Composite Inspection
Bond Testing C-Scan

- Honeycomb structure inspection
- C-scan display
- Drives up to eight frequencies
- User-friendly design
Bond Testing Reinvented

Eight Frequencies in the Same Scan

Bond Testing Improvements
- C-scan imagery.
- Can drive up to eight different frequencies at the same time.
- Dimensioning capabilities.
- Improved POD.
- Phase/Amplitude display mode

Important to Note
- Detection similar to that of the BondMaster® 1000e+ instrument, since the same probes are used.
- Designed to support pitch-catch probes.
- Two-axis encoding scanner is required to produce the C-scan.

Advanced Composite Inspection

Olympus is proud to launch our new bond testing OmniScan® solution—a big step forward in the field of composite inspection. Now, easy-to-read C-scan imagery is possible using a portable instrument. This OmniScan solution is ideally suited for disbonds detection in honeycomb composite, as well as equally accurate delamination detection. Primarily designed for aerospace in-service inspection, this solution is also useful for the manufacturing sector, including the automotive and naval industries (e.g., for composite boat hulls).

Customers who already own an OmniScan® ECA or ECT module only need to order the standard BondMaster® probes (P14 and SPO-5629) and the BondMaster cable that are required to complete this solution.

Our customized MXB software has been developed especially for composite inspection; new features, such as the wizard and normalization, help to keep operation simple for the user.

Encoded system; any two-axis encoding scanner can be used to inspect a part. Olympus offers two options: the GLIDER™ scanner, which is well-suited for flat or slightly curved surfaces, and the WING™ scanner, which is specially designed for scanning curved parts (e.g., aircraft fuselages) and can even be used upside-down due to its Venturi vacuum-cup system. For more versatility, a handheld one-axis encoding scanner, equipped with an Indexer Clicker, is also compatible with this system.
Innovative C-Scan Display

Again, Olympus innovates by introducing a new way of displaying on-screen data. For each C-scan, the operator has two viewing options to choose from: the amplitude C-scan displays color variation based on the amplitude of the signal, regardless of the phase, which is ideal for clear and efficient disbond detection; or, the phase C-scan uses a 0° to 360° color palette to display changes in the phase angle, making it easy to distinguish between different types of indications, such as putty (repair) and delamination.

Phased C-scan, cursor over potting

Real-time readings

X-Y plot view is similar to the RF method phase-amplitude display of the Bond-Master

Low-frequency scan; amplitude C-scan cursor over disbond

High-frequency scan; phase C-scan, different color palette

High-frequency scan; phase C-scan, cursor over delamination

Two C-scan view

Full screen C-scan view

Flaw size estimation feature
Required Equipment
This solution is available in two different configurations, both requiring these standard components.

Standard components

![OmniScan MX and ECA/ECT module](image1)

**NEW**

**NEW**

**New** MXB software

**New** BondMaster probe adaptor for OmniScan

Manual configuration

![HSB-01 handheld scanner](image2)

Semi-automated configuration

![Two-axis scanner](image3)

![SPO-5629-PHV probe with ACIX1520 probe holder](image4)

![S-PC-P14 probe with ACIX1519 probe holder](image5)

Ordering Information

<table>
<thead>
<tr>
<th>Part number</th>
<th>U8 number</th>
<th>Description</th>
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<tbody>
<tr>
<td>OMNI-A-OBTC</td>
<td>U8779469</td>
<td>Bond Testing adaption kit for OmniScan ECA/ECT, adaptor, and MXB software</td>
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<tr>
<td>ACIX1519</td>
<td>U8780314</td>
<td>Probe holder and yoke required to attach the BondMaster P14 probe to the two-axis scanner</td>
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<tr>
<td>ACIX1520</td>
<td>U8780315</td>
<td>Probe holder and yoke required to attach the BondMaster SPO-5629 probe to the two-axis scanner</td>
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<tr>
<td>9323945</td>
<td>U8800601</td>
<td>S-PC-P14 probe: spring-loaded tips, 15 mm (0.59 in.) tip spacing, high voltage</td>
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<tr>
<td>9322184</td>
<td>U8010039</td>
<td>SPO-5629-PHV probe: spring-loaded tips, 13 mm (0.51 in.) tip spacing, high voltage</td>
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<td>9117789</td>
<td>U8800058</td>
<td>SBM-CPM-P11: 11-pin to 11-pin cable, used with pitch-catch and MIA probes</td>
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<tr>
<td>HSB-01</td>
<td>U8270154</td>
<td>Bond Testing handheld scanner with cable, and encoder (S-PC-P14 probe NOT included)</td>
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<tr>
<td>HSB-SPCP14</td>
<td>U8270153</td>
<td>Bond Testing HSB-01 handheld scanner with S-PC-P14 probe, cable, and encoder</td>
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</tbody>
</table>

* Olympus GLIDER and WING Scanner can be used for the Semi-Automated configuration. Visit our website for more information.

www.olympus-ims.com