

SPIE Accessibility Conformance Report

Revised Section 508 Edition

VPAT® Version 2.3 (Revised) – April 2019

Name of Product/Version: SPIE Digital Library v3

Product Description: The SPIE Digital Library is the world's largest collection of optics and photonics applied research, with more than 634,678 papers spanning biomedicine, communications, sensors, defense and security, manufacturing, electronics, energy, and imaging.

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Evaluation Methods Used: All criteria evaluated through broad product knowledge and testing by professional staff. No automated testing was conducted for this version 2.3 report.

Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included In Report
Web Content Accessibility Guidelines 2.0	Level A (Yes) Level AA (Yes) Level AAA (No)
Revised Section 508 standards published January 18, 2017 and corrected January 22, 2018	(Yes)

Terms

The terms used in the Conformance Level information are defined as follows:

- **Supports:** The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.
- **Partially Supports:** Some functionality of the product does not meet the criterion.
- **Does Not Support:** The majority of product functionality does not meet the criterion.
- **Not Applicable:** The criterion is not relevant to the product.
- **Not Evaluated:** The product has not been evaluated against the criterion. This can be used only in WCAG 2.0 Level AAA.

WCAG 2.0 Report

Tables 1 and 2 also document conformance with:

- Chapter 5 – 501.1 Scope, 504.2 Content Creation or Editing
- Chapter 6 – 602.3 Electronic Support Documentation

Note: When reporting on conformance with the WCAG 2.0 Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the [WCAG 2.0 Conformance Requirements](#).

Table 1: Success Criteria, Level A

Notes:

Criteria	Conformance Level	Remarks and Explanations
<p>1.1.1 Non-text Content (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable</p>	<p>Web: All content figures and tables are accompanied by explanatory captions. Time-based media have either explanatory captions (for short integrated video figures) or full-text transcripts (for full-length presentations). Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)</p> <p>Electronic Docs: PDF-formatted papers include explanatory captions for all figures and tables.</p>
<p>1.2.1 Audio-only and Video-only (Prerecorded) (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable</p>	<p>Web: Time-based media have either explanatory captions (for short integrated video figures) or full-text transcripts (for full-length presentations). Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)</p>
<p>1.2.2 Captions (Prerecorded) (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable</p>	<p>Web: Short video clips integrated into papers do not include audio content. Long-form presentations with audio are closed captioned. Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)</p>
<p>1.2.3 Audio Description or Media Alternative (Prerecorded) (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable</p>	<p>Web: Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)</p>
<p>1.3.1 Info and Relationships (Level A)</p> <p>Also applies to: Revised Section 508</p>	<p>Web: Supports Electronic Docs: Supports Software: Not Applicable</p>	<p>Web: Information and Relationships are designated in the page source; Abstract as abstract, Sections as sections, etc.</p>

Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Authoring Tool: Not Applicable	Electronic Docs: Information and relationships in the PDF files are shown via text formatting and variation as per standard printed scientific publication.
<p>1.3.2 Meaningful Sequence (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable	Web: Information is provided in a meaningful sequence on the page in the document as a whole, following standard science publication practice. Electronic Docs: Information is provided in a meaningful sequence on the page in the document as a whole, following standard science publication practice.
<p>1.3.3 Sensory Characteristics (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable	Web: Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, color, size, visual location, orientation, or sound. Electronic Docs: As noted above.
<p>1.4.1 Use of Color (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable	Web: Due to the nature of SPIE's optics content, some papers discuss and present color in particular depth. Even in these cases though, care is taken to have proper captions and textual explanation. Electronic Docs: Same as Web note above
<p>1.4.2 Audio Control (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: No web page in the site contains audio content that plays automatically. Authoring Tool:
<p>2.1.1 Keyboard (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Tabbing through links works as expected. Focus state indicator is provided for keyboard users in order to maintain orientation on page.

Criteria	Conformance Level	Remarks and Explanations
<p>2.1.2 No Keyboard Trap (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Software: Not Applicable</p> <p>Authoring Tool: Not Applicable</p>	<p>Web: Focus can be moved away from page components using only a keyboard interface.</p>
<p>2.2.1 Timing Adjustable (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Software: Not Applicable</p> <p>Authoring Tool: Not Applicable</p>	<p>Web: There is a 20-minute session time out, however, once the user takes any further action on the site, a new session is instantiated with the appropriate access to content.</p>
<p>2.2.2 Pause, Stop, Hide (Level A)</p> <p>Also applies to:</p> <ul style="list-style-type: none"> • <p>Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Software: Not Applicable</p> <p>Authoring Tool: Not Applicable</p>	<p>Web: All moving, blinking, or scrolling information is limited to less than five seconds. The site contains no other automatically updated information.</p>
<p>2.3.1 Three Flashes or Below Threshold (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Software: Not Applicable</p> <p>Authoring Tool: Not Applicable</p>	<p>Web: Currently the SPIE Digital Library contains some advertisements that include blinking or otherwise cycling graphic elements. These elements animate for no more than 5 seconds, then become static.</p>
<p>2.4.1 Bypass Blocks (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) – Does not apply to non-web software • 504.2 (Authoring Tool) • 602.3 (Support Docs) – Does not apply to non-web docs 	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Authoring Tool: Not Applicable</p>	<p>Web: Structural markup and multiple navigation paths allow for bypassing non-primary content blocks.</p>
<p>2.4.2 Page Titled (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p>	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Software: Not Applicable</p>	<p>Web: Content page titles are the title of the contained article. Other page titles describe the pages content and/or function.</p>

Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Authoring Tool: Not Applicable	
<p>2.4.3 Focus Order (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Focus order is preserved. See note for 2.1.1
<p>2.4.4 Link Purpose (In Context) (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable	Web: The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context Electronic Docs: As above.
<p>3.1.1 Language of Page (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Language is designated in page metadata as 'En'.
<p>3.2.1 On Focus (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: When any component receives focus, it does not initiate a change of context.
<p>3.2.2 On Input (Level A)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Changing the setting of any user interface component does not automatically cause a change of context.

Criteria	Conformance Level	Remarks and Explanations
<u>3.3.1 Error Identification</u> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Error identification is provided on the input of username and password for sign in. No errors are generated on search input (the only site input other than credentials) as all search items are considered legitimate search queries.
<u>3.3.2 Labels or Instructions</u> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Labels or instructions are provided when content requires user input; both for sign in and search queries.
<u>4.1.1 Parsing</u> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Content is implemented using markup languages. All markup elements are complete and the pages as a whole are valid markup documents.
<u>4.1.2 Name, Role, Value</u> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: For all user interface components the name and role can be programmatically determined and set.

Table 2: Success Criteria, Level AA

Notes:

Criteria	Conformance Level	Remarks and Explanations
<u>1.2.4 Captions (Live)</u> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> 501 (Web)(Software) 	Web: Not Applicable Electronic Docs: Not Applicable Software: Not Applicable	No live audio content is presented on the web site.

Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> 504.2 (Authoring Tool) 602.3 (Support Docs) 	Authoring Tool: Not Applicable	
<p>1.2.5 Audio Description (Prerecorded) (Level AA)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Partially Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Short video content integrated into research papers are described in captions and full text. Longer conference presentations may have audio description provided by the presenter, but this is not the case with every conference presentation. Most videos will have a transcript, except those that have bad audio.
<p>1.4.3 Contrast (Minimum) (Level AA)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Supports Software: Not Applicable Authoring Tool: Not Applicable	Web: Content web pages meet the 4.5:1 contrast requirement.
<p>1.4.4 Resize text (Level AA)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Supported via browser functionality
<p>1.4.5 Images of Text (Level AA)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Some math content is represented by images of equations and formulae, this is deemed as essential to the information being conveyed (see note on WCAG 1.4.5 specifications).
<p>2.4.5 Multiple Ways (Level AA)</p> <p>Also applies to: Revised Section 508</p> <ul style="list-style-type: none"> 501 (Web)(Software) – Does not apply to non-web software 504.2 (Authoring Tool) 602.3 (Support Docs) – Does not apply to non-web docs 	Web: Supports Electronic Docs: Supports Authoring Tool: Not Applicable	Web: More than one way is available to locate a Web page within a set of Web pages.
<p>2.4.6 Headings and Labels (Level AA)</p> <p>Also applies to:</p>	Web: Supports Electronic Docs: Supports	Web: Headings and labels describe topic or purpose. Electronic Docs: As above.

Criteria	Conformance Level	Remarks and Explanations
Revised Section 508 <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Software: Not Applicable Authoring Tool: Not Applicable	
2.4.7 Focus Visible (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Tabbing through links works as expected. Focus state indicator is provided for keyboard users in order to maintain orientation on page.
3.1.2 Language of Parts (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: Language is designated in page metadata as 'En'.
3.2.3 Consistent Navigation (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> • 501 (Web)(Software) – Does not apply to non-web software • 504.2 (Authoring Tool) • 602.3 (Support Docs) – Does not apply to non-web docs 	Web: Supports Electronic Docs: Not Applicable Authoring Tool: Not Applicable	Web: Navigation is consistent for all pages, by content type, across the site. There are some minor changes between book, article, and video presentation pages but they are consistent inside those content types and parallel to other navigation arrangements on the site.
3.2.4 Consistent Identification (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> • 501 (Web)(Software) – Does not apply to non-web software • 504.2 (Authoring Tool) • 602.3 (Support Docs) – Does not apply to non-web docs 	Web: Supports Electronic Docs: Not Applicable Authoring Tool: Not Applicable	Web: Components that have the same functionality within a set of Web pages are identified consistently.
3.3.3 Error Suggestion (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	Web: Supports Electronic Docs: Not Applicable Software: Not Applicable Authoring Tool: Not Applicable	Web: The SPIE Digital Library has two places for user input, user credentials for the purpose of signing into personal accounts, and search input. No input error suggestion is appropriate for signing in. Search does not offer error suggestion but does offer search suggestions as the user types to help prevent errors ahead of time.

Criteria	Conformance Level	Remarks and Explanations
<p>3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs) 	<p>Web: Supports</p> <p>Electronic Docs: Not Applicable</p> <p>Software: Not Applicable</p> <p>Authoring Tool: Not Applicable</p>	<p>Web: User input for financial transactions (the purchase of a subscription) is reversible, checked, and confirmed.</p>

Revised Section 508 Report

Notes:

Chapter 3: [Functional Performance Criteria \(FPC\)](#)

Notes: Based on direct testing with a variety of software assistance technologies on both PC and Mac platforms

Criteria	Conformance Level	Remarks and Explanations
302.1 Without Vision	Supports	The SPIE Digital Library uses standard markup language to describe the identity, operation, and state of user interface elements. This affords basic functionality with common assistive technologies such as the NVDA and ChromeVox screen readers.
302.2 With Limited Vision	Supports	Support for standard browser magnification and contrast adjustments
302.3 Without Perception of Color	Partially supports	In the basic site design, color is not used solely to convey information, however, much of the scientific content on the site revolves around color and some of that content would be difficult to understand without color perception.
302.4 Without Hearing	Supports	Audio content (which is always paired with video content) is accompanied by full-text, searchable, transcripts.
302.5 With Limited Hearing	Supports	Audio content (which is always paired with video content) is accompanied by full-text, searchable, transcripts.
302.6 Without Speech	Not applicable	The SPIE Digital Library does not require speech input.
302.7 With Limited Manipulation	Supports	Supports standard and specialized computer input mechanisms meant for web browsing. The SPIE Digital Library

Criteria	Conformance Level	Remarks and Explanations
		does not require fine motor skills or simultaneous input actions to navigate.
302.8 With Limited Reach and Strength	Not applicable	
302.9 With Limited Language, Cognitive, and Learning Abilities	Supports	Supports in the sense of web site operation and navigation. Comprehension of the content is highly individualized.

Chapter 4: [Hardware](#)

Notes: The SPIE Digital Library is a web-based software product and is not subject to the requirements of this section.

Chapter 5: [Software](#)

Notes: The SPIE Digital Library has not yet been evaluated for compliance to the requirements of this section.

Chapter 6: [Support Documentation and Services](#)

Notes:

Criteria	Conformance Level	Remarks and Explanations
601.1 Scope		
602 Support Documentation		
602.2 Accessibility and Compatibility Features	Partially supports	SPIE provides accessibility information on a Help page found at https://www.spiedigitallibrary.org/help/accessibility
602.3 Electronic Support Documentation	Supports	Found at https://www.spiedigitallibrary.org/help
602.4 Alternate Formats for Non-Electronic Support Documentation	Not applicable	SPIE Digital Library support is supplied via electronic format and available via phone support services
603 Support Services		
603.2 Information on Accessibility and Compatibility Features	Supports	Support staff versed in accessibility and compatibility features of the SPIE Digital Library are available.
603.3 Accommodation of Communication Needs	Supports	Support services are available through a range of communication methods to accommodate the

Criteria	Conformance Level	Remarks and Explanations
		communication needs of individuals with disabilities.