Check BIOS settings to enable 2.5G speed.
 56. 2.5G Network connectivity fails after suspend resume
 57. Can't mix 2.5G & 1/10G Ethernet SFP ports. No plan to fix it.
 58. No IEEE 1588 Timestamp support . No plan to fix it.
 59. No receive split header support
 60. Following features should be functional but have not been fully validated:
Priority and VLAN (VLAN Priority Control), RMON Counter, and VLAN support
 61. Sporadically, network-connections may show inappropriate network-name instead of corporate network name
 62. Sporadically, doing disable/enable interface may not function well.
Workaround: Restart the system
 63. Network icon may give slow or no response on hot-unplug of 2.5G SFP+ and sporadically on 10G modules
Workaround: Disable/enable interface
 64. Sporadically, 2.5G mode may take longer time to get LINK after boot or suspend/resume.
Workaround: Disable/enable interface
 65. Sporadically, system may hang when run bi-directional traffic on dual ports for long time
 66. Observed delayed or no LINK with Intel 10G SFP AFBR-709DMZ-IN2 and few Finisar 10G SFP modules.
 67. On low power products, 10G throughput is less than 50% for both TCP & UDP protocols. Use Jumbo frames and multi-threaded applications for better network throughput.
 68. 10G UDP throughput on MTU 1500 can be improved with multiple threads and jumbo frames.
 69. Sporadically, changing to MTU-9014 fails.

f. Prairie Falcon

- 70. BSOD is observed on Suspend/Resume after booting on Windows installed on eMMC storage
- 71. In Legacy driver 21.09.04.02, Catalyst Driver release notes information missing "(#11 missing)".
- 72. SW version Information's not available in RSX Software tab

g. Multi-GPU (mGPU)

- 73. Supported configuration: iGPU and 1xdGPU. We do not support 2x dGPU
- 74. H.265 video corruption observed during dragging of video from iGPU to dGPU

h. Side-by-Side usecase

- 75. Use case is verified connecting non-legacy dGPU to legacy platform
- 76. After uninstalling 21.20.16 non-Legacy driver, AMD Radeon UI not available
Workaround: No issue observed after uninstalling both the driver 21.20.16 and 21.09.04.02 drivers
- 77. After installing 21.20 non-Legacy driver "Display" option not listing under AMD Radeon Software settings
- 78. After installing both Legacy driver and non-legacy driver, only non-legacy driver is listed under control panel. (While Un-install both drivers will list for selecting specific driver un-installation)
- 79. Feature applicable only to Win10.

13. Notes on Validation

- 1. SMBUS driver limitations:
 - a. Data Corruption: 1st byte of data skipped while reading Read Block Data.
- 2. Only R2000 is validated.
- 3. V1000, R1000, V2000 and Legacy Platforms are not validated.
- 4. The driver for RS5 OS is tested after installing following Win10 RS5 OS updates: [KB4465065](#), [KB4505658](#), [KB4509095](#) and [KB4512937](#)
- 5. Below are the SFP/RJ45 modules used in the XGBE validation:

Type	Model
1G SFP - RJ45	BEL
1G SFP - RJ45	Finisar
10G SFP+ passive direct cable	Finisar

10G SFP optical	Finisar
10G SFP optical	Intel

14. Notes on older legacy dGPU

dGPU	E6460	Seymore	Driver: x - 15.201.1701	Win 7 32/64, Win 10 RS5 64bit
dGPU	E6760	Whistler		

15. Support

Please contact your Field Application Engineer for support on this release.

© 2022 Advanced Micro Devices, Inc. All rights reserved.

The information contained herein is for informational purposes only, and is subject to change without notice. While every precaution has been taken in the preparation of this document, it may contain technical inaccuracies, omissions and typographical errors, and AMD is under no obligation to update or otherwise correct this information. Advanced Micro Devices, Inc. makes no representations or warranties with respect to the accuracy or completeness of the contents of this document, and assumes no liability of any kind, including the implied warranties of noninfringement, merchantability or fitness for particular purposes, with respect to the operation or use of AMD hardware, software or other products described herein. No license, including implied or arising by estoppel, to any intellectual property rights is granted by this document. Terms and limitations applicable to the purchase or use of AMD's products are as set forth in a signed agreement between the parties or in AMD's Standard Terms and Conditions of Sale. Any unauthorized copying, alteration, distribution, transmission, performance, display or other use of this material is prohibited.

Trademarks

AMD, the AMD Arrow logo, AMD AllDay, AMD Virtualization, AMD-V, PowerPlay, Vari-Bright, and combinations thereof are trademarks of Advanced Micro Devices, Inc. Other product names used in this publication are for identification purposes only and may be trademarks of their respective companies.

Dolby is a trademark of Dolby Laboratories.

HDMI is a trademark of HDMI Licensing, LLC.

HyperTransport is a licensed trademark of the HyperTransport Technology Consortium.

Microsoft, Windows, Windows Vista, and DirectX are registered trademarks of Microsoft Corporation in the US and/or other countries.

MMX is a trademark of Intel Corporation.

OpenCL is a trademark of Apple Inc. used by permission by Khronos.

PCIe is a registered trademark of PCI-Special Interest Group (PCI-SIG).

USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum.

Reverse engineering or disassembly is prohibited.

USE OF THIS PRODUCT IN ANY MANNER THAT COMPLIES WITH THE MPEG ACTUAL OR DE FACTO VIDEO AND/OR AUDIO STANDARDS IS EXPRESSLY PROHIBITED WITHOUT ALL NECESSARY LICENSES UNDER APPLICABLE PATENTS. SUCH LICENSES MAY BE ACQUIRED FROM VARIOUS THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, IN THE MPEG PATENT PORTFOLIO, WHICH LICENSE IS AVAILABLE FROM MPEG LA, L.L.C., 6312 S. FIDDLERS GREEN CIRCLE, SUITE 400E, GREENWOOD VILLAGE, COLORADO 80111.
