

# ideacentre AIO 520 (24") AMD F0DN002DGE

Region  
WE

Country  
Germany

Machine Type  
F0DN

Processor  
AMD Ryzen 3 2200GE (4C, 3.2 / 3.6GHz, 2MB)

Graphics  
Integrated AMD Radeon Vega 8 Graphics

Chipset  
AMD B300

Memory  
4GBx2 DDR4-2666

Storage  
1TB 7200rpm + 128GB SSD M.2 PCIe

Optical  
DVD±RW

Media Reader  
3-in-1

Display  
23.8" FHD (1920x1080) IPS

Multi-touch  
None

Camera  
720p

Microphone  
Dual Array

HDMI  
HDMI-in

WLAN + Bluetooth  
11ac, 1x1 + BT4.0

Keyboard / Mouse  
USB Black / USB Black

Power Supply  
90W Adapter

Operating System  
Windows 10 Home 64

Warranty  
2-year, Depot

Ann Date (mm/yy)  
06/18

## Note:

Country Code "US" is for United States, "++" is for EMEA countries (e.g. AD - Saudi, Arabia, AT - Austria, BM - Bulgaria, etc.), "xx" is for EAST countries (e.g. BM - Bulgaria, CX - Hungary, CY - Cyprus, etc.), and "\*\*\*" is for MEA countries (e.g. AD - Saudi, Arabia, ED - Egypt, EQ - Sweden, etc.). Please be aware that the EMEA/ EAST/MEA models listed above might not be available in all countries



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# ideacentre AIO 520 (24") AMD Platform Specifications

Product Specifications Reference (PSREF)

|                                          |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------|-------------|---------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|----------------------|-------------|---------------|------------------------------------------------------------|-----|-----|------------|----------------------------------------------------------|-------------|--------------------------------|
| Processor                                | 24AST: AMD A4, A6, A9, A10 or A12 series APUs                                                                                                                                                                                                                                                                                    |                                                            |                                |             |                     |                     | Security chip                                                                                                                                                                                                                                                                                                                   | None                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
|                                          | APU                                                                                                                                                                                                                                                                                                                              | Cores                                                      | Frequency (Base/Max)           | Cache       | Memory Type         | Integrated Graphics | Security features                                                                                                                                                                                                                                                                                                               | Power-on password, administrator password, security slot                                                                                                                                                                                                                                                                                                                                                                      |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
|                                          | A4-9120                                                                                                                                                                                                                                                                                                                          | 2                                                          | 2.2 GHz / 2.5 GHz              | 1 MB        | DDR4-1866           | Radeon™ R3          | Keyboard (opt)                                                                                                                                                                                                                                                                                                                  | Some: Lenovo Calliope Keyboard (USB connector), silver or black<br>Some: Lenovo Wireless Keyboard (2.4GHz via USB receiver), silver or black                                                                                                                                                                                                                                                                                  |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
|                                          | A6-9220                                                                                                                                                                                                                                                                                                                          | 2                                                          | 2.5 GHz / 2.9 GHz              | 1 MB        | DDR4-1866           | Radeon R4           | Mouse (opt)                                                                                                                                                                                                                                                                                                                     | Some: Lenovo Calliope Mouse (USB connector), silver or black<br>Some: Lenovo Wireless Mouse (2.4GHz via USB receiver), silver or black                                                                                                                                                                                                                                                                                        |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
|                                          | A9-9420                                                                                                                                                                                                                                                                                                                          | 2                                                          | 3.0 GHz / 3.6 GHz              | 1 MB        | DDR4-1866           | Radeon R5           | Mechanical                                                                                                                                                                                                                                                                                                                      | ● black or silver color<br><table><tr><td></td><td>Dimensions (WxDxH)</td><td>Max weight (lb / kg)</td><td>Adjustments</td></tr><tr><td>Without stand</td><td>21.31 X 2.24 X 13.62 (inch);<br/>541.2 x 57.3 x 346.06 (mm)</td><td>N/A</td><td>N/A</td></tr><tr><td>With stand</td><td>21.31 X 8.34 X 16.39 (inch);<br/>541.2 x 212 x 416.8 (mm)</td><td>13.6 / 6.17</td><td>Tilt: 25° back,<br/>-5° forward</td></tr></table> |  | Dimensions (WxDxH) | Max weight (lb / kg) | Adjustments | Without stand | 21.31 X 2.24 X 13.62 (inch);<br>541.2 x 57.3 x 346.06 (mm) | N/A | N/A | With stand | 21.31 X 8.34 X 16.39 (inch);<br>541.2 x 212 x 416.8 (mm) | 13.6 / 6.17 | Tilt: 25° back,<br>-5° forward |
|                                          |                                                                                                                                                                                                                                                                                                                                  | Dimensions (WxDxH)                                         | Max weight (lb / kg)           | Adjustments |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
|                                          | Without stand                                                                                                                                                                                                                                                                                                                    | 21.31 X 2.24 X 13.62 (inch);<br>541.2 x 57.3 x 346.06 (mm) | N/A                            | N/A         |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| With stand                               | 21.31 X 8.34 X 16.39 (inch);<br>541.2 x 212 x 416.8 (mm)                                                                                                                                                                                                                                                                         | 13.6 / 6.17                                                | Tilt: 25° back,<br>-5° forward |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| A10-9620P                                | 4                                                                                                                                                                                                                                                                                                                                | 2.5 GHz / 3.4 GHz                                          | 2 MB                           | DDR4-1866   | Radeon R5           |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| A12-9720P                                | 4                                                                                                                                                                                                                                                                                                                                | 2.7 GHz / 3.6 GHz                                          | 2 MB                           | DDR4-1866   | Radeon R7           |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| 24ARR: AMD Ryzen™ 3 / 5 series processor |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Processor                                | Cores / Threads                                                                                                                                                                                                                                                                                                                  | Frequency (Base/Max)                                       | Cache                          | Memory Type | Integrated Graphics |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Ryzen 3 2200GE                           | 4 / 4                                                                                                                                                                                                                                                                                                                            | 3.2 GHz / 3.6 GHz                                          | 2 MB                           | DDR4-2666   | Radeon Vega 8       |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Ryzen 5 2400GE                           | 4 / 8                                                                                                                                                                                                                                                                                                                            | 3.2 GHz / 3.8 GHz                                          |                                |             | Radeon RX Vega 11   |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Memory                                   | 24AST: 8GB max / 2400MHz DDR4, two SO-DIMM sockets<br>24ARR: 16GB max / 2666MHz DDR4, two SO-DIMM sockets<br>* System automatically clocks down for the processors with lower memory controller                                                                                                                                  |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Storage                                  | Some: SATA 6.0Gb/s, 3.5" wide, 7200 rpm<br>Some: M.2 SSD / PCIe, PCIe 3.0 x 4                                                                                                                                                                                                                                                    |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Optical Media reader                     | Optional DVD±RW, 9.0mm high, tray-in<br>3-in-1 media card reader (SD, SDHC, SDXC)                                                                                                                                                                                                                                                |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Graphics                                 | 24AST: Integrated AMD Radeon Graphics in processor, DirectX® 12 or AMD Radeon 530, 2GB GDDR5, DirectX 12<br>24ARR: Integrated AMD Radeon Vega 8 Graphics in processor, DirectX 12 or AMD Radeon RX Vega 11 Graphics in processor, DirectX 12<br>external monitor support via HDMI port;<br>Max resolution: 1920x1080 (HDMI)@60Hz |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Display                                  | 23.8" (604.5mm) Full HD (1920x1080) color, WVA, LED backlight, anti-glare, borderless, 250 nits, 16:9 aspect ratio, IPS, -5° degrees to 25° degrees                                                                                                                                                                              |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Multi-touch                              | Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology                                                                                                                                                                                                                                                 |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Camera                                   | Some: 720p camera, fixed focus<br>Some: IR camera, 1080p, supports Windows Hello                                                                                                                                                                                                                                                 |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Controls                                 | Power button, optical drive eject button, cable clip, camera eject button                                                                                                                                                                                                                                                        |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Chipset                                  | 24AST: AMD SoC (System on Chip) platform<br>24ARR: AMD B300 platform                                                                                                                                                                                                                                                             |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Ports                                    | Rear: Three USB 2.0, one USB 3.1 Gen1, one ethernet (RJ-45), one HDMI out port, optional one HDMI in port, one power connector, one security cable slot<br>Right: one USB 3.1 Gen1                                                                                                                                               |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| M.2 card slot                            | Bottom: one headphone / microphone combo jack (3.5mm), card reader<br>Two M.2 Card slots (one for WLAN, one for SSD)                                                                                                                                                                                                             |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Audio support                            | HD Audio, stereo speakers with Dolby® Audio™ certification,3W x 2, dual array microphone                                                                                                                                                                                                                                         |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| WLAN <sup>13</sup>                       | 11ac Wi-Fi + Bluetooth 4.0 combo adapter, M.2 card, dual band, 1x1                                                                                                                                                                                                                                                               |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Bluetooth™                               | Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter                                                                                                                                                                                                                                                            |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Ethernet                                 | Gigabit ethernet                                                                                                                                                                                                                                                                                                                 |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Manageability                            | None                                                                                                                                                                                                                                                                                                                             |                                                            |                                |             |                     |                     |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Power supply                             |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     | 65 or 90 watts adapter, 100V-240V                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Limited warranty                         |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     | 1-year or 2-year, depot repair service / service upgrades available                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Preload                                  |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     | Preloaded operating system<br>Some: Windows 10 Home 64-bit<br>Preloaded applications (only some listed)<br>● Microsoft® Office 2016;<br>purchase a product key to activate<br>● Lenovo® Settings<br>● Lenovo Application Explorer<br>● McAfee® LiveSafe™ (30-day trial)<br>● Lenovo ID<br>● Lenovo Family Cloud<br>● User Guide |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Environment                              |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     | 24AST: ENERGY STAR® 6.1; ErP Lot 3; GREENGUARD® certified; RoHS-compliant<br>24ARR: ENERGY STAR 7.0; ErP Lot 3; RoHS-compliant                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |
| Accessories                              |                                                                                                                                                                                                                                                                                                                                  |                                                            |                                |             |                     |                     | For compatible accessories, please go to <a href="http://smartfind.lenovo.com">http://smartfind.lenovo.com</a>                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                      |             |               |                                                            |     |     |            |                                                          |             |                                |

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