



INTEL PROSET/WIRELESS WIFI SOFTWARE V21.60.2.1 PV RELEASE

CCG Wireless Marketing

ww51, 2019

TABLE OF CONTENTS

- Release Overview
- WiFi layout changes
- General Information
- WiFi Package Layout
- Corrected Customer Issues
- Known Issues And Limitations
- WiFi Validation Information and Guidance
- Abbreviation

Release Overview

Intel is announcing the 21.60.2.1 Production Version HotFix (PV-HF) release of the Intel® PROSet/Wireless WiFi Software.

- This version is a PV version to support KBL, GLK, CNL, CFL, WHL, AML, CML, ICL platforms. This version is a maintenance release that addresses known issues reported in previous software versions
- This software package includes updates in the 21.60.2.1, 20.70.15.1 drivers for the following devices: WsP, SfP, JfP1, JfP2, ThP2, HrP2, CcP2
- This release contains certified drivers for Windows 10 April 2018 Update (RS4), Windows 10 October 2018 Update (RS5) and for Windows 10 May 2019 Update (19H1)
- This release was validated also for Windows 10 November Update (19H2)

WiFi Layout changes

From 21.50 WiFi version onwards:

- End-Of-Life (EOL) for **Windows 7 and Windows 8.1** support
 - Software for the above Windows versions **will no longer be part** of the release layouts.
 - Only critical bugs and necessary security issues will be addressed via hot fixes over 21.40 release till January 14, 2020 (Please refer to Document [616644](#) for more details)
- WiFi releases naming convention:
 - PHWFW<Build #>_<Major Version # > • <Minor Version #> • <HF Version #> • <Revision #>

General Information

WiFi Software Build -

- WiFi TIC PHWFW00343_21.60.2.1
 - Includes 21.60.2.1 for Win10 RS4/RS5/19H1 (JfP1/JfP2/ThP2/CcP2/HrP2)
 - Includes 20.70.15.1 for Win10 RS4/RS5/19H1 (WsP/SfP)
 - Includes 19.51.26.1 for Win10 RS4/RS5/19H1 (StP/SdP)

Tested Platforms

- KBL-R, KBL-Y/U, KBL-S, KBL-H, SKL-Y/U, APL, BDW-Y/U, GLK, GLK-R, CNL, CFL, KBL-Y R, WHL, AML, CML, ICL

Supported Operating Systems (see layout slide for more details)

Wireless HW \ OS	win10 32/64 bit
Harrison Peak 2	64
Cyclone Peak 2	64
Jefferson Peak 1 (SA and Div)	64
Jefferson Peak 2	64
Thunder Peak 2	64
Windstorm Peak 8265 skus	64
Oak Peak 18265 skus	64
Sandy Peak 3168 skus	V
Pine Peak 11000 skus	64
Lightning Peak 8x70 skus	64
Snowfield Peak 8260 skus	64
Douglas Peak 18260 skus	64
Stone Peak 2 7265 skus	V
Stone Peak 1 3165 skus	V
Maple Peak 17265 skus	64

Supported Hardware

(see layout slide for more details)

- HrP2
- CcP2
- JfP1
- JfP2
- ThP2
- WsP
- OkP
- SfP
- DgP
- SdP
- StP2 (D0/D1)
- StP1
- MpP

21.60 PV-HF Release – WiFi Package Layout

- The blue areas indicate the new SW in this release (21.60.2.1, 20.70.15.1).

	Win10	Win10 DCH
HrP2 AX201	21.60.2.1 NetWTw08	21.60.2.1 NetWTw08
CcP2 AX200		
JfP1/9461/9462		
JfP2/9560		
ThP2/9260	20.70.15.1 NetWTw06	20.70.15.1 NetWTw06
WsP/8265		
SfP/8260		
SdP/3168	19.51.26.1 NetWT(n/w)04	19.51.26.1 NetWTw04
StP1/3165		
StP2-D/7265		

Corrected Customer Issues since 21.60.0.5

21.60.2.1 driver only

Key	Summary	HW/OS
WiFi-33012	[ICL][19H1]CPU usage is very high, due to redundant DRV debug statistics prints in airplane mode	ThP,JfP,CcP,HrP/Win10
WIFI-33099	NIC was lost after connecting to an 802.11ax AP	HrP/Win10
WIFI-33249	[CML][AX201][assert 0x1208]WIFI yellow bang during online video streaming	HrP/Win10
WIFI-33516	[ICL/CML][JfP] Wlan driver shows yellow bang in device manager and Wlan module losts in windows settings when playing online video or idle for over three hours.	JfP/Win10

Corrected Customer Issues since 20.70.14.1

20.70.15.1 driver only

Key	Summary	HW/OS
WIFI-33093	[8265][Win10] WiFi connectivity loss and EventID 5002 when specific AP type (Meraki) AP send CSA	SfP, WsP /Win10
WIFI-32650	[8265][Win10] Client fails to transmit PROBE REQ frame for hidden network after airplane mode toggle	SfP, WsP /Win10

Software Known Issues and Limitations – 21.60

Key related	Description	OS	Notes
WIFI-21959	[D3_WoWLAN_Non CS]Bad Wake Pattern Configuration by 19H1	Win10 19H1 Only	3 rd party issue OS related – confirmed by MSFT – Bug ID: 21100294 update 19h1.2019.06.D should have the fix
WIFI-21305	During installation of WiFi driver via Device Manager user encountered with error - Install error: "The specific service has been marked for deletion"	Win10 19H1 Only	3 rd party issue OS related – confirmed by MSFT - Bug ID 20433771

DCRs – 21.60.2.1

Key related	Description
DCR-569	Tuning band edge performance on band edge channels for AX 200\AX 201 devices

Product Health

Domain	21.60-HF	Details
Connectivity		
Platform		
Data Path \ TpT		
Miracast		
SoftAP		
BT-Coex		
WiFi Device Power		
Cert (WHQL)		

Legend:

	Broken, Not usable
	Usable, major issues exist
	Usable

<Color Guidelines>

Critical bug(s) or critical usability issues

minimum 1 High P1. if >=5 High P1 – mandatory. Also if > 20 High - mandatory

Notes on the DDD Debug Layout Usage

Included with the user distributed layouts is also a DDD debug layout. This layout incorporates debug capabilities to be used by OEM validation teams to provide logs and information about an issue to Intel engineering.

This layout is not to be included on production systems or to be shared with end-user customers.

To use the DDD layout, follow the instructions below:

- 1) Clean the Windows event log by the following commands with administrator prompt.
wevtutilcl system
wevtutilcl application
wevtutilcl Microsoft-Windows-WLAN-AutoConfig/Operational
- 2) Install DDD release.
- 3) Perform test until issue reproduction.
- 4) Note down the exact time when issue reproduced.
- 5) Disable WiFidevice in the device manager.
- 6) Copy all files below to share with Intel:
 - I. "System.evtx" under C:\Windows\System32\winevt\Logs
 - II. "Application.evtx" under C:\Windows\System32\winevt\Logs
 - III. "Microsoft-Windows-WLAN-AutoConfig%4Operational.evtx" under C:\Windows\System32\winevt\Logs
 - IV. "WiFiLog-XXX.log" for ThP/JfP/CcP/HrP is under **C:\ (for RS3/RS4) and C:\Windows\System32\Drivers\DriverData\Intel\WlanOut\RLG\WiFiLog** and for legacy devices it is under **C:\ (for RS5 or later)**
 - V. "dddLog_XXX.bin" for ThP/JfP/CcP/HrP is under **C:\Windows\Temp\DDDLogs\ (for RS3/RS4) and under C:\Windows\System32\Drivers\DriverData\Intel\Wlan\Out\DDD (for RS5 or later)**. For legacy devices "dddLog_XXX.bin" is under **C:\Windows\Temp\DDDLogs\ (for RS5 or later)**
 - VI. "MurocLog.log" under C:\Program Files\Intel\WiFi\UnifiedLogging\
 - VII. "MEMORY.DMP" under C:\Windows\System32

Abbreviations

Acronym	Codename	Intel product name
CcP2	Cyclone Peak 2	Intel® Wi-Fi 6 AX200
HrP2	Harrison Peak 2	Intel® Wi-Fi 6 AX201
JfP1- DA	Jefferson Peak 1 Diversity antenna	Intel® Wireless-AC 9462
JfP1- SA	Jefferson Peak 1 Single antenna	Intel® Wireless-AC 9461
JfP2	Jefferson Peak 2	Intel® Wireless-AC 9560
ThP2	Thunder Peak 2	Intel® Wireless-AC 9260
WsP	Windstorm peak	Intel(R) Dual Band Wireless-AC 8265
SdP	Sandy Peak	Intel(R) Dual Band Wireless-AC 3168
StP2	Stone Peak 2	Intel(R) Dual Band Wireless-AC 7265
StP1	Stone Peak 1	Intel(R) Dual Band Wireless-AC 3165
SfP	Snowfield Peak	Intel(R) Dual Band Wireless-AC 8260
WkP2	Wilkins Peak 2	Intel(R) Dual Band Wireless-AC 7260
WkP1	Wilkins Peak 1	Intel(R) Dual Band Wireless-AC 3160

Intel Legal Disclaimers

Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit www.intel.com/benchmarks.

Estimated results were obtained prior to implementation of recent software patches and firmware updates intended to address exploits referred to as "Spectre" and "Meltdown". Implementation of these updates may make these results inapplicable to your device or system.

The products described may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

No license (express or implied, by estoppel or otherwise) to any intellectual property rights is granted by this document.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. **No computer system can be absolutely secure.** Check with your system manufacturer or retailer or learn more at intel.com.

Intel does not control or audit third-party benchmark data or the web sites referenced in this document. You should visit the referenced web site and confirm whether referenced data are accurate.

Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit: <http://www.intel.com/technology/vpro>.

Intel® Active Management Technology (Intel® AMT) requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel® AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup and configuration. For more information, visit <http://www.intel.com/content/www/us/en/architecture-and-technology/intel-active-management-technology.html>.

Intel, the Intel logo, Celeron, Centrino, Intel Core, Intel Atom and Pentium are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

*Other names and brands may be claimed as the property of others.

Copyright © Intel Corporation

