

TSS 500M6B

TELECOM SURGE GENERATOR



FOR TESTS ACCORDING TO ...

- › Bellcore GR-1089-Core
- › ITU-T K.12
- › ITU-T K.28
- › ITU-T K.45

TSS 500M6B - TELECOM SURGE GENERATOR FOR BELLCORE 4-WIRE APPLICATIONS

Telecommunication networks are exposed to lightning events. Therefore telecommunications equipment being connected to the outside world need to have appropriate protection to show an acceptable immunity to surge transients in order not to fail in case of lightning events. Telecom Surge Simulators of the TSS 500 series are used to proof the immunity of telecommunications equipment.

The TSS 500M6B is used for 4-wire applications as per Bellcore GR-1089-Core. It can also be used for the 2-wire telecom port testing.

HIGHLIGHTS

- › **STANDALONE TESTER FOR BELLCORE**
- › **TEST PULSES FOR 4-WIRE TELECOM APPLICATIONS**
- › **ALSO COVERS 2-WIRE TELECOM PORT TESTING**
- › **INCLUDES ALL NECESSARY IMPEDANCES**
- › **BUILT-IN COUPLING NETWORK**
- › **MANUAL OPERATION**
- › **STANDARD TEST ROUTINES**

APPLICATION AREAS

-  COMPONENTS
-  TELECOM

TECHNICAL DETAILS

FIRST LEVEL LIGHTNING FOR 4-WIRE PORTS, PULSE 10/1,000US	
Voltage (o.c.)	50V - 600V -0/+15%, positive/negative
Rise time	10us +0us/-4us
Pulse duration	1,000us +500us/-0us
Current (s.c.)	8A - 100A per wire
Rise time	10us +0us/-4us
Pulse duration	1,000us +500us/-0us
Repetition rate	1 pulse every 36s at 600V/100A per wire

INTRA BUILDING LIGHTNING FOR 4-WIRE PORTS, PULSE 2/10US	
Voltage (o.c.)	100V - 800V -0/+20%, positive/negative
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Current (s.c.)	12.5A - 100A per wire
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Repetition rate	1 pulse every 2s at 800V/100A per wire

FIRST LEVEL LIGHTNING FOR 4-WIRE PORTS, PULSE 10/1,000US	
Voltage (o.c.)	50V - 1,000V -0/+15%, positive/negative
Rise time	10us +0us/-4us
Pulse duration	1,000us +500us/-0us
Current (s.c.)	5A - 100A per wire
Rise time	10us +0us/-4us
Pulse duration	1,000us +500us/-0us
Repetition rate	1 pulse every 60s at 1,000V

INTRA BUILDING LIGHTNING FOR 4-WIRE PORTS, PULSE 2/10US	
Voltage (o.c.)	100V - 1,500V -0/+20%, positive/negative
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Current (s.c.)	6A - 100A per wire
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Repetition rate	1 pulse every 3s at 1,500V/100A per wire

FIRST LEVEL LIGHTNING FOR 4-WIRE PORTS, PULSE 10/360US	
Voltage (o.c.)	50V - 1,000V -0/+15%, positive/negative
Rise time	10us +0us/-2.5us
Pulse duration	360us +108us/-0us
Current (s.c.)	5A - 100A per wire
Rise time	10us +0us/-2.5us
Pulse duration	360us +108us/-0us
Repetition time	1 pulse every 20s at 1,000V

SECOND LEVEL LIGHTNING FOR 4-WIRE PORTS, PULSE 2/10US	
Voltage (o.c.)	100V - 5,000V -0/+20% positive/negative
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Current (s.c.)	10A - 500A per wire
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Repetition rate	1 pulse every 10s at 5,000V

FIRST LEVEL LIGHTNING FOR 4-WIRE PORTS, PULSE 2/10US	
Voltage (o.c.)	100V - 2,500V -0/+20%, positive/negative
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Current (s.c.)	20A - 500A per wire
Rise time	2us +0us/-1us
Pulse duration	10us +7us/-0us
Repetition rate	1 pulse every 5s at 2,500V

MEASUREMENTS	
Peak voltmeter	5,000V ± 10%
Peak current meter	500A ± 10%

COUPLING	
Telecom ports (Tip, Ring, Tip1 and Ring1)	T to Ground, R to Ground, T1 to Ground, R1 to Ground, T1+R1 to Ground, T+R to Ground, T+R+T1+R1 to Ground

TECHNICAL DETAILS

TRIGGER

Automatic	Automatic pulse release
Manual	Single pulse release
External	External pulse release
CRO trigger	5V trigger signal for oscilloscope

TEST ROUTINES

Quick Start	Immediate start; easy-to-use and fast
User Test routines	Manual Standard Test Routine Change Polarity after n pulses Change voltage after n pulses
Standard Test routines	Test levels as per GR-1089 CORE
Service	Service, setup, self test

INTERFACE

Serial interface	RS 232, baud rate 1,200 - 19,200
Parallel interface	IEEE 488, address 1 - 30

SAFETY

Safety circuit	Control input (24Vdc)
Warning lamp	Floating output contact

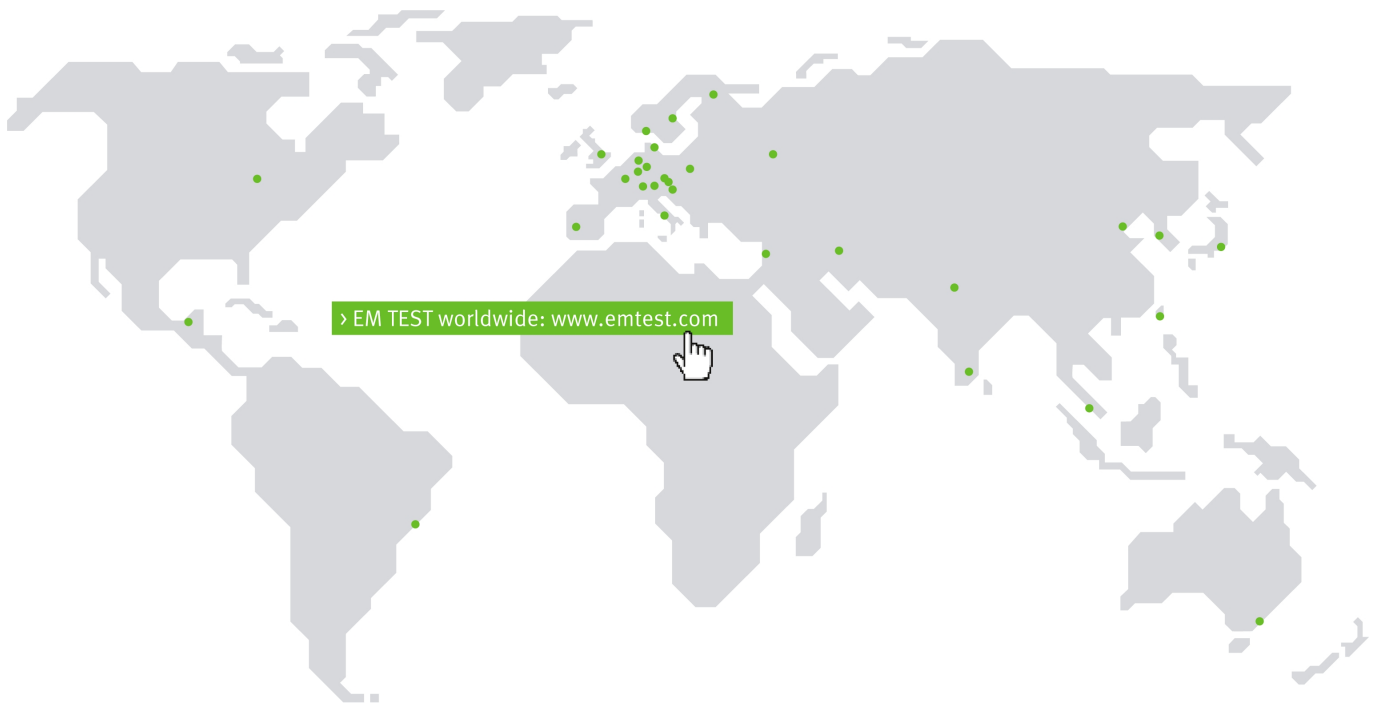
GENERAL DATA

Dimensions, weight	19"/9HU, approx. 45kg
Supply voltage	115/230V +10/-15%
Fuses	2xT 2AT (230V) or 2xT 4AT (115V)

OPTIONS

CNB 500	12 pair CDN for 10/360 s pulse up to 1,000V/25A per wire
iec.control	Software to control the test, including standard library, test report facility and data conversion generator

COMPETENCE WHEREEVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release.
Technical data subject to change without further notice.