

WOLF Advanced Technology

Winning at the edge ▶

Wolf Advanced Technology creates winning solutions for military and aerospace that capture, process, encode, display, and use AI inference to manage video and other signals to help ensure mission success.



CORPORATE PROFILE

WOLF
ADVANCED TECHNOLOGY

Bleeding Edge Solutions for

Clarity of Vision

WOLF is focused on designing and manufacturing high performance computing and video I/O boards, modules and systems for aerospace and defense. WOLF's engineering team has the expertise required to design extremely dense, technology-leading solutions using the most advanced GPUs, APUs, FPGAs, and other bleeding edge technologies which enable the advanced data collection and processing required to provide a clear vision of real time events as they develop at the edge.

Fast Connectivity for Modern Data

Modern sensors and cameras collect more data than ever before and getting that data to the processing node in a timely manner is an important part of a real time response. WOLF products include the connectivity that system designers need. Recent GPU innovations provide support for PCIe Gen4 speeds which doubles the speed of the previous GPU's Gen3 speeds. Embedded SmartNICs can support high ethernet speeds and RDMA over Converged Ethernet (RoCE) network protocol to allow data to be sent between nodes without involving the host CPU, enabling lower latency and higher throughput. Cyber security features are also an important consideration, and the NVIDIA® ConnectX® SmartNICs integrated in select WOLF products ensure that your data is being processed by a secure compute node.

Keeping Cool for High Performance

High performing processing requires high power, and high power generates heat. Finding innovative ways to dissipate the heat generated by those processors is an important part of WOLF product solutions. WOLF cooling methods include conduction cooled, air cooled and air flow through solutions, with additional methods available as custom options. By giving thermal design a high priority at every stage of new product design WOLF cooling solutions will ensure that you are achieving the best performance possible while meeting your SWAP targets.

Delivering AS9100D quality.

Quality trumps all:

Our growth strategy is based on the delivery of quality first, coupled with design innovation that helps our customers win business. It's what we call *"winning at the edge"*.

The adoption of AS9100D is our commitment to continuous business improvement in everything we do, at all levels of the company.

From the beginning, quality has been the central pillar of our growth strategy from which all of our business processes evolve. The adoption of AS9100D, however, has helped us align our processes and standards with larger military and aerospace companies which, in turn, supports our growth strategy.

WOLF ADVANCED TECHNOLOGY

USA
11459 Mayfield Road, #410
Cleveland, Ohio
USA 44106
800-931-4114

CANADA
175 Mostar Street, Ste. 200
Stouffville, ON
Canada - L4A 0Y2
905-852-1163

FOUNDED

1999

SENIOR EXECUTIVES

Craig McLaren, CEO
Greg Maynard, CTO
Jacqueline McBeigh, SVP Quality
Eva Golchuk, VP Finance
Jeff Manuel, VP Production Operations
Lindsey Chapman, VP Global Sales & Marketing

TECHNOLOGY PARTNERS

NVIDIA
Xilinx
AMD
INTEL

CERTIFICATIONS & STANDARDS

AS-9100D (2019)
IPC 6012 CLASS 3
IPC-A-610 CLASS 3
ISO 9001:2015
IPC J-STD-001
RTCA DO-160
MIL-STD-810
DO-254
DO-178

VIDEO SIGNALS

STANAG 3350 A (RS-343 RGB)
STANAG 3350 C (NTSC RS-170A)
STANAG 3350 B (PAL)
CVBS (NTSC/PAL/SECAM)
STANAG 4609
H.264/H.265
SDI up to 12G
Camera Link
CoaXPress
ARINC 818
GigE/IP
SMPTE
VGA

CAPTURE . PROCESS . AI INFERENCE . ENCODE . DISPLAY

“So NASA called us about their X-59 low-boom project...”

NASA gave us a call to help with their analog and 4K video requirements for their low boom project, which is centered around a new “windowless cockpit” jet design that reduces the noise associated with a sonic boom.

To satisfy the NASA requirements we’re supplying them with our XMC-E9171-VO, which features an AMD Radeon GPU, a chip-down rugged design that meets the MIL-810 specification and can handle up to five 4K displays using Display Port 1.4, and High Dynamic Range video with 10-bit color depth.

We’re also supplying NASA with our XMC-FGX2-SDI-4IO, which has WOLF’s second-generation Frame Grabber eXtreme (FGX2) which enables up to eight 3G/HD-SDI or four 12G-SDI inputs and outputs, three analog inputs and outputs, and a PCIe Gen4 interface that can handle up to 15.75 GB/s, with ultra low-latency H.265 encoding.

We are honored to be a part of the mission for the development of the X-59 and believe that it will help propel the resurrection of supersonic flights for commercial use.

SOSA™ Aligned Products

The US DoD adopted a Modular Open Systems Approach (MOSA) as a strategy for designing affordable and adaptable systems. The Sensor Open Systems Architecture (SOSA) approach to supporting this MOSA initiative is to leverage existing open standards (such as VITA VPX) to establish guidelines for Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) systems. WOLF has been an active participant in this SOSA Consortium, promoting technology to support the high-performance video and compute solutions that WOLF is known for in the industry. All applicable WOLF products designed since the release of the SOSA Technical Standard are SOSA Aligned, with OpenVPX options, and WOLF continues to design new products that push the boundaries of what is possible within the specification.

Reliable Rugged Designs

All WOLF products are designed to meet or exceed rugged, embedded quality and manufacturing standards to ensure that they will operate reliably in harsh environments. WOLF is AS9100D and ISO 9001 certified ensuring that we meet the strict quality process requirements required for aerospace and military applications. WOLF is committed to continuous quality and process improvement in everything we do, at all levels of the company.



3U VPX



6U VPX



MXM/SFF



XMC



MXC



Winning with COTS, MCOTS, and NCOTS.

We have a reputation for giving our customers a competitive advantage. And whether this means using an existing design (COTS), modifying an existing design (MCOTS), or designing a new commercial product (NCOTS), we'll work together to determine the best approach. There's a reason 8 out of the 10 largest military and aerospace companies are WOLF customers.

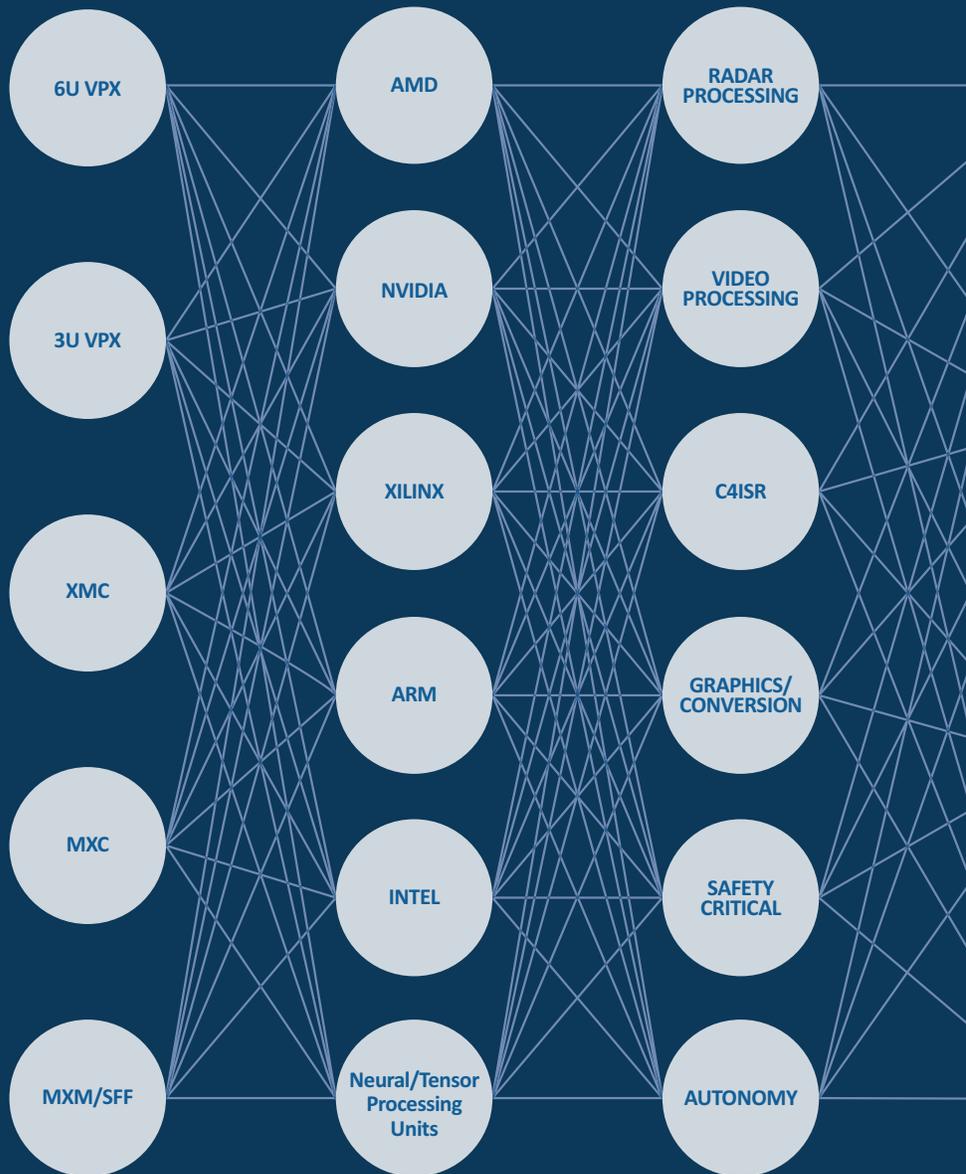
Winning lifecycles.

Nobody said this would be easy. But we've been doing it for over 20 years. And we have a track record of working with buyers to ensure lifecycle success and technology governance using our System Design Life Cycle (SDLC) process.

A 72-hour Proposal:

We will produce a proposal for you within 72 hours, after receipt of your requirement details.

Let's win together at the edge.



The trend is clear. More sensors. More data. More missions. Thankfully, emerging technologies are helping us harness and add value to this data to enable real-time mission decisions using traditional, GPU, and AI processors that can be deployed for military and aerospace use.

For more information visit wolf.ca or call **905.852.1163 x1**
Call toll-free **1.800.931.4114**

CAPTURE

PROCESS

AI INFERENCE

ENCODE

DISPLAY