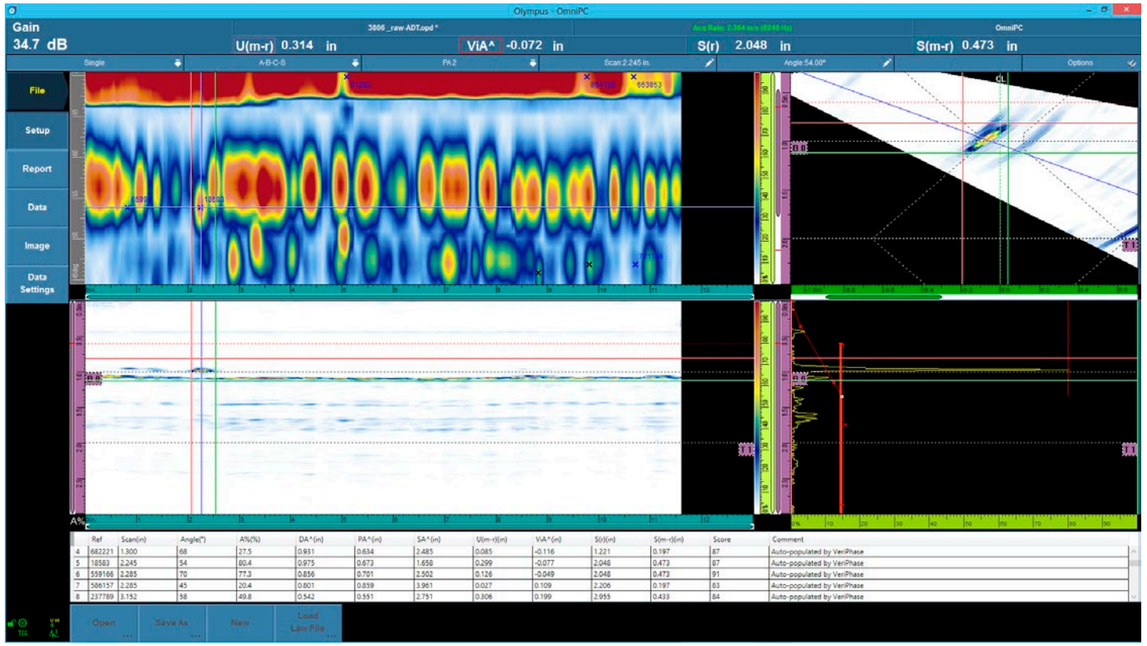
OLYMPUS

Automated Detection Technology™ for Phased Array

Fast Results, Targeted Analysis

- Significantly reduce analysis time
- Helps improve the detection rate and reliability of inspections
- Ensure the quality of your data and code compliance
- Enhance your inspection workflow



Fast and Reliable

Phased array flaw detectors can acquire massive amounts of encoded data very quickly. Analyzing the data is time-consuming, leading to a bottleneck in your workflow. Automated Detection Technology™ software from VeriPhase® works with Olympus OmniScan® series flaw detectors and software to speed up and improve the quality of encoded phased array weld data analysis.

Automated Detection Technology software quickly checks phased array (PA) weld data and isolates and sizes indications for you to analyze. Results are sent directly to the indication table in OmniPC™ software. ADT software automatically assesses the quality of the data, including checks for loss of couplant and loss of data. A copy of the original data file is manipulated, leaving the raw data unaltered.

- Suitable for primary and secondary data review
- Automatic indication length and height sizing
- Adaptive criteria for ASME, AWS, and API inspections

Efficient

Automated Detection Technology software quickly processes single or multiple files in seconds, producing a detailed summary quality report and indication list. In OmniPC software, simply enable the cursors and indication table, and review the list of indications and associated readings populated by the ADT software. Selecting an indication will automatically adjust the view and cursors for quick final disposition. Indications can be easily updated or deleted from the list.

- Fast file processing
- Easy to use with minimal training
- Send results directly to OmniPC software's indication table
- Fly to indication feature for quick disposition

Detailed Reporting

Whether used for primary inspection or post-inspection review, the software provides valuable information in a clear, concise format. The detailed quality report helps you validate setup parameters, data quality issues, and separate listings of populated indications by group.

- Detailed quality report
- Indication list for all groups analyzed
- Quickly confirm the correct settings and data quality
- S-scan and C-scan plotting for all indications

Analysis Summary	
Analysis Name	ANNEX S 3806-1-3-Merged
Created On	Tue Jul 25 09:36:16 CDT 2017
Created By User	veriphase
Application Version	0.8.31.434.g3c902e2
Analysis ID	30eb7fff-9a6fa456

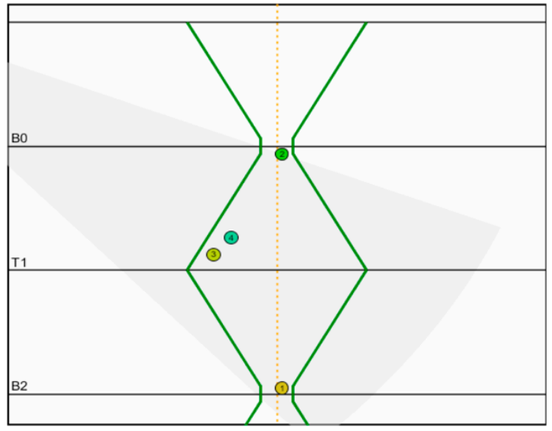
Analysis Configuration	
Code	ASME
Length Units	millimeters

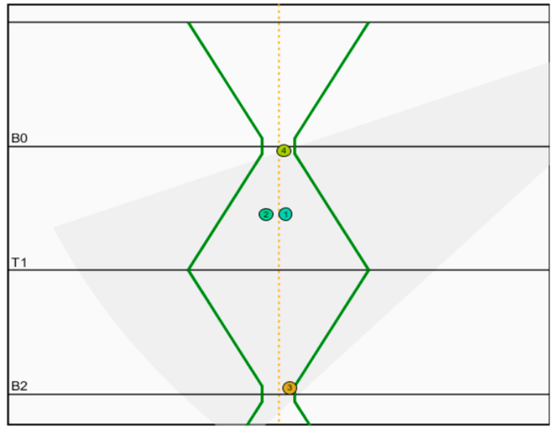
Weld Configuration	
Weld Type	Single V Offset
Hot Pass Section	30.0° 23.88 mm
Land Section	1.52 mm
Weld Separation	6.10 mm

Part Characteristics	
Surface	Flat
Thickness	25.40 mm
Sound Velocity	3240.0 m/s

File Detail Report							
File Name	Group	File Size	Analysis Type	Scan Resolution	Scan Offset	Index Offset	Skew
ANNEX S 3806-1-3_270.opd	Gr:1	6.95 MB	Sectorial	1.00 mm	11.43 mm	17.78 mm	270°
ANNEX S 3806-1-3_270.opd	Gr:2	6.95 MB	Sectorial	1.00 mm	11.43 mm	17.78 mm	270°
ANNEX S 3806-1-3_90.opd	Gr:1	7.47 MB	Sectorial	1.00 mm	11.43 mm	-17.78 mm	90°
ANNEX S 3806-1-3_90.opd	Gr:2	7.47 MB	Sectorial	1.00 mm	11.43 mm	-17.78 mm	90°

Data Quality Report					
File Name	Group	Scan Start	Scan Stop	Length	Issue
ANNEX S 3806-1-3_270.opd	Gr:1	11.43 mm	22.41 mm	10.98 mm	Data drop-out
ANNEX S 3806-1-3_270.opd	Gr:1	42.38 mm	43.38 mm	1.00 mm	Loss of couplant
ANNEX S 3806-1-3_270.opd	Gr:1	305.97 mm	329.93 mm	23.96 mm	End of scan data drop-out
ANNEX S 3806-1-3_270.opd	Gr:2	11.43 mm	22.41 mm	10.98 mm	Data drop-out
ANNEX S 3806-1-3_270.opd	Gr:2	41.38 mm	43.38 mm	2.00 mm	Loss of couplant
ANNEX S 3806-1-3_270.opd	Gr:2	305.97 mm	329.93 mm	23.96 mm	End of scan data drop-out
ANNEX S 3806-1-3_90.opd	Gr:1	11.43 mm	22.41 mm	10.98 mm	Data drop-out
ANNEX S 3806-1-3_90.opd	Gr:1	306.97 mm	329.93 mm	22.96 mm	End of scan data drop-out
ANNEX S 3806-1-3_90.opd	Gr:2	11.43 mm	22.41 mm	10.98 mm	Data drop-out
ANNEX S 3806-1-3_90.opd	Gr:2	306.97 mm	329.93 mm	22.96 mm	End of scan data drop-out





Automated Detection Technology™ Performance Specifications

Computer and Software Requirements	
VeriPhase® Automated Detection Technology™ software	Microsoft® Windows® 7, 8, 10-64 bit
Olympus® OmniPC™ software	Microsoft Windows 7, 8, 10
Additional software requirements	Microsoft Excel® for reporting
Data Requirements	
Data file compatibility	OmniScan®/OmniPC™ .opd files version 4.4R2 and later
	Older files may be processed but may experience some variability in function and compatibility
Inspection data types	1-axis encoded single group or multiple group phased array files (full A-scan data saved)
Scan types	Sectorial scans or compound scans created in NDT SetupBuilder software or on an OmniScan® flaw detector; 5 in. minimum scan length
Data parameter requirements	Accurate weld overlay enabled
Optimal Part Requirements	
Part thickness	0.2 in.–1 in.
Weld inspection configurations	Single-v or double-v butt welds
Part material type	Carbon steel
Optimal Data Acquisition Settings	
Angular sweep range	43°–72°
Resolution	1° angular; 1 mm scan
Data point quantity	320
Probe frequency	2–10 MHz
Testing method	Pulse echo shear wave
Probe filtering	Bandwidth filter centered around optimum probe frequency
Averaging	1
PRF	Optimized (no spurious noise from excessive PRF)
Calibrations	Proper angle corrected gain sensitivity (sweep) and TCG calibrations per referencing code
Number of groups	1 group at a time, but supports files with up to 8 groups
Sensitivity (total gain, TCG, voltage, etc.)	Per referencing code (ASME, AWS, API) at reference sensitivity level

Ordering Information

Part number	Item number	Description
SOFT-VERIPHASE-ADT	Q1430005	VeriPhase Advanced Detection Technology software license. Automated quality check and processing of OmniScan data files for weld applications. Supported by OmniPC software v. 4.4R4 and higher.

OLYMPUS SCIENTIFIC SOLUTIONS AMERICAS CORP.
is certified to ISO 9001, ISO 14001, and OHSAS 18001.

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