

SIMATIC IPC520A; Nvidia ARM Carmel (6C); 8 GB RAM, Jetson NX; 4x Ethernet RJ45, 3x USB3.0; 16 GB eMMC; without mounting accessories without accessories



| General information                                    |   |
|--|---|
| Product type designation                               | IPC520A   |
| Installation type/mounting                             |   |
| Mounting   | rail mounting, wall mounting, desk mounting                     |
| Design   | Box PC, built-in unit   |
| Supply voltage   |   |
| Type of supply voltage                                 | 24 V DC   |
| Mains buffering  |   |
| • Mains/voltage failure stored energy time             | 5 ms  |
| Processor  |   |
| Processor type   | NVIDIA Carmel ARM ® v8.2 64-bit CPU, 2x @ 1.5 GHz, 4x @ 1.2 GHz |
| Graphic  |   |
| Graphics controller                                    | 384-core NVIDIA Volta™ GPU with 48 Tensor Cores @ 800 MHz       |
| Drives   |   |
| SSD  | Yes; 16 GB eMMC   |
| Memory   |   |
| Type of memory   | LPDDR4  |
| Main memory  | 8 GB RAM  |
| Hardware configuration                                 |   |
| Slots  |   |
| • free slots   | 1x nano SIM card slot   |
| Digital inputs   |   |
| Number of digital inputs                               | 4   |
| Input voltage  |   |
| • Type of input voltage                                | 24 V DC   |
| • for signal "0"                                       | < 5 V DC  |
| • for signal "1"                                       | > 12 V DC   |
| Input current  |   |
| • for signal "0", max. (permissible quiescent current) | 1 mA  |
| • for signal "1", typ.                                 | 2.5 mA  |
| Digital outputs  |   |
| Type of digital output                                 | transistor  |
| Number of digital outputs                              | 2   |
| Short-circuit protection                               | No  |
| Output voltage   |   |
| • Type of output voltage                               | DC  |
| • permissible voltage at output, min.                  | 20.4 V  |
| • permissible voltage at output, max.                  | 28.8 V  |
| Output current   |   |
| • for signal "1" rated value                           | 0.5 A   |

|   |  |
|---|--|
| Switching frequency   |  |
| • with resistive load, max.   | 10 Hz  |
| • with inductive load, max.   | 0.5 Hz   |
| • mechanical, max.  | 10 Hz  |
| <b>Interfaces</b>   |  |
| Number of industrial Ethernet interfaces                            | 4; 4x RJ45 (2x support PoE PSE IEEE 802.3af 15 W)  |
| USB port  | 3x USB 3.0, 1x USB 2.0   |
| Connection for keyboard/mouse                                       | USB / USB  |
| serial interface  | 1x COM (1x RS 232 / 422 / 485)   |
| Video interfaces  |  |
| • Graphics interface  | 1x DisplayPort   |
| Industrial Ethernet   |  |
| • Industrial Ethernet interface                                     | 4x Ethernet (RJ45)   |
| — 100 Mbps  | Yes  |
| — 1000 Mbps   | Yes  |
| <b>Protocols</b>  |  |
| Protocols (Ethernet)  |  |
| • TCP/IP  | Yes  |
| <b>Integrated Functions</b>   |  |
| Monitoring functions  |  |
| • Temperature monitoring  | Yes  |
| • Watchdog  | Yes  |
| • Status LEDs   | 1x Power, 1x User, 6x DIO  |
| • Fan   | No   |
| <b>EMC</b>  |  |
| Interference immunity against discharge of static electricity       |  |
| • Interference immunity against discharge of static electricity     | ±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2   |
| Interference immunity against high-frequency electromagnetic fields |  |
| • Interference immunity against high frequency radiation            | 10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4-6 |
| Interference immunity to cable-borne interference                   |  |
| • Interference immunity on supply cables                            | ±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)              |
| • Interference immunity on signal cables >30m                       | ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge   |
| • Interference immunity on signal cables < 30m                      | ±1 kV (5 kHz/100 kHz) acc. to IEC 61000-4-4; burst; length < 30 m; ±2 kV (5 kHz/100 kHz) acc. to IEC 61000-4-4; burst; length > 30 m   |
| Interference immunity to magnetic fields                            |  |
| • Interference immunity to magnetic fields at 50 Hz                 | 100 A/m; to IEC 61000-4-8  |
| Emission of conducted and non-conducted interference                |  |
| • Interference emission via line/AC current cables                  | EN 61000-6-4:2007 +A1:2011 (industrial environments), EN 61000-6-3:2007 +A1:2011 (residential environments), CISPR 22 Class B, FCC Class A   |
| <b>Degree and class of protection</b>                               |  |
| IP degree of protection   | IP20   |
| <b>Standards, approvals, certificates</b>                           |  |
| CE mark   | Yes  |
| CSA approval  | No; in preparation   |
| UL approval   | Yes  |
| cULus   | Yes; UL 61010-1, UL 61010-2-201  |
| FM approval   | in preparation   |
| RCM (formerly C-TICK)   | Yes; C-Tick  |
| KC approval   | Yes; Reg. No.:R-R-S53-IPC520A  |
| EAC (formerly Gost-R)   | Yes; EAC   |
| FCC   | Yes  |
| BSMI  | in preparation   |
| <b>Ambient conditions</b>   |  |
| Ambient temperature during operation                                |  |
| • min.  | 0 °C   |
| • max.  | 45 °C  |
| Ambient temperature during storage/transportation                   |  |

|   |   |
|---|---|
| • min.  | -20 °C  |
| • max.  | 70 °C   |
| Relative humidity   |   |
| • Relative humidity   | 5 ... 85 % at 30 °C, no condensation  |
| Vibrations  |   |
| • Vibration resistance during operation acc. to IEC 60068-2-6 | Tested according to IEC 60068-2-6: 5 Hz to 8.4 Hz: 3.5 mm, 8.4 Hz to 500 Hz: 9.8 m/s <sup>2</sup> |
| Shock testing   |   |
| • Shock load during operation                                 | Tested according to IEC 60068-2-27: 150 m/s <sup>2</sup> , 11 ms                                  |
| Operating systems   |   |
| pre-installed operating system                                | No  |
| Dimensions  |   |
| Width   | 234 mm  |
| Height  | 129 mm  |
| Depth   | 71 mm   |

last modified: 1/21/2023 