

ECAT[®]

Model E421

EFT/Noise[™] Burst Simulator for IEC 1000-4-4 to 8kV



A plug-in module for ECAT systems for testing in accordance with IEC 1000-4-4 (IEC 801-4).

FEATURES

- **All test parameters under full software control** via KeyTek BurstWare[™]:

Polarity	Burst Voltage	Frequency
Period	Test Duration	Burst Duration
- **Burst Voltages from 200V to 8kV**
- **IEC specified 5ns/50ns impulses** into 50 ohms – also meets the proposed 5/100ns requirement into a high impedance.
- **50 ohm source impedance**
- **Built-in pulse monitor** with 150MHz bandwidth.
- **Real World EFT options** including Chirp and frequencies to 2MHz.

SYSTEM BENEFITS

- **The ECAT is configurable as a compact, standalone system** with one test capability or as an integrated, multiple capability tester.
- **Unparalleled safety features** for high voltage testing, including a complete interlock system that not only disables simulator operation if activated, but completely removes AC mains power from the EUT, when using any KeyTek AC mains coupler/decoupler.
- **Automatic report generation** using KeyTek's exclusive Windows[®]-based software.
- **Modular system construction** provides the ability to upgrade test capabilities as requirements change or evolve.
- **Single port testing for Surge, EFT and PQF[™]** mains coupled disturbances allows changing test modes without switching off power to the EUT. This avoids lost time due to re-initializing the EUT between tests.

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SPECIFICATIONS AND TOLERANCES

ELECTRICAL	(per IEC 1000-4-4)
Burst Polarity:	Positive, negative, alternating
Burst Voltage:	200V to 8.0kV, $\pm 10\%$; 5V resolution
Burst Frequency:	Adjustable from 1kHz to 1MHz up to 4.4kV; 1kHz to 250kHz from 4.4kV to 8.0kV
Burst Duration:	1.0ms to 20ms; 1.0ms resolution
Period Between Bursts:	Adjustable from 300ms to 5s; 1ms resolution
Burst Test Length:	1 to 360 sec.; 1 sec. resolution 1 to 240 min.; 1 min. resolution 1 to 24 hours; 1 hour resolution
Wait Time Between Tests:	1 to 360 sec.; 1 sec. resolution 1 to 240 min.; 1 min. resolution 1 to 24 hours; 1 hour resolution
Voltage Monitor:	Built-in; 150MHz bandwidth
Note:	<i>For any combination of frequency, duration and period, the number of pulses cannot exceed 600 per second and 200 per burst.</i>

ECAT: AN EXTRAORDINARY CONCEPT IN EMC TESTING FOR VULNERABILITY TO SURGE, EFT AND POWER QUALITY.

ECAT is a totally integrated and modularized system which offers unprecedented testing ease, accuracy and versatility to manufacturers, test houses, and anyone who will be testing for effects of Pulsed EMI.

ECAT is designed to test products according to a broad range of international standards developed by ANSI, the IEC, CENELEC and other agencies. The European Norms, developed by CENELEC, became mandatory on January 1, 1996 for all equipment shipped into the European Union or shipped across EU borders.

PHYSICAL	
Height:	21cm (8 $\frac{1}{4}$ "")
Width:	42cm (16 $\frac{1}{2}$ "")
Depth:	52cm (20 $\frac{3}{8}$ "")
Weight:	14kg (30 lbs.)

MINIMUM SYSTEM REQUIREMENTS

E100 series control center

AVAILABLE OPTIONS

- E421-CH:** Chirp capability – provides an output in which the amplitude increases and the frequency decreases during the burst, similar to actual EFT events.
- E421-2MHz:** Hardware option to provide burst frequency operation to 2MHz, at voltages to 3kV.
- CCL-4:** A covered, safety-interlocked capacitor clamp for coupling the burst to I/O lines (including data and signal lines). All clamp surfaces are nickel-plated and the hinges are nickel-plated, beryllium copper finger-stock to insure excellent RF performance over time.
- CCL-4/S:** A covered, safety-interlocked capacitor clamp for coupling the EFT/Noise™ burst into I/O lines (including data and signal lines).

For additional ECAT® product literature call, email or fax the KeyTek sales department.



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