

SmartWave Control Suite Version 3



AC and DC Power Bus Simulation
AC Input Compliance Testing
Avionics Test

SmartWave™ Control Suite (SWCS) version 3.0 puts the power of the SmartWave Series of AC power sources in your hands. Controlling a SmartWave™ has never been easier!

Version 3 Improvements

- On-the-fly waveform editing
- View actual waveforms in sequences
- Easy sequence setup: insert, add steps, view steps, global modifications
- Supports Applications Test suites and Elgar Avionics Compliance System

SWCS is a Windows-based software package for computer control of the SmartWave™ series of AC programmable power sources. With SWCS 3.0, you have complete control of the instrument including setup, programming, waveform and sequence creation. SWCS enhances the standard SmartWave features with an additional harmonic waveform analysis capability with data logging features for all measurements.

Version 3 has been designed from the ground up to allow more flexibility in waveform and sequence creation while reducing the program size. In addition, it supports all current and future application specific test suites and compliance systems, such as those required for testing to Airbus and Boeing specifications (see below). SWCS ships as standard with all SmartWave™ series of AC programmable power sources. An upgrade is also available for existing customers.

Applications Test Suites

Applications Test Suites provide an automatic method to generate standards-based stimulus waveforms through the SmartWave™ series of AC programmable power sources. These software packages save hundreds of hours of development time allowing users to simply select and execute either single tests or a sequence of tests compliant with the standard.

- Automated compliance test waveforms
- Save hundreds of hours in developing and verifying waveforms.
- Simulate AC or DC Buses or any combination.

From SWCS 3.0, the user selects the required test specification. The Test Suite automatically lists the tests available for that specification. Once selected, the tests may be looped, single stepped, or multiple

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tests selected and run in a series. During execution, test status is displayed in three progress windows with total test time, individual or sequence time and progress within a test, or segment time.

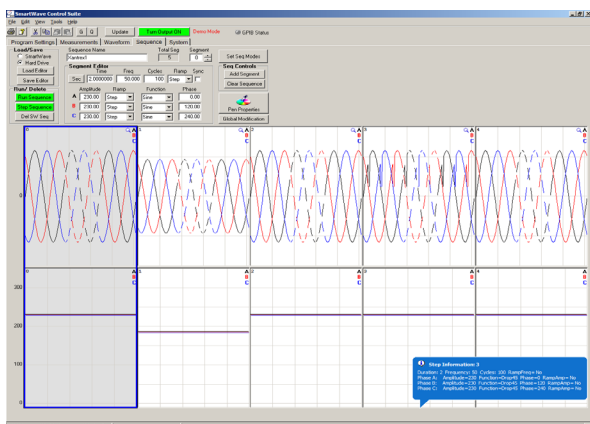
Test Selector also allows the user to easily build a test sequence from the library of compliance tests. Detailed descriptions of each test are provided for convenience as well as the capability of saving a test sequence for future recall. Individual tests can be easily modified and saved for margin testing.

Elgar Avionics Compliance System

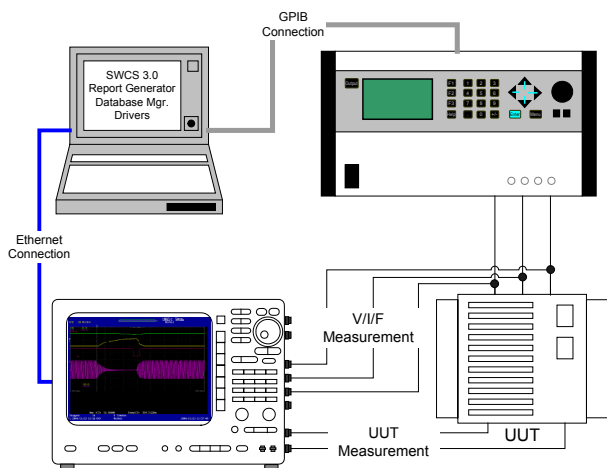
The EACS is a targeted test system which generates power bus test stimulus/anomalies, device under test (DUT) measurement (voltage, current, timing, digital I/O) and reporting in one easy-to-use package.

- Automatically generate test reports
- Save data for each test for later recall
- Approve each test result during report generation

At the click of a few buttons, you can now fully test your avionics subsystem according to Airbus, Boeing, DO-160 or MIL-STD 704 requirements. Utilizing the SmartWave AC power source, applicable SmartWave Control Suite (SWCS) Application Test Suite and a Yokogawa ScopeCorder, just connect your unit for test, click through the software to run the tests and generate a compliance report.



Smartwave Control Suite sequence screen



EACS System Diagram

Applications Test Suite Ordering Information		
Part Number	Specification	Description
ABD100TSS-A	Airbus ABD100	Table A tests only (115VAC/400Hz)
ABD100TSS-B	Airbus ABD100	Table B tests only (26VAC/400Hz)
ABD100TSS-C	Airbus ABD100	Table C tests only (115VAC/variable freq)
ABD100TSS-DE	Airbus ABD100	Table D & E tests only (Conventional and NBPT dc)
AMD24T-SVF/SCF	Airbus AMD24	Table SVF/SCF only
AMD24T-TVF/TCF	Airbus AMD24	Table TVF/TCF only
AMD24T-LDC	Airbus AMD24	Table LDC only
AMD24T-FULL	Airbus AMD24	Tables SVF/SCF, TVF/TCF, LDC
B787PQ-1PH	Boeing 787	Single phase AC tests (115V and 235V)
B787PQ-3PH	Boeing 787	Three phase AC tests for 115V and 235V
B787PQ-28V	Boeing 787	Tests for 28V DC bus
B787PQ-270V	Boeing 787	Tests for 270V DC bus
B787PQ-FULL	Boeing 787	Single phase, 3 phase, 28VDC, 270VDC tests for Boeing 787
EN2282T-AC	BSI	AC tests for Characteristics of Aircraft Electrical Supplies
EN2282T-DC	BSI	AC tests for Characteristics of Aircraft Electrical Supplies
EN2282T-FULL	BSI	All tests for Characteristics of Aircraft Electrical Supplies

Elgar Avionics Compliance System Ordering Information	
Part Number	Description
EACS-ABD100-1F	ABD100TSS-ABCDE, SWCS 3, 6 Channel Yokogawa ScopeCorder, Report generator/storage utility/drivers
EACS-ABD100-1F-EU	
EACS-ABD100-3F	ABD100TSS-ABCDE, SWCS 3, 10 Channel Yokogawa ScopeCorder, Report generator/storage utility/drivers
EACS-ABD100-3F-EU	
EACS-ABD100-S	ABD100TSS-ABCDE, SWCS 3, Report generator/storage utility/drivers
EACS-ABD100-S-EU	
EACS-AMD24-1F	AMD24-FULL, SWCS 3, 6 Channel Yokogawa ScopeCorder, Report generator/storage utility/drivers
EACS-AMD24-1F-EU	
EACS-AMD24-3F	AMD24-FULL, SWCS 3, 10 Channel Yokogawa ScopeCorder, Report generator/storage utility/drivers
EACS-AMD24-3F-EU	
EACS-AMD24-S	AMD24-FULL, SWCS 3, Report generator/storage utility/drivers
EACS-AMD24-S-EU	
EACS-B787-1F	B787PQ-FULL, SWCS 3, 6 Channel Yokogawa ScopeCorder, Report generator/storage utility/drivers
EACS-B787-1F-EU	
EACS-B787-3F	B787PQ-FULL, SWCS 3, 10 Channel Yokogawa ScopeCorder, Report generator/storage utility/drivers
EACS-B787-3F-EU	
EACS-B787-S	B787PQ-FULL, SWCS 3, Report generator/storage utility/drivers
EACS-B787-S-EU	

SmartWave Control Suite 3.0 Ordering Information	
Part Number	Description
SWCS3.0	SmartWave Control Suite 3.0 included with purchase of a SmartWave AC power source.
SWCS-UPG	Upgrade from a previous version of SWCS to current version.

Minimum System Requirements

- SWCS 3.0 or higher for Test Suites and Compliance Systems
- SmartWave™, ECDI rev. 5.05 or higher, DWSB rev. 2.4
- Computer with Pentium II 500MHz, 256MB, 500MB available on hard disk, CD-ROM, Windows XP/2000
- Internet Explorer 5.0 or higher
- National Instruments GPIB card and interface cable