ROBOFLOWOS ON NVIDIA JETSON

RF-NX16

Compact industrial edge AI appliance for single- and multi-camera inspection stations



1–4 camera streams **6× PoE** **150 W PoE budget**

RF-NX16 is Roboflow's compact Orin-based edge appliance. Built around the NVIDIA Jetson Orin NX 16GB module in an industrial chassis with a passive heat sink, it runs Roboflow OS to deploy and manage computer vision models and Workflows directly on the production line. Six integrated PoE ports with a 150 W power budget power cameras directly from the appliance, removing the need for a separate PoE switch at the inspection station.

System specifications

Compute module	**NVIDIA Jetson Orin NX 16GB**
Enclosure	**Industrial chassis with passive heat sink**
Storage	**128 GB NVMe SSD**
Networking	**2× 1GbE** **6× 1GbE PoE (150 W total PoE budget)**
Operating system	**Roboflow OS**
Runtime	**NVIDIA JetPack 6.2**
Recommended workload	**1–4 concurrent camera streams**

Compute module

Per NVIDIA published module specifications

AI performance	**Up to 100 TOPS (INT8); up to 157 TOPS in Super mode**
GPU	**NVIDIA Ampere, 1024 CUDA cores, 32 Tensor Cores**
CPU	**8-core Arm Cortex-A78AE v8.2 64-bit**
Memory	**16 GB 128-bit LPDDR5, 102.4 GB/s**
Accelerators	**2× NVDLA v2.0**
Module power	**10 W – 25 W; 40 W in Super mode**

Network interfaces

Port	Qty	Typical use
1GbE	**2**	Uplink to plant network; non-PoE devices
1GbE PoE	**6**	PoE-powered GigE Vision cameras (150 W shared budget)

Software roadmap: NVIDIA JetPack 7.2 is being finalized for RF-NX16 and will be delivered as an over-the-air update through Roboflow OS.