

ASUS THUNDERBOLTEX II/DUAL

ASUS ThunderboltEX II/DUAL Adapter User Manual

Model: THUNDERBOLTEX II/DUAL

1. INTRODUCTION

The ASUS ThunderboltEX II/DUAL is an add-on card designed to bring Thunderbolt 2 technology to compatible ASUS motherboards. This card provides two Thunderbolt 2 ports, enabling high-speed data transfer and versatile connectivity for various devices. With bi-directional transfer speeds of up to 20 Gbps, it offers significantly faster performance compared to USB 3.0. It supports daisy-chaining of up to six Thunderbolt devices and can connect multiple 1080p displays via DisplayPort.

This manual provides essential information for the proper installation, operation, and maintenance of your ThunderboltEX II/DUAL adapter.

2. SAFETY INFORMATION

Please read the following safety guidelines carefully before installing or operating the device:

- Ensure your computer is powered off and unplugged from the wall outlet before installation.
- Discharge any static electricity from your body by touching a grounded metal object (e.g., the computer chassis) before handling the card.
- Handle the card by its edges to avoid touching sensitive components.
- Install the card in a well-ventilated computer case to prevent overheating.
- Refer to your motherboard's manual for specific PCIe slot compatibility and Thunderbolt header location.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- ASUS ThunderboltEX II/DUAL Adapter Card
- Thunderbolt Header Cable
- Support CD/DVD (containing drivers and utilities)
- User Manual (this document, or a quick start guide)

4. SYSTEM REQUIREMENTS

To ensure proper functionality, your system must meet the following requirements:

- **Motherboard:** Compatible ASUS motherboard with a dedicated Thunderbolt header. Refer to your motherboard's

specifications for compatibility.

- **PCIe Slot:** An available PCI Express 2.0 x4 slot.
- **Operating System:** Microsoft Windows (Windows 7, 8, 8.1, 10, 64-bit recommended).
- **Graphics Card:** A graphics card with a DisplayPort output is required for video passthrough functionality.

5. SETUP AND INSTALLATION

5.1 Physical Installation

1. **Prepare your system:** Power off your computer and unplug the power cord. Open the computer case.
2. **Locate a PCIe slot:** Find an available PCI Express 2.0 x4 slot on your motherboard.
3. **Install the card:** Carefully insert the ThunderboltEX II/DUAL card into the chosen PCIe slot until it is firmly seated. Secure the card with a screw to the chassis.
4. **Connect the Thunderbolt Header Cable:** Connect one end of the provided Thunderbolt header cable to the Thunderbolt header on the ThunderboltEX II/DUAL card and the other end to the dedicated Thunderbolt header on your ASUS motherboard. Refer to your motherboard manual for the exact location of this header.
5. **Connect DisplayPort Cable (Optional):** If you plan to use the DisplayPort passthrough feature for video output through the Thunderbolt ports, connect a DisplayPort cable from the DisplayPort output of your graphics card to the DisplayPort input on the ThunderboltEX II/DUAL card.
6. **Close the case:** Once all connections are secure, close your computer case and reconnect the power cord.



Figure 1: Top-down view of the ASUS ThunderboltEX II/DUAL Adapter card, showing the PCIe connector and the two Thunderbolt 2 ports.



Figure 2: Side view of the ASUS ThunderboltEX II/DUAL Adapter card, highlighting the two Thunderbolt 2 ports and the DisplayPort input.

5.2 BIOS Configuration

After physical installation, you may need to configure your motherboard's BIOS/UEFI settings to enable Thunderbolt functionality. The exact steps may vary depending on your motherboard model:

- Power on your computer and press the designated key (usually **Del** or **F2**) to enter the BIOS/UEFI setup.
- Navigate to the **Advanced** settings.
- Look for a section related to **Thunderbolt** or **Intel Thunderbolt Technology**.
- Enable the Thunderbolt controller and configure any related options, such as security levels (e.g., "Security Level: User Authorization" or "No Security").
- Save changes and exit the BIOS/UEFI. Your system will restart.

5.3 Driver Installation

Once your operating system loads, install the necessary drivers:

1. Insert the provided support CD/DVD into your optical drive, or download the latest drivers from the official ASUS support website for your motherboard model and the ThunderboltEX II/DUAL card.
2. Run the driver setup program and follow the on-screen instructions.
3. Restart your computer after the driver installation is complete.
4. Verify the installation in Device Manager (Windows) to ensure the Thunderbolt controller is recognized and functioning correctly.

6. OPERATING THE THUNDERBOLT EX II/DUAL

6.1 Connecting Thunderbolt Devices

The ThunderboltEX II/DUAL card features two Thunderbolt 2 ports. You can connect various Thunderbolt-enabled devices, such as external storage drives, audio interfaces, and docking stations. Thunderbolt 2 supports bi-directional data transfer at up to 20 Gbps.

- Use certified Thunderbolt cables for optimal performance and compatibility.
- You can daisy-chain up to six Thunderbolt devices from a single Thunderbolt port. Connect the first device to the card, then connect the second device to the first, and so on.

- Ensure all devices in the daisy chain are powered on before connecting them to the Thunderbolt port.

6.2 Display Support

The Thunderbolt 2 ports also support DisplayPort functionality. This allows you to connect displays directly to the Thunderbolt ports, or as part of a daisy-chain with other Thunderbolt devices.

- The card supports up to three 1080p displays.
- For video output, ensure your graphics card is connected to the ThunderboltEX II/DUAL card via a DisplayPort cable as described in the installation section.
- Some Thunderbolt displays may also provide USB and Ethernet connectivity through the Thunderbolt cable.

7. MAINTENANCE

The ThunderboltEX II/DUAL adapter requires minimal maintenance. To ensure its longevity and optimal performance:

- Keep your computer's interior clean and free of dust to ensure proper airflow and prevent overheating.
- Ensure all cables are securely connected.
- Regularly check the ASUS support website for updated drivers and firmware for both the ThunderboltEX II/DUAL card and your motherboard.

8. TROUBLESHOOTING

If you encounter issues with your ThunderboltEX II/DUAL adapter, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Card not detected by the system.	Improperly seated card. Thunderbolt header cable not connected. BIOS/UEFI settings not configured. Incompatible motherboard.	Ensure the card is fully seated in the PCIe slot. Verify the Thunderbolt header cable is securely connected to both the card and the motherboard. Check BIOS/UEFI settings to ensure Thunderbolt is enabled. Confirm your motherboard is officially supported by the ThunderboltEX II/DUAL. Note: Some X99 motherboards may not be compatible with this specific dual-port model.
Thunderbolt devices not recognized.	Missing or outdated drivers. Faulty Thunderbolt cable. Device not powered on. Incorrect daisy-chain order.	Install or update the latest Thunderbolt drivers from the ASUS website. Try a different Thunderbolt cable. Ensure the Thunderbolt device is powered on before connecting. If daisy-chaining, ensure the first device is connected directly to the card and subsequent devices are connected in sequence.
No video output from Thunderbolt display.	DisplayPort cable not connected to graphics card. Graphics card driver issues. Display settings in OS.	Verify the DisplayPort cable is connected from your graphics card's output to the ThunderboltEX II/DUAL's input. Ensure your graphics card drivers are up to date. Check display settings in your operating system (e.g., Windows Display Settings) to detect and extend/duplicate displays.

9. SPECIFICATIONS

Feature	Detail
Model Name	THUNDERBOLTEX II/DUAL
Form Factor	Plug-in card
Interface (Bus) Type	PCI Express 2.0 x4
Ports	2 x Thunderbolt 2
Data Transfer Speed	Up to 20 Gbps (bi-directional)
Display Support	Supports up to three 1080p displays
Daisy-Chain Support	Up to 6 Thunderbolt devices
Dimensions (LxWxH)	3.94 x 3.54 x 0.79 inches (approx.)
Weight	1.4 pounds (approx.)
Compatible Devices	Personal Computer (with compatible ASUS motherboard)

10. WARRANTY AND SUPPORT

For information regarding the product warranty, please refer to the warranty card included with your purchase or visit the official ASUS support website. The warranty terms and conditions may vary by region.

For technical support, driver downloads, and frequently asked questions, please visit the ASUS support website: <https://www.asus.com/support/>

When contacting support, please have your product model name (THUNDERBOLTEX II/DUAL) and serial number ready.



[pdf] User Manual Specifications Documentation Guide Warranty
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ThunderboltEX II/DUAL User Guide 15060-35500000 <https://manual-hub.com/> E9001
First Edition Febr ... 55 hereby declares that the product Product Name :
ThunderboltEX II PCI EXPRESS Card Model Number : **THUNDERBOLTEX II/DUAL**,
THUNDERBOLTEX II Conforms to the following specifications: FCC Part 15, Subpa...
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DECLARATION UE DE CONFORMITE  IN SEARCH OF INCREDIBLE

Nous, soussignés

Fabricant:	ASUSTeK COMPUTER INC.
Adresse:	4F, No. 100, LITE Rd., PETOS, TAIPEI 112, TAIWAN
Représentant autorisé en Europe:	ASUS COMPUTER GmbH
Adresse, ville:	HANNOVER STR. 21-23, 40880 RATINGEN
Pays:	GERMANY

Declareons l'appareil suivant :

Nom du produit : **ThunderboltEX II PCI EXPRESS Card**

Nom du modèle : **THUNDERBOLT EX II, THUNDERBOLT EX II**

L'objet de la déclaration décrit ci-dessous est conforme avec la signature d'harmonisation de l'Union applicable

Directives CEM 2004/108/CE (à partir du 19 août 2004 et la directive 2014/53/UE à partir du 20 août 2016)

EN 55022:2008+A1:2011	EN 55024:2008	EN 55022:2013+A1:2011	EN 55024:2013
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Directive LVD 2006/95/CE (à partir du 13 août 2006 et la directive 2014/34/UE à partir du 20 août 2016)

EN 60950-1:2005+A1:2009	EN 60950-1:2005+A2:2013	EN 60950-1:2005+A2:2013	EN 60950-1:2005+A2:2013
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Directive RoHS 2011/65/UE

EN 61249:2010	EN 61249:2010	EN 61249:2010	EN 61249:2010
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Marquage CE

Equipement de classe I

(Marquage UE de conformité)



Signature

Jerry Shen

Nom en caractères d'impression

CEO

Position

Taipei, Taiwan

Lieu de délivrance

16/9/2013

Date de déclaration initiale

4/3/2016

Date de déclaration complète

2016

Année de commercialisation / séparation du marquage CE

[pdf] Declaration of Conformity Accessories

Declaration of Conformity TIGER XP EMC ThunderboltEX II DUAL THUDERBOLTEX FR QTK DoC CE dldcnet asus 80 pub ASUS Accessory

DECLARATION UE DE CONFORMITE Nous, soussignés Fabricant: Adresse:

Représentant autorisé en Europe: Adr ... 21-23, 40880 RATINGEN GERMANY Nom du produit : ThunderboltEX II PCI EXPRESS Card Nom du modèle : **THUNDERBOLT EX II/DUAL**, THUNDERBOLT EX II L objet de la dclaration dcrit ci-dessus est conforme avec ...

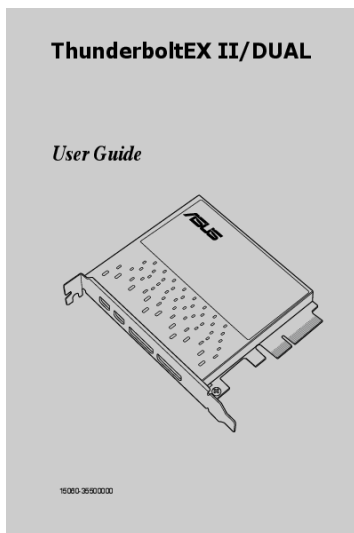
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[pdf] Guide

ASUS Component Product Guide June September 2014 asus event ph productguide |||

ASUS PRODUCT APAC GUIDE Jun - Sept 2014 Deliver 6 faster game performance than reference design Brilliant performance and exclusive gameboosting features Harmony of Technology and Aesthetics ASUS GeForce GTX 780 Ti DirectCU II Graphic Card ROG high-value gaming ATX-board SDRW-08D2S-U The Wor... lang:en score:30 filesize: 14.65 M page_count: 11 document date: 2014-06-23



[pdf] User Manual Installation Guide Instructions Documentation Guide Accessories

ThunderboltEX II DUAL User Guide To install the driver place Support DVD into optical drive then follow on screen instructions to finish installation Installing No part of this manual including products and software described in it may be reproduced transmitted transcribed stored a retrieval system or translated any language form by means except documentation kept purchaser for backup purposes without express written permission ASUSTeK COMPUTER INC E9001 Dual dlsvr04 asus pub ASUS Accessory cn ftp tekwind co jp asustw

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lang:en score:28 filesize: 1.55 M page_count: 14 document date: 2014-01-24

1. Power Supplies		Model
Asus	Asus FC78B1	
Asus Lead	1150W 600W	
	(A105)	
Antec	Antec 1150W Ultra Green	
	HD-1000	
	TP-750	
	DS-750	
ATXWUN	ATX10-40TE	
Be quiet	847 7.5 100W	
BitFamer	10-55W	
	Power 6000	
BUBALIS	F0200A04	
	BS-550-A-CAN-15	
	BS-550-ARBA-15	
	PS-750-ARBA-15	
COOLER MASTER	CM-550 (CPA-15)	
	TA-1000 (TP-1000)	
	AS1050 (750-1000)	
	CS-500 (750-500)	
	CS-500 (750-500)	
	CM-1000	
	BS-750 (PS-750)	
Corsair	RM-750 (PS-750)	
	RM-1000 (PS-1000)	
	RM-1000 (PS-1000)	
	SM-1000	
	CM-1000	
D-HIGH	Vergara-5500	
	DHP-1000 (PS-1000)	
ENERMAX	ENK750ANT	
	ENK1000NT-2	
EVGA	200-P1-2200-A1	
	PT-4000	
FANTEC	RAIDER-450W	
Hyper	1000W	
IGCE	CC-477750W	
PowerMax	PA-1000-02-1	
Seasonic	HY-650S	
	SS-650S	
Seasonic	SSA-450W Active PFC-15	
	SS-1000W Active PFC-15	
SILVERSTONE	SS1-600	
	SS1-1000-02	
SF-1000 (PS-1000)		
Thermaltake	Toughpower TR750	
	TR750-0100	
	TPD-1200	

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Qualified Vendors List Devices 1. Power Supplies AcBel Aero Cool Antec AYWUN Be quiet BitFenix BUBALUS COOLER MASTER Corsair D.HIGH ENERMAX EVGA FSP Huntkey OCZ Power Man Rosewill Seasonic SILVERSTONE SUPER FLOWER Thermaltake R88 PC7063 STRIKE-X 600W EA-500D EA-650 EarthWatts Green HCP-1300 TP-75...

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Inc PAGE 9 Z97 WS 3 Controller Cards Graphic Type Model AMD Chipset HD5450 SL 2GD3 L V68F9 12
20 62 AS10 6 Keyboard and Mouse Keyboards USB 2 0 Logitech Apple A1243 BLOODY B520 CHERRY
MX BOARD CM STORM QUICK FIRE TK Corsair K90 Dell SK 3205 Ducky DK9000G2 FILCO
FKBN104ML EB GIGABYTE K8100 GX GAMING IMPERATOR PRO G105 K800 MSI CK Series RAP00
V5 LBOTS DK130500041 AORUS THUNDER M7 Razer 5 Peripheral Storage Card Readers Kingston
FCR HS3 Media Reader Device QVL 141104 dlsrv04 asus pub mb socket1150 Manual dlcdnet cn
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Qualified Vendors List – Dealers	
1. Power Supplies	
	Model#
Acbel	AC-FC78B3
Aura Lead	17V400-600W (A-500)
Atecc	EA-603 Earthlink Green HD-300 TP-25C EP-75C
ATRON	AT-400-UTE A-27 1.5 100W
Be quiet	IO-10-50W
BizPower	Power 6002
BUBALUS	P6020AA PS-100-A-CAA-15 PS-100-ARBA-15 PS-70-ARBA-15
COOLER MASTER	PS-100-A-CAA-15 PS-100-ARBA-15 PS-70-ARBA-15
	PS-100-UT-UE CS-800-15-1200W R4270-PP-0203 PS-100P-FA-0000 PS-600230 (SPT 600W) PS-600230 (SPT 600W) EPS-1073 (SPT 600W)
Oray	PS-100P-FA-0000 PS-600230 (SPT 600W) EPS-1073 (SPT 600W)
	ST400 ST400 CH-100
O-HIGH	HP-20000-400P IT-4000MT-2 IT-4000MT
ENERMAX	EW7300MT EW72100MT-LG
DVGA	200-P-1200-03
GP	P-4330
Hunttek	W-000
Force	DC-477750W
Power Man	PS-100-03-03-03-03 R48-03-00-00
Recess	LN-030 R48-03-00-00
Seasonic	LN-030 R48-03-00-00
Seasonic	SEA-400W Active PFC #3 SEA-500W Active PFC #3
Silverstone	ST-400-40 ST-400-40
SILVERSTONE	ST-400-40 ST-400-40
SUPERFLOWER	SF-1000M-00 Toughpower 750W
Thermaltake	TPS-1000W

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X99 DELUXE II Report

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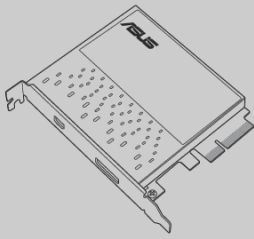
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Corsair D.HIGH ENERMAX EVGA FSP Huntkey OCZ Power Man Rosewill Seasonic
SILVERSTONE SUPER FLOWER Thermaltake 2. Hard Drives 2.1. HDD Devices
Type R88 PC7...

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ThunderboltEX II

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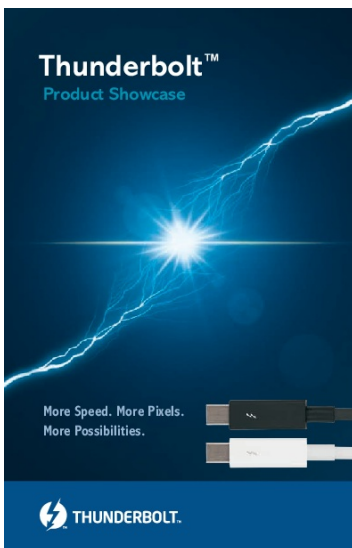


[\[pdf\]](#) Accessories

J9043 ThunderboltEX II ftp tekwind co jp pub asustw Accessory

ThunderboltEX II J9043 20142 Copyright 2014 ASUSTeK COMPUTER INC. All Rights Reserved. ASUSTeK ... 55 hereby declares that the product Product Name : ThunderboltEX II PCI EXPRESS Card Model Number : **THUNDERBOLTEX II/DUAL**, THUNDERBOLTEX II Conforms to the following specifications: FCC Part 15, Subpa...
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Thunderbolt™ Product Showcase



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Thunderbolt longer optical cables can come in lengths up to 60 meters Apple Thunderbolt™ Cable
Universal Audio Apollo Twin Zoom TAC 8 2 2R Brochure Siggraph IDF thunderbolttechnology net sites
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Thunderbolt™ Product Showcase More Speed. More Pixels. More Possibilities. 2
OVERVIEW The fastest, most versatile I/O ever. Thunderbolt™ technology is a revolutionary I/O that supports high-resolution displays and high-performance data devices through a single compact port. It sets a new bar for...

lang:en score:15 filesize: 2.84 M page_count: 16 document date: 2015-07-24

RAMPAGE V EDITION 10 Compatibility Test Report Rev.1.0

Released on	May 24th, 2016
Sampling quantity	7 pcs
Product	RAMPAGE V EDITION 10 mainboard Rev. 1.00C AMI UEFI BIOS Ver. 0502
Product Leader	Allen Cheng
Product Director	Max Tseng
Testing engineers	Grace Lin Eason Tseng Henry He Chris Wu Jack Chang Vanessa Lin
Reviewed by	Roger Yang
Approved by	Paul Hsu

[\[pdf\]](#) User Manual Specifications Test Report

Cover QTC RAMPAGE V EDITION 10 Compatibility Test Report Rev 1 0 Released on May 24th 2016
Sampling quantity 7 pcs Product mainboard 00C AMI UEFI BIOS Ver 0502 Leader Allen Cheng Director
Max Tseng Testing engineers Grace Lin Eason Manual Menu Browser CD File list Crash Free Function
Model MFC J625DW PIXMA MX377 DS 30 OFFJET4630 OpticPro ST640 M2020W EDITION10 Device
QVL0608 dlcdnet asus pub ASUS mb LGA2011 80

RAMPAGE V EDITION 10 Compatibility Test Report Rev.1.0 Released on Sampling
quantity Product May 24th, 2016 7 pcs RAMPAGE V EDITION 10 mainboard Rev.
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Allen Cheng Max Tseng Grace Lin Eason Tseng Henry He Chris Wu ...

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