AMPEX
EXCELLENCE AT THE EDGE

SWaP-C OPTIMIZED RUGGED DATA SOLUTIONS

CAPTURE | PROCESS | STORE | HOST | SECURE

LAND

SEA

AIR

SPACE

MISSION

Capture, process, store, host, and secure high-value data for our nation's defense and beyond with the lowest-risk combination of hardware and software solutions that are accompanied with best-in-class, lifecycle management and exceptionally responsive customer support.

IMPORTANT AMPEX INFO:

AS9100D / ISO9001:2015
Certified Small Business
Owned & Operated

CAGE Code 0PN68
DUNS Code 78-182-6896

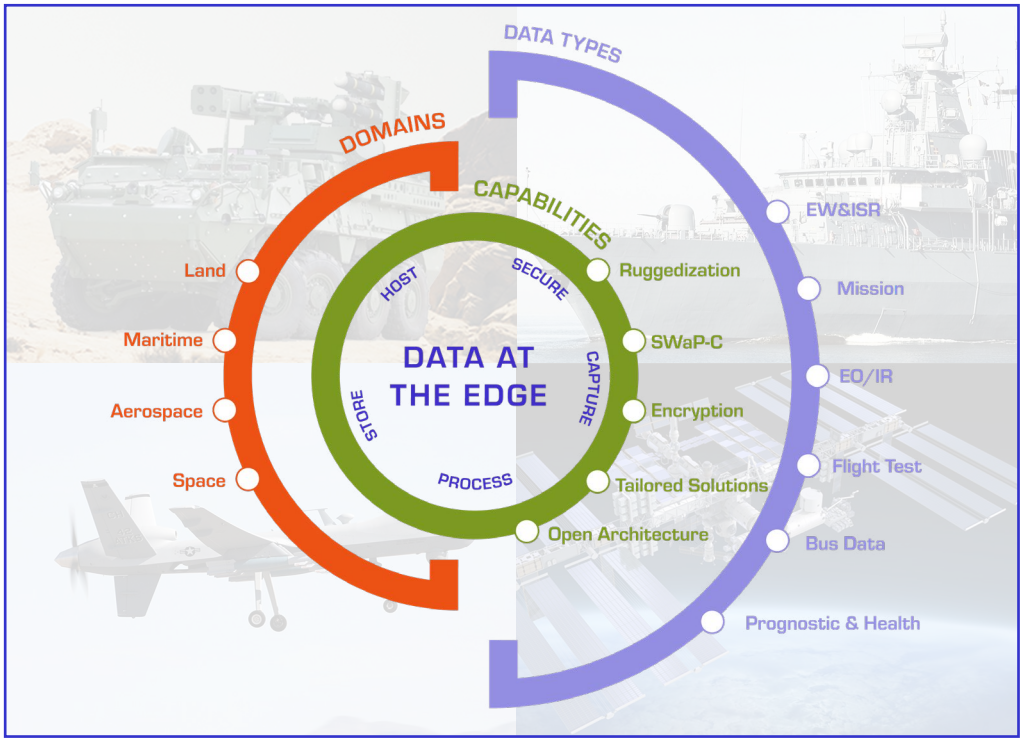
NAICS Codes

334111	334511	334515	517030	541712
334112	334513	511210	541330	

651
NAVY
4109

TECH-FOCUSED CAPABILITIES

Across land, sea, air, and space, Ampex is a beacon of 'excellence at the edge' in handling diverse data types like EW/ISR, Mission Data, EO/IR, and much more. At our core, we're driven by the commitment to capture, process, store, host, and secure mission-critical data at the edge. We ensure our solutions are rugged enough to withstand our customer's environmental challenges. Emphasizing SWaP-C and edge performance, we help customers strike the optimal balance for their system's success. We offer a suite of encryption options, and our commitment to open architecture ensures flexibility without vendor lock-in.



RUGGEDIZATION

We ensure that your solution will meet your shock, vibration, EMI, power, and environmental requirements. You can trust us to provide a solution that stands up to the harshest conditions, giving you peace of mind and reliable performance.

SWaP-C

To succeed in today's cutting-edge applications, it's crucial to strike a balance between Size, Weight, Power, and Cost (SWaP-C) optimization for your product. Let us help you achieve the optimal balance for your system's success.

EDGE PERFORMANCE

Get state-of-the-art hardware to fulfill your mission requirements. Our hardware can collect data at speeds ranging from hundreds of Mb/s to hundreds of Gb/s and store it in capacities ranging from GB's to hundreds of TB's.

ENCRYPTION

The security of your data is of the utmost importance to us, and we protect your data by offering robust encryption options. We can provide you with FIPS 197/AES 256-bit, FIPS 140, Commercial Solutions for Classified (CSfC), and NSA Type-1.

OPEN ARCHITECTURE

You should have full access to your hardware capabilities, which is why we adopt an open architecture approach. By staying non-proprietary, we allow you to save costs and ensure you do not get vendor locked.

TAILORED SOLUTIONS

Our COTS products were developed to meet previous mission requirements. To save you both time and money, we offer to customize one of our COTS solutions to fit your needs, or we can design you a solution from scratch.

FAST, SMART, SECURE, & RELIABLE SOLUTIONS

MAX

The fastest thing flying. Fully capable. Completely rugged.

PLUS

Most popular solution. The “sweet spot” between cost & capabilities.

BASE

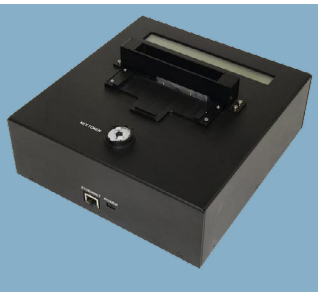
Our most economical option. Mission required capabilities.

FLIGHT TEST

Where every pulse, signal, and sensor detail matters.

DOWNLOAD STATION

Our simple solution for rapid data download and encryption key management.



RACK MOUNT

Where industry-leading design meets peak operational performance.

COMBAT-PROVEN SYSTEMS FOR ANY PLATFORM

	Product	Features	Size/Wt	Speed	Storage	Interfaces	Security
MAX	TuffServ 1000	Dual processor Mission Computer and Recorder for next gen platforms Up to 200 GbE with 122TB of Removable Storage High Assurance (NSA Type I) Encryption at 400+ Gbps Dual XMC sites for custom payloads Multi-Level Security	7.5" H x 6.2" W x 9.8" D (8.5" H w/ Fan) Weight configuration dependent	64 GB/sec internal data rate	122 TB	2x 100 GbE 2.5 G Base-T	High Assurance (Type I) CSfC FIPS 140 MLS
MAX	TuffServ 780	Intel Xeon D-1746TER “Ice Lake” Processor Two 10GbE and Four 1GbE, Custom I/O Available 72TB+ Removable SSD Storage At 5 GB/s Sustained NFS File Server On RHEL With ACCE Framework Fan-Cooled Chassis, -40°C To +50°C Operation	8.28” W x 10.03” H x 18.40” D 37.2 lbs	5 GB/sec	72+ TB	4x 1 GbE 2x 10 GbE Custom I/O available	AES 256/ FIPS 197 FIPS 140 NIAP CSfC
MAX	TuffServ 640v2	Removable Storage Capacity Up To 300 TB Quad 10 GbE Optical Interfaces Suitable For Edge-Operating AI/ML Applications; Tested And Validated Expandability And Flexibility: Customizable I/O Options Can Record IRIG 106 Chapter 10 data format	7.63” H x 4.88” W x 12.63" D 30 lbs	3 GB/sec	300 TB	4x 10GbE 1 GbE	AES 256/ FIPS 197 FIPS 140 CSfC
MAX	TuffServ 540	Removable Storage Capacity Up To 16 TB Small And Lightweight 105 cu. In, And Less Than 10 lbs Optional Optical 10 GbE Interface Expandability And Flexibility: Customizable I/O Options Special Radiant Tolerant Version Suitable For High Altitude And Space	2.9” H x 4.25” W x 8.5” D 10 lbs	800 MB/ sec	16 TB	2x GbE 10/100 Fast Ethernet	AES 256/ FIPS 197 FIPS 140 CSfC
PLUS	TuffServ 488	Removable Storage Capacity 80 TB Or Higher Various Recording Formats Including CH 10 And PCAP Optional Optical 10 GbE Interface Expandability And Flexibility: Customizable I/O Options Built Rugged, MIL-STD-810 With MIL-STD Connectors	5.25” H x 7.25” W x 10.0” D 17.5 lbs	1.5 GB/sec	80 TB+	2x 10 GbE 2x 1 GbE	AES 256/ FIPS 197 FIPS 140 CSfC
PLUS	TuffLite	High-Speed I/O: Equipped With 10 GbE Interface Over 8 TB (Detachable) Capable Of Ingest, Pass Through, And Reproduction Video Specifically Crafted To Meet Stringent Swap Requirements	1.28” H x 6.12” W x 6.69” D 2.5 lbs	1,250 MB/ sec	8 TB	10 GbE 1 GbE 2.5 GbE Video RS 422	AES 256/ FIPS 197 FIPS 140 CSfC
PLUS	TuffCORD-X	10GbE and 1GbE interfaces 750 MB/s Sustained Network Throughput NVMe Architecture Removable Storage Capacity Up To 16TB Expandability And Flexibility: Customizable I/O Options Built Rugged, MIL-STD-810 With MIL-STD Connectors	3.6” H x 4.8” W x 6.3” D 5.5 lbs	750 MB/ sec	16 TB	10 GbE 1 GbE	AES 256/ FIPS 197 FIPS 140 CSfC
PLUS	TuffServ 282	More Than 200 MB/sec Sustained Read Or Write Throughput Six Second Full Load Power Holdup Standard Dual Gigabit Ethernet Interfaces Two Removable Memory Modules Built Rugged, MIL-STD-810 With MIL-STD Connectors	9.0” H x 4.8” W x 11.0” D 14.6 lbs	200 MB/ sec	16 TB+	4x GbE 10/100 Fast Ethernet	AES 256/ FIPS 197 FIPS 140 CSfC

	Product	Features	Size/Wt	Speed	Storage	Interfaces	Security
BASE	CAR	Perfect For Attritable Systems, Combining Small Form Factor With High Performance 2 TB Fixed Storage Or Up To 512 GB Of Removable CFast Storage Modular Linux Based Open Architecture Standard: 2x 1 GbE GNSS/GPS Receiver (W/ Disable Feature)	1.8" H x 4.8" W x 6.8" D 2 lbs	200 MB/sec	2 TB	2x GbE Audio GPS	Self Encrypting Drive
BASE	TuffCORD	Removable Storage Capacity Up To 20 TB Standard Dual 1 GbE Interfaces Greater Than 250 MB/sec Sustained Network Throughput Expandability And Flexibility: Customizable I/O Options Built Rugged, MIL-STD-810 With MIL-STD Connectors	3.6" H x 4.8" W x 6.3" D 5.5 lbs	250 MB/sec	20 TB	2x GbE	AES 256/ FIPS 197 FIPS 140 CSfC
FLIGHT TEST	miniRv2	IRIG 106 CH 10 File Format Outputs CH 10/11 Data As A CH 7 Serial PCM Stream Totally Flexible & Modular I/O Sustained Data Rates To 1,000 Mb/sec Up To 4 TB Of Removable Storage	4.125" H x 3.5" W x 6.82" D 4.6 lbs	1,000 Mb/ sec	4 TB	1 GbE 10/100 Fast Ethernet RS 232/422 "Slice-based" expansion	AES 256/ FIPS 197 FIPS 140 Turnstile CSfC
DWNLD STATION	SmartDock	miniRv2 or TuffCORD RMM rapid data download Encryption key handling and data management Fast 10 Gb/s network support LCD panel for status Easy-to-use Web GUI interface	4.5" H x 8.6" W 9.2" D 4.75 lbs	10 Gb/s	n/a	10 GbE download interface	AES 256/ FIPS 197 FIPS 140 CSfC
RACK MOUNT	TRS-X	Sustained Data Rate Of 100 Gb/sec Scalable: Virtually Unlimited Storage/ Capacity QSFP Optical Interfaces Multiple Expansion Sites For Additional I/O Industry Standard Architecture And Commodity SSDS	19" W x 3.5" H x 20" D (Chassis) 19" W x 1.75" H x 22" D (Removable Storage Tray) 40 lbs	Config A: up to 100 Gb Config B: 10-40 Gb	187 TB+ Varies by Config	2x 100 GbE 2x GbE (1 Shared with IPMI)	AES 256/ FIPS 197 FIPS 140 CSfC

CYBER SECURITY

With over eight decades of innovation, Ampex has redefined data security at the edge. Our advanced solutions deliver unparalleled encryption and cybersecurity, reliably meeting and often surpassing compliance standards to safeguard the most sensitive frontline missions.

CSfC: NSA-endorsed encryption scheme for classified data with two COTS layers.

NSA High Assurance: Type 1 encryption for classified government data.

FIPS 140: Government approved cryptographic module security.

AES 256/FIPS 197: Government validated 256-bit encryption protocol.

STIG Compliant OS: Enhances system security & integrity.

US-Based Supply Chain: Controlled, Class-A supply chain for hardware security.

Patented Encryption Methodology: Ensures robust data protection.

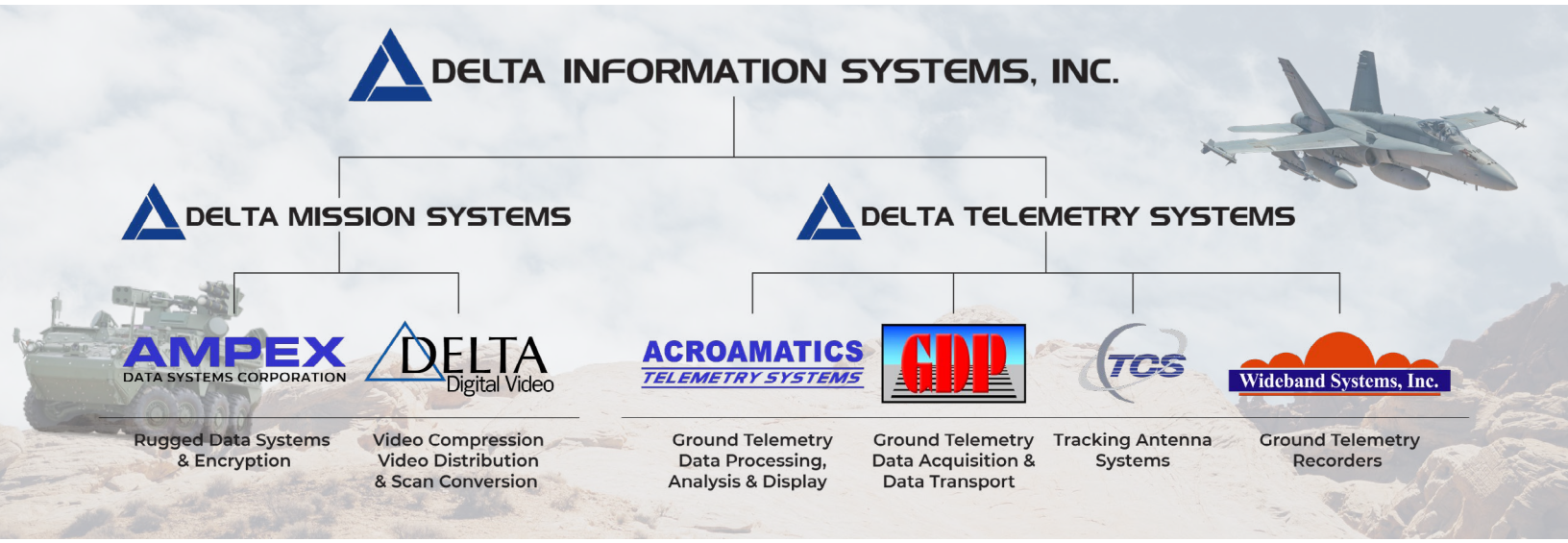
Open Architecture: Ensures cybersecurity adaptability & resilience.

Ampex sets the standard for data security at the edge.

THE AMPEX DIFFERENCE

Discover what sets us apart by spotlighting our unwavering commitment to innovation, dedicated support, and robust security solutions, all while working together to bring 'excellence to the edge'.

- Programs we support are enhanced with dedicated Program Managers and specialized obsolescence management teams.
- Customer Support and Sustainment (CuSS) Team comprised of cleared Field Application Engineers and other Senior Engineers, ready to provide demonstrations, training, troubleshooting, integration, and field support.
- Over seven decades supporting the DoD, showcasing our long-standing commitment to the warfighter.
- Trustworthy US-based supply chain, continuously vetted for reliability and security.
- Uncompressed Video Data Recorder frame grabber, unique in the market for its full-frame rate, bit-for-bit capture, including all associated metadata.
- Market leading data rates reaching 100 Gb/s of sustained throughput.
- CSfC Trusted Integrator of mature hardware and software encryption layers into a complete Network Attached Storage solution for Data-at-Rest.
- NIAP Common Criteria certified and NIST FIPS 140-3 validated Ampex data-at-rest encryption for secure SSD and recorder deployments.



LOCAL & GLOBAL

- US OWNED & OPERATED
- ISO 9001
- EMPLOYEE OWNED SMALL BUSINESS
- FULL LIFE-CYCLE SUPPORT
- FULL TEST FACILITY
- AS9100D

LOCATIONS

Hayward, CA (HQ)
Horsham, PA (DIS HQ)
Las Cruces, NM
Tokyo, JP

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