NECOM

Facial Recognition

NDiS B360 Slim and Powerful Embedded Computer for Facial Recognition and Access Control

Businesses are keenly aware of the safety implications of people from different places gathering together and the increased likelihood of COVID-19 exposure. As social distancing, face masks, and temperature checks become a part of everyday life, businesses are facing a struggle to minimize the inconvenience temperature checks cause to customers. Manual temperature checks lead to long queues and waiting, so to keep lines moving smoothly, a stable, efficient, and touchless system - utilizing AI technology - is needed to measure temperatures in a crowd. The NEXCOM NDIS B360 fits the bill.

Slim and powerful AI facial recognition embedded system

The NEXCOM NDIS B360 is a slim and powerful wide temperature (-20 to 60°C) embedded computer with AI processing capabilities ideal for temperature reading applications. The fanless system accepts 12Vdc input and integrates easily with its small 200 x 145 x 39.8 mm (W x D x H) footprint. It sports an energy-conscious 11th Generation Intel[®] Core[™] i3 CPU or an Intel[®] Core[™] i5 UP3 CPU with Intel[®] IRIS[®] X^e graphics technology that boosts graphics performance by 2.95x, going directly to helping AI inference and temperature checks.

Plentiful peripherals for various applications

The list of peripherals starts with HDMI 2.0 and DP++ video outputs with 4K @ 60Mhz output that display temperature readings, advertising, or other content. Intel[®] AMT supports remote management. Four USB 3.0 ports provide the high-speed data transfer needed for the high-resolution USB cameras. Networking required for connecting with the control center is achieved through



two Intel[®] GbE LAN ports, while an optional wireless connection is possible through a Wi-Fi module connected to the M.2 2230 Key E slot. The M.2 2280 Key M slot supporting a PCIe x4 capture card or NVME SSD rounds out the peripherals.

Applications - facial recognition and access control

The NEXCOM NDIS B360 is a capable all-rounder that uses OpenVINO optimized AI models for applications such as temperature checking, facial recognition, and access control. At a building entrance, the AI can monitor people coming into the building, detect wearing masks, test their body temperature, and warn if anyone is not wearing a mask or whose temperature is too high. For elevator signage, the screen displays advertising while the system - snuggly tucked behind the screen - measures people's temperature for contact tracing.

The NDiS B360 is also capable of facial recognition that can

power access control for restricted areas, keep entry records, and outsmart spoofing attempts using photos or images. Auditoriums benefit from touchless identification for self-check-in to visitor identification for automatic attendance reports. Finally, facial recognition can identify VIP customers in retail stores, display customized messages on retail signage, and alert people of interest.

Conclusion

The NDiS B360 is the best choice for facial recognition and access control and has the capability and flexibility to meet the needs of various scenarios in multiple applications.

Intel[®] 11 Generation Tiger Lake processor Core[™] i3 and i5 SKUs Intel[®] Iris X^e graphics on i5 SKU Intel[®] AMT supporting remote management 2 x Display output: DP++ and HDMI 2.0 4 x USB for camera or peripherals 2 x Intel[®] GbE LAN for control center M.2 2280 slot supporting capture card and NVME SSD M.2 Key E slot supporting Wi-Fi modules