



Multi Group Pulse Test System

ETS 160W3

- DO-160G S22:2010
- MIL-STD-461G:2015

Features

- > 5.7-inch color touch screen control, simple and intuitive interface operation
- > Can be remotely controlled with CoreLab software
- > Supports cable bundle test level 5 requirements, with an output voltage of up to 5 kV
- > Meet W3 voltage waveforms of 1 MHz and 10 MHz.
- > Can be used in various complex testing environments (such as on-site testing). The coupler with a 3-meter-long load meets the requirements of Test Level 5 (maximum output voltage up to 4 kV)

Introduction

When flying in severe convective weather, airplanes are often affected by lightning strikes, which generate transient induced voltage or current on the circuits or cables of onboard equipment, known as indirect lightning effects. This phenomenon may cause the aircraft to lose control and even lead to serious accidents such as a fire on the aircraft fuselage. For safety reasons, onboard equipment must undergo lightning protection design and testing verification to ensure that critical systems and equipment on board can still function properly after exposure to lightning environments, without affecting the continuous safe flight of the aircraft.

ETS 160W3 is a testing system designed according to the standards DO-160G S22 and MIL-STD-461G, which can meet the testing requirements of waveform 3 (1 MHz and 10 MHz), and can perform cable bundle testing of level 5 as required by the standard. In addition, it meets the voltage requirements of level 5 under load.

Application Areas



Technical Parameters

Voltage Wave W3 1MHz	
Coupling Mode	Cable Induction CI
Repetition Frequency	1 MHz \pm 20%
The fifth Waveform Decays to	Between 25% and 75% of the first wave
Single Shot Back Test Level	2000 V ~ 5500 V (-0% ~ +20%)
Multiple Counterattack Test Levels	2000 V~5500 V (first wave, -0%~+20%) 1000 V~2750 V (subsequent wave, -0%~+50%)
Polarity	Positive,Negative
Number of Subsequent Waves in MS Mode	1~14 can be set
Subsequent Wave Time Interval in MS Mode	10 ms ~ 200 ms adjustable, with options for uniform and random modes
Test Frequency	1 ~ 9999
Test Repetition Time	1.5 s ~ 300 s
Voltage Wave W3 10MHz	
Coupling Mode	Cable Induction CI
Repetition Frequency	10 MHz \pm 20%
The fifth Waveform Decays to	Between 25% and 75% of the first wave
Single Shot Back Test Level	2000 V ~ 4800 V (-0% ~ +20%)
Multiple Counterattack Test Levels	2000 V~ 4800 V (first wave, -0%~+20%) 1000 V~ 2400 V (subsequent wave, -0%~+50%)
Polarity	Positive,Negative
Number of Subsequent Waves in MS Mode	1~14 can be set
Subsequent Wave Time Interval in MS Mode	10 ms ~ 200 ms adjustable, with options for uniform and random modes
Test Frequency	1 ~ 9999
Test Repetition Time	1.5 s ~ 300 s
ETS 160W3 Multi Group Pulse Test System	
Display Screen	5.7-inch TFT touch screen
Working Power	AC 220 V \pm 10%, 50/60 Hz
Fuses	6 A
Maximum Power Consumption	200 W
Memory Space	Infinite (PC)
Communication Methods	Ethernet LAN, RJ45
Working Status Indication	Front panel LED indication, LCD display
Grounding Connection Method	Use a flat grounding wire
Dimension	Host 19 inches/6U 450 mm (W) * 280 mm (H) * 610 mm (D)
Weight	Approx 22 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75% ,RH(no condensation)
Atmospheric Pressure	86 kPa ~ 106 kPa


Technical Parameters

LVT-2C Voltage Coupling Transformer	
Rated Voltage	5500 V
Rated Current	320 A
Dimension	260 mm (W) * 250 mm (H) * 470 mm (D) Inner width:84 mm Inner height:70 mm
Weight	Approx 35 kg

Standard Accessories

Power cord, Testing Wire, Voltage Coupling Transformer LVT-2C, Flat Grounding Wire, Fuse, RF Cable, User Manual, Calibration Report, Product Warranty

Optional Accessories

1	Immunity Testing Software	<p>Model: CoreLab</p> <p>Compatible with Windows 7/8/10/11 operating systems.</p> <p>Supports Ethernet interface and serial communication mode.</p> <p>Support parameter scheduling testing, testing sequences, one click testing, easy operation.</p> <p>Customer information can be set, test reports can be automatically generated, and export of test reports is supported, making it convenient for users to record real-time data.</p>	
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