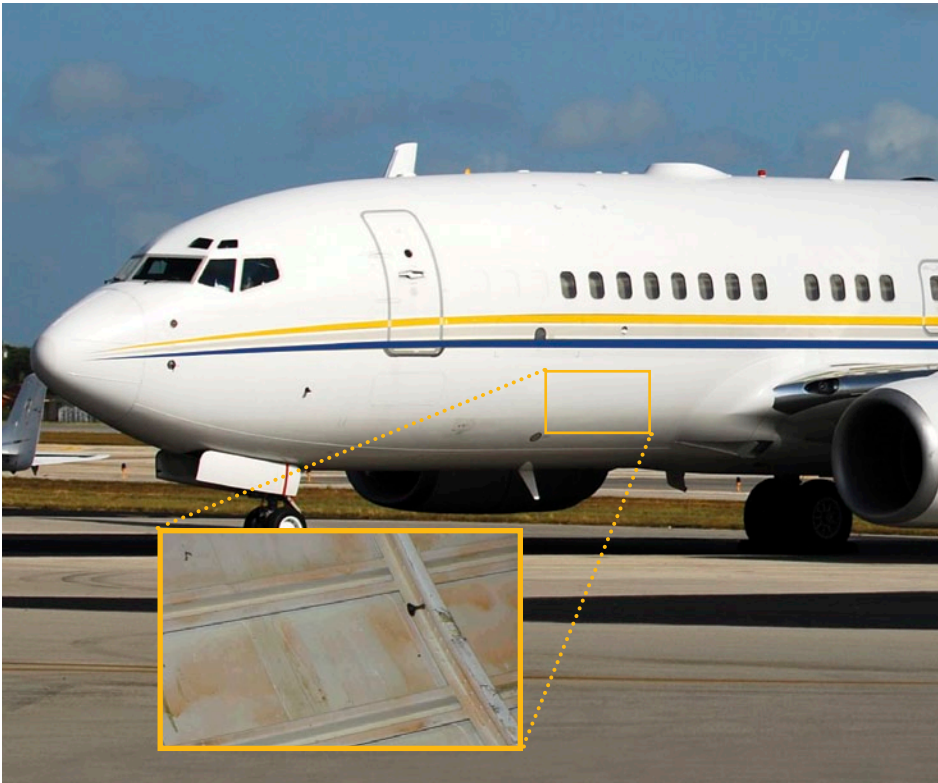


ECA Subsurface Crack Detection

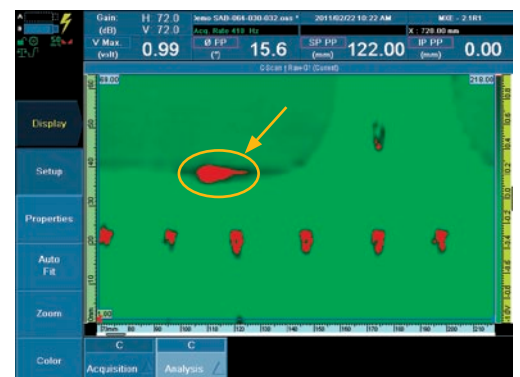
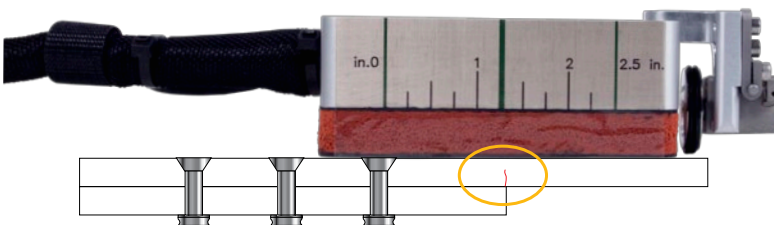


Benefits of the eddy current array (ECA) Doubler Edge Skin Crack Inspection solution

- Time saving: up to ten times faster (typically 10 hours/person for 737 inspections).
- Referenced in the Boeing 737 manual (NTM 737 NDT 53-30-25 Part 6).
- Replaces existing ECT procedures (NTM 737 NDT 53-30-18 Part 6).
- Identical defect sensitivity to ECT.
- Higher probability of detection.
- Better reproducibility.
- Intuitive imagery with the encoded C-scan view.
- No need for paint removal.

Doubler Edge Skin Crack Inspection Solution

Olympus NDT is pleased to introduce the new Doubler Edge Skin Crack Inspection solution, which utilizes the latest ECA technologies for subsurface detection. Drastically reduced inspection times, C-scan imagery, large probe coverage, encoded scan, and data/setup recording capabilities are just a few of the many benefits of OmniScan technology. Intuitive imagery with the C-scan allows for higher probability of detection and better reproducibility, and also makes it easier to identify the rivet row and edge on-screen. Thanks to its wide coverage, probe positioning is not critical. This coverage also enables both edges of the doubler to be covered during the same scan. In comparison with the conventional method of performing this type of inspection, this solution is a major step forward in terms of reduced inspection time.



The doubler and rivets appear on-screen for optimal probe positioning. The green/red color palette offers easy data interpretation.

Probe Specification

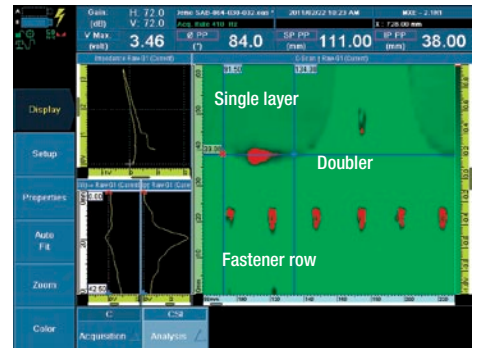
- 32-channel probe.
- Frequency range: 4 kHz to 225 kHz.
- Probe coverage: 64 mm (2.52 in.).
- Cable length: 2.4 m.
- The encoder and probe cable are bundled together.
- Includes a special encoder holder.

Probe Performance

- Not sensitive to the corner of the doubler.
- Optimized to detect typical subsurface cracks in aluminum sheets with thicknesses up to 1.2 mm (0.05 in.).
- Detects cracks up to 50% deep and 12 mm long (0.5 in.) on the far side.

Excellent replacement for magneto-optic imaging (MOI) inspection systems

- Less expensive.
- Easier to use.
- Up-to-date technology based on proven eddy current technique.
- Data-recording capabilities.



Display showing C-scan, impedance plane, and strip chart views. Note that the doubler edge and rivets are clearly visible.

Probe kit (contains probe, encoder)
P/N: SAB-064-030-032

Probe
Replacement P/N: E400038



Encoder
Replacement P/N: ENC1-K-ECA/ENC1-K-ECA-5

Ordering Information

Item Number	Part Number	Kit Description
U8270093	SAB-064-030-032	ECA semirigid probe for subsurface crack detection, TX-RX-mode double resolution, 64 mm coverage, 4 kHz to 225 kHz, 32 elements, 2.4 m cable, includes mounted ENC1-K-ECA encoder.
Spare Parts		
U8779368	ENC1-K-ECA	Eddy Current Array Probe Encoder with full holder, 2.9 m cable with DE15 connector type.
U8779369	ENC1-K-ECA-5	Eddy Current Array Probe Encoder with full holder, 5.5 m cable with DE15 connector type.
U8270106	E400038	Spare ECA probe SAB-064-030-032 without encoder.
Instrument		
U8100027	OMNI-P-ECA4-32	OmniScan MX with ECA acquisition module.

OLYMPUS NDT INC. is ISO 9001 and 14001 certified.

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