

CYPHER®

Cypher is the next-generation phased array system that combines rugged, reliable hardware with intuitive software to deliver faster, more accurate inspections in any environment — helping your team maximize uptime and make confident decisions with ease.

Where Cypher Works

INDUSTRY

OIL & GAS
POWER GENERATION
AEROSPACE
DEFENSE

KEY MARKETS

Pipeline girth welds
Refinery corrosion mapping (CUI)
Small bore piping / boiler tubes
Pressure vessel welds / nozzles
Riser & field repairs
Austenitic DM welds
Turbine / rotor welds



What Cypher Delivers

Faster Startups, More Jobs Completed

Cypher's streamlined setup means technicians are scanning within minutes, not half an hour.

→ More welds inspected per shift, fewer overtime costs.

Clarity That Drives Confidence

With reduced noise and high-resolution imaging, even the smallest defects stand out.

→ More accurate decisions, fewer rescans, and greater safety assurance.

Empowering Every Technician

Beginners get simplified views, while experts keep advanced controls.

→ Less time training, fewer bottlenecks, and more efficient teams.

Reliable in Any Environment

From Arctic pipelines to desert solar farms, Cypher is built to perform.

→ Inspections keep moving no matter the weather or location.



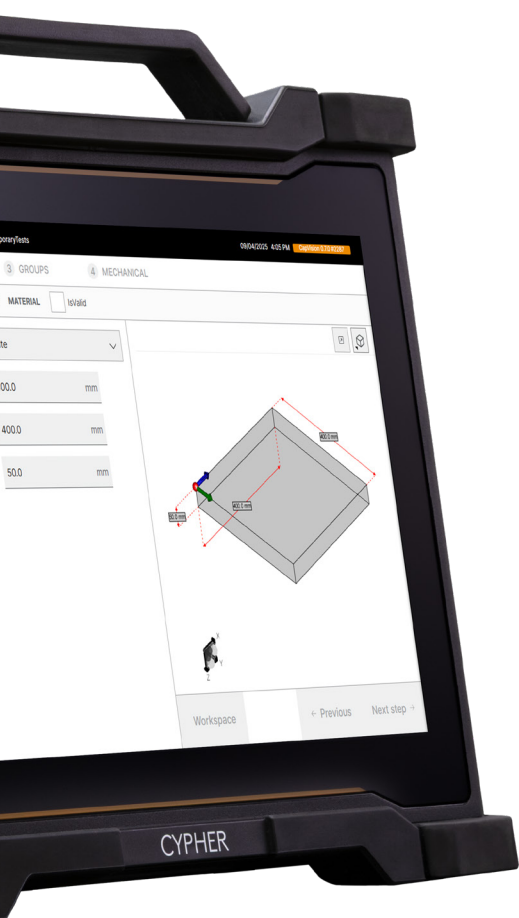
HEAD TO HEAD COMPARISON

Evaluating the features that matter most

	CYPHER®	OTHER COMPARABLE SYSTEMS*
 Screen Size <i>Reduce mistakes outdoors with the large, high visibility display.</i>	307mm diagonal (12.1 in.)	269mm diagonal (10.6 in.)
 Touchscreen <i>No need to remove your gloves, and no worries about screen damage with our durable multi-touch display.</i>	Capacitive	Resistive
 Operating Temperature <i>Stay productive to fewer shutdowns thanks to Cypher's ability to stay cool in icy conditions and blistering heat.</i>	-10°C to 50°C (14°F to 122°F)	-10°C to 45°C (14°F to 113°F)
 Encoder <i>Easily manage complex scanners and automated workflows for faster, more reliable inspections.</i>	3-axis support	2-axis support
 Maximum Recharging Temperature <i>Minimize downtime with safe recharging in hot environments-no cooling delays.</i>	40°C (104°F)	30°C (86°F)
 USB Ports <i>Be more flexible in the field with more options to connect peripherals and manage data.</i>	4x USB 3.1	2x USB 3.1
 Data Storage <i>Keep working without interruption — store more jobs and skip the mid-shift offload.</i>	2 TB SSD	1 TB SSD, for most
 Focal Laws <i>Cypher supports advanced multi-group configurations for faster, more accurate results.</i>	4096 maximum total	1024 maximum total
 Max PRF <i>Cypher supports advanced multi-group configurations for faster, more accurate results.</i>	Up to 40 kHz	Up to 20kHz
 A Scan Points <i>More accurate results with higher resolution, precise flaw sizing, and clearer signal analysis.</i>	Up to 65536 pts	Up to 16384 pts
 UT/PA Filters <i>Gain clearer signals and more precise flaw detection across multiple applications.</i>	Fully adjustable high- low- & band-pass	Fixed high- low- & band-pass
 Groups <i>More data per pass means faster inspections and more accurate results.</i>	Up to 8 simultaneous	Limited
 Multi-Techniques <i>Save time and ensure compliance — Cypher delivers imaging and code compliance in a single scan.</i>	Multi-Groups TFM + TOFD capability	FMC or PWI only
 Performance <i>No longer just for complex jobs — Cypher makes TFM practical for daily work.</i>	Fastest on the market (up to 4x faster in benchmarks)	Limited

*Data and specifications compiled from commercially available UT instruments are provided solely for reference and comparison with official Cypher data from Eddyfi Technologies.

Cypher's design is intelligent, intentional, and built for precision in the field. Every detail is designed to make inspection more intuitive, more portable, and more powerful.



BUILT FOR THE FIELD



- **Worry-free use in rain, dust, or any other conditions.**
- **Prevents unexpected failures** to keep inspections running in any environment.
- **Fewer repairs and replacements** mean less downtime, lower costs, and higher lifetime value.



- **Cuts file management hassle**—no mid-job transfers, just focus on the inspection.
- **One less device to carry or lose**, simplifying logistics in remote or offshore sites.



- **No large splitter necessary**—just scan, switch, and keep moving. Faster setup for high-throughput inspections.
- **Cleaner, more accurate data** with reduced noise and cross-talk; each channel fully isolated and shielded.



- **Reliable from arctic pipelines to desert solar farms**—no waiting on weather.
- **Prevents thermal shutdowns** and data loss by reducing overheating risk.
- **Standardized deployment across sites worldwide**, from Alberta winters to Middle East summers.



- **Even the smallest indications stand out**—clearer images, clearer decisions.
- **Boosts Probability of Detection (POD)** while minimizing false calls - less time spent reviewing questionable data or rescanning.



- **Dramatically boosts throughput**—inspect more welds, parts, or assets per shift without compromise.
- **Cuts technician time on site** reduces rental costs, and helps service providers protect margins.
- **Makes TFM practical** for everyday welds, corrosion, and general inspections.



- **Inspect from multiple angles** or depths in one pass for a complete picture and fewer rescans.
- **Cross-validate findings in real time**—ideal for nuclear, aerospace, and power-gen procedures.



- **Keep familiar workflows and tools**—just with upgraded hardware.
- **Delivers comprehensive for critical flaw analysis** while keeping the interface simple for all skill levels.



- **Cuts training time**—new inspectors perform advanced inspections confidently from Day 1.
- **Experts get full control**; beginners stay focused with simplified views.
- **Junior inspectors work more independently**, freeing Level 3 resources and boosting team efficiency.



- **Visualize defects in vivid detail**—even in direct sunlight—for faster, more confident decisions.
- **Operate effortlessly in the field**—no fumbling, no stylus, no frustration, even in tough conditions.



- **Secure, real-time file backup**—accessible anywhere, even before the inspector leaves the site.
- **Instant support** and second opinions without exporting data or scheduling meetings.
- **No USBs, shared drives, or lost files**—just scan → save → sync to your central system.



- **Reduces human error** and improves consistency—critical for quality across teams and shifts.
- **Rookies can set up encoded scans confidently**, while experts save time.
- **One-screen control slashes prep time**—no extra remotes, software, or laptops needed.

EFFORTLESS WORKFLOW