Genie™ Nano-CXP Cameras
Smaller, faster, stronger, cheaper.

Compact CoaXPress cameras with unprecedented speed and uncompromised image quality.

Introducing Genie Nano-CXP, a CMOS area scan camera that redefines performance. Genie Nano-CXP starts with industry leading image CMOS sensors from 16 to 67 megapixel resolution and adds proven CoaXPress 6Gbps technology for breakthrough speed, a robust build quality for wide operating temperature, and an unmatched feature set—all at an incredible price.

**Key Features**
- Industry’s latest CMOS image sensors
- Simplified set-up with field proven Sapera LT software featuring CamExpert
- Engineered to accommodate industrial environment with DIN connectors
- GenICan GenCP compliant

**Programmability**
- Higher frame rates achievable in partial scan mode
- Global electronic shutter with exposure control
- Multi-ROI feature

**Reliability**
- Robust all-metal body
- 3 year warranty
- Trigger to Image Reliability (T2IR) framework improves the reliability of your inspection system and protects you from data loss

**Typical Applications**
- Semiconductor wafer inspection
  - Surface and bump inspection
- Electronics manufacturing
  - 3D solder paste inspection
  - Package and bump inspection
  - Automated Optical Inspection (AOI)
- Solar panel inspection
- General machine vision

**Regulatory Compliance**
- CE, FCC, RoHS, GenICam, IP30, CoaXPress 1.1 KC certification
**GENIE CXP (XL Casing)**

- **Data Output Transfer**: 4 lanes x CXP-6
- **Exposure Control**: Automatic, programmable, or via external trigger
- **Lens Mount**: M42
- **Size (L x H x W) (C-mount option)**: 32 mm x 59 mm x 59 mm (no lens adapter or connectors)
- **Mass**: ~163 g
- **Operating Temp**: -20 to +60º C (housing temperature)
- **Power Supply**: +12 to +24 V or Power over CoaXPress PoCXP (PoCXP requires 2 x DIN connectors min.)
- **Power Dissipation**: (model dependent) 13 W @ 24 Volt Aux.
- **Data Connector**: 4 x DIN 1.0/2.3
- **Power and I/O Connector**: SAMTEC TFM-105 type
- **Camera Specification**: CoaXPress v1.1, GeniCam GenCP compliant
- **Software Platform**: Teledyne DALSA Sapera LT 8.0 for Windows, or 3rd Party GeniCam GenCP compliant SDK

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**GENIE NANO FAMILY SPECIFICATIONS (COMMON TO ALL MODELS)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Active Resolution</th>
<th>Sensor Model</th>
<th>Frame Rate**</th>
<th>Pixel Size</th>
<th>Dynamic Range</th>
<th>Max. Image Circle</th>
<th>Data Format</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CXP-M4090</td>
<td>4096 x 4096</td>
<td>On-Semi Python 16K (16M)</td>
<td>120 fps</td>
<td>4.5 µm</td>
<td>55.2 dB</td>
<td>APS-H Optical Format</td>
<td>8 or 10-Bit Mono</td>
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<td>On-Semi Python 25K (25M)</td>
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**RESPONSIVITY GRAPHS**

![Responsivity Graph M4090 vs C4090](image1.png)

![Responsivity Graph M5100 vs C5100](image2.png)
Genie™ Nano XL Specifications

For Model 16M to 67M only

NOTES:
1. UNITS: MILLIMETERS.
2. IMAGE AREA IS ALIGNED TO DATUMS A, B & C.
Versatile camera series featuring E2V and On-Semiconductor sensors