### Index

#### Fanless Embedded Computers

<table>
<thead>
<tr>
<th>Model</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOENIX</td>
<td>15</td>
</tr>
<tr>
<td>PYXIS</td>
<td>16</td>
</tr>
<tr>
<td>DRACO</td>
<td>17</td>
</tr>
<tr>
<td>KRATER</td>
<td>18</td>
</tr>
<tr>
<td>VELA</td>
<td>19</td>
</tr>
<tr>
<td>PEGASUS</td>
<td>20</td>
</tr>
<tr>
<td>PICTOR</td>
<td>21</td>
</tr>
<tr>
<td>DORADO</td>
<td>22</td>
</tr>
<tr>
<td>LYRA</td>
<td>23</td>
</tr>
<tr>
<td>PAVO</td>
<td>24</td>
</tr>
<tr>
<td>CYGNUS</td>
<td>25</td>
</tr>
<tr>
<td>HYDRUS</td>
<td>26</td>
</tr>
<tr>
<td>CHAMALEON</td>
<td>27</td>
</tr>
<tr>
<td>CETUS</td>
<td>28</td>
</tr>
<tr>
<td>Easy Edge</td>
<td>29</td>
</tr>
</tbody>
</table>

#### Modular HMI Solutions

<table>
<thead>
<tr>
<th>Model</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexy Vision 7 X86</td>
<td>56</td>
</tr>
<tr>
<td>Flexy Vision 10 X86</td>
<td>57</td>
</tr>
<tr>
<td>Flexy Vision 13.3 ARM</td>
<td>58</td>
</tr>
<tr>
<td>Flexy Vision 13.3 X86</td>
<td>59</td>
</tr>
<tr>
<td>Flexy Vision 15.6 ARM</td>
<td>60</td>
</tr>
<tr>
<td>Flexy Vision 15.6 X86</td>
<td>61</td>
</tr>
<tr>
<td>Flexy Vision 21.5</td>
<td>62</td>
</tr>
<tr>
<td>SYS-A62-10</td>
<td>63</td>
</tr>
<tr>
<td>SYS-B08-7</td>
<td>64</td>
</tr>
<tr>
<td>HYDRA-N6</td>
<td>65</td>
</tr>
<tr>
<td>NALLINO 4.3 OF PCT (by Garz &amp; Fricke)</td>
<td>66</td>
</tr>
<tr>
<td>SANTINO LT 5.0 OF PCT (by Garz &amp; Fricke)</td>
<td>67</td>
</tr>
<tr>
<td>SANTINO 7.0 OF PCT (by Garz &amp; Fricke)</td>
<td>68</td>
</tr>
<tr>
<td>SANTARO 7.0 OF PCT (by Garz &amp; Fricke)</td>
<td>69</td>
</tr>
<tr>
<td>TANARO 7.0 OF PCT IPS (by Garz &amp; Fricke)</td>
<td>70</td>
</tr>
<tr>
<td>SANTINO LT 5.0 SG (by Garz &amp; Fricke)</td>
<td>71</td>
</tr>
<tr>
<td>SANTARO 7.0 SG IPS (by Garz &amp; Fricke)</td>
<td>72</td>
</tr>
<tr>
<td>SANTOKA 7.0 SG IPS (by Garz &amp; Fricke)</td>
<td>73</td>
</tr>
<tr>
<td>SANTARO 10.1 SG IPS (by Garz &amp; Fricke)</td>
<td>74</td>
</tr>
<tr>
<td>SANTOKA 10.1 SG IPS (by Garz &amp; Fricke)</td>
<td>75</td>
</tr>
<tr>
<td>SANTOKA 12.1 SG IPS (by Garz &amp; Fricke)</td>
<td>76</td>
</tr>
<tr>
<td>SANTOKA 12.1 SG IPS (by Garz &amp; Fricke)</td>
<td>77</td>
</tr>
<tr>
<td>SANTARO 19.0 SG IPS (by Garz &amp; Fricke)</td>
<td>78</td>
</tr>
<tr>
<td>SANTOKA 32.0 SG IPS (by Garz &amp; Fricke)</td>
<td>79</td>
</tr>
<tr>
<td>SANTINO LT 5.0 BX PCT (by Garz &amp; Fricke)</td>
<td>80</td>
</tr>
<tr>
<td>SANTINO 7.0 BX PCT (by Garz &amp; Fricke)</td>
<td>81</td>
</tr>
<tr>
<td>SANTARO 7.0 BX PCT (by Garz &amp; Fricke)</td>
<td>82</td>
</tr>
<tr>
<td>TANARO 7.0 BX PCT (by Garz &amp; Fricke)</td>
<td>83</td>
</tr>
<tr>
<td>SANTARO 10.1 BX PCT (by Garz &amp; Fricke)</td>
<td>84</td>
</tr>
<tr>
<td>SANTOKA 10.1 BX PCT (by Garz &amp; Fricke)</td>
<td>85</td>
</tr>
<tr>
<td>SANTOKA 12.1 BX PCT (by Garz &amp; Fricke)</td>
<td>86</td>
</tr>
</tbody>
</table>

#### Payment Systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karl4</td>
<td>31</td>
</tr>
</tbody>
</table>

#### Become Inspired by Seco Expertise in Diverse Applications

<table>
<thead>
<tr>
<th>Model</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexy Vision 7 X86</td>
<td>56</td>
</tr>
<tr>
<td>Flexy Vision 10 X86</td>
<td>57</td>
</tr>
<tr>
<td>Flexy Vision 13.3 ARM</td>
<td>58</td>
</tr>
<tr>
<td>Flexy Vision 13.3 X86</td>
<td>59</td>
</tr>
<tr>
<td>Flexy Vision 15.6 ARM</td>
<td>60</td>
</tr>
<tr>
<td>Flexy Vision 15.6 X86</td>
<td>61</td>
</tr>
<tr>
<td>Flexy Vision 21.5</td>
<td>62</td>
</tr>
<tr>
<td>SYS-A62-10</td>
<td>63</td>
</tr>
<tr>
<td>SYS-B08-7</td>
<td>64</td>
</tr>
<tr>
<td>HYDRA-N6</td>
<td>65</td>
</tr>
<tr>
<td>NALLINO 4.3 OF PCT (by Garz &amp; Fricke)</td>
<td>66</td>
</tr>
<tr>
<td>SANTINO LT 5.0 OF PCT (by Garz &amp; Fricke)</td>
<td>67</td>
</tr>
<tr>
<td>SANTINO 7.0 OF PCT (by Garz &amp; Fricke)</td>
<td>68</td>
</tr>
<tr>
<td>SANTARO 7.0 OF PCT (by Garz &amp; Fricke)</td>
<td>69</td>
</tr>
<tr>
<td>TANARO 7.0 OF PCT IPS (by Garz &amp; Fricke)</td>
<td>70</td>
</tr>
<tr>
<td>SANTINO LT 5.0 SG (by Garz &amp; Fricke)</td>
<td>71</td>
</tr>
<tr>
<td>SANTARO 7.0 SG IPS (by Garz &amp; Fricke)</td>
<td>72</td>
</tr>
<tr>
<td>SANTOKA 7.0 SG IPS (by Garz &amp; Fricke)</td>
<td>73</td>
</tr>
<tr>
<td>SANTARO 10.1 SG IPS (by Garz &amp; Fricke)</td>
<td>74</td>
</tr>
<tr>
<td>SANTOKA 10.1 SG IPS (by Garz &amp; Fricke)</td>
<td>75</td>
</tr>
<tr>
<td>SANTOKA 12.1 SG IPS (by Garz &amp; Fricke)</td>
<td>76</td>
</tr>
<tr>
<td>SANTOKA 12.1 SG IPS (by Garz &amp; Fricke)</td>
<td>77</td>
</tr>
<tr>
<td>SANTARO 19.0 SG IPS (by Garz &amp; Fricke)</td>
<td>78</td>
</tr>
<tr>
<td>SANTOKA 32.0 SG IPS (by Garz &amp; Fricke)</td>
<td>79</td>
</tr>
<tr>
<td>SANTINO LT 5.0 BX PCT (by Garz &amp; Fricke)</td>
<td>80</td>
</tr>
<tr>
<td>SANTINO 7.0 BX PCT (by Garz &amp; Fricke)</td>
<td>81</td>
</tr>
<tr>
<td>SANTARO 7.0 BX PCT (by Garz &amp; Fricke)</td>
<td>82</td>
</tr>
<tr>
<td>TANARO 7.0 BX PCT (by Garz &amp; Fricke)</td>
<td>83</td>
</tr>
<tr>
<td>SANTARO 10.1 BX PCT (by Garz &amp; Fricke)</td>
<td>84</td>
</tr>
<tr>
<td>SANTOKA 10.1 BX PCT (by Garz &amp; Fricke)</td>
<td>85</td>
</tr>
<tr>
<td>SANTOKA 12.1 BX PCT (by Garz &amp; Fricke)</td>
<td>86</td>
</tr>
</tbody>
</table>
Endless ways to the future

SECO OFFERS

With over 40 years delivering high-tech electronics, SECO offers cutting-edge embedded computing, HMI, communications gateway, custom packaged product, and IoT software solutions through worldwide engineering design, manufacturing, and technical support excellence.

R&D | HW & SW | INTEGRATION
Integrated systems, boards, modules, and HMI for edge computing and payment solutions. We make electronic devices smart and enable human-machine interaction.

OPEN SUSTAINABLE INNOVATION & PARTNERSHIPS
Solutions for tomorrow. Together with our ecosystem, we shape the leading technologies of the future. We develop highly innovative and scalable ideas and solutions, ready for mass production.

IoT | DATA SCIENCE | AI
End-to-end IoT-AI suite
Using SECO’s Clea IoT/AI software platform, we move data between the edge and the cloud, and transform it into highly valuable, real-time information through Edge AI applications, data orchestration, data analytics, and Artificial Intelligence.

EDGE COMPUTING
(Edge platforms, semi-custom, full custom) and PAYMENT SOLUTIONS
EDGE PROCESSING EMBEDDED
on customers’ products extract data

ALL-IN-ONE SOFTWARE PLATFORM
Real-time operational insights Optimized decision making

VISION
We exist to open up the world to innovation

VALUES
Passion
Dynamism
Respect

MISSION
We bring together technologies and skills to satisfy new needs and opportunities

ABOUT SECO

MISSION
VISION
VALUES

~800 people
~250+ R&D people of which 150+ in AI
algorithm development
>€15m R&D investments
9 R&D centers
5 production plants

Multi-decade experience at the forefront of innovation
Global footprint
We continuously add value to our products
Rapid organic growth supported by a quality M&A strategy

Data refer to 2021
DESIGN
Decades of leading-edge embedded computing design incl. hardware and software.

MANUFACTURING
Lean manufacturing employed to reduce waste and accelerate the time to market.

SYSTEMS
Design and integration of embedded computers with video interfaces and enclosures.

Analysis & Design
FPGA Design
BIOS Engineering & Development
Hardware Engineering & Development
Software Development

Drivers Engineering & Development
BSP
Firmware Development
Validation & Verification
Thermal Analysis

OFF-THE-SHELF PRODUCTS
SEMI-CUSTOM SOLUTIONS
FULL-CUSTOM SOLUTIONS

CUSTOMIZED COMPUTING PLATFORMS

SOFTWARE CUSTOMIZATION

SYSTEMS AND ASSEMBLY

CUSTOMER SUPPORT

EXTENDED SUPPORT
**Know-How**

Augment the abilities of machines and people by using AI everywhere computing takes place.

**AI-AS-A-SERVICE COMPANY**

Open-source core

All core middleware Clea components are open source software, contribute to, connect with, and join our growing community.

Extensive, Scalable Data Orchestration

Clea easily scales to a large number of connected devices, with the flexibility to control them in whatever granularity is required.

Device lifecycle management

Clea manages OTA updates, remote debugging, blue/green app deployments and much more, with an intense focus on security.

Deploy AI models everywhere

Whether it’s a pre-trained model or your very own, Clea enables you to easily deploy it at the edge or in the cloud, seamlessly.

**Vertical Applications for Clea**

- EV Charging Stations
- Digital Signage
- Healthcare
- Fleet Management
- Factory Automation
- Energy Production
- Vertical Applications for Clea and many more…
We create products to provide services

Welcome to Open Sustainability Innovation

Minimum Viable Product
First version at low cost and development time to collect initial feedback and improve the functionality of the product/service.

Commercialization
We make the product ready for mass production with the aim of the highest possible level of scalability.

SECO Next, the creative laboratory of the SECO Group for business. We challenge the ordinary with researchers and innovators who create innovative solutions.

NEXT TO YOU FOR THE NEXT FUTURE

Methodology

Exploration
We constantly monitor emerging technologies. We listen to customer problems, understand their context, and propose paths to explore together.

Analysis
We analyze the problems, risks, and tradeoffs in depth, and together develop a project plan that factors in costs, schedule, risk, and contingencies.

Test
We test the solution to verify its effectiveness and measure its performance. We evaluate if the solution is satisfactory or whether it needs improvement.

Production
The best solution is commercialized, manufactured, and sold on the market, ready for user feedback for any further improvement.

KNOW-HOW

Adaptive & Federated Learning
Machine Vision & Data Fusion
5G and Beyond
Quantum Computing

KNOW-HOW PRODUCTS & SERVICES
NEXT TO YOU FOR THE NEXT FUTURE

SECO Next, the creative laboratory of the SECO Group for business. We challenge the ordinary with researchers and innovators who create innovative solutions.

KNOW-HOW PRODUCTS & SERVICES
NEXT TO YOU FOR THE NEXT FUTURE

SECO Next, the creative laboratory of the SECO Group for business. We challenge the ordinary with researchers and innovators who create innovative solutions.
SECO's solutions can be found at the heart of the most sophisticated and diverse products throughout many industries, such as traditional uses in industrial automation, biomedical devices, and digital signage to emerging applications like mobile devices and robotics.
Fanless Embedded Computers

PHOENIX

Rugged industrial temperature box PC with 11th Gen Intel® Core™ performance

FEATURES
- Intel® Core™ processors and Intel® Celeron® SoCs
- Two DDR4 So-DIMM slots supporting DDR4-3200 ECC memory with IBECC
- Intel® Iris® Xe architecture with up to 96 EUs
- Support for up to four independent displays

HIGHLIGHTS
- 2x 2.5 GbE, Optional M.2 WWAN and WLAN modules
- Up to two video decode boxes (VDBoxes) for enhanced video stream capabilities
- Support for up to four independent displays and 4K@60Hz streams ingestion
- Support for up to four independent displays at up to 4K@60Hz HBR resolution or one display at 8K resolution

MAIN FIELDS OF APPLICATION
- Automation
- Biomedical/Medical applications
- Gaming
- Industrial automation and control
- Multimedia devices
- Surveillance
- Telco

PHOENIX Fanless embedded computer with the 11th Gen Intel® Core™ and Intel® Celeron® SoCs (formerly Tiger Lake UP3)

www.seco.com
Fanless Embedded Computers

**PYXIS**

Low power Atom®-based Box PC ready for industrial automation and edge computing

### FEATURES

- **Processor**
  - Intel® Atom® x6000E Series and Intel® Pentium® and Celeron® N and J Series processors
  - Intel® Atom® x5-E3930 Dual Core @ 1.3 GHz (Burst 1.8GHz), 2MB L2 Cache, 6.5W TDP
- **Memory**
  - 2x GbE (Optional M.2 WWAN and WLAN modules)
  - 8GB LPDDR4 memory
- **Connectivity**
  - 2x USB 3.2 Gen1 Type-A connectors
- **Audio**
  - Lineout + Micro combo TRRS audio jack
- **Power**
  - +12V DC Power jack, with cable restraint, type DC-062-4-2.5-S214
- **Operating System**
  - Windows 10 IoT Core
  - Linux

### MAIN FIELDS OF APPLICATION

- Edge Computing
- Industrial automation and control
- Multimedia devices
- Surveillance
- Info Kiosks
- Teles
- Transportation

### SPECIFICATIONS

- **Dimensions**
  - 180 x 107 x 75 mm (7” x 4.2” x 3’’)
- **Temperature**
  - Operating: 0°C ÷ +40°C (in presence of air flow)
- **Power**
  - Up to 8GB 400MHz
  - Optional SATA M.2 SSD module up to 512GB

### HIGHLIGHTS

- **Connectivity**
  - 2x Gigabit Ethernet ports
- **Power**
  - Optional 2x 12 poles terminal block connectors with the following I/O:
    - DC 0V
    - 8x GND
    - 1x SPI
    - 1x UART
    - 1x 3.3V
    - 1x 12V
    - 2x CAN
    - 8x GPIO / QEP / PWM / SPI

---

**DRACO**

Gateway for Medical applications with Intel® Atom® x5-E3930 Processors

**IoT Gateway Solution certified for medical environment**

### FEATURES

- **Processor**
  - Intel® Atom® x5-E3930 Dual Core @ 1.3 GHz (Burst 1.8GHz), 2MB L2 Cache, 6.5W TDP
- **Memory**
  - Optional SATA M.2 SSD module up to 512GB
- **Connectivity**
  - 2x Gigabit Ethernet ports
  - 1x 4KV insulated GbE ports
  - USB 3.0 Type-A sockets on Front Panel
- **Power**
  - Power On Status LED
  - Power On Status LED

### MAIN FIELDS OF APPLICATION

- Biomedical / Medical applications
- Digital Signage / Infotainment
- Edge Computing
- Robotics

### SPECIFICATIONS

- **Dimensions**
  - 363.2 x 109.3 x 42.4 mm
- **Power**
  - +5VDC ±4% (in presence of air flow)

---

*Certification upon request.*
Multi-Display Digital Signage Solution

**FEATURES**

- Optional SATA SSD (available sizes: 250GB, 500GB, 1TB, 2TB)
- Optional M.2 NVMe module (available sizes: 250GB, 500GB, 1TB)
- DirectX® 12 supported
- GPU AMD Radeon™ Vega with up to 8 Compute Units
- Memory: 8GB, 16GB, 32GB Dual Channel, 4GB, 8GB, 16GB Single Channel
- System Supply: +12VDC ÷ +24 VDC
- Power Button with Power On Status LED on Front Panel
- Internal M.2 Connectivity Slot (Socket 1 Key E Type 2230) for internal M.2 SSD (excludes SSD Drive), external antennas
- Internal M.2 WWAN slot (Socket 2 Key B Type 2242/3042) for optional WWAN add-on module, external antennas
- *Measurements at any point of the heatspreader/heatsink during any and all times including start-up. Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system to keep the headspreader temperature in the range indicated.*

**HIGHLIGHTS**

- Dual Vivante GC7000 GPU / XVSX for QuadMax
- 2x Gadget Ethernet ports, Internal M.2 WWAN slot and Connectivity Slot for Optional M.2 Modem Power Button with Power On Status LED on Front Panel
- Optional 4x SMA connectors for external WiFi / WWAN antennas
- Optional 2x 12 poles terminal block connectors with the following I/O:
  - 3x GND
  - 1x 12V
  - 1x 3.3V
  - 1x 5V
  - 1x SPI
  - 1x I2C
  - 1x UART
  - 4x GPIO
  - 4x Analog Inputs
- Optional 2x 12 poles terminal block connectors with the following I/O:
  - 3x GND
  - 1x 12V
  - 1x 3.3V
  - 1x 5V
  - 1x SPI
  - 1x I2C
  - 4x GPIO

**MAIN FIELDS OF APPLICATION**

- Digital Signage
- Infotainment
- Gaming
- Home entertainment
- Multimedia devices
- AI-ENABLED

**SPECIFICATIONS**

- Processor: AMD Ryzen™ Embedded V1000 and R1000 processors
- GPU: AMD Radeon™ Vega with up to 8 Compute Units
- Memory: 8GB, 16GB, 32GB Dual Channel Memory on SO-DIMM modules
- Mass Storage: Up to 4K
- Resolution: 1080p60 decoding and H.264 (1080p30) encoding
- Video: 2x Gadget Ethernet ports, Internal M.2 WWAN slot and Connectivity Slot for Optional M.2 Modem Power Button with Power On Status LED on Front Panel
- Graphics: HDMI 2.0a Tx interface
- Networking: 2x Gadget Ethernet ports, Internal M.2 WWAN slot and Connectivity Slot for Optional M.2 Modem Power Button with Power On Status LED on Front Panel
- USB: 2x USB 3.0 Type-A sockets, 2x USB 2.0 Type-A sockets
- Video: 2x Gadget Ethernet ports, Internal M.2 WWAN slot and Connectivity Slot for Optional M.2 Modem Power Button with Power On Status LED on Front Panel
- Operating System: Microsoft® Windows 10 IoT Enterprise (64bit)
- Other Interfaces: 1x 12V, 1x 3.3V, 1x 5V, 1x SPI, 1x I2C, 4x GPIO
- Free Dimensions: 181 x 109 x 75 mm
- Temperature: 0°C ÷ +50°C

**Dimensions**

- Power Supply: +12V
- Mini-Fit Power connector

**Further Details**

- Dimensions: 181 x 109 x 75 mm
- Temperature: 0°C ÷ +50°C
- System Supply: +12VDC, Mini-Fit Power connector
- Operating System: Linux (Android, planar)
- Other Interfaces: 2x Gadget Ethernet RJ45 connectors, M.2 WLAN Connectivity Slot for optional external modems, external antennas
- Other Interfaces: 1x Gadget Ethernet RJ45 connectors, M.2 WLAN Connectivity Slot for optional external modems, external antennas
- Power ON Button with integrated LED microSD card slot (accessible from panel)

**Other**

- Optional WiFi add-on module, external antennas
- Optional M.2 NVMe module (available sizes: 250GB, 500GB, 1TB)
- Optional 4x SMA connectors for external WiFi / WWAN antennas
Fanless Embedded Computers

PEGASUS

Fanless embedded computer based on Intel® Atom® X Series, Intel® Celeron® J / N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors

FEATURES

Processor

- Intel® Atom™ X Series, Intel® Celeron® N Series and Intel® Pentium® N Series (formerly Apollo Lake)

Graphs

- Integrated Intel® HD Graphics 500 series controller

Connectivity

- 2x Gigabit Ethernet RJ45 connectors
- Optional on-board WiFi
- Optional on-board LTE modem
- 1x M.2 Socket 2 Key B Slot for accessory WWAN module
- 2x RJ-11 connectors

Memory

- 64-bit soldered down LPDDR4 memory, up to 4GB

System

- Intel® HD Graphics 500 series controller

Dimensions

- 181 x 109 x 79 mm

Temperature

- 0°C ÷ +50°C

Supply

- +12VDC, 5.7mm DC Power Jack connector

Other

- Optional on-board WiFi (802.11 ac / a / b / g / n) + BT 5.0
- Optional on-board LTE modem
- Power ON Button with integrated LED

Networking

- 2x Gigabit Ethernet RJ45 connectors
- Optional on-board WiFi (802.11 a / b / g / n / ac)
- Optional on-board LTE modem with miniSIM slot or eSIM, external antenna

Mass Storage

- Optional mini-M.2 5.1 drive on-board, up to 64GB
- Optional SATA SSD M.2 2 Key B Slot for accessory WiFi + BT module

Audio

- 3x GND
- 1x 5V
- 1x 12V
- 3x GND

Power Supply

- +12V, +24Vdc DC Power Jack

Point of Sales Vending

- Android (planned)

Additional Information

- Information subject to change. Please visit www.seco.com to find the latest version of this datasheet

MAIN FIELDS OF APPLICATION

- Digital Signage
- Infotainment
- Energy
- Industrial automation and control

HIGHLIGHTS

- Power ON Button with integrated LED
- Optional on-board WiFi
- Power ON Button with integrated LED
- Optional on-board LTE modem
- Power ON Button with integrated LED

PICTOR

Fanless embedded computer based on Rockchip RK3399 Applications Processor

FEATURES

Processor

- Rockchip RK3399 processor, 2x Cortex®-A72 MP cores + 4x Cortex®-A53 MP cores, up to 1.84GHz, 64-bit architecture

Graphs

- Embedded VP4, able to offer: 3x H.264, 4x VP8, 1080p@60fps HW Decoding
- Embedded VC1, able to offer: 1x MPEG-4/MPEG-2/VP8 1080p@60fps HW Decoding

Networking

- 2x Gigabit Ethernet RJ45 connectors
- Optional on-board WiFi (802.11 a / b / g / n / ac)
- Optional on-board LTE modem with miniSIM slot or eSIM, external antenna

Mass Storage

- Optional mini-M.2 5.1 drive on-board, up to 64GB

Audio

- Optional 2x 12 poles terminal block connectors with the following I/O:
  - 2x 3.5mm jacks
  - 1x Open Drain Output
  - 1x PWM
  - 1x 5V
  - 3x GND

Power Supply

- +12V, +24Vdc DC Power Jack

Point of Sales Vending

- Android (planned)

Additional Information

- Information subject to change. Please visit www.seco.com to find the latest version of this datasheet

MAIN FIELDS OF APPLICATION

- Digital Signage
- Infotainment
- Fitness Equipment
- HMI

**DORADO**

**IP20 boxed PC based on Rockchip RK3399 Applications Processor**

Enhanced graphics and computing performance for high-end industrial applications.

**HIGHLIGHTS**

- Rockchip RK3399 processor
- Fanless design
- 4-Core Mali-T860MP4 GPU
- OpenGL ES 1.1/2.0/3.0
- 2x USB 3.0 Type-C connectors (Alt. mode with DP)
- 3x USB 2.0 Type-A connectors
- 3x RS-232 ports
- 1x RS-485 port
- 1x CAN Port
- 4x analog inputs
- DC Bus
- 2x PWM
- I2C Bus
- 4x analog inputs
- 2x RS-485 ports
- 3x Multicolor Signaling LEDs
- Power On/Off Button
- Reset Button
- LCD Panel

**MAIN FIELDS OF APPLICATION**

- Automation
- Digital Signage - Infotainment
- Edge Computing
- E-health Telecare
- Home Automation
- Industrial Automation

**FEATURES**

- Processor: Rockchip RK3399
- Memory: 2GB LPDDR4 on-board memory
- Video: 64-bit soldered down LPDDR4 memory, 2GB
- System: Rockchip RK3399 Applications Processor
- Networking: 1x GbE; 2x USB3.0; 3x USB2.0; 2x RS-232; on-board LTE Cat4 modem
- Connectivity: 1x 10/100/1000 Base-T Ethernet RJ45 connector
- Power: DC power jack and 2-pole PCB terminal block for voltage supply
- Dimensions: 177 x 150 x 27 mm

**CONNECTIVITY**

- 1x GbE; 2x USB3.0; 3x USB2.0; on-board LTE Cat4 modem
- 2GB LPDDR4 on-board memory

---

**LYRA**

**Industrial IoT Gateway based on the NXP i.MX 6SoloX Processor**

Enhance your edge capabilities with a Synthetic Brain.

**HIGHLIGHTS**

- NXP i.MX 6SoloX Processor
- Secure Element
- Multicolor Signaling LEDs
- 3x PWM
- I2C Bus
- 4x analog inputs
- 1x RS-485 port
- 1x RS-232 port
- 1x CAN Port
- 1x USB 2.0 OTG on micro-AB connector
- Optional LTE Cat4 Modem embedded on-board, with 2 external antennas (optionally available in Dual Band -2.4GHz + 5GHz- version with 2x external antennas and 802.11a support, factory alternatives)
- Onboard 2.4GHz WiFi (802.11 b/g/n) + BTLE combo module
- 1MB SPI Flash
- µSD Card Slot
- 8GB eMMC drive on-board
- 2200mAh Li-Ion Rechargeable battery
- System: Linux with Edgehog Services installed
- Power: +12V DC power jack and 2-poles PCB terminal block for voltage supply
- Temperature: 0°C ÷ +50°C
- Dimensions: 205 x 95.50 x 40.25mm
- DIN rail bracket kit and accessories

**MAIN FIELDS OF APPLICATION**

- Industrial
- Energy
- Home Automation
- Monitoring
- Multimedia devices
- Surveillance

**FEATURES**

- Processor: NXP i.MX 6SoloX, Single core Cortex®-A9 @ 1GHz + Cortex®-A4 core @ 227MHz
- Memory: 32-bit DDR3L memory soldered onboard, up to 1GB
- Mass Storage: eMMC 5.1 drive on-board, 16GB
- Networking: 2x Gigabit Ethernet RJ45 connector on-board, WiFi (802.11 ac/a/b/g/n + BT 5.0 module, external antennas on-board LTE Cat4 modem with microSIM slot, external antennas
- USB: 1x USB 2.0 Type-A connector
- Other: 3x Multicolor Signaling LEDs

---

Information subject to change. Please visit www.seco.com to find the latest version of this datasheet.
PAVO Fanless embedded computer based on NXP i.MX 8M Applications Processors

Multicore processing and flexible connectivity for multimedia and industrial IoT applications

FEATURES
- Processor: NXP i.MX 8M Family
- System Memory: Optional eMMC 5.0 drive on-board, up to 16GB
- Graphics: Vivante GC7050x4a GPU
- Video Interfaces: Optional HDMI 1.4 / 2.0a interface
- Video Resolution: Up to 4K
- Mass Storage: 32-bit soldered down DDR3L memory, up to 2GB
- Audio: Line Out + Mic (in combo TRRS audio jack)
- Other Interfaces: Optional Speaker connector, 10W per channel amplified
- Power Supply: 1+2 pins terminal block connectors with the following LO:
  - 1x CAN
  - 8x GPIOs
  - 1x SPI
  - 1x I2C
  - 1x 3.3V
  - 1x 1.2V
  - 3x GND
- Power ON Button with integrated LED
- Dimensions: 181 x 109 x 75 mm
- Temperature: 0°C ÷ +50°C
- System Power: +12VDC, Mini-Fit Power connector
- Operating System: Customised bracket for wall mount

HIGHLIGHTS
- AI-ENABLED WITH Intel® Atom® X Series
- 2x GigaLan Ethernet ports
- 2x Gigabit Ethernet ports
- M.2 Socket 1 Key E Slot for WiFi/BT modules
- M.2 Socket 2 Key B Slot for Modem modules (alternative to M.2 SSD), connected to internal microSIM Slot
- Dual independent display
- Two multimode Display Port on miniDP++ connectors
- +18VDC ÷ +32 VDC recommended
- PCB terminal block, type Phoenix 1990973
- Power On Status LED
- Power Button

MAIN FIELDS OF APPLICATION
- Digital Signage - Infotainment
- Edge Computing
- E-health Telecare
- HMI
- Industrial Automation
- Robotics

CYGNUS Fanless embedded computer with Intel® Atom® X Series (formerly Apollo Lake) Processors

Fanless, compact and versatile embedded box PC

FEATURES
- Processor: Intel® Atom® x7-E3950 Quad Core 1.6 GHz (Burst 2.0GHz), 2MB L2 Cache, 12W TDP
- Memory: Quad Channel soldered down LPDDR4 memory, up to 8GB
- Graphics: Integrated Intel® HD Graphics 590 or 550 series controller, with up to 18 Execution Units
- Video Interfaces: 4K HW decoding and encoding of HEVC(H.265), H.264, VP8, SVC, MVC
- Operating System: Wind River Linux (64-bit)
- Power Supply: Intel® Atom® x5-E3940 Quad Core @1.6 GHz (Burst 1.8GHz), 2MB L2 Cache, 9.5W TDP
- Memory: Quad Channel soldered down LPDDR4 memory, up to 8GB
- Graphics: Vivante GC7000Lite GPU
- Audio: Internal HD Audio codec Cirrus Logic CS4207
- Other Interfaces: 1x GbE; 1x USB3.0; 2x USB2.0; 1x RS-232; Optional on-board WiFi/BT, Optional WWAN add-on module
- Power Supply: +12VDC ÷ +32 VDC recommended
- PCB terminal block, type Phoenix 1990973
- Power On Status LED
- Power Button
- Dimensions: 162.3 x 109.3 x 52.4 mm
- Temperature: 0°C ÷ +60°C (in presence of air flow) **
- Operating Temperature: With internal SSD, -40°C ÷ +60°C (in presence of air flow) **
- Operating Temperature: Without internal SSD, -40°C ÷ +60°C (in presence of air flow) **
- Power Supply: Windows 10 IoT entry
- Power Supply: Linux U41A available on request
- Power Supply: Wind River Linux (64-bit)
- Power Supply: Yocto (planning)
- Operating System: *Mini-ITX® to HED2 motherboard
- Operating System: Customised bracket for wall mount

HIGHLIGHTS
- Dual independent display
- Two multimode Display Port on miniDP++ connectors
- +12VDC ÷ +32 VDC recommended
- PCB terminal block, type Phoenix 1990973
- Power On Status LED
- Power Button

MAIN FIELDS OF APPLICATION
- Digital Signage - Infotainment
- Edge Computing
- Industrial Automation and Control
- Robotics

Information subject to change. Please visit www.seco.com to find the latest version of this datasheet
**HYDRUS**

Fanless Embedded Computer with Intel® Celeron® J / N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors

**Main Fields of Application**

- Audio
  - Internal HD Audio codec Cirrus Logic CS4207
- Networking
- Mass Storage
  - Up to 4096 x 2160 Resolution
- Video
  - Two multimode Display Port on miniDP++ connectors
- Graphics
  - Quad Channel soldered down LPDDR4 memory, up to 8GB
- Memory
  - Quad Channel soldered down LPDDR4 memory, up to 8GB
- Processor
  - Intel® Celeron® J3355, Dual Core @2.0GHz (Burst 2.5GHz)
  - Intel® Celeron® J3455, Quad Core @1.5GHz (Burst 2.3GHz)
  - Intel® Celeron® N3350 Dual Core @1.1GHz (burst 2.4GHz)
  - Intel® Pentium® N4200 Quad Core @1.1GHz (burst 2.5GHz)
- System
  - Windows 10 IoT Enterprise

**HIGHLIGHTS**

- DC Power jack, with cable restraint
- 2x 4K, 2x 1080P, 2x 1080P
- Intel® HD Graphics 505 or 500 series controller
- 2x Gigabit Ethernet RJ45 connectors

**Specifications**

- Processor:
  - Intel® Pentium® N4200 Quad Core @1.1GHz (burst 2.5GHz)
  - 2GB LPDDR4 on-board memory
- Memory:
  - 2MB L2 Cache, 6.5W TDP
- Supply:
  - +15VDC to +36 VDC absolute
- Power On Status LED
- Power Button
- Operating System:
  - Linux 64-bit
  - Yocto (64-bit)
  - Wind River Linux (64-bit)
  - Preinstalled OS (factory options):
    - Linux 64-bit
    - Microsoft Windows 10 IoT enterprise
  - Available on request:
    - Microsoft Windows 10 IoT entry
    - Linux 64-bit
    - Yocto (64-bit)
    - Wind River Linux (64-bit)

**Dimensions**

- 165 x 110 x 75 mm

**Information subject to change. Please visit www.seco.com to find the latest version of this datasheet.**

---

**CHAMALEON**

Boxed IP65 solution based on Intel® Atom® x5 (formerly Apollo Lake) Applications Processor

**Main Fields of Application**

- Automation
- Edge Computing
- Industrial Automation

**HIGHLIGHTS**

- Intel® Atom® x5-E3930 Dual Core
- Quad Channel soldered down LPDDR4 memory, 2GB
- Integrated Intel® HD Graphics 500 series controller, 2x execution units
  - 4K HW decoding and encoding of HEVC (H.265), H.264, VP8
  - with up to 18 Execution Units
- Graphics
  - Mall video quality in a boxed solution for Industrial Automation and Edge IoT

**Features**

- Processor:
  - Intel® Atom® x5-E3930 Dual Core @1.3 GHz (Burst 1.8GHz)
  - 2MB L2 Cache, 6.5W TDP
- Memory:
  - 2GB LPDDR4 on-board memory
- Graphics:
  - Integrated Intel® HD Graphics 500 series controller, 12 Execution Units
  - 4K HW decoding and encoding of HEVC (H.265), H.264, VP8, SVP, MVC
- Power Supply:
  - +15VDC to +36 VDC absolute
  - DC Power jack, with cable restraint
  - Power On Status LED
  - Power Button
- Operating System:
  - Linux 64-bit
  - Yocto (64-bit)
  - Wind River Linux (64-bit)
  - Preinstalled OS (factory options):
    - Linux 64-bit
    - Microsoft Windows 10 IoT enterprise
  - Available on request:
    - Microsoft Windows 10 IoT entry
    - Linux 64-bit
    - Yocto (64-bit)
    - Wind River Linux (64-bit)

**Dimensions**

- 165 x 110 x 75 mm

**Information subject to change. Please visit www.seco.com to find the latest version of this datasheet.**
## CETUS

**The Next Generation Single-Board Computer**

**FEATURES**
- 1 x PCI-e x4 port on M.2 Key M SSD Slot
- Networking
  - 2x Gigabit LAN / Realtek RTL8111G
- Mass Storage
  - Up to 32GB DDR4 SODIMM modules
- Graphics
  - AMD Radeon™ 3rd Generation Graphics Core Next
- Memory
  - 1MB L2 Cache, TDP 15W
- Processor
  - AMD Embedded 3rd generation R-Series SOC (Merlin Falcon)
  - AMD GX-224IJ
  - Radeon™ R4E
  - AMD GX-217GI
  - Radeon™ R6E
  - RX-216GD
  - Radeon™ R5
  - RX-421BD
  - Radeon™ R7
  - RX-418GD

**GRAPHICS**
- AMD Radeon™ 3rd -Generation Graphics Core Next (GCN)
- AMD AI-ENABLED with AMD Embedded 3rd generation R-Series SOC or G-Series SOC
  - AMD GX-217GI -Radeon™ R6E
  - RX-216GD -Radeon™ R5
  - RX-418GD -Radeon™ R6
  - RX-421BD -Radeon™ R7

**SYSTEM SIZE**
- 110 x 91 x31 mm (LxWxD)

**POWER**
- 4 x RS-232 Full Modem ports on external DB9 male connectors
- 2x USB 3.0 on internal pin header
- 2x USB 2.0 on internal pin header
- 5.3 mm amplified audio Jacks
- 2x Fan connectors
- Optional TPM 1.2
- 4120mAh ±5%, mini-Fit Eco Power connectors
- Embedded WiFi (802.11 b/g/n) + BT 4.2, optional Modem with GNSS functionality

**OTHER**
- Global-Band LTE CAT-M/NB-IoT modem, SIMCOM SIM7000G
- 1x Pushbutton

**HIGHLIGHTS**
- Optional Trusted Secure Element
- Accelerometer
- Optional GNSS Module
- Optional 2GB 800MHz DDR3 RAM
- Optional 2000mAh rechargeable battery, LIR18650
- Optional modem module

**APPLICATIONS**
- Digital Signage - Infotainment
- Home entertainment
- Multimedia devices
- Point of Sales

**SYSTEM TEMPERATURE**
- 0 °C ÷ +60 °C (Commercial temp.)

**Operating System**
- Microsoft® Windows 10 IoT
- Linux

**OTHER INTERFACEx**
- 2x USB 3.0 Type-A sockets
- 4x USB 2.0 Type-A sockets
- 2x USB 3.0 on internal pin header
- 2x USB 2.0 on internal pin header
- 5.3 mm amplified audio Jacks
- 2x Fan connectors
- Optional TPM 1.2
- 4120mAh ±5%, mini-Fit Eco Power connectors
- Embedded WiFi (802.11 b/g/n) + BT 4.2, optional Modem with GNSS functionality

**Networking**
- CAN Port on 3-pin dedicated connector
- CAN Port on 3-pin dedicated connector

**POWER**
- 2-pin micro-connector
- N/A
- 32MB SPI Flash
- 8MB PSRAM

**Memory**
- Internal SODIMM SRAM + 16MB SRAM in RTC

**Graphics**
- N.A.

**Mass Storage**
- 8MB PSRAM
- 16MB SPI Flash

**Dimensions**
- 110 x 91 x31 mm (LxWxD)

**Mechanical**
- Wall mount and DIN rail mount

---

## Easy Edge

**From sensors to AI in a single step**

**FEATURES**
- ESP32-D0WD-V3 processor
- Internal 1GB SRAM + 16KB SRAM in RTC
- ESP32-D0WD-V3 processor
- Internal 1GB SRAM + 16KB SRAM in RTC

**GRAPHICS**
- N/A

**SYSTEM TEMPERATURE**
- 0 °C ÷ +60 °C (Commercial temp.)

**Operating System**
- Microsoft® Windows 10 IoT

**OTHER INTERFACEx**
- 360 x 230 x 90 mm (11.81" x 9.06" x 3.54")

**HIGHLIGHTS**
- Optional Trusted Secure Element
- Accelerometer
- Optional GNSS Module
- Optional 2GB 800MHz DDR3 RAM
- Optional 2000mAh rechargeable battery, LIR18650
- Optional modem module

**APPLICATIONS**
- Vending

**POWER**
- 2-pin micro-connector
- N/A

**Memory**
- 32MB SPI Flash

**Mass Storage**
- Internal 1GB SRAM + 16KB SRAM in RTC

**Dimensions**
- 110 x 91 x31 mm (LxWxD)

**Mechanical**
- Wall mount and DIN rail mount

---

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application and/or environment.*
KarL4 is the new contactless payment terminal from Garz & Fricke. It enables your customers to make payments for amounts up to EUR 50 in a secure and intuitive manner from their debit* card without having to enter a PIN. KarL4 uses Near Field Communication (NFC) to transfer data. This leads to very customer-friendly handling: simply pull out the card, position it and pay. KarL4 can be optionally combined with our touch display HMIs and, on request, can even be tailored to your requirements as a highly individual complete module.

*credit card certification pending

**HIGHLIGHTS**

**LOW POWER**
Ultra low power for battery powered applications

**PLUG & PLAY**
Automatic commissioning, resident on board

**DESIGN**
Modular and seamless integratable design

**MAIN FIELDS OF APPLICATION**

- Fitness
- Equipment
- Gaming
- Point of Sales
- Transportation
- Vending

**FEATURES**

- ** dimension**: Controller: 85.0 x 90.0 x 18.0 mm
- **NFC Antenna**: 98.0 x 98.0 x 13.0 mm

**Stand Temperature**: -25°C ÷ +70°C, Humidity up to 100%

**Power Supply**: 8.0 - 42.5 VDC (typ. 130mA @ 13.8V)

**EMS & Standards**: EMVCo Level 1

**Accessories**: Roof antenna for LTE/GSM; 1 dBi; 700-960 MHz/1575-2700 MHz; length 200 cm

**LTE ONBOARD COMPLETE INTEGRATION INTO THE DEVICE**
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

PROJECT DEVELOPMENT METHODOLOGY
From the Brief to the Embedded solutions

ANALYSIS
High-level analysis
Brainstorming ideas

CONCEPT
Design schemes
2D & 3D models

ENGINEERING
Prototyping
Pre-series
Final production
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

CASH REGISTER
Designed by Ergon

GREEN LIGHT
Designed by Ergon

www.seco.com
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

HOME AUTOMATION INTERFACE
Designed by Ergon

INTERACTIVE SMART TAG
Designed by Ergon
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

GATEWAY
Designed by Ergon

PARKING SENSOR
Designed by Ergon
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

INDOOR AIR QUALITY MANAGEMENT SYSTEM
Designed by Ergon

VENDING MACHINE INTERFACE
Designed by Ergon
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

MEDICAL HMI
Designed by Ergon

COMMUNICATIONS GATEWAY
Designed by Ergon
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

GAMING PLATFORM
Designed by Ergon

POS WITH QR CODE READER AND SMART CARD READER
Designed by Mac Design
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

CASHLESS DONATION BOX

MEDICATION MANAGEMENT SYSTEM
BECOME INSPIRED BY SECO EXPERTISE IN DIVERSE APPLICATIONS

DEVICE FOR DERMATOLOGICAL APPLICATIONS

HIGH FLOW GENERATOR FOR NON-INVASIVE LUNG VENTILATION
Designed by IBD
MODULAR HMİ SOLUTIONS

SECO OFF-THE-SHELF SOLUTIONS FOR EASIER SYSTEM INTEGRATION

TOUCH-DISPLAY SOLUTIONS

EXPERTISE IN ASSEMBLY SERVICES

MECHANICAL DESIGN

VESA MOUNT

- Easiest to install
- VESA Standard

PANEL MOUNT

- Rugged solution
- Integrated sealing
- Easy to install

FLUSH MOUNT

- Highest design flexibility
- Seamless design
- Integrated sealing

REAR MOUNT

- Easy to integrate
- Highly customizable
MODULAR HMI SOLUTIONS

Flexibility Meets Style For Endless Visual Display Applications

**FEATURES**

- **Video:**
  - HDMI Connector
  - DP+ Connector

- **Graphics:**
  - eMMC 5.0 drive soldered on-board, up to 64GB
  - 2x USB 3.0 Host ports on Type-A sockets
  - M.2 SSD with heatspreader

- **Memory:**
  - 2x GbE; 2x RS-232 or RS-485 on DB-9 connector; 2x USB 2.0 ports

- **Processor:**
  - Intel® Celeron® / Atom® (Dual / Quad Core processors)

- **Power:**
  - Main Power: 12VDC
  - Power ON Button with integrated LED

- **Embedded Graphics:**
  - Three independent displays supported
  - HW encoding of H.264, H.265, H.266, MVC, VP8, VP9, JPEG/MJPEG formats

- **Dimensions:**
  - 288 x 188.1 x 58mm

- **Power:**
  - Main Power: 12VDC

- **Operating System:**
  - Windows 10 IOT

- **Operating Temperature:**
  - 0°C to 50°C

- **Enclosure:**
  - Dimensions: 288 x 188.1 x 58mm

**MAIN FIELDS OF APPLICATION**

- Digital Signage - Infotainment
- Industrial Automation
- Vending

**HIGHLIGHTS**

- Infotainment capacitive touchscreen integrated
- Digital Signage - Infotainment
- 50K Hours 1080p960 LVDS display with projected capacitive touchscreen integrated
- Infomotion - Digital Signage

**DIMENSIONS**

- 288 x 188.1 x 58mm

**DATALOG**

- Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet

---

*Measured at any point of the heat-sink/heatthrow during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*
**Flexy Vision 13.3 ARM** Panel PC with 13.3” LCD display based on Rockchip RK3399 SoC

**Features**
- Rockchip RK3399 processor, 2x Cortex-A72 MP cores + 4x Cortex-A53 MP cores; up to 1.8GHz, 64-bit architecture
- 4-Core Mali-T860MP4 GPU, supporting OpenCL 1.2, OpenCL 2.1, OpenGL ES 3.0
- Soldered-on-board eMMC drive, up to 64GB
- Interfaces: Video, HDMI, 2x USB 3.0, 2x USB 2.0 ports

**Main Fields of Application**
- Digital Signage - Infotainment
- Industrial Automation
- Vending

**Highlights**
- 13.3” LwDS display, resolution 1920x1080, LED lifetime 50K hours, brightness 260cd/m2
- Capacitive touchscreen integrated
- Rockchip RK3399 processor

**Specifications**
- Dimensions: 349.2 x 220.8 x 58 mm
- Power Supply: 12V, 2.6A
- Operating System: Linux

*Certification upon request*

---

**Flexy Vision 13.3 X86** Panel PC with 13.3” LCD display based on the Intel® Atom® X Series and Intel® Celeron® J / N Series (formerly Apollo Lake) Processors

**Features**
- Intel® Atom® x5-E3950 Quad Core @1.6 GHz (Burst 1.8GHz)
- Intel® Celeron® J3355 Dual Core @1.5GHz (Burst 2.3GHz)
- Samsung 32GB eMMC drive

**Main Fields of Application**
- Digital Signage - Infotainment
- Industrial Automation
- Vending

**Highlights**
- 13.3" LwDS display, resolution 1920x1080, LED lifetime 50K hours, brightness 260cd/m2, min. brightness 130cd/m2
- Capacitive touchscreen integrated
- Intel® Atom® x5-E3950 processor, 4x 1.3GHz cores

**Specifications**
- Dimensions: 349.2 x 220.8 x 58mm
- Power Supply: 12V, 2.6A
- Operating System: Linux

*Certification upon request*
Flexy Vision 15.6 ARM Panel PC with 15.6" LCD display based on Rockchip RK3399 SoC

**HIGHLIGHTS**
- Rockchip RK3399 processor
- eMMC drive soldered on-board, up to 64GB
- Interfaces
  - Video: 2x HDMI, 2x DVI-D, 2x DisplayPort
  - Audio: TRRS Audio Jack (Combo MicIn + Lineout)
  - Other Interfaces: 4x USB 2.0, 2x USB 3.0

**FEATURES**
- 15.6" X86 Digital Signage - Infotainment - Industrial - Vending - Networking
- eMMC drive soldered on-board, up to 64GB
- Interfaces
  - Video: 2x HDMI, 2x DVI-D, 2x DisplayPort
  - Audio: TRRS Audio Jack (Combo MicIn + Lineout)
  - Other Interfaces: 4x USB 2.0, 2x USB 3.0

**MAIN FIELDS OF APPLICATION**
- Digital Signage - Infotainment
- Industrial
- Vending
- Networking

**HMI**
- Flexy Vision 15.6 ARM Panel PC with 15.6" LCD display based on Rockchip RK3399 SoC

**GRAPHICS**
- 500 Hours 1920x1080 LVDS display with projected capacitive touchscreen integrated

**CONNECTIVITY**
- 2x Gigabit Ethernet port
- Optional SPI Flash
- DP 1.2 interface on USB Type-C connector (alternate mode)
- HDMI 4K interface
- Cover
- P-Cap (Projected Capacitive touch screen), with 3.0mm glass
- 15.6" LVDS display, resolution 1920x1080, LED lifetime 50K
- Dual Display support
  - H.264, VP8 1080p@30fps HW encoding
  - MPEG-4/MPEG-2/VP8 1080p@60fps HW Decoding
  - H.265 10-bit, H.264 10-bit, VP9 8-bit 4Kx2K@60fps HW Encoding

**CPU**
- Intel® Atom™ / Intel® Celeron® (Dual / Quad Core processors)
- 4-Core Main 2.1GHz (1.5GHz burst)
- 2-MB L2 Cache, 10W TDP

**MEMORY**
- Soldered-down LPDDR4 memory, up to 8GB total, 64-bit interface
- Embedded VPU, able to offer:
  - Intel® HD Graphics 500 series controller with up to 1.1/2.0/3.0/3.1, OpenVG 1.1, OpenGL ES 2.0
  - 4-Core Mali-T860MP4 GPU, supporting OpenGL ES
  - 4-Core Main 2.1GHz (1.5GHz burst)
  - 2-MB L2 Cache, 10W TDP

**Operating System**
- Linux

**Supply**
- Power In connectors: DC Power Jack
- Main Power: 12VDC .. 24VDC
- Optional Ultra Low Power SPI RTC
- Power ON Button with integrated LED

**OPERATING TEMPERATURE**
- 0°C ÷ 50°C

**Dimensions**
- 403.6 x 253 x 58 mm

*Measured at any point of the heatpastesdistributions during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system to keep the heatpastesdtemperature in the range indicated.*
## Flexy Vision 21.5

### Panel PC with 21.5” LCD display based on Intel® Atom™ X Series and Intel® Celeron® J / N Series (formerly Apollo Lake) Processors

**Flexibility Meets Style For Endless Visual Display Applications**

**FEATURES**

- **Main Fields of Application**
  - Interfaces
  - Networking
  - Mass Storage
  - Audio

- **Embedded**
  - Graphic
  - Embedded Memory
  - Processor

- **Main Application**
  - Digital Signage
  - Infotainment
  - Automation
  - Industrial
  - Vending

### HIGHLIGHTS

- **Digital Signage** - Infotainment
- **Automation**
- **Industrial**
- **Vending**

### Components

- **SYS-A62-10** with 10.1” 1920 x 1200 intersection display & projected capacitive touchscreen integrated

### Interfaces

- **SYS-A62-10/LITE**
  - 2 x USB 2.0 Type-A ports and 1 x USB 2.0 internal connector
  - Gigabit Ethernet connector
  - Mass Storage
  - Audio
  - **USB**
    - 2 x USB 3.0 Host ports on USB 3.0 Type-A sockets
  - 1 x RS-232 serial port

### Memory

- 2x GbE, 8MPx, add-on module

### Dimensions

- 269.60 x 189.20 x 17.17 mm

### Power Supply

- Programmable expansion connector with S/PDIF, S/PDIF or PW/SPDIF interfaces

### Specifications

- S/PDIF interfaces
- UART TTL, 3 x ISO, SD, SPI or PW/SPDIF interfaces
- **SYS-A62-10/QUAD**
  - up to 18 GPIOs, 1 x TTL CAN port, 3 x PW/SPDIF interfaces

### Notes

- Measured at any point of the heatspreader during any and all times (including start-up). Actual temperature will widely depend on the application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

---

## SYS-A62-10

### Embedded Panel with 10.1” LCD display based on the Multicore NXP i.MX 6 SoC family

**Flexible, Open-source, Industrial system**

### FEATURES

- **Processor**
  - Multicore NXP i.MX 6 6 processor family

- **Memory**
  - up to 18 GPIOs, 1 x TTL CAN port, 3 x PW/SPDIF interfaces

- **USB**
  - S/PDIF interfaces
- **S/PDIF interfaces**
- **UART TTL, 3 x ISO, SD, SPI or PW/SPDIF interfaces**

### Power Supply

- Programmable expansion connector with S/PDIF, S/PDIF or PW/SPDIF interfaces

### Specifications

- S/PDIF interfaces
- UART TTL, 3 x ISO, SD, SPI or PW/SPDIF interfaces
- **SYS-A62-10/QUAD**
  - up to 18 GPIOs, 1 x TTL CAN port, 3 x PW/SPDIF interfaces

### Notes

- Measured at any point of the heatspreader during any and all times (including start-up). Actual temperature will widely depend on the application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.
MODULAR HMI SOLUTIONS

SYS-B08-7
Embedded Panel with 7” LCD display based on the NXP i.MX 6SoloX Processor

Smart, compact, industrial 7” touch system built for IoT

HIGHLIGHTS
- Quad-core NXP i.MX 6SoloX Processor, Single core Cortex-A9 @ 1GHz + Cortex-A84-M4 core @ 227MHz
- 432MB DDR3L memory, up to 1GB
- Embedded Graphics Vivante GC400T, 2D and 3D HW accelerators
- IP67 submersible to 1 meter for 30 minutes.
- -30°C to 80°C storage temperature
- -20°C to 70°C operating temperature (Extended)
- 12V – 28 V DC input via barrel jack

MAIN FIELDS OF APPLICATION
- Digital Signage - Information
- HMI
- Home Automation
- Industrial Automation
- Info Kiosks
- Multimedia devices

FEATURES
- Processor: NXP® i.MX 6SoloX Processor, Single core Cortex-A9 @ 1GHz + Cortex-A84-M4 core @ 227MHz
- Main Core(s): 2 + 1 x Cortex-A9
- Memory: 432MB DDR3L memory, up to 1GB
- Graphics: Embedded Graphics with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0, 3D, OpenVG™ accelerator
- Video Interfaces: HDMI, DVI-I, DisplayPort, 1x USB 2.0 OTG, 1x USB 2.0 Host on Type C; 1x USB 2.0 host on Type A; 1x USB 3.0 on Type A; 1x USB 3.0 on Type C
- Mass Storage: 32 GB standard (8 - 128 GB available)
- Display: 7” WSVGA (1024x600) sunlight-readable LCD
- Operating Systems: Android 7.x (Nougat) or later, Linux 4.x. Inquire for RTOS
- Barometer
- Ambient light sensor (photometer)
- Magnetometer
- Gyroscope
- Accelerometer
- Wi-Fi (802.11 b/g/n/ac), Bluetooth 4.2, Cellular (via mPCIe slot)
- Cellular modem via SIM card slot
- Dimensions: 189.60 x 121.40 x 28.20 mm

HYDRA-N6
7” Rugged, Customizable Arm Tablet with Quad or Dual Core Cortex-A9 NXP i.MX 6 Processor

Rugged Arm tablet customizable to get the job done

HIGHLIGHTS
- Quad or dual core Cortex-A9 NXP i.MX 6 processor
- RAM 2 GB DDR3 (8GB, 4GB available)
- Graphics: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0, 3D, OpenVG™ accelerator
- Display: 7” WSVGA (1024x600) sunlight-readable LCD
- Operating Systems: Android 7.0 marshmallow (including VxWorks)
- Dimensions: 189.60 x 121.40 x 28.20 mm

MAIN FIELDS OF APPLICATION
- Aerospace & Defense
- Industrial Automation
- IoT
- Medical

FEATURES
- Processor: Quad or dual core Cortex-A9 NXP i.MX 6 processor
- Memory: RAM 2 GB DDR3 (8GB, 4GB available)
- Graphics: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0, 3D, OpenVG™ accelerator
- Power Supply: 12V – 28 V DC input via barrel jack
- Dimensions: 189.60 x 121.40 x 28.20 mm

www.seco.com
### NALLINO 4.3 OF PCT

4.3 inch Rear Mount HMI based on NXP i.MX6ULL processor

**Low-power and high cost efficiency solution**

### SANTINO LT 5.0 OF PCT

5.0 inch Rear Mount HMI based on NXP i.MX6 processor

**Ideal HMI solution for limited installation situations with consistent quality**

### MAIN FIELDS OF APPLICATION

<table>
<thead>
<tr>
<th>Biomedical/ Medical devices</th>
<th>Fitness Equipment</th>
<th>HMI</th>
<th>Industrial Automation</th>
<th>Measuring Instruments</th>
<th>Multimedia devices</th>
<th>Point of Sales</th>
<th>Wireless Technologies</th>
</tr>
</thead>
</table>

### MAIN FIELDS OF APPLICATION

<table>
<thead>
<tr>
<th>Biomedical/ Medical devices</th>
<th>Fitness Equipment</th>
<th>HMI</th>
<th>Industrial Automation</th>
<th>Measuring Instruments</th>
<th>Multimedia devices</th>
<th>Point of Sales</th>
<th>Wireless Technologies</th>
</tr>
</thead>
</table>

### FEATURES

<table>
<thead>
<tr>
<th>Processor</th>
<th>NXP i.MX 6 Family, based on ARM® CORTEX-A7 processors: i.MX6ULL 792 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>512 MB 32 bit DDR3L</td>
</tr>
<tr>
<td>Video Resolution</td>
<td>4.3 inch display, resolution 480 x 272, LED lifetime typ. 30k hours, 576 cd/m² brightness</td>
</tr>
<tr>
<td>Mass Storage</td>
<td>eMMC: 4 GB MLC, micro SD slot: 4 bit MMC/SDIO/SD/SDHC</td>
</tr>
<tr>
<td>Networking</td>
<td>1x 100MbEthernet</td>
</tr>
<tr>
<td>USB</td>
<td>1x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A</td>
</tr>
<tr>
<td>Audio</td>
<td>1x speaker (connector), internal buzzer</td>
</tr>
<tr>
<td>Serial Ports</td>
<td>RS-232, RS-485</td>
</tr>
<tr>
<td>Power Supply</td>
<td>9 – 32 VDC</td>
</tr>
</tbody>
</table>

### MAIN FIELDS OF APPLICATION

<table>
<thead>
<tr>
<th>Biomedical/ Medical devices</th>
<th>Fitness Equipment</th>
<th>HMI</th>
<th>Industrial Automation</th>
<th>Measuring Instruments</th>
<th>Multimedia devices</th>
<th>Point of Sales</th>
<th>Wireless Technologies</th>
</tr>
</thead>
</table>

### MAIN FIELDS OF APPLICATION

<table>
<thead>
<tr>
<th>Biomedical/ Medical devices</th>
<th>Fitness Equipment</th>
<th>HMI</th>
<th>Industrial Automation</th>
<th>Measuring Instruments</th>
<th>Multimedia devices</th>
<th>Point of Sales</th>
<th>Wireless Technologies</th>
</tr>
</thead>
</table>

### FEATURES

<table>
<thead>
<tr>
<th>Processor</th>
<th>NXP i.MX 6 Family, based on ARM® CORTEX-A9 processors: i.MX6S Solo 792 MHz, i.MX6DL Dual Lite 1 GHz per core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>1 GB 32 bit DDR3L</td>
</tr>
<tr>
<td>Video Resolution</td>
<td>5.0 inch display, resolution 800 x 480, LED lifetime typ. 50k hours, 1120 cd/m² brightness</td>
</tr>
<tr>
<td>Mass Storage</td>
<td>eMMC: 4 GB MLC, micro SD slot: 4 bit MMC/SDIO/SD/SDHC</td>
</tr>
<tr>
<td>Networking</td>
<td>1x 100MbEthernet</td>
</tr>
<tr>
<td>USB</td>
<td>1x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A, 1x speaker (connector), 1 W RMS (8 Ω) parallel to internal speaker</td>
</tr>
<tr>
<td>Serial Ports</td>
<td>RS-232, RS-485</td>
</tr>
</tbody>
</table>

### MAIN FIELDS OF APPLICATION

<table>
<thead>
<tr>
<th>Biomedical/ Medical devices</th>
<th>Fitness Equipment</th>
<th>HMI</th>
<th>Industrial Automation</th>
<th>Measuring Instruments</th>
<th>Multimedia devices</th>
<th>Point of Sales</th>
<th>Wireless Technologies</th>
</tr>
</thead>
</table>

### MAIN FIELDS OF APPLICATION

<table>
<thead>
<tr>
<th>Biomedical/ Medical devices</th>
<th>Fitness Equipment</th>
<th>HMI</th>
<th>Industrial Automation</th>
<th>Measuring Instruments</th>
<th>Multimedia devices</th>
<th>Point of Sales</th>
<th>Wireless Technologies</th>
</tr>
</thead>
</table>
**SANTINO 7.0 OF PCT**  
7.0 inch Rear Mount HMI based on NXP i.MX6 processor

Optimal price-performance ratio combined with sophisticated design & easy installation

### FEATURES
- **Processor**: NXP i.MX 6 Family based on ARM® Cortex®-A9 processors: i.MX6 Dual – Full featured, 4x Cortex®-A9 cores up to 1 GHz, 1x CAN Bus
- **Memory**: 1 GB 64 bit DDR3L
- **Graphics**: 1x HDMI interface, 2D graphics accelerator, OpenGLES 2.0 3D graphics accelerator with a shader
- **Video Resolution**: 7.0 inch display, resolution 800 x 480, LED lifetime typ. 70k hours
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbEthernet
- **USB**: 1x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A
- **Audio**: 1 speaker (connector), 1 W RMS (1Ω) parallel to internal speaker
- **Power Supply**: 9 ÷ 32 VDC
- **Operating System**: Yocto
- **Temperature**: 0°C ÷ +60°C

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*

### MAIN FIELDS OF APPLICATION
- Biomedical/ Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

### HIGHLIGHTS
- 7.0 inch Rear Mount HMI based on NXP i.MX6 processor
- GC355 & GC350 3D accelerator + GC2000 3D accelerator
- NXP i.MX 6 Family based on ARM® Cortex®-A9 cores:
  - i.MX 6 Quad – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
  - i.MX 6 Dual – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
  - i.MX 6 Single – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
- HW decoding of MPEG-4, H.263, H.264, DivX
- HW encoding of MPEG-4, H.263 V2, H.264, MPEG
- 2D, OpenGL® ES2.0 3D OpenVG™ accelerator
- Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGLES 3.0 3D, OpenGL™

---

**SANTARO 7.0 OF PCT**  
7.0 inch Outdoor Rear Mount HMI based on NXP i.MX6 processor

Ideal HMI solution for outdoor situations with high brightness & particularly robust design

### FEATURES
- **Processor**: NXP i.MX 6 Family based on ARM® Cortex®-A9 cores: i.MX 6 Quad – Full featured, 4x Cortex®-A9 cores up to 1 GHz, 1x CAN Bus
- **Memory**: 1 GB 64 bit DDR3L
- **Graphics**: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGLES 3.0 3D, OpenGL™
- **Video Resolution**: 7.0 inch display, resolution 800 x 480, LED lifetime typ. 50k hours
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbEthernet
- **USB**: 1x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A
- **Audio**: 1 speaker (connector), 1 W RMS (1Ω) parallel to internal speaker
- **Power Supply**: 9 ÷ 32 VDC
- **Operating System**: Yocto
- **Temperature**: 0°C ÷ +60°C
- **Dimensions**: 220.5 x 150.9 x 43.4 mm

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*

### MAIN FIELDS OF APPLICATION
- Biomedical/ Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales

---
TANARO 7.0 OF PCT IPS

7.0 inch Rear Mount HMI based on NXP i.MX8M Mini processor

High performance with low power consumption for edge computing with integrated connectivity and multimedia interface

FEATURES

Processor
NXP i.MX 8M Mini Family based on ARM® Cortex®-A53 cores + general purpose Cortex®-M4 400MHz processor: MX 8M Mini Quad - Full featured, 4x Cortex®-A53 cores up to 1.8GHz

MX 8M Mini Dual - Full featured, 2x Cortex®-A53 cores up to 1.8GHz

MX 8M Mini Single - Full featured, 1x Cortex®-A53 cores up to 1.8GHz

MX 8M Mini Quad Lite - Full featured, 4x Cortex®-A53 cores up to 1.8GHz

MX 8M Mini Dual Lite - Full featured, 2x Cortex®-A53 cores up to 1.8GHz

MX 8M Mini Single Lite - Full featured, 1x Cortex®-A53 cores up to 1.8GHz

Memory
1 GB 32 bit LPDDR4

Graphics
GD320 2D accelerator + GCNanoUltra 3D accelerator

Enhanced VPU (not for Lite processors), able to offer:
GC320 2D accelerator + GCNanoUltra 3D accelerator

i.MX8 M Mini Family, based on ARM® Cortex®-A9 processors:
i.MX6DL Dual Lite - Dual core up to 1 GHz per core

i.MX6S Solo - Single core up to 1 GHz

i.MX6S Dual Lite - Dual core up to 1.8GHz

i.MX6S Quad Lite Full featured, 4x Cortex®-A53 cores up to 1.8GHz

i.MX6S Mini Dual – Full featured, 2x Cortex®-A53 cores up to 1.8GHz

i.MX6S Mini Quad – Full featured, 4x Cortex®-A53 cores up to 1.8GHz

i.MX6S Mini Solo Lite – Full featured, 1x Cortex®-A53 up to 1.8GHz

i.MX6S Mini Full – Full featured, 4x Cortex®-A53 cores up to 1.8GHz

Audio
1x speaker (connector), 1 W RMS (6Ω) parallel to internal speaker

Digital Mic In connector (2x PDM inputs)

Power Supply
9 – 32 VDC

Operating System
Yocto

Dimensions
145.5 x 102.4 x 33.4 mm

Temperature
0°C ÷ +60°C

Video Resolution
5.0 inch display, resolution 800 x 480, LED lifetime typ. 50k hours

Video Interface
1x HDMI, 1x MHL3.0, 1x DisplayPort

Mass Storage
micro SD slot: 4 bit MMC/SDIO/SD/SDHC

Soldered on Board DDR3L memory

CONNECTIVITY
1x 100MbE, up to 2x USB, 2x RS232, RS485, CAN

Main Fields of Application
Biomedical/ Medical devices
Fitness Equipment
HMI
Industrial Automation
Measuring instruments
Multimedia devices
Point of Sales
Wireless Technologies

Maximum design flexibility with the usual quality

FEATURES

Processor
NXP i.MX 6 Family, based on ARM® Cortex®-A9 processors: LM6XS Solo - Single core up to 1 GHz
LM6XQ Dual Lite - Dual core up to 1 GHz per core

Memory
1 GB 32 bit DDR3L

Graphics
2D graphics accelerator

Audio
1x speaker (connector), 1 W RMS (6Ω) parallel to internal speaker

Mass Storage
micro SD slot: 4 bit MMC/SDIO/SD/SDHC

Dimensions
145.5 x 102.4 x 33.4 mm

Temperature
0°C ÷ +60°C

Video Resolution
5.0 inch display, resolution 800 x 480, LED lifetime typ. 50k hours

Power Supply
9 – 32 VDC

Operating System
Yocto

CAN Bus
1x CAN (ISO/DIS 11898)

Video Interface
1x HDMI (ISO/DIS 11898)

Dimensions
145.5 x 102.4 x 33.4 mm

Main Fields of Application
Biomedical/ Medical devices
Fitness Equipment
HMI
Industrial Automation
Measuring instruments
Multimedia devices
Point of Sales
Wireless Technologies

Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet.
Flexible, powerful all-rounder for any demanding applications

**FEATURES**

- **Processor**: NXP i.MX 6 Family
- **Memory**: 1 GB 64 bit DDR3L
- **Graphics**: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0 and OpenVG™
- **Video Resolution**: 7.0 inch display, resolution 800 x 480, LED lifetime typ. 30k hours
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbE, up to 1x USB 2.0, 2x RS232, RS485, CAN
- **Power**: 9 ÷ 32 VDC
- **Audio**: 1x speaker (connector), 1 W RMS (8 Ω)
- **USB**: 1x USB 2.0 Type-A
- **Other Interfaces**: 2x Digital Input, 2x Digital Output

**HIGHLIGHTS**

- **7.0 inch Flush Mount HMI based on NXP i.MX6 processor**
- **Capacitive touch display offers great flexibility thanks to its viewing angle independence**
- **AI-ENABLED WITH**
  - DivX HW decoding of MPEG-2, VC1, MPEG-4 / XviD, H.263, H.264, MJPEG
  - i.MX 6 Quad – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
  - i.MX 6 Single – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
  - i.MX 6 Dual – Full featured, 4x Cortex®-A9 cores up to 1.0GHz

**MAIN FIELDS OF APPLICATION**

- Biomedical / Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies
SANTARO 10.1 SG IPS
10.1 inch Flush Mount HMI based on NXP i.MX6 processor

Flexible, powerful all-rounder for any demanding applications

FEATURES
- Processor: NXP i.MX6 Family
- Memory: 1 GB 64 bit DDR3L
- Graphics: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® *ES2.0 3D, OpenVG™ accelerator
- Video Resolution: 10.1 inch display, resolution 1280 x 800, LED lifetime typ. 50k hours
- Mass Storage: 8 MMC-4 GB MLC
- Networking: 1x 10/100MbE, 2x USB 2.0 OTG micro-AB
- USB: 2x USB 2.0 Type-A
- Audio: 1x speaker (connector), 1 W RMS (8-Ω) parallel to internal speaker
- Other Interfaces: 2x Digital Input, 2x Digital Output

HIGHLIGHTS
- AI-ENABLED WITH Medical devices
- DivX HW decoding of MPEG-2, VC1, MPEG-4 / XviD, H.263, H.264, MJPEG
- i.MX 6 Quad – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
- 2x Digital Input, 2x Digital Output
- 1x speaker (connector), 1 W RMS (8-Ω) parallel to internal speaker
- 1x USB 2.0 OTG micro-AB
- 1x speaker (connector), 1 W RMS (8-Ω) parallel to internal speaker

MAIN FIELDS OF APPLICATION
- Biomedical/ Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
-Wireless Technologies

Optional accessories:
- mPCIe (half size) socket for modems or Wifi/BT

Dimensions
- 264.3 x 181.1 x 37.7 mm

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosures and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

Operating
- Supply: 9 ÷ 32 VDC
- Temperature: 0°C ÷ +60°C
- CAN Bus: 1x CAN (ISO/DIS 11898)
- Operating Temperature: 0°C ÷ +60°C

Power
- Serial Ports: 2x RS-232, RS-485
- Operating System: Yocto
- Dimensions: 264.3 x 181.1 x 37.7 mm

SANTOKA 10.1 SG IPS
10.1 inch Flush Mount HMI based on NXP i.MX6 processor

The integrated Single Board Computer, integrated in this HMI from the SANTOKA series, opens up the world of IOT to your product

FEATURES
- Processor: NXP i.MX6 Family
- Memory: 1 GB 64 bit DDR3L
- Graphics: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® *ES2.0 3D, OpenVG™ accelerator
- Video Resolution: 10.1 inch display, resolution 1280 x 800, LED lifetime typ. 50k hours
- Mass Storage: 8 MMC-4 GB MLC
- Networking: 1x 10/100MbE, 2x USB 2.0 OTG micro-AB
- USB: 2x USB 2.0 Type-A
- Audio: 1x speaker (connector), 1 W RMS (8-Ω) parallel to internal speaker
- Other Interfaces: 2x Digital Input, 2x Digital Output

HIGHLIGHTS
- AI-ENABLED WITH Medical devices
- DivX HW decoding of MPEG-2, VC1, MPEG-4 / XviD, H.263, H.264, MJPEG
- i.MX 6 Quad Plus – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
- 2x Digital Input, 2x Digital Output
- 1x speaker (connector), 1 W RMS (8-Ω) parallel to internal speaker
- 1x USB 2.0 OTG micro-AB
- 1x speaker (connector), 1 W RMS (8-Ω) parallel to internal speaker

MAIN FIELDS OF APPLICATION
- Biomedical/ Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

Optional accessories:
- mPCIe (half size) socket for modems or Wifi/BT

Dimensions
- 264.3 x 181.1 x 37.7 mm

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosures and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

Operating
- Supply: 9 ÷ 32 VDC
- Temperature: 0°C ÷ +60°C
- CAN Bus: 1x CAN (ISO/DIS 11898)
- Operating Temperature: 0°C ÷ +60°C

Power
- Serial Ports: 2x RS-232, RS-485
- Operating System: Yocto
- Dimensions: 264.3 x 181.1 x 37.7 mm

*Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet.
Flexible, powerful all-rounder for any demanding applications

**Features**
- **Processor**: NXP i.MX 6 Family
- **Memory**: 1 GB 64 bit DDR3L
- **Graphics**: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenVG™ 2.0, OpenVG™ 2.0, OpenVG™ 2.0, OpenVG™ 2.0
- **Video Resolution**: 12.1 inch display, resolution 1024 x 768, LED lifetime typ. 70k hours
- **Video Interfaces**: HDMI interface
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbE, up to 3x USB, 2x RS232, RS485, CAN
- **Audio**: 1x speaker (connector), 1 W RMS (8 Ω) parallel to internal speaker
- **Other Interfaces**: 2x Digital I/O, 2x Digital Input

**Main Fields of Application**
- Biomedical/Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring Instruments
- Multimedia devices
- Point of Sales

**Specifications**
- **Dimensions**: 298.6 x 235.4 x 41.1 mm
- **Temperature**: 0°C ÷ +60°C
- **Power**: 9 ÷ 32 VDC
- **Operating System**: Yocto

**HIGHLIGHTS**
- AI-ENABLED WITH DivX HW decoding of MPEG-2, VC1, MPEG-4 / XviD, H.263, H.264, Think Freely with HW encoding of MPEG-4, H.263, H.264, DivX
- NXP i.MX 6 Family based on ARM® Cortex®-A9 cores:
  - i.MX 6 Quad – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
  - i.MX 6 Single – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
- eMMC: 4 GB MLC
- Memory Soldered on Board DDR3L memory

*Measured at any point of SEDO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*

**SANTOKA 12.1 SG IPS**
12.1 inch Flush Mount HMI based on NXP i.MX6 processor

The integrated seal and the innovative flush mount concept ensure a high IP protection class and the possibility of seamless integration

**Features**
- **Processor**: NXP i.MX 6 Family
- **Memory**: 1 GB 64 bit DDR3L
- **Graphics**: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenVG™ 2.0, OpenVG™ 2.0, OpenVG™ 2.0
- **Video Resolution**: 12.1 inch display, resolution 1024 x 768, LED lifetime typ. 70k hours
- **Video Interfaces**: HDMI interface
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbE, up to 3x USB, 2x RS232, RS485, CAN
- **Audio**: 1x speaker (connector), 1 W RMS (8 Ω) parallel to internal speaker
- **Other Interfaces**: 2x Digital I/O, 2x Digital Input

**Main Fields of Application**
- Biomedical/Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring Instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

**Specifications**
- **Dimensions**: 298.6 x 235.4 x 41.1 mm
- **Temperature**: 0°C ÷ +60°C
- **Power**: 9 ÷ 32 VDC
- **Operating System**: Yocto

*Measured at any point of SEDO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*
### SANTARO 19.0 SG
19.0 inch Flush Mount HMI based on NXP i.MX6 processor

**Flexible, powerful all-rounder for any demanding applications**

**MAIN FIELDS OF APPLICATION**

- Biomedical/ Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring Instruments
- Multimedia devices
- Point of Sales

**FEATURES**

- **Processor:** NXP i.MX 6 Family
- **Memory:** 1 GB 64 bit DDR3L
- **Graphics:** 1 GB 48 bit DDR3L
- **Video Resolution:** 19.0 inch display, resolution 1280 x 1024, LED lifetime typ. 50k hours
- **Mass Storage:** 4 GB MLC
- **Networking:** 1x 100MbE
- **USB:** 2x USB 2.0 OTG micro-AB, 2x USB 2.0 Type-A
- **Audio:** 1x speaker (connector), 1 W RMS (8 Ω)
- **Other Interfaces:** 2x Digital Input, 2x Digital Output

**HIGHLIGHTS**

- **AI-ENABLED WITH:** Medical devices
- **DivX HW decoding of MPEG-2, VC1, MPEG-4 / XviD, H.263, H.264, MJPEG
- **i.MX 6 Quad – Full featured, 4x Cortex®-A9 cores up to 1.0GHz
- **1x CAN bus (ISO/DIS 11898)
- **Operating Temperature:** 0°C ÷ +60°C
- **Dimensions:** 457.3 x 382.1 x 42.2 mm
- **Power:** 9 ÷ 32 VDC

**DIMENSIONS**

- 457.3 x 382.1 x 42.2 mm

**OPERATING TEMPERATURE**

- 0°C ÷ +60°C

**SUPPLY**

- 9 ÷ 32 VDC

**OPERATING SYSTEM**

- Yocto

**SERIAL PORTS**

- 2x RS-232, RS-485

**CONNECTIVITY**

- 1x CAN bus (ISO/DIS 11898)
- 2x 100MbE, up to 3x USB, 2x HS330, RS485, CAN

**MEMORY**

- Soldered on Board DDR3L memory

**Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet.**

---

### SANTOKA 32.0 SG IPS
32.0 inch Flush Mount HMI based on NXP i.MX6 processor

The newest and largest HMI version of our SANTOKA family in proven flush mount design

**MAIN FIELDS OF APPLICATION**

- Biomedical/ Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring Instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

**FEATURES**

- **Processor:** NXP i.MX 6 Family
- **Memory:** 1 GB 48 bit DDR3L
- **Graphics:** 1 GB 48 bit DDR3L
- **Video Resolution:** 32.0 inch display, resolution 1920 x 1080, LED lifetime typ. 50k hours
- **Mass Storage:** 4 GB MLC
- **Networking:** 1x 100MbE
- **USB:** 2x USB 2.0 OTG micro-AB, 2x USB 2.0 Type-A
- **Audio:** 1x speaker (connector), 1 W RMS (8 Ω) parallel to internal speaker

**HIGHLIGHTS**

- **AI-ENABLED WITH:** Multimedia devices, Point of Sales Wireless Technologies
- **Biomedical/ Fitness/ Instruments**
- **Multimedia/ Devices**
- **Point of Sales Wireless Technologies**
- **Operating Temperature:** 0°C ÷ +60°C
- **Dimensions:** 767 x 490.27 x 62.49 mm
- **Power:** 9 ÷ 32 VDC
- **Operating System:** Yocto

**DIMENSIONS**

- 767 x 490.27 x 62.49 mm

**OPERATING TEMPERATURE**

- 0°C ÷ +60°C

**SUPPLY**

- 9 ÷ 32 VDC

**OPERATING SYSTEM**

- Yocto

**SERIAL PORTS**

- 2x RS-232, RS-485

**CONNECTIVITY**

- 1x CAN bus (ISO/DIS 11898)
- 2x 100MbE, up to 3x USB, 2x HS330, RS485, CAN

**MEMORY**

- Soldered on Board DDR3L memory

**Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet.**
### SANTINO LT 5.0 BX PCT
5.0 inch Panel Mount HMI based on NXP i.MX6 processor

The shapely design and the high resolution make the interaction an experience for the user.

#### MAIN FIELDS OF APPLICATION
- Biomedical/Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

#### FEATURES
- **Processor**: NXP i.MX 6 Family based on ARM® Cortex-A9 processors: i.MX6S Solo - Single core up to 1 GHz, i.MX6DL Dual Lite - Dual core up to 1 GHz per core
- **Memory**: 1 GB 32 bit DDR3L
- **Graphics**: 2D graphics accelerator with a shader
- **Video Resolution**: 5.0 inch display, resolution 800 x 480, LED lifetime typ. 50k hours, typ. 1120 cd/m² brightness
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbEthernet
- **USB**: 1x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A
- **Audio**: 1x speaker (connector), 1 W RMS (8 Ω) parallel to internal speaker
- **Serial Ports**: RS-232, RS-485

#### HIGHLIGHTS
- Fanless industrial PC impresses with simple installation and good performance

#### Power Supply
- 9 ÷ 32 VDC

#### Operating System
- Yocto

#### CAN Bus
- 1x CAN (ISO/DIS 11898)

#### Dimensions
- 154.6 x 102.0 x 34.9 mm

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*

---

### SANTINO 7.0 BX PCT
7.0 inch Panel Mount HMI based on NXP i.MX6 processor

Fanless industrial PC impresses with simple installation and good performance.

#### MAIN FIELDS OF APPLICATION
- Biomedical/Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

#### FEATURES
- **Processor**: NXP i.MX 6 Family based on ARM® Cortex-A9 processors: i.MX6S Solo - Single core up to 1 GHz, i.MX6DL Dual Lite - Dual core up to 1 GHz per core
- **Memory**: 1 GB 32 bit LPDDR4
- **Graphics**: 2D graphics accelerator with a shader
- **Video Resolution**: 7.0 inch display, resolution 800 x 480, LED lifetime typ. 50k hours, typ. 400 cd/m² brightness
- **Mass Storage**: eMMC: 4 GB MLC
- **Networking**: 1x 100MbEthernet
- **USB**: 1x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A
- **Audio**: 1x speaker (connector), 1 W RMS (8 Ω) parallel to internal speaker
- **Serial Ports**: RS-232, RS-485

#### HIGHLIGHTS
- Fanless industrial PC impresses with simple installation and good performance

#### Power Supply
- 9 ÷ 32 VDC

#### Operating System
- Yocto

#### CAN Bus
- 1x CAN (ISO/DIS 11898)

#### Dimensions
- 206.9 x 126.2 x 35.6 mm

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*
Flexible, powerful all-rounder for any demanding applications

**MAIN FIELDS OF APPLICATION**

- Biomedical/ Measuring devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales

**FEATURES**

- **Processor**
  - NXP i.MX 8M Mini Family
- **Memory**
  - 1 GB 64-bit DDR3L
- **Graphics**
  - Integrated Graphics, with up to 3 separate HBD accelerators for 2D, OpenGL® ES 2.0, OpenVG™ 1.1 support
- **Video Resolution**
  - 7.0 inch display, resolution 800 x 480, LED lifetime typ.
- **Mass Storage**
  - eMMC: 4 GB MLC
- **Networking**
  - 1x 100MbE, up to 2x USB 2.0, RS485, CAN
- **Audio**
  - 1x speaker (connector), 1 W RMS (8Ω) parallel to internal speaker

**HIGHLIGHTS**

- **Dimensions**
  - 202.0 x 126.2 x 35.5 mm
- **Temperature**
  - 0°C ÷ +60°C
- **Power**
  - 9 ÷ 32 VDC
- **Supply**
  - 2x RS-232, RS-485
- **Networking**
  - 1x 100MbE(third)
  - 1x 10/100/1000M/ Gigabit Ethernet

**Info:**

- Measurement subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet.
SANTARO 10.1 BX PCT
10.1 inch Panel Mount HMI based on NXP i.MX6 processor

Large high-resolution touch display

HIGHLIGHTS
- NXP i.MX6 Family
- 1x 10/100 MbE, up to 2x USB, 2x RS232, RS485, CAN
- Memory: Soldered on Board DDR3L memory

MAIN FIELDS OF APPLICATION
- Biomedical/Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales

FEATURES
- Processor: NXP i.MX 6 Family based on ARM® Cortex®-A9 cores
- Memory: 1 GB 64-bit DDR3L
- Graphics: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0 3D
- Video Resolution: 10.1 inch display, resolution 1280 x 800, LED lifetime typ. 50k hours
- Mass Storage: eMMC: 4 GB MLC
- Networking: 2x 100MbE
- USB: 2x USB 2.0 OTG micro-AB, 1x USB 2.0 Type-A
- Audio: 1x speaker (connector), 1 W RMS (8 Ω)
- Other Interfaces: 2x Digital Input, 2x Digital Output

Dimensions: 275.2 x 192.0 x 37.9 mm

Temperature*: 0°C ÷ +60°C

Supply: 9 ÷ 32 VDC

Power: 12 W

Operating System: Yocto

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosures and/or environment.

Similar to the HMI Industrial model, the SANTOKA 10.1 BX PCT is a fanless industrial PC that impresses with simple installation, good performance and various interfaces.

SANTOKA 10.1 BX PCT
10.1 inch Panel Mount HMI based on NXP i.MX6 processor

Fanless industrial PC impresses with simple installation, good performance and various interfaces

HIGHLIGHTS
- NXP i.MX6 Family
- 1x 10/100 MbE, up to 3x USB, 2x RS232, RS485, CAN
- Memory: Soldered on Board DDR3L memory

MAIN FIELDS OF APPLICATION
- Biomedical/Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

FEATURES
- Processor: NXP i.MX 6 Family based on ARM® Cortex®-A9 cores
- Memory: 1 GB 64-bit DDR3L
- Graphics: Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0 3D
- Video Resolution: 10.1 inch display, resolution 1280 x 800, LED lifetime typ. 50k hours
- Mass Storage: eMMC: 4 GB MLC
- Networking: 2x 100MbE
- USB: 2x USB 2.0 OTG micro-AB, up to 2x USB 2.0 Type-A
- Audio: 1x speaker (connector), 1 W RMS (8 Ω)

Dimensions: 275.2 x 192.0 x 37.9 mm

Temperature*: 0°C ÷ +60°C

Supply: 9 ÷ 32 VDC

Power: 12 W

Operating System: Yocto

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosures and/or environment.

Similar to the HMI Industrial model, the SANTOKA 10.1 BX PCT is a fanless industrial PC that impresses with simple installation, good performance and various interfaces.
The high resolution 12.1 inch display with capacitive touch screen offers numerous possibilities to make your device ready for the IOT in the well-known shapely design.

**SANTOKA 12.1 BX PCT**

12.1 inch Panel Mount HMI based on NXP i.MX6 processor

**HIGHLIGHTS**

- NXP i.MX 6 Family
- GC350 & GC355 2D accelerator + GC2000 3D accelerator
- Soldered on Board DDR3 memory

**MAIN FIELDS OF APPLICATION**

- Biomedical / Medical devices
- Fitness Equipment
- HMI
- Industrial Automation
- Measuring instruments
- Multimedia devices
- Point of Sales
- Wireless Technologies

**FEATURES**

| Processor | NXP i.MX 6 Family based on ARM Cortex™-A9 cores:  
| LMX 6 Quad Plus – Full featured, 4x Cortex-A9 cores up to 1.0GHz  
| LMX 6 Quad – Full featured, 4x Cortex-A9 cores up to 1.0GHz  
| LMX 6 Dual – Full featured, 4x Cortex-A9 cores up to 1.0GHz  
| LMX 6 Single – Full featured, 4x Cortex-A9 cores up to 1.0GHz |

| Memory | 1 GB 64 bit DDR3L |

| Graphics | Integrated Graphics, with up to 3 separate HW accelerators for 2D, OpenGL® ES2.0  
| HW encoding of MPEG-4, H.263 V2, H.264, MJPEG  
| HW decoding of MPEG-2, VC1, MPEG-4 / XviD, H.263, H.264, DivX |

| Video Interface | HDMI interface |

| Video Resolution | 12.1 inch display resolution 1024 x 768, LED lifetime typ. 50k hours  
| typ. 460 cd/m² brightness  
| P-Cap (Projected Capacitive touch screen), with 4.0mm toughened glass cover, RAL 9005 |

| Mass Storage | eMMC: 4 GB MLC  
| SD slot: 4 bit MMC/SDIO/SD/SDHC |

| Networking | 2x 100MBit Ethernet |

| USB | 2x USB 2.0 OTG micro-AB  
| 1x USB 2.0 Type A |

| Audio | 1x speaker (connector), 1 W RMS (8Ω) parallel to internal speaker |

**CONNECTIVITY**

- 2x 10/100M, 4x USB, 2x RS232, RS485, CAN

**HIGHLIGHTS**

- 2x CAN (ISO/DIS 11898)
- Operating Temps: 0°C ~ +60°C
- Dimensions: 305.9 x 242.7 x 41.0 mm

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.*