ASRock

J3455 PRO BTC+

User Manual

Version 1.0
Published April 2018

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Contents

Chapter 1 Introduction **1**

1.1 Package Contents 1

1.2 Specifications 2

1.3 Motherboard Layout 5

1.4 I/O Panel 7

Chapter 2 Installation **8**

2.1 Installing Memory Modules (SO-DIMM) 9

2.2 Expansion Slots (PCI Express Slots and Mining Ports) 11

2.3 Jumpers Setup 12

2.4 Onboard Headers and Connectors 13

2.5 Smart Switches 17

2.6 M.2_SSD (NGFF) Module Installation Guide 18

2.7 Installing the 4-pin PCIe Power Connectors 21

2.8 Special Features 22

2.8.1 Smart PCIe State Detection 22

2.8.2 Graphics Card Indicator LED 23

Chapter 3 Software and Utilities Operation **24**

3.1 Installing Drivers 24

Chapter 4 UEFI SETUP UTILITY **25**

4.1 Introduction 25

4.1.1 UEFI Menu Bar 25

4.1.2 Navigation Keys 26

4.2	Main Screen	27
4.3	Advanced Screen	28
4.3.1	CPU Configuration	29
4.3.2	Chipset Configuration	30
4.3.3	Storage Configuration	32
4.3.4	Super IO Configuration	33
4.3.5	ACPI Configuration	34
4.3.6	USB Configuration	36
4.4	Tools	37
4.5	Hardware Health Event Monitoring Screen	39
4.6	Security Screen	40
4.7	Boot Screen	41
4.8	Exit Screen	44

Chapter 1 Introduction

Thank you for purchasing ASRock J3455 Pro BTC+ motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

In this manual, Chapter 1 and 2 contains the introduction of the motherboard and step-by-step installation guides. Chapter 3 contains the operation guide of the software and utilities. Chapter 4 contains the configuration guide of the BIOS setup.

Because the motherboard specifications and the BIOS software might be updated, the content of this documentation will be subject to change without notice. In case any modifications of this documentation occur, the updated version will be available on ASRock's website without further notice. If you require technical support related to this motherboard, please visit our website for specific information about the model you are using. You may find the latest VGA cards and CPU support list on ASRock's website as well. ASRock website http://www.asrock.com.

1.1 Package Contents

- ASRock J3455 Pro BTC+ Motherboard
- ASRock J3455 Pro BTC+ Quick Installation Guide
- ASRock J3455 Pro BTC+ Support CD
- 1 x Serial ATA (SATA) Data Cable (Optional)
- 1 x Screw for M.2 Socket (Optional)

1.2 Specifications

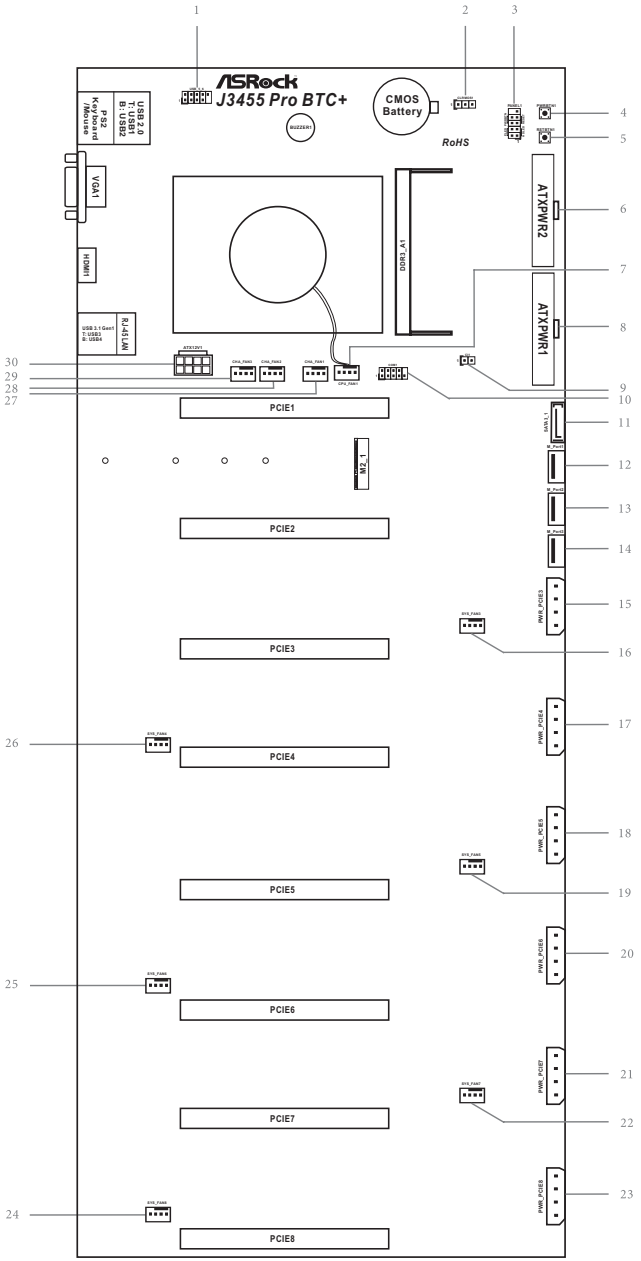
Platform	• All Solid Capacitor design
CPU	• Intel® Quad-Core Processor J3455 (up to 2.3 GHz)
Memory	• 1 x DDR3L SO-DIMM Slot * 2GB DRAM per module is not supported. • Supports DDR3L 1866/1600/1333 non-ECC, un-buffered memory • Max. capacity of system memory: 8GB * Intel® Extreme Memory Profile (XMP) is not supported
Expansion Slot	• 8 x PCI Express x16 Slots (PCIE1~8 at x1) • 3 x Mining Ports (M_Port1~M_Port3 at x1)* * Support USB Type Riser kit
Graphics	• Integrated Intel® HD Graphics 500: 12 EUs inside (Up to 750MHz) • DirectX 12, Pixel Shader 5.0 • Dual graphics output: support D-Sub and HDMI ports by independent display controllers
LAN	• PCIE x1 Gigabit LAN 10/100/1000 Mb/s • Realtek RTL8111H • Supports Wake-On-LAN • Supports Lightning/ESD Protection (ASRock Full Spike Protection) • Supports Energy Efficient Ethernet 802.3az • Supports PXE
Rear Panel I/O	• 1 x PS/2 Mouse/Keyboard Port • 1 x D-Sub Port • 1 x HDMI Port • 2 x USB 2.0 Ports (Supports ESD Protection) • 2 x USB 3.1 Gen1 Ports (Supports ESD Protection) • 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)

Storage	• 1 x SATA3 6.0 Gb/s Connector, supports NCQ, AHCI and Hot Plug • 1 x M.2 Socket, supports M Key type 2242/2260/2280/22110 M.2 SATA3 6.0 Gb/s module
Connector	• 1 x System Panel Header • 1 x COM Port Header • 1 x Chassis Intrusion Header • 1 x CPU Fan Connector (4-pin) * The CPU Fan Connector supports the CPU fan of maximum 1A (12W) fan power. • 3 x Chassis Fan Connectors (4-pin) * The Chassis Fan Connector supports the chassis fan of maximum 1A (12W) fan power. • 6 x System Fan Connectors (4-pin) * The System Fan Connector supports the chassis fan of maximum 2.5A (30W) fan power. * CPU_FAN1, CHA_FAN1, CHA_FAN2 and CHA_FAN3 can adjust 4-pin fan speed. • 2 x 24 pin ATX Power Connectors • 1 x 8 pin PCIe 12V Power Connector • 6 x 4 pin PCIe Power Connectors • 1 x USB 2.0 Header (Supports 2 USB 2.0 ports) (Supports ESD Protection) • 1 x Power Switch • 1 x Reset Switch
BIOS Feature	• AMI UEFI Legal BIOS with GUI support • Supports Plug and Play • ACPI 5.0 compliant wake up events • Supports jumperfree • SMBIOS 3.0 support
Hardware Monitor	• CPU/Chassis temperature sensing • CPU/Chassis Fan Tachometer • CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature) • CPU/Chassis Fan multi-speed control • CASE OPEN detection • Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore

OS	• Microsoft® Windows® 10 64-bit • Linux: Ubuntu 16.04 LTS / Fedora 25
Certifications	• FCC, CE • ErP/EuP ready (ErP/EuP ready power supply is required)

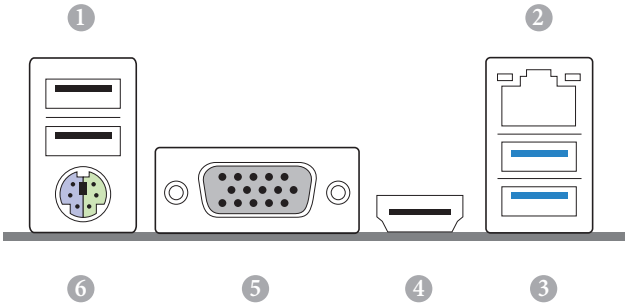
** For detailed product information, please visit our website: http://www.asrock.com*

1.3 Motherboard Layout



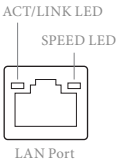
No.	Description
1	USB 2.0 Header (USB_5_6)
2	Clear CMOS Jumper (CLRMOS1)
3	System Panel Header (PANEL1)
4	Power Button (PWRBTN1)
5	Reset Button (RSTBTN1)
6	ATX Power Connector (ATXPWR2)
7	CPU Fan Connector (CPU_FAN1)
8	ATX Power Connector (ATXPWR1)
9	Chassis Intrusion Header (CI1)
10	COM Port Header (COM1)
11	SATA3 Connector (SATA_1)
12	Mining Port (M_Port1)
13	Mining Port (M_Port2)
14	Mining Port (M_Port3)
15	PCIe Power Connector (PWR_PCIE3)
16	System Fan Connector (SYS_FAN3)
17	PCIe Power Connector (PWR_PCIE4)
18	PCIe Power Connector (PWR_PCIE5)
19	System Fan Connector (SYS_FAN5)
20	PCIe Power Connector (PWR_PCIE6)
21	PCIe Power Connector (PWR_PCIE7)
22	System Fan Connector (SYS_FAN7)
23	PCIe Power Connector (PWR_PCIE8)
24	System Fan Connector (SYS_FAN8)
25	System Fan Connector (SYS_FAN6)
26	System Fan Connector (SYS_FAN4)
27	System Fan Connector (CHA_FAN1)
28	System Fan Connector (CHA_FAN2)
29	System Fan Connector (CHA_FAN3)
30	ATX 12V Power Connector (ATX12V1)

1.4 I/O Panel



No.	Description	No.	Description
1	USB 2.0 Ports (USB_1_2)	4	HDMI Port
2	LAN RJ-45 Port*	5	D-Sub Port
3	USB 3.1 Gen1 Ports (USB_3_4)	6	PS/2 Mouse/Keyboard Port

** There are two LEDs on each LAN port. Please refer to the table below for the LAN port LED indications.*



Activity / Link LED		Speed LED	
Status	**Description**	**Status**	**Description**
Off	No Link	Off	10Mbps connection
Blinking	Data Activity	Orange	100Mbps connection
On	Link	Green	1Gbps connection

Chapter 2 Installation

Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.

Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

- Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so may cause physical injuries to you and damages to motherboard components.
- In order to avoid damage from static electricity to the motherboard's components, NEVER place your motherboard directly on a carpet. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle the components.
- Hold components by the edges and do not touch the ICs.
- Whenever you uninstall any components, place them on a grounded anti-static pad or in the bag that comes with the components.
- When placing screws to secure the motherboard to the chassis, please do not over-tighten the screws! Doing so may damage the motherboard.

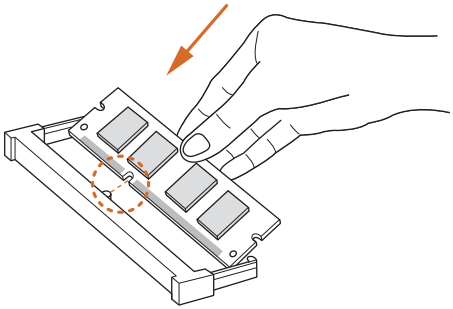
2.1 Installing Memory Modules (SO-DIMM)

This motherboard provides one 204-pin DDR3L (Double Data Rate 3) SO-DIMM slot.

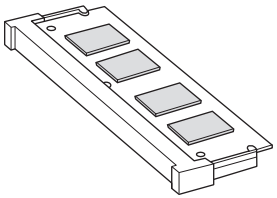
It is not allowed to install a DDR or DDR2 memory module into a DDR3L slot; otherwise, this motherboard and SO-DIMM may be damaged.

The SO-DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the SO-DIMM if you force the SO-DIMM into the slot at incorrect orientation.

1



2



2.2 Expansion Slots (PCI Express Slots and Mining Ports)

There are 8 PCI Express slots and 3 Mining ports on the motherboard.

Before installing an expansion card, please make sure that the power supply is switched off or the power cord is unplugged. Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.

PCIe slots:

PCIE1/PCIE2/PCIE3/PCIE4/PCIE5/PCIE6/PCIE7/PCIE8 (PCIe x16 slot) is used for PCI Express x1 lane width cards.

Mining Ports:

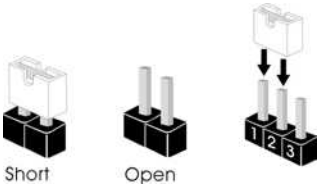
M_Port1/M_Port2/M_Port3 is used for riser kits (at x1 mode).

Warning:

To ensure better graphics compability, the BIOS is set to "boot from Onboard VGA" as default even the user install a VGA card on PCIe slot.

2.3 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on the pins, the jumper is "Short". If no jumper cap is placed on the pins, the jumper is "Open". The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when a jumper cap is placed on these 2 pins.



Clear CMOS Jumper (CLRMOS1) (see p.5, No. 2)	 Default	 Clear CMOS

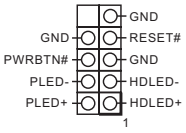
CLRMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, and user default profile will be cleared only if the CMOS battery is removed.

If you clear the CMOS, the case open may be detected. Please adjust the BIOS option "Clear Status" to clear the record of previous chassis intrusion status.

2.4 Onboard Headers and Connectors

Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

System Panel Header
(9-pin PANEL1)
(see p.5, No. 3)



Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

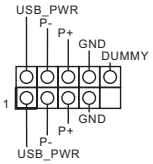
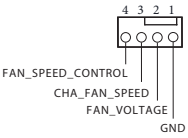
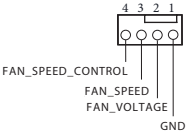
PWRBTN (Power Switch):
Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

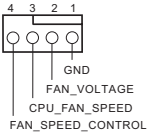
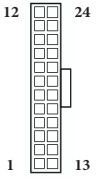
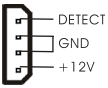
RESET (Reset Switch):
Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

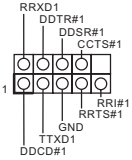
PLED (System Power LED):
Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1/S3 sleep state. The LED is off when the system is in S4 sleep state or powered off (S5).

HDLED (Hard Drive Activity LED):
Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

Serial ATA3 Connector (SATA_1: see p.5, No. 11)		This SATA3 connector supports SATA data cables for internal storage devices with up to 6.0 Gb/s data transfer rate.
USB 2.0 Header (9-pin USB_5_6) (see p.5, No. 1)		There is one header on this motherboard. This USB 2.0 header can support two ports.
Chassis Fan Connectors (4-pin CHA_FAN1) (see p.5, No. 27) (4-pin CHA_FAN2) (see p.5, No. 28) (4-pin CHA_FAN3) (see p.5, No. 29)		Please connect fan cables to the fan connectors and match the black wire to the ground pin.
System Fan Connectors (4-pin SYS_FAN3) (see p.5, No. 16) (4-pin SYS_FAN4) (see p.5, No. 26) (4-pin SYS_FAN5) (see p.5, No. 19) (4-pin SYS_FAN6) (see p.5, No. 25) (4-pin SYS_FAN7) (see p.5, No. 22) (4-pin SYS_FAN8) (see p.5, No. 24)		Please connect fan cables to the fan connectors and match the black wire to the ground pin.

CPU Fan Connector (4-pin CPU_FAN1) (see p.5, No. 7)		This motherboard provides a 4-Pin CPU fan (Quiet Fan) connector. If you plan to connect a 3-Pin CPU fan, please connect it to Pin 1-3.
ATX Power Connectors (24-pin ATXPWR1) (see p.5, No. 8) (24-pin ATXPWR2) (see p.5, No. 6)		This motherboard provides two 24-pin ATX power connectors. To use a 20-pin ATX power supply, please plug it along Pin 1 and Pin 13.
ATX 12V Power Connector (8-pin ATX12V1) (see p.5, No. 30)		This motherboard provides a 8-pin ATX 12V power connector. To use a 4-pin ATX power supply, please plug it along Pin 1 and Pin 5.
PCIe Power Connectors (4-pin PCIE_PWR3) (see p.5, No. 15) (4-pin PCIE_PWR4) (see p.5, No. 17) (4-pin PCIE_PWR5) (see p.5, No. 18) (4-pin PCIE_PWR6) (see p.5, No. 20) (4-pin PCIE_PWR7) (see p.5, No. 21) (4-pin PCIE_PWR8) (see p.5, No. 23)		Please connect these connectors to the power supplies. **Important: Make sure the 4-pin PCIe power connector and the external power connector on the graphics card are connected to the same PSU; otherwise, the motherboard and the graphics card may be damaged.**

Chassis Intrusion Header (2-pin CI1) (see p.5, No. 9)		This motherboard supports CASE OPEN detection feature that detects if the chassis cove has been removed. This feature requires a chassis with chassis intrusion detection design.
Serial Port Header (9-pin COM1) (see p.5, No. 10)		This COM1 header supports a serial port module.
Mining Ports (M_Port1: see p.5, No. 12) (M_Port2: see p.5, No. 13) (M_Port3: see p.5, No. 14)		Please connect these ports to the riser kits.

2.5 Smart Switches

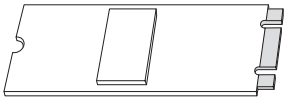
The motherboard has two smart switches: Power Button and Reset Button.

Power Button (PWRBTN1) (see p.5, No. 4)		Power Button allows users to quickly turn on/off the system.
Reset Button (RSTBTN1) (see p.5, No. 5)		Reset Button allows users to quickly reset the system.

2.6 M.2_SSD (NGFF) Module Installation Guide

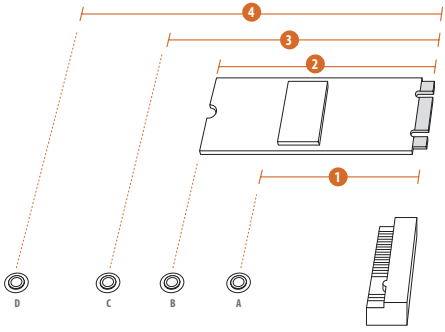
The M.2, also known as the Next Generation Form Factor (NGFF), is a small size and versatile card edge connector that aims to replace mPCIe and mSATA. The M.2 Socket supports type 2242/2260/2280/22110 M.2 SATA3 6.0 Gb/s module.

Installing the M.2_SSD (NGFF) Module



Step 1

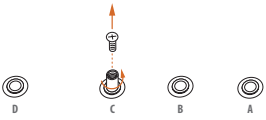
Prepare a M.2_SSD (NGFF) module and the screw.

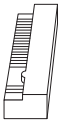


Step 2

Depending on the PCB type and length of your M.2_SSD (NGFF) module, find the corresponding nut location to be used.

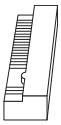
No.	1	2	3	4
Nut Location	A	B	C	D
PCB Length	4.2cm	6cm	8cm	11cm
Module Type	Type 2242	Type2260	Type 2280	Type 22110





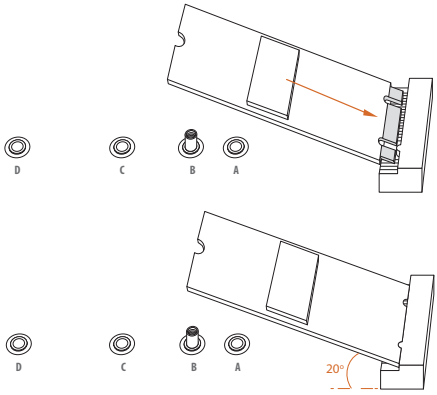
Step 3

Move the standoff based on the module type and length.
The standoff is placed at the nut location C by default. Skip Step 3 and 4 and go straight to Step 5 if you are going to use the default nut. Otherwise, release the standoff by hand.



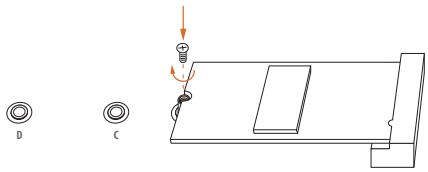
Step 4

Peel off the yellow protective film on the nut to be used. Hand tighten the standoff into the desired nut location on the motherboard.



Step 5

Gently insert the M.2 (NGFF) SSD module into the M.2 slot. Please be aware that the M.2 (NGFF) SSD module only fits in one orientation.



Step 6

Tighten the screw with a screwdriver to secure the module into place. Please do not overtighten the screw as this might damage the module.

M.2_SSD (NGFF) Module Support List

Vendor	Interface	P/N
ADATA	SATA	ADATA - AXNS381E-128GM-B
Crucial	SATA	Crucial-CT240M500SSD4-240GB
EZLINK	SATA	EZLINK P51B-80-120GB
Intel	SATA	INTEL 540S-SSDSCKKW240H6-240GB
Kingston	SATA	Kingston-RBU-SNS8400S3 / 180GD
Kingston	SATA	Kingston SM2280S3G2/120G - Win8.1
LITEON	SATA	LITEON LJH-256V2G-256GB (2260)
PLEXTOR	SATA	PLEXTOR PX-128M7VG-128GB
PLEXTOR	SATA	PLEXTOR PX-128M6G-2260-128GB
SanDisk	SATA	SanDisk-SD6SN1M-128G
SanDisk	SATA	SanDisk X400-SD8SN8U-128G
SanDisk	SATA	Sandisk Z400s-SD8SNAT-128G-1122
Transcend	SATA	Transcend TS256GMTS800-256GB
Transcend	SATA	Transcend TS64GMTS400-64GB
V-Color	SATA	V-Color 120G
V-Color	SATA	V-Color 240G
WD	SATA	WD BLUE WDS100T1B0B-00AS40
WD	SATA	WD GREEN WDS240G1G0B-00RC30

For the latest updates of M.2_SSD (NFGG) module support list, please visit our website for details: http://www.asrock.com

2.7 Installing the 4-pin PCIe Power Connectors

The extra 4-pin PCIe power connectors on this motherboard offer more power for your graphics cards. They provide stable voltages and greatly reduce the risks of burning your motherboard or graphics cards.

When the graphics cards are installed, be sure to install the PSU's 4-pin power cables to the corresponding 4-pin PCIe power connectors (PCIE_PWR) on your motherboard; otherwise, the cards may be damaged.

Make sure the 4-pin PCIe power connector and the external power connector on the graphics card are connected to the same PSU; otherwise, the motherboard and the graphics card may be damaged.

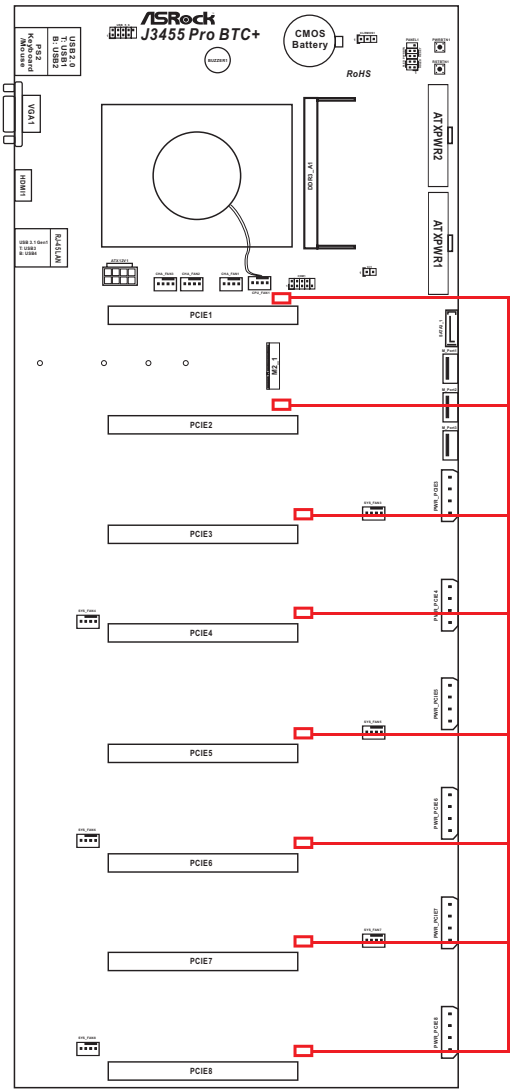
2.8 Special Features

2.8.1 Smart PCIe State Detection

This motherboard has included a smart way to show the status of every graphics card. While the system is booting, the Power-On, Self-Test (POST) screen will show the status of the graphics cards that were installed on the motherboard.

2.8.2 Graphics Card Indicator LED

ASRock also placed a faulty graphics card indicator LED behind every mining ports and PCIe slots so you may monitor the status even without a screen.



Graphics Card Indicator LED

Chapter 3 Software and Utilities Operation

3.1 Installing Drivers

The Support CD that comes with the motherboard contains necessary drivers and useful utilities that enhance the motherboard's features.

Running The Support CD

To begin using the support CD, insert the CD into your CD-ROM drive. The CD automatically displays the Main Menu if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double click on the file "ASRSETUP.EXE" in the Support CD to display the menu.

Drivers Menu

The drivers compatible to your system will be auto-detected and listed on the support CD driver page. Please click **Install All** or follow the order from top to bottom to install those required drivers. Therefore, the drivers you install can work properly.

Utilities Menu

The Utilities Menu shows the application software that the motherboard supports. Click on a specific item then follow the installation wizard to install it.

Chapter 4 UEFI SETUP UTILITY

4.1 Introduction

This section explains how to use the UEFI SETUP UTILITY to configure your system. You may run the UEFI SETUP UTILITY by pressing <F2> or <Del> right after you power on the computer, otherwise, the Power-On-Self-Test (POST) will continue with its test routines. If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.

Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

4.1.1 UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

Main	For setting system time/date information
Advanced	For advanced system configurations
Tool	Useful tools
H/W Monitor	Displays current hardware status
Security	For security settings
Boot	For configuring boot settings and boot priority
Exit	Exit the current screen or the UEFI Setup Utility

4.1.2 Navigation Keys

Use <←> key or <→> key to choose among the selections on the menu bar, and use < ↑ > key or < ↓ > key to move the cursor up or down to select items, then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

Please check the following table for the descriptions of each navigation key.

Navigation Key(s)	Description
+ / -	To change option for the selected items
<Tab>	Switch to next function
<PGUP>	Go to the previous page
<PGDN>	Go to the next page
<HOME>	Go to the top of the screen
<END>	Go to the bottom of the screen
<F1>	To display the General Help Screen
<F7>	Discard changes and exit the SETUP UTILITY
<F9>	Load optimal default values for all the settings
<F10>	Save changes and exit the SETUP UTILITY
<F12>	Print screen
<ESC>	Jump to the Exit Screen or exit the current screen

4.2 Main Screen

When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.

4.3 Advanced Screen

In this section, you may set the configurations for the following items: CPU Configuration, Chipset Configuration, Storage Configuration, Super IO Configuration, ACPI Configuration and USB Configuration.

Setting wrong values in this section may cause the system to malfunction.

4.3.1 CPU Configuration

Intel SpeedStep Technology

Intel SpeedStep technology allows processors to switch between multiple frequencies and voltage points for better power saving and heat dissipation.

CPU C States Support

Enable CPU C States Support for power saving. It is recommended to keep C1, C6 ,C7, C8, C9 and C10 all enabled for better power saving.

Enhanced Halt State (C1E)

Enable Enhanced Halt State (C1E) for lower power consumption.

Intel Virtualization Technology

Intel Virtualization Technology allows a platform to run multiple operating systems and applications in independent partitions, so that one computer system can function as multiple virtual systems.

VT-d

Intel® Virtualization Technology for Directed I/O helps your virtual machine monitor better utilize hardware by improving application compatibility and reliability, and providing additional levels of manageability, security, isolation, and I/O performance.

4.3.2 Chipset Configuration

DRAM Frequency

If [Auto] is selected, the motherboard will detect the memory module(s) inserted and assign the appropriate frequency automatically.

DRAM Voltage (1.35V)

Use this to configure DRAM Voltage. The default value is [Auto].

Primary Graphics Adapter

Select a primary VGA.
*To ensure better graphics compatibility, the default is set to [Onboard] (boot from onboard VGA).

Share Memory

Configure the size of memory that is allocated to the integrated graphics processor when the system boots up.

Above 4GB MMIO BIOS Assignment

Enable or disable the Above 4GB Memory Mapped IO BIOS Assignment.

Onboard LAN

Enable or disable the onboard network interface controller.

Deep S5

Configure deep sleep mode for power saving when the computer is shut down.

Restore on AC/Power Loss

Select the power state after a power failure. If [Power Off] is selected, the power will remain off when the power recovers. If [Power On] is selected, the system will start to boot up when the power recovers.

4.3.3 Storage Configuration

SATA Controller(s)

Enable/disable the SATA controllers.

SATA Mode Selection

AHCI: Supports new features that improve performance.

AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance.

SATA Aggressive Link Power Management

SATA Aggressive Link Power Management allows SATA devices to enter a low power state during periods of inactivity to save power. It is only supported by AHCI mode.

Hard Disk S.M.A.R.T.

S.M.A.R.T stands for Self-Monitoring, Analysis, and Reporting Technology. It is a monitoring system for computer hard disk drives to detect and report on various indicators of reliability.

4.3.4 Super IO Configuration

Serial Port 1

Enable or disable the Serial port 1.

Serial Port Address

Select the address of the Serial port.

PS2 Y-Cable

Enable the PS2 Y-Cable or set this option to Auto.

4.3.5 ACPI Configuration

Suspend to RAM

It is recommended to select auto for ACPI S3 power saving.

ACPI HPET Table

Enable the High Precision Event Timer for better performance and to pass WHQL tests.

PS/2 Keyboard Power On

Allow the system to be waked up by a PS/2 Keyboard.

PCIE Device Power On

Allow the system to be waked up by a PCIE device and enable wake on LAN.

Ring-In Power On

Allow the system to be waked up by onboard COM port modem Ring-In signals.

RTC Alarm Power On

Allow the system to be waked up by the real time clock alarm. Set it to By OS to let it be handled by your operating system.

USB Keyboard/Remote Power On

Allow the system to be waked up by an USB keyboard or remote controller.

USB Mouse Power On

Allow the system to be waked up by an USB mouse.

4.3.6 USB Configuration

Legacy USB Support

Enable Legacy USB Support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications.

4.4 Tools

Instant Flash

Save UEFI files in your USB storage device and run Instant Flash to update your UEFI.

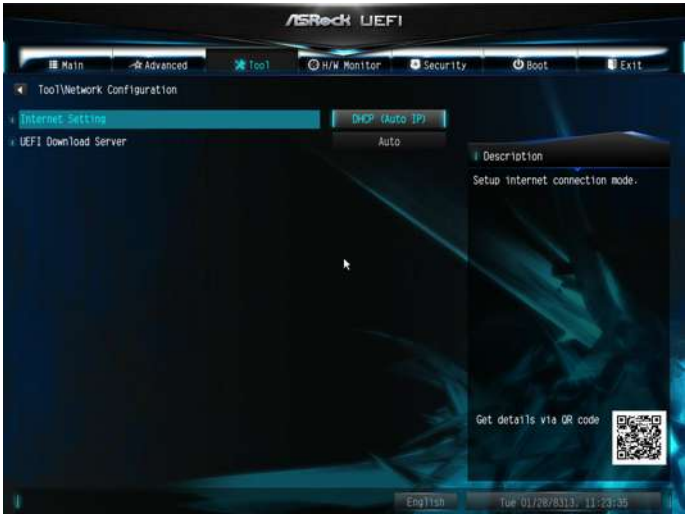
Internet Flash - DHCP (Auto IP), Auto

ASRock Internet Flash downloads and updates the latest UEFI firmware version from our servers for you. Please setup network configuration before using Internet Flash.

*For BIOS backup and recovery purpose, it is recommended to plug in your USB pen drive before using this function.

Network Configuration

Use this to configure internet connection settings for Internet Flash.



Internet Setting

Enable or disable sound effects in the setup utility.

UEFI Download Server

Select a server to download the UEFI firmware.

4.5 Hardware Health Event Monitoring Screen

This section allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, fan speed and voltage.

CPU Fan 1 Setting

This allows you to set CPU fan 1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

Chassis Fan 1 Setting

This allows you to set chassis fan 1's speed. Configuration options: [Full On], [Automatic Mode] and [Manual]. The default value is [Full On].

Chassis Fan 2 Setting

This allows you to set chassis fan 2's speed. Configuration options: [Full On], [Automatic Mode] and [Manual]. The default value is [Full On].

Chassis Fan 3 Setting

This allows you to set chassis fan 3's speed. Configuration options: [Full On], [Automatic Mode] and [Manual]. The default value is [Full On].

Case Open Feature

Enable or disable Case Open Feature to detect whether the chassis cover has been removed.

4.6 Security Screen

In this section you may set or change the supervisor/user password for the system. You may also clear the user password.

Supervisor Password

Set or change the password for the administrator account. Only the administrator has authority to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

User Password

Set or change the password for the user account. Users are unable to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

Secure Boot

Enable to support Windows 8.1 Secure Boot.

Intel(R) Platform Trust Technology

Enable/disable Intel PTT in ME. Disable this option to use discrete TPM Module.

4.7 Boot Screen

This section displays the available devices on your system for you to configure the boot settings and the boot priority.

Fast Boot

Fast Boot minimizes your computer's boot time. In fast mode you may not boot from an USB storage device.

Boot From Onboard LAN

Allow the system to boot from the onboard LAN.

Setup Prompt Timeout

Configure the number of seconds to wait for the setup hot key.

Bootup Num-Lock

Select whether Num Lock should be turned on or off when the system boots up.

Boot Beep

Select whether the Boot Beep should be turned on or off when the system boots up. Please note that a buzzer is needed.

Full Screen Logo

Enable to display the boot logo or disable to show normal POST messages.

Boot Failure Guard Message

If the computer fails to boot for a number of times the system automatically restores the default settings.

CSM (Compatibility Support Module)

CSM

Enable to launch the Compatibility Support Module. Please do not disable unless you're running a WHCK test.

Launch PXE OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only. Select Do not launch to not execute both legacy and UEFI option ROM.

Launch Storage OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only. Select Do not launch to not execute both legacy and UEFI option ROM.

Launch Video OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only. Select Do not launch to not execute both legacy and UEFI option ROM.

4.8 Exit Screen

Save Changes and Exit

When you select this option the following message, "Save configuration changes and exit setup?" will pop out. Select [OK] to save changes and exit the UEFI SETUP UTILITY.

Discard Changes and Exit

When you select this option the following message, "Discard changes and exit setup?" will pop out. Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

Discard Changes

When you select this option the following message, "Discard changes?" will pop out. Select [OK] to discard all changes.

Load UEFI Defaults

Load UEFI default values for all options. The F9 key can be used for this operation.

Launch EFI Shell from filesystem device

Copy shellx64.efi to the root directory to launch EFI Shell.

Contact Information

If you need to contact ASRock or want to know more about ASRock, you're welcome to visit ASRock's website at http://www.asrock.com; or you may contact your dealer for further information. For technical questions, please submit a support request form at https://event.asrock.com/tsd.asp

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DECLARATION OF CONFORMITY

Per FCC Part 2 Section 2.1077(a)

Responsible Party Name: ASRock Incorporation

Address: 13848 Magnolia Ave, Chino, CA91710

Phone/Fax No: +1-909-590-8308/+1-909-590-1026

hereby declares that the product

Product Name : Motherboard

Model Number : J3455 Pro BTC+

Conforms to the following specifications:

☒ FCC Part 15, Subpart B, Unintentional Radiators

Supplementary Information:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Representative Person's Name: **James**

Signature : 

Date : **May 12, 2017**

EU Declaration of Conformity

For the following equipment:

Motherboard

(Product Name)

J3455 Pro BTC+ / ASRock

(Model Designation / Trade Name)

ASRock Incorporation

(Manufacturer Name)

2F., No.37, Sec. 2, Jhongyang S. Rd., Beitou District, Taipei City 112, Taiwan (R.O.C.)

(Manufacturer Address)

☒ **EMC —Directive 2014/30/EU (from April 20th, 2016)**

☐ EN 55022:2010/AC:2011 Class B
☒ EN 55024:2010/A1:2015
☒ EN 55032:2012+AC:2013 Class B
☒ EN 61000-3-3:2013
☒ EN 61000-3-2:2014

☐ **LVD —Directive 2014/35/EU (from April 20th, 2016)**

☐ EN 60950-1 : 2011+ A2: 2013
☐ EN 60950-1 : 2006/A12: 2011

☒ RoHS — Directive 2011/65/EU
☒ CE marking

(EU conformity marking)

CE

ASRock EUROPE B.V.

(Company Name)

Bijsterhuizen 1111 6546 AR Nijmegen The Netherlands

(Company Address)

Person responsible for making this declaration:

(Name, Surname)

A.V.P

(Position / Title)

June 22, 2018

(Date)

P/N: 15G062100000AK V1.0