

SFT 2420

EFT/ Burst - Generator



- Operation via capacitive color touch display
- Burst - frequency up to 2 MHz, pulse amplitude up to 4.8 kV
- Modification of all parameters during the test possible
- Single impulse to permanent burst, various special functions
- USB, optional optic interface with fiber optic cable
- Time accurate triggering

The SFT 2420 with integrated coupling network simulates electrical fast transient (EFT) as defined in IEC 61000-4-4 and EN 61000-4-4 standards. Due to the very short rise time of 5ns, the individual pulses generate a broadband RF spectrum up to 300 MHz.

The simple operation takes place via a capacitive color touch display. All parameters are clearly displayed without nested menus and can be changed quickly by tapping and using a digital rotary encoder. The normative test levels 1, 2, 3 and 4 are preprogrammed, additional test sequences can be stored via the memory function.

By increasing the pulses within a burst packet, time-critical applications can be tested in conjunction with the very accurate triggering of the SFT 2420. The generator also offers a variety of special features such as "Real Burst", which simulates the natural appearance of the burst pulse or "noise" which simulates contact bouncing. The functions "IFM" and "DFM" (increasing or decreasing frequency) are important tools for examining resonance or saturation effects in the device under test.

Burst Definition

	Definition in the Standard	variable Einstellungen am SFT 2420
Burst duration	15 ms \pm 20% at 5 kHz 0,75 ms \pm 20% at 100 kHz (corresponds to 75 pulses /package)	0,01 - 100 ms ⁽¹⁾
Burst period	300 ms \pm 20 %	10 - 1000 ms ⁽¹⁾
Burst frequency	5 kHz or 100 kHz up to 4 kV	100 Hz - 2 MHz up to 4,8 kV
Pulse amplitude	0,5 / 1 / 2 / 4 kV	100 V – 4,8 kV (in 10 V steps)
Pulse rise-time	5 ns \pm 30 %	*1: the SFT 2420 automatically takes into account the maximum power restrictions
Pulse width (50 Ohm)	50 ns \pm 30 % 50 ns, -15ns/+100 ns	
Pulse-width (1 kOhm)	50 Ω \pm 2%	

Technical specifications

Generator

Burst frequency	single pulse up to 2000 kHz
Pulse amplitude	100 V - 4800 V
Polarity	positive, negative, alternating
Pulse shape	acc. to IEC / EN 61000-4-4
Max. number of pulses / s	15000 (up to 1kV); 5000 (3kV) and 1500 (up to 4,8kV)
Max. number of pulses / burst	2000
Remote Control:	USB (virtual COM port) Option: optical interface with fiber optic cable
Monitor output:	BNC connector

Coupling / Decoupling Network

Integrated in the generator, coupling the test pulses to supply lines of the test object	
Operating volt. AC	max. 230V / 16A, 50 / 60 Hz
Operating volt. DC	max. 110V / 8A
Phase indicator	LED red / green
Coupling capacitors	33 nF
Coupling	1, 2, or 3 lines at the same time
EUT power outlets	AC power socket (Schuko) + laboratory sockets
HV output	FISCHER HV-connector
Operation temperature	0 - 40 °C
Dimensions	19" housing, 3U
Weight	app. 9 kg
Power supply	100-240V / 47-63 Hz

Accessories

3-Ph. Coupling network 4 x 16 A, Burst + Surge	CWG 520
3-Ph. Coupling network 4 x 32 A, Burst + Surge	CWG 523
3-Ph. Coupling network 4 x 60 A, Burst + Surge	CWG 524
3-Ph. Coupling network 4 x 60 A, Burst	CWG 524-B
Attenuator 100:1 / 50 Ohm	SFT 450
Probe set, magnetic field	SFT 470
Capacitive coupling clamp	SFT 415
Capacitive coupling clamp with protection cover	SFT 415-1
HV-Cable for capacitive coupling clamp	SFT 430
Calibration set for coupling clamp	SFT 415-CS
50 Ω attenuator	SFT 450-1
1000 Ω attenuator	SFT 450-2
50 Ω + 1000 Ω attenuator set	SFT 450-Set
Optic interface with 2 connectors for optic fiber cables	ZUB LWL OPTO-MOD
Optic fiber cable, 5m, USB to optic interface connector	ZUB LWL USB-ADAPTER
Optic fiber cable, 1m, optic interface connector on both sides	ZUB LWL-BRÜCKE_100
Optic fiber cable, 30cm, optic interface connector on both sides	ZUB LWL-BRÜCKE_30
Control Software for SFT, CWG and VIS generators	EMV-SOFT