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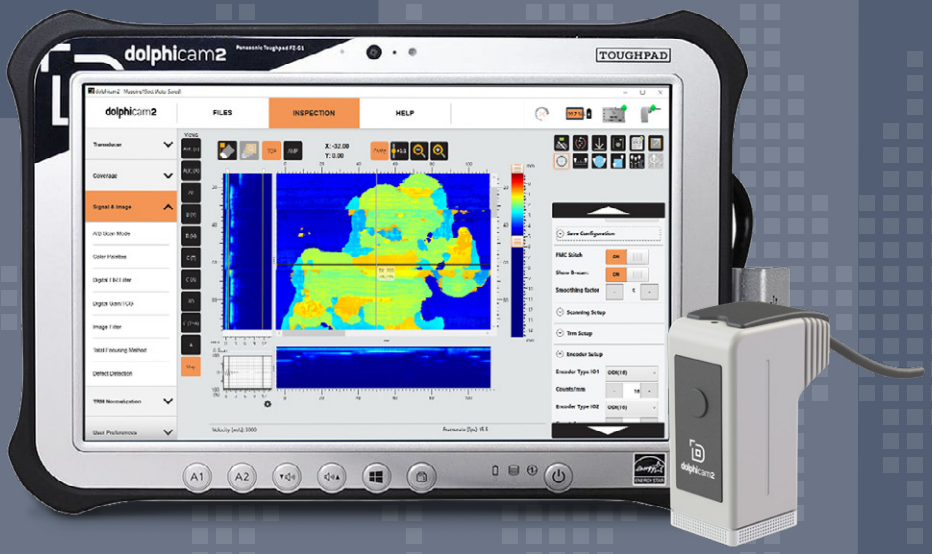
MILITARY SPECIFICATION
DOLPHICAM2 PRODUCT SPECIFICATION

The dolphicam2 is capable of high-resolution imaging and precise measurements for a wide range of material types including composites, metals and multi materials.

With a straightforward, quick to deploy, user-friendly system, technicians of all experience levels can generate analysis-ready images of materials in real time for quick decision making.



MILITARY MODES AVAILABLE

Adapted specifically for military use; with all connectivity (Wi-Fi and Bluetooth) disabled and no camera.

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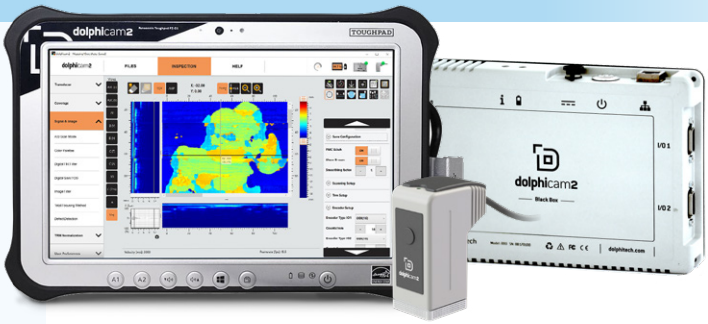
Made in Norway

Black Box and Rugged Tablet

The dolphicam2 consists of a rugged 10” Panasonic Toughpad FZ-G1 tablet computer with a combined table stand and Black Box mounting bracket on its rear.

Kick stand allowing you to prop your device at almost any angle that’s convenient for you.

Self contained lightweight and portable and comes in a self- contained ruggedized pelicase.



Features

- Ergonomic & mobile
- Can connect to external PC
- Audio buzzer

Size and weight

Toughpad, Black Box and TRM	3.01kg
Size (including neck strap)	300 x 188 x 70mm
Size (Black Box)	200 x 130 x 32mm
Size (Toughpad)	270 x 188 x 19mm

Technical details

Transducer ports	2x USB C
Other connections	Ethernet
Battery	6-8 hours
Ingress protection	IP66
PC/Host port	USB C

The Toughpad has a daylight-readable display with gloved-multitouch and waterproof digitizer pen.

The Black Box and Toughpad are joined by a sturdy metal frame. The whole system is reinforced to withstand daily site use.

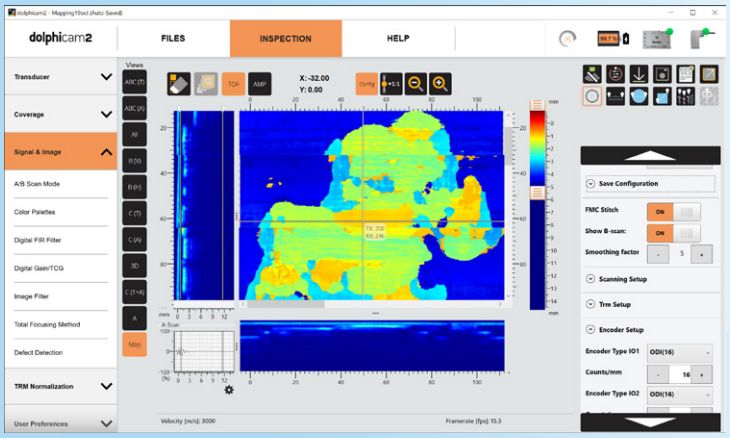
The Black Box itself is the heart of the system, driving the TRM while connecting to the Toughpad which runs and displays the software.

The unit has been tested to withstand drops from 1.3 meters. It has IP66 ingress protection and long battery life (6-8 hours in normal use).

The Toughpad is equipped with an Intel i5 CPU, 8GB of RAM and a 256GB SSD.

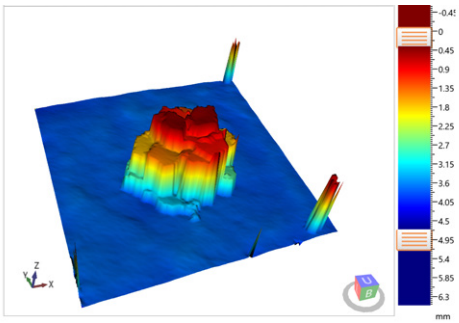
Software

The dolphicam2 software is unique among NDT packages, designed from the ground up to complement the imaging capabilities of the platform (including Live C-scans). Ultrasonic images are shown not just using conventional signal amplitudes, but also as time of flight, opening up a world of instant, color-coded thickness mapping. This is helped further by the live 3D characterization view, which instantly enhance visualization and can be readily interpreted by different levels of end-users.



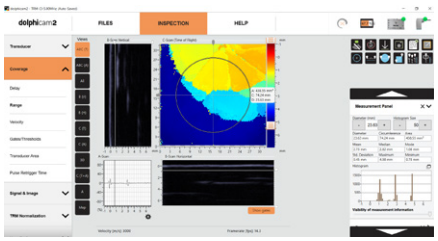
Measurements

- Depth B-scan
- Line in C-scan
- Depth & Amplitude in C-scan
- Rectangle (Width, Height, Area)
- Circle (Diameter, Circumference Area)



Views

- A-scan
- B-scan (vertical/ horizontal, TFM)
- C-scan (Amplitude, ToF)
- 3D (ToF & Amp)
- Stitch view



Features

- Live 1 Axis & 2 Axis Encoded Mapping
- Grid and free hand stitching
- Configuration setting files
- Full Matrix Capture (FMC)
- Total Focusing Method (TFM)
- TCG Functionality
- Digital Time Corrected Gain (TCG)
- Report configuration
- Defect Detection
- Histogram Statistical Data Graph

Other General Functionality

Color focus

Reset settings to default

Save screenshot

Remote TRM activation

Expanded view (hide config menu)

Comfortable handle for portability

On board, simple to use calibration function

For maximum image quality we also provide Total Focusing Method (TFM) reconstructions, with TFM images available on both vertical and horizontal B-scan views.

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Specification

Data transfer rate	Up to 3.2 Gbit/s depending on transducer settings
Effective data acquisition rate	30 full data sets (128x128 A-scans) per second with typical settings
Data processing	Low pass filter, data sampling, Total Focusing Method
Visualization	Single element signals (A-scans), vertical cross sections (B-scans), horizontal cross sections and material thickness mappings (C-scans) and 3D.
Adjustable settings	Measurement unit, material depth, gating, material sound velocity, transmit pulse shape, gain, filtering and averaging, time corrected gain, color palette
Statistical data	Mean (+Std. Deviation), Median, and Mode
Data file format	Open, HDF5 based file format
Time Corrected Gain (TCG)	0 to 10 dB/µs
Digital Gain	+50dB
Averaging	1 - 16
Delay	1 - 82 µs
Depth	1 - 120 mm @ 6,000 m/s
Velocity	100 - 20.000 @ 6,000 (list of velocity)
Gates	3 separate gates
Amplitude threshold	Threshold for each gate
Capture method (for C-scan)	Max Absolute / Negative / Positive
A/B Scan Mode (RF)	Full, Absolute. Envelope
Color palettes	(Jet, gray, grav-inv, autumn bone, winter, rainbow, ocean, summers, spring, hsv, pink, hot, customizable)
Image filter	None, gaussian, median

MORE INFORMATION

Want to learn more about what you can do with the dolphicam2

Contact us to arrange a 10-minute demonstration with one of our expert consultants to understand how you can utilize dolphicam2

sales@dolphicam.com

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