

### **EMC** Пакет программного обеспечения по электромагнитной совместимости

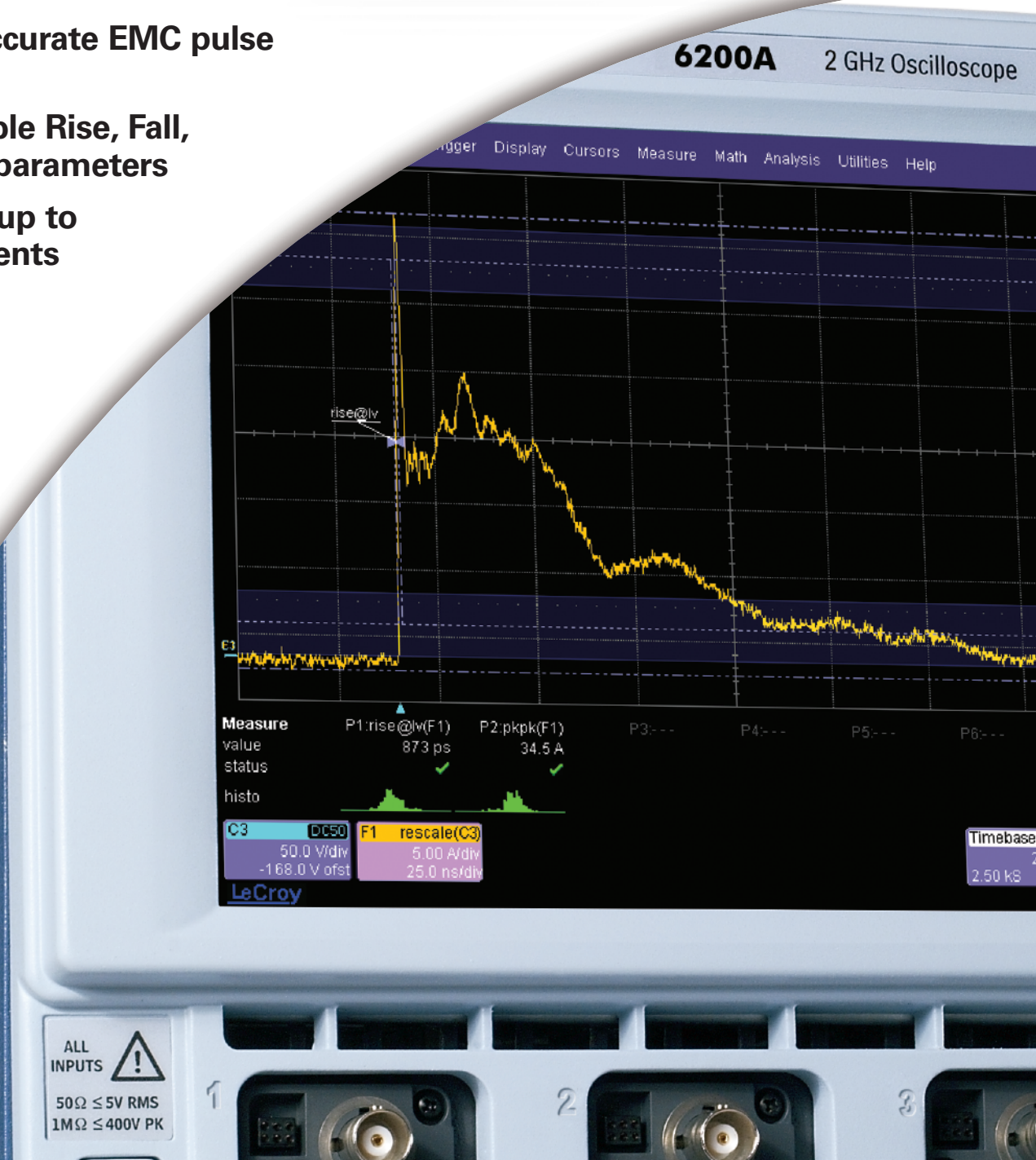
Пакет EMC добавляет гибкие возможности по измерениям времени нарастания, спада и ширины импульсов, т.е тех параметров, которые необходимо аккуратно измерять для импульсов электростатического разряда, провалов и перенапряжений, которые часто встречаются в измерениях ЭМС. WaveRunner Xi предлагает легкий доступ к статистическим параметрам и с пакетом ЭМС может строить гистограммы по 2 миллиардам событий, параметрам математики и измерений



## EMC/ESD TEST SOLUTIONS

FOR ALL X-STREAM DIGITAL OSCILLOSCOPES

- Fast and Accurate EMC pulse verification
- Customizable Rise, Fall, and Width parameters
- Histogram up to 2 billion events



# EMC Software for X-Stream Oscilloscopes

## Customizable Measurement Parameters for EMC Pulse Verification

### Electrostatic Discharge (ESD)

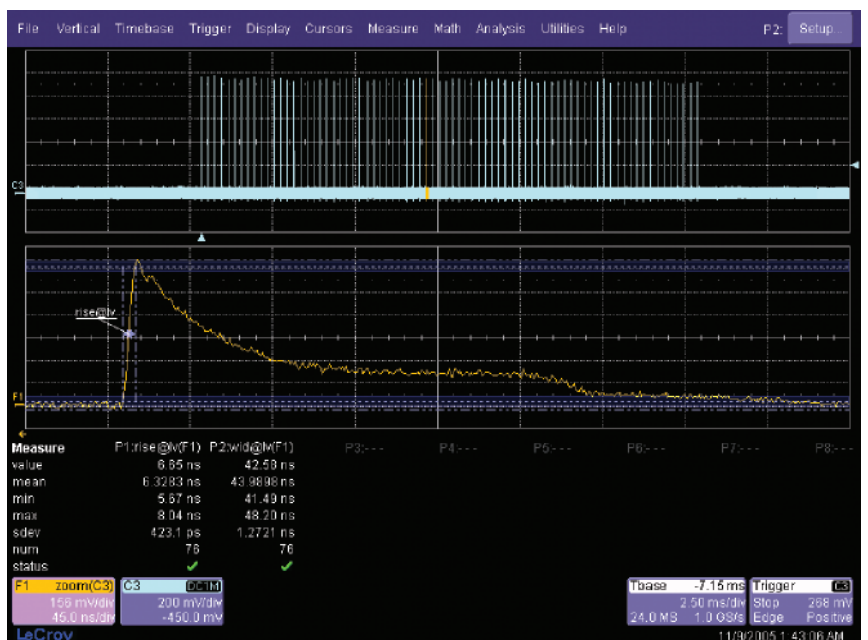
High sample rate and bandwidth are important to accurately characterize pulse shapes created with an ESD generator. The software package offers specialized parameters with adjustable levels that allow you to customize the necessary rise time, fall time, and width measurements to ensure that the generator meets industry standards. Built-in statistics and histograms provide the ability to quickly view a large number of measurements at a single glance.

### Electrical Fast Transient (EFT)

The fast rise times of EFT pulses, along with the repetition rates of EFT bursts, require an oscilloscope with both high sample rate and long memory to accurately capture the waveforms. The long memory available in X-Stream Digital Oscilloscopes, along with sequence acquisition mode, enable the capture of many EFT bursts in a short period of time. Specialized rise, fall, and width pulse parameters, added with the software package and combined with statistics and histograms, allow for fast pulse measurements over all bursts. X-Stream Digital Oscilloscopes' built-in zoom capabilities allow you to quickly locate and view any pulses that may fall out of spec.



The high sampling rate of X-Stream Digital oscilloscopes enables accurate measurements to be made on the fast rise times of ESD pulses.



Long memory allows the capture of complete EFT bursts with high sample rate. EMC measurement parameters can measure the entire burst or be used with the zoom function to measure an individual pulse.

## Surge

Validating surge waveforms requires long memory to capture pulses that occur at a very slow repetition rate. X-Stream Digital Oscilloscopes, with their built-in long memory, can capture these pulses at the appropriate sampling rate. Use of the parameters, combined with statistics and histograms, provides the ability to quickly and easily characterize surge generator pulse shapes over many acquisitions.

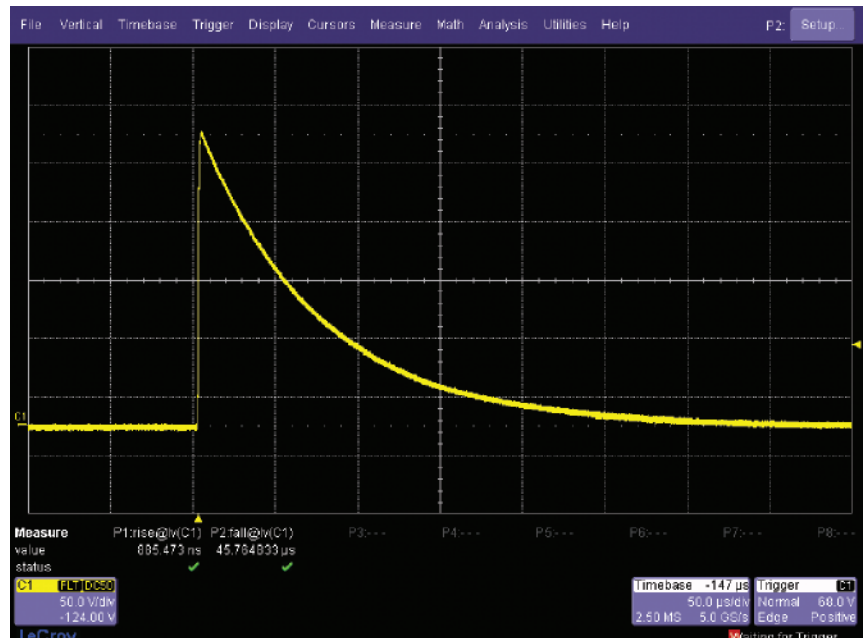
## Pulse Parameters

### Special Automatic Measurement Parameters

The software package provides customizable parameters to measure rise time, fall time, or width characteristics according to specific EMC/ESD standards. Level selections can be made to ignore undershoot, overshoot, or tail perturbations, making it quick and easy to capture and verify repetitive pulse sequences without the need to manually use time-consuming cursors. Up to 8 parameters in WavePro® or WaveMaster®/SDA can be defined at one time.

### Measurement Filtering

It is not always desirable to measure every pulse in a pulse packet. Or, it is possible that there are excessive, pulse-like perturbations on the pulse tail. In this case, it is possible to measure only a certain number of pulses in an acquisition, or measure only the initial pulse rise excluding the effects of excessive tail perturbations.



Capture and view voltage surges and verify with EMC timing parameters.



User selectable parameter definitions enable customized pulse testing.



Measurement filtering can be done with the PLimiter capability.



# Specifications and Ordering Information

## Transient

Long capture time is necessary to view and verify transient pulse shapes, which can be spaced up to 10 seconds apart. The long memory of X-Stream Digital Oscilloscopes ensures the sample rate and capture time needed to verify and view these transient pulses.

## EMC Pulse Parameter Software Package

This package includes enhanced Rise@level, Fall@level and Width@level parameters. The new functionality in the software package includes user definable thresholds for accurate pulse measurements. EMC includes:

### Rise@level

Set measurement calculations to use one of the following:

- Base and Top (Absolute or Percent)
- Peak-Peak (Percent)
- 0V-Max (Percent)

### Fall@level

Set measurement calculations to use one of the following:

- Base and Top (Absolute or Percent)
- Peak-Peak (Percent)
- 0V-Min (Percent)

## Voltage Dips and Interrupts

Testing your device to meet the Voltage Dips and interrupts standard requires monitoring the device during a voltage dip. X-Stream Digital Oscilloscopes provide all the necessary tools for monitoring your device, including easy access to the necessary measurement parameters and the ability to quickly store and annotate waveforms.

### Width@level

Set measurement calculations to use one of the following:

- Base and Top (Absolute or Percent)
- Peak-Peak (Percent)
- 0V-Max (Percent)
- 0V-Min (Percent)

### Measurement Filtering

- Use a filter to limit the number of pulses reported in the parameter result
- Gate measurement parameters to measure individual pulses in an acquisition

### Histograms expanded with 19 histogram parameters and up to 2 billion events

### Parameter Math

### Time@level and dTime@level enhanced with new, Peak-Peak, 0 – Max and 0 – Min parameter calculation levels

## Ordering Information

### Software Options

### Product Code

EMC Pulse Parameter Software Package for WaveRunner Series	WR6-EMC*
EMC Pulse Parameter Software Package for WavePro Series	WP7-EMC
EMC Pulse Parameter Software Package for WaveMaster/SDA Series	WM-EMC

\*WR6-EMC is compatible with all WR6000A and WRXi models with 500 MHz bandwidth or greater

### Customer Service

LeCroy oscilloscopes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years.

This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge



1-800-5-LeCroy [www.lecroy.com](http://www.lecroy.com)

Local sales offices are located throughout the world.  
To find the most convenient one visit [www.lecroy.com](http://www.lecroy.com)