

## PERFORMANCE

### Processor

#### Processor Family

Intel® Celeron®, Intel Pentium® Gold, or 8th / 9th Generation Intel Core™ i3 / i5 / i7 Processor

#### Processor

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Memory Support | Processor Graphics     |
|----------------|-------|---------|----------------|---------------|-------|----------------|------------------------|
| Core i3-8100   | 4     | 4       | 3.6GHz         | -             | 6MB   | DDR4-2400      | Intel UHD Graphics 630 |
| Core i3-9100   | 4     | 4       | 3.6GHz         | 4.2GHz        | 6MB   | DDR4-2400      | Intel UHD Graphics 630 |
| Core i5-8400   | 6     | 6       | 2.8GHz         | 4.0GHz        | 9MB   | DDR4-2666      | Intel UHD Graphics 630 |
| Core i5-9400   | 6     | 6       | 2.9GHz         | 4.1GHz        | 9MB   | DDR4-2666      | Intel UHD Graphics 630 |
| Core i5-9400F  | 6     | 6       | 2.9GHz         | 4.1GHz        | 9MB   | DDR4-2666      | -                      |
| Core i7-9700   | 8     | 8       | 3.0GHz         | 4.7GHz        | 12MB  | DDR4-2666      | Intel UHD Graphics 630 |

### Operating System

- Windows® 10 Home 64
- No operating system

### Graphics

| Graphics                | Type       | Memory    | Connector                      | Max Resolution                                                | Key Features |
|-------------------------|------------|-----------|--------------------------------|---------------------------------------------------------------|--------------|
| Intel UHD Graphics 630  | Integrated | Shared    | 1x HDMI® 1.4, 1x VGA           | 1920x1080@24Hz(HDMI), 2048x1536@50Hz(VGA)                     | DirectX® 12  |
| AMD Radeon™ RX 550X     | Discrete   | 4GB GDDR5 | 1x HDMI 2.0, 1x VGA, 1x DP 1.4 | 4096x2160@60Hz(HDMI), 2048x1536@85Hz(VGA), 3840x2160@60Hz(DP) | DirectX 12   |
| AMD Radeon RX 560       | Discrete   | 4GB GDDR5 | 1x HDMI 2.0, 1x DP 1.4, 1x DVI | 4096x2160@60Hz(HDMI), 5120x2880@60Hz(DP), 2560x1600@60Hz(DVI) | DirectX 12   |
| NVIDIA® GeForce® GT 730 | Discrete   | 2GB GDDR5 | 1x HDMI 1.4, 1x VGA            | 3840x2160@30HZ(HDMI), 2048x1536@75Hz(VGA)                     | DirectX 12   |

#### Notes:

- Integrated graphics information and onboard video ports information are not applicable for all models without integrated graphics (for the details, please refer to processor section)

### Monitor Support

Supports up to 2 independent displays via onboard ports (VGA and HDMI), more displays support via discrete graphics

### Chipset

Intel B365 chipset

### Memory

#### Memory Type

DDR4-2666

#### Notes:

- Installed memory is actually 2666MHz, but may run at 2400MHz or 2666MHz depending on the memory support capability of processor

#### Memory Slots

Two DDR4 UDIMM slots, dual-channel capable

#### Memory Protection

Non-ECC

#### Max Memory

Up to 32GB DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to 2 drives, 1x 3.5" HDD + 1x M.2 SSD

- 3.5" HDD up to 2TB
- M.2 SSD up to 512GB

RAID

Not support

Storage Type

| Disk Type                | Interface              | RPM  | Security |
|--------------------------|------------------------|------|----------|
| M.2 2242 SSD             | PCIe NVMe              | -    | -        |
| Intel Optane™ Memory M10 | PCIe NVMe, PCIe 3.0 x2 | -    | -        |
| 3.5" SATA HDD            | SATA 6Gb/s             | 7.2K | -        |
| M.2 2280 SSD             | PCIe NVMe              | -    | -        |

Removable Storage

Optical

DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)

Card Reader

7-in-1 card reader (SD, SDHC, SDXC, MMC, MS, MS-Pro, MMC plus)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC222 codec

Power Supply

| Power | Type  | Efficiency | Key Features |
|-------|-------|------------|--------------|
| 180W  | Fixed | 85%        | -            |
| 210W  | Fixed | 85%        | -            |

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- No mouse

Mechanical

Buttons

- Power button
- Optical drive eject button(for the models with ODD)

Form Factor

Tower (15L)

Dimensions (WxDxH)

# ideacentre 510A-15ICK

145 x 285.2 x 366.03 mm (5.71 x 11.22 x 14.41 inches)

## Weight

5.8 kg (12.79 lbs)

## Case Color

Black

## Bays

- 1x slim ODD bay
- 1x 3.5" disk bay
- 1x 3.5" or 2.5" disk bay, HDD / SSD

## Expansion Slots

- One PCIe 3.0 x16, full height, half length
- One PCIe 3.0 x1, full height, half length
- Two M.2 slots (one for WLAN, one for SSD)

## Cooling System (Fan&Cooler)

(Optional) Front and rear system fan

# CONNECTIVITY

## Network

### Onboard Ethernet

Gigabit Ethernet, 1x RJ45

### WLAN + Bluetooth™

- 802.11ac 2x2 Wi-Fi + Bluetooth 4.0, M.2 card
- 802.11ac 1x1 Wi-Fi + Bluetooth 4.0, M.2 card

## Ports

### Front Ports

- 4x USB 3.1 Gen 1
- 1x USB-C 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

### Notes:

- The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3: 40 Gbit/s;

FireWire 400: 400 Mbit/s;

FireWire 800: 800 Mbit/s;

### Optional Front Ports

1x card reader

### Rear Ports

- 4x USB 2.0
- 1x Ethernet (RJ-45)
- 1x HDMI 1.4
- 1x VGA
- 1x headphone / microphone combo jack (3.5mm)
- 1x power connector

### Notes:

- For video ports on discrete graphics, please see graphics section

# SECURITY & PRIVACY

## Security

### Physical Locks

Kensington® Security Slot

### BIOS Security

- Power-on password
- Administrator password
- Hard disk password

## SERVICE

## Warranty

### Base Warranty

- 1-year depot or mail-in service
- 1-year limited onsite service
- 2-year depot service

## CERTIFICATIONS

### Green Certifications

- ErP Lot 3
- RoHS compliant

