msi

MSI Gaming GE62 2QD(Apache Pro)-453US Intel® Core™ i7 i7-5700HQ Laptop 39,6 cm (15.6") Full HD 8 GB DDR3L-SDRAM 1 TB HDD NVIDIA® GeForce® GTX 960M Wi-Fi 5 (802.11ac) Windows 10 Home Black, Red

Brand : MSI

Product family: Gaming

Product code: GE62 2QD-453US

Product name : GE62 2QD(Apache Pro)-453US

Intel Core i7-5700HQ (6M Cache, 2.70 GHz), 15.6" Full HD (1920x1080) LED, 8GB DDR3L, 1TB SATA HDD, DVD Super Multi, Intel HD Graphics 5600 + NVIDIA GeForce GTX 960M 2GB GDDR5, Gigabit Ethernet, WLAN 802.11ac, Bluetooth 4.1, HD Webcam, Windows 10 Home 64-bit
MSI Gaming GE62 2QD(Apache Pro)-453US. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i7, Processor model: i7-5700HQ, Processor frequency: 2,7 GHz. Display diagonal: 39,6 cm (15.6"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Internal memory: 8 GB, Internal memory type: DDR3L-SDRAM. Total storage capacity: 1 TB, Storage media: HDD, Optical drive type: DVD Super Multi. Operating system installed: Windows 10 Home. Product colour: Black, Red

Design

Product type *	Laptop
Product colour *	Black, Red
Form factor *	Clamshell
Market positioning	Gaming

Display

Display diagonal *	39,6 cm (15.6")
Display resolution *	1920 x 1080 pixels
Touchscreen *	✘
HD type	Full HD
LED backlight	✔
Native aspect ratio	16:9
Display surface	Matt
Dual-screen	✘

Processor

Processor manufacturer *	Intel
Processor family *	Intel® Core™ i7
Processor generation	5th gen Intel® Core™ i7
Processor model *	i7-5700HQ
Processor cores	4
Processor threads	8
Processor boost frequency	3,5 GHz
Processor frequency *	2,7 GHz
System bus rate	5 GT/s
Processor cache	6 MB
Processor cache type	L3
Processor socket	BGA 1364
Processor lithography	14 nm
Processor operating modes	32-bit, 64-bit
Processor series	Intel Core i7-5700 Mobile Series

Ports & interfaces

Docking connector	✘
ExpressCard slot	✘
CardBus PCMCIA slot type	✘
SmartCard slot	✘

Performance

Motherboard chipset	Intel® HM87

Keyboard

Pointing device	Touchpad
Numeric keypad *	✔
Keyboard backlit	✔
Windows keys	✔

Software

Operating system architecture	64-bit
Operating system installed *	Windows 10 Home

Processor special features

Intel® Wireless Display (Intel® WiDi)	✔
Intel® My WiFi Technology (Intel® MWT)	✘
Intel® Anti-Theft Technology (Intel® AT)	✘
Intel® Smart Response Technology	✔
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Hyper Threading Technology (Intel® HT Technology)	✔
Intel® Turbo Boost Technology	2.0

Processor

Processor codename	Broadwell
Bus type	DMI2
FSB Parity	✘
Stepping	G0
Thermal Design Power (TDP)	47 W
Configurable TDP-down	37 W
Configurable TDP-down frequency	0,6 GHz
Tjunction	105 °C
Maximum number of PCI Express lanes	16
PCI Express slots version	3.0
PCI Express configurations	1x16, 2x4, 1x8, 2x8
ECC supported by processor	✘

Memory

Internal memory *	8 GB
Internal memory type	DDR3L-SDRAM
Memory clock speed	1600 MHz
Memory form factor	SO-DIMM
Memory slots	2x SO-DIMM
Maximum internal memory *	16 GB

Storage

Total storage capacity *	1 TB
Storage media *	HDD
Number of HDDs installed	1
HDD capacity	1 TB
HDD interface	SATA
HDD speed	7200 RPM
Optical drive type *	DVD Super Multi
Card reader integrated	✔
Compatible memory cards	SD, SDHC, SDXC

Graphics

Discrete graphics card model *	NVIDIA® GeForce® GTX 960M
Discrete graphics card memory	2 GB
Discrete graphics memory type	GDDR5
On-board graphics card *	✔
Discrete graphics card *	✔
On-board graphics card family	Intel® HD Graphics
On-board graphics card model *	Intel® HD Graphics 5600
On-board graphics card base frequency	300 MHz
On-board graphics card dynamic frequency (max)	1050 MHz
Maximum on-board graphics card memory	32 GB
On-board graphics card DirectX version	11.2
On-board graphics card OpenGL version	4.3
On-board graphics card ID	0x1612
Number of discrete graphics cards installed	1
Graphics card Open GL support	✔

Audio

Audio system	Sound Blaster Cinema
Speakers manufacturer	Dynaudio
Built-in microphone	✔

Camera

Front camera	✔
Front camera resolution	1280 x 720 pixels

Processor special features

Intel® Small Business Advantage (Intel® SBA)	✔
Enhanced Intel SpeedStep Technology	✔
Intel® Clear Video HD Technology (Intel® CVT HD)	✔
Intel Clear Video Technology	✔
Intel® InTru™ 3D Technology	✔
Intel® Insider™	✔
Intel® Quick Sync Video Technology	✔
Intel Flex Memory Access	✔
Intel® Smart Cache	✔
Intel® AES New Instructions (Intel® AES-NI)	✔
Intel Trusted Execution Technology	✘
Intel Enhanced Halt State	✔
Intel VT-x with Extended Page Tables (EPT)	✔
Intel Demand Based Switching	✘
Intel® Secure Key	✔
Intel TSX-NI	✘
Intel Stable Image Platform Program (SIPP)	✘
Intel® OS Guard	✔
Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✔
Intel 64	✔
Execute Disable Bit	✔
Idle States	✔
Thermal Monitoring Technologies	✔
Processor package size	37.5 x 32 x 1.8 mm
Supported instruction sets	SSE4.2, AVX 2.0, SSE4.1
Processor code	SR2BP
CPU configuration (max)	1
Embedded options available	✘
Graphics & IMC lithography	14 nm
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Intel Identity Protection Technology version	1,00
Intel Smart Response Technology version	1,00
Intel Stable Image Platform Program (SIPP) version	0,00
Intel Secure Key Technology version	1,00
Intel Small Business Advantage (SBA) version	1,00
Intel TSX-NI version	0,00
Intel Virtualization Technology (VT-x)	✔
Intel Dual Display Capable Technology	✘
Intel FDI Technology	✔
Intel Rapid Storage Technology	✘
Intel Fast Memory Access	✔
Processor ARK ID	87716
Conflict-Free processor	✔

Battery

Battery technology	Lithium-Ion (Li-Ion)
Number of battery cells	6

Camera

Video capturing speed	30 fps

Network

Wi-Fi	✔
Top Wi-Fi standard *	Wi-Fi 5 (802.11ac)
Wi-Fi standards	802.11a, Wi-Fi 5 (802.11ac), 802.11b, 802.11g, Wi-Fi 4 (802.11n)
Ethernet LAN	✔
Ethernet LAN data rates	10,1000,100 Mbit/s
Bluetooth	✔
Bluetooth version	4.1

Ports & interfaces

USB 2.0 ports quantity *	1
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	3
Ethernet LAN (RJ-45) ports	1
HDMI ports quantity *	1
HDMI version	1.4b
Mini DisplayPorts quantity	1
DVI port	✘
Headphone outputs	1
S/PDIF out port	✔
Microphone in	✔
Line-in	✔

Battery

Battery capacity *	60 Wh

Power

AC adapter power	150 W
AC adapter frequency	50 - 60 Hz
DC-in jack	✔

Security

Cable lock slot	✘

Weight & dimensions

Width	383 mm
Depth	260 mm
Height	27 mm
Weight *	2,4 kg

Packaging content

AC adapter included *	✔
Cables included	AC
Manual	✔

Other features

LightScribe	✘
3D	✘
Intel® Virtualization Technology (Intel® VT)	VT-x, VT-d

Catalog Object Cloud