The NRU-220S Series is a robust, fanless AI server designed for real-time inference and video transcoding, powered by the NVIDIA Jetson AGX Orin SoM with JetPack 5.0.2. It features a high-performance Ampere GPU with up to 2048 CUDA cores and Tensor cores, delivering 275 sparse TOPS (INT8) for simultaneous processing of up to twenty-two 1080p video streams. The system includes two 2.5 GbE Ethernet ports, each capable of supporting 1 Gbps bandwidth, ideal for surveillance or high-bandwidth applications. It also offers two front-accessible 2.5" HDD trays, an M.2 NVMe key slot, and two mini-PCIe sockets for WiFi/ GNSS/ NVMe/ CAN modules. Additionally, it supports LTE/5G NR mobile communication via a 3042/3052 M.2 B key socket. With its wide temperature operation capability, rugged design, and support for various connectivity options, the NRU-220S is well-suited for stationary or mobile deployment in demanding environments such as agriculture, construction, and mining