

Delta Information Systems Recorder Comparison Guide

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Acquire. Transport. Record. Process. Protect. Display & Analyze.

This guide is a side-by-side comparison of the recording products across all three [Delta Information Systems](#) companies: [Ampex Data Systems](#), [Wideband Systems](#), and [GDP Space Systems](#). It is designed to show the differences between each company's recorders, where they overlap, and how to match the right product to the right requirement.

No single company in the defense recording market covers the full spectrum from air to archive, Delta Information Systems does. Through Ampex, Wideband, and GDP, DIS fields recorders at every point in the data chain: IP telemetry streams on the test range, multi-interface and RF signals at the ground station, flight test instrumentation on the aircraft, and mission-critical data at the tactical edge including EW/ISR, EO/IR, radar, bus data, health and diagnostics, and compressed/uncompressed video across airborne, maritime, land, and space domains, plus 100 Gbps+ collection on the ground for the Intelligence Community.



Operational Domain Overview

	Ampex Data Systems	Wideband Systems	GDP Space Systems
Headquarters	Hayward, CA	Silver Spring, MD	Horsham, PA
Primary Domain	Mission Segment (Airborne + Ground)	Test Range (Ground) & Mission Segment (Launch + Satellite Data Downlinks)	Test Range (Ground)
Core Competency	Rugged Airborne NFS Recording + Ultra High Speed Ground Collection	Multi-Interface Telemetry + RF Recording	Ethernet/IP Telemetry Recording
Key Customers	DoD Weapon System Programs, Intelligence Community	DoD Ranges, Satellite & Rocket Launch Facilities, Major Primes, Integrators worldwide, Intelligence Community	DoD Ranges, Satellite & Rocket Launch Facilities, Major Primes, Integrators worldwide
Installed Base	Several flight test platforms,	Thousands of systems at	Multiple satellite launch and







	numerous ACAT I mission platforms	major TM sites globally	test range facilities
Control Software	Ampex Common Compute Environment (ACCE)	WSI Native User Interface GUI	GDP TRMS (Telemetry Range Management Software)

Portfolio Capability Comparison

Capability	Ampex Data Systems	Wideband Systems	GDP Space Systems
Primary Mission	Airborne mission recording + ground high-speed collection	Range telemetry + RF recording	Range Ethernet/IP stream recording
Product Portfolio	10 product families (miniRv2, TuffCORD/X, CAR, TuffLITE, TuffServ 282/480v2/540/640v2, TRS 380, TRS-X, SmartDock), RF Recorder	DRS8000 Series (4 models), DRS9000 Series (2 models)	Model 3500
Environment	Full MIL-STD-810/461, airborne + ground (-40 to 71°C, 14 grms vibrate, 20g shock)	Rack mount, ground Operational: 5 to 50°C Non-Operational: -25 to +65°C	Rack mount, ground (0 to 45°C)
Data Rate Range	200 MB/s to 100 Gbps	Up To 10Gbps	800 Mb/s
Storage Range	512 GB to 300+ TB (virtually unlimited via daisy-chain)	Up to 32 TB	Up to 53 TB
Weight Range	2 to 40 lbs	15 to 55 lbs	20 lbs
Power	9W to 125W (28 VDC airborne) 115/220 VAC (ground)	110/220V AC, 200 to 450W	120/240V AC, 130W
Signal Types	Ethernet, SDI, DVI, MPEG2/H.264, Serial, EW/ISR, EOIR, Bus Data	Analog, Digital PCM, IF, RF, Video, Ethernet, Serial, MIL-STD-1553, ARINC 429...and more	Ethernet (IP packets only)
RF Recording	No	Yes: 100MHz to 6GHz	No
Interface Flexibility	Slice-based modular I/O + network-centric NFS/CIFS	27+ swappable Interface Boards (IFBs)	Fixed: 2x 10GbE + 2x 1GbE
Recording Format / Data Interfaces	IRIG-106 Ch 10/11, Ch 7 PCM output, IRIG Ch 24 & 26, PCAP, PCAPnG, PTP 1588, NFS/CIFS, compressed and uncompressed video, sFPDP, bus data (1553, CAN, ARINC-429, RS-422)	Record in: IRIG-106 Ch 10 Native	Record in: IRIG-106 Ch 10 Native Interfaces: IRIG 218, IRIG 106 Ch 10/11, MISB
Encryption	AES-256, FIPS-140, CSFC, Turnstile, NSA Type-1 High Assurance	AES-256, FIPS-140-2	AES-256, FIPS 140-2
Removable Storage	Purpose-built RMMs with SmartDock key management station	Dual removable diskbanks (striped/mirrored)	Optional removable HDD, Diskless OS, and Storage Option Available
OS / Software	RHEL + ACCE framework	Windows 10 SHB / Windows 11 SHB / Windows 10 Platform IT + Red Hat Linux FPGA	RHEL 9.1 + GDP TRMS
Control	ACCE GUI, NFS/CIFS shares, web interface	Touch screen, KVM, remote API	Web browser, CLI, TRMS-RMS
AI/ML Edge Compute	Yes (TuffServ 640v2)	No	No
When to Choose	Rugged airborne/edge recording, secure removable	Complex multi-interface telemetry or RF band capture,	24/7 IP stream recording at the range

	media, or 100+ Gbps ground ingest	secure removable media	
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“Which Recorder?” Decision Guide

Your Need	Best Fit	Why
24/7 IP telemetry stream recording on the range	GDP Model 3500 	Purpose-built for TMoIP/VoIP/Video-over-IP with TRMS integration, lowest cost, highest reliability for continuous ops
Multi-interface telemetry recording with analog, PCM, IF, video	Wideband DRS8000 Series 	Up to 7 swappable IFBs, 27+ interface board options, supports every telemetry signal type on the range
Capture entire RF bands directly off the antenna	Wideband DRS9300X / 9300X-MB 	Direct RF recording up to 10Gbps, 100MHz – 6GHz Frequency Band Range, 16-bit ADC with 80+ dB AGC. The MB variant tunes across bands dynamically
Flight test data acquisition on aircraft (Ch 10)	Amplex miniRv2 	4.6 lbs, fully modular I/O, IRIG 106 Ch 10 native, survives -40 to 71°C and 14 grms vibration
Rugged airborne NFS mission recording (EW/ISR)	Amplex TuffServ Family (282, 480v2, 540, 640v2) 	Scalable from 200 MB/s to 3 GB/s NFS, 2 lbs to 30 lbs, 16 TB to 300 TB, MIL-STD-810 qualified
SWaP-constrained pods and small platforms	Amplex TuffLITE 	2.5 lbs, 1.28 in tall, 10GbE interface, up to 8 TB detachable storage, 35W, built for tight spaces with strict size/weight/power limits

		
Lowest cost attritable/expendable recorder	<u>Ampex CAR</u> 	2 lbs, 9W, low cost point, perfect for drones and expendable ground vehicles
Ultra-high speed ground collection (100 Gbps)	<u>Ampex TRS-X</u> 	100 Gbps sustained, 90 TB/hr on dual channels, daisy-chainable storage, built for Intelligence Community
Post-mission data download with encryption key management	<u>Ampex SmartDock</u> 	2.5 Gb/s download station, supports miniRv2 and TuffCORD RMMs, built-in FIPS/CSfC key management GUI

Together, GDP Space Systems, Wideband Systems, and Ampex Data Systems give programs a recorder portfolio that can follow data from the test range to the tactical edge and all the way into long-term ground archives. Whether you need 24/7 IP stream capture, multi-interface and RF recording on the range, rugged airborne mission storage, or ultra-high speed ground collection, there is a purpose-built option in the Delta Information Systems family, rather than a one-size-fits-all compromise. Use this guide as a starting point to narrow in on the right fit, then reach out to our team to talk through your specific requirements so we can match the recorder to your mission.

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