

PIM 800 / PIM 810 / PCD 800

Surge test system for telecom equipment according TIA-968-A (formerly FCC part 68)

■ **TIA-968-A** relates to the testing of Terminal equipment connected at both residential and commercial premises. The demarcation point between telephone company network and subscriber network determines if TIA-968-A should be used or if another standard may be more appropriate. It applies equally to voice-band analog, Public Switched Digital Services and ISDN Basic Rate Access or Primary Rate Access systems.

Testing is required at both **telecom port** and **power ports**. Section 4.2 of TIA-968-A refers specifically to surge impulse tests. Terminal equipment can be telephones, fax machines, modems, voice mail systems, etc.

Testing is required with equipment in their normal working state. Surges must be applied to the Tip and Ring connections in both metallic and longitudinal modes, and differentially to power line phases.

PSURGE 8000 Surge Platform can perform all the programming functions required to perform IEC, ITU and testing without the need of a control computer. Voltage and Current **peak measurement circuits** are used to help determine EUT PASS/FAIL criterion. The integration into the WinFEAT&R **control and reporting software** package enhances an efficient set-up and operation of this test system. Most importantly, the test load can be transferred to a computer, minimising the need for additional resources.



Careful component selection ensures that the whole test system will continue to operate under the **most strenuous** testing conditions.

■ Features

- ☑ **Full hybrid waveforms** according to the latest issue of TIA-968-A
- ☑ **Telecom line** surges type A and B
- ☑ **Power line** surges
- ☑ Integrated **Tip and Ring coupling** for 2 and 4 wire telecom systems
- ☑ Integrated automatic **power line coupling**
- ☑ 4 wire **telecom adaptors** to RJ11, RJ12, RJ45 available
- ☑ WinFEAT&R software integrated

■ Benefits

Safe and Easy - The interlocked HV section and the special HV sockets allows your operators to test safely and easily.

Automatic Coupling - Single connect system speeds up the test process. Automatic coupling units for single and three phase power lines as well as 4 wire telecom applications enable routing of impulses to multiple EUT ports without changing test configurations.

Automatic Report Generation - The test system can automatically generate test reports without a computer. Add WinFEAT&R control and reporting software to collect and collate data in any format you need.

No Overtesting – Surge voltage and current wave shapes has narrow tolerance band. This ensures that the EUT is not overtested. EUT overtesting may result in extensive, unnecessary costs for product design and manufacturing cost.

■ Applications

- ☑ Telecom equipment
- ☑ Single and three phase power ports
- ☑ 2 wire symmetrical Telecom lines
- ☑ 4 wire symmetrical Telecom lines

■ Technical Specifications

PIM 800 (Telephone line surges Type A and B)

Impulse Shape 1	10/560us U&I (Z=8 Ohm)	Amplitude range	250...880V
Impulse Shape 2	10/160us U&I (Z=7.5 Ohm)	Amplitude range	250...1650V
Impulse Shape 3	9/720us U - 5/320us I, (Z=15 & 40 Ohm with PCD 800)	Amplitude range	250...1650V

PIM 810 (Power line surge)

Impulse Shape	2/10us U&I	Amplitude range	250...2750V
Impedance	2.5 Ohm	Synchronisation	in 1° steps

PCD 800 (Automatic 2 and 4 wire telecom coupler)

Impulse Shape	all shapes from PIM 800	max. amplitude	2kV
Current limiting resistors	0 / 25 Ohm selectable	Coupling elements	- gas arrestors 90V - gas arrestor // 100nF - direct

Weights and Dimensions (W x H x D, net weight)

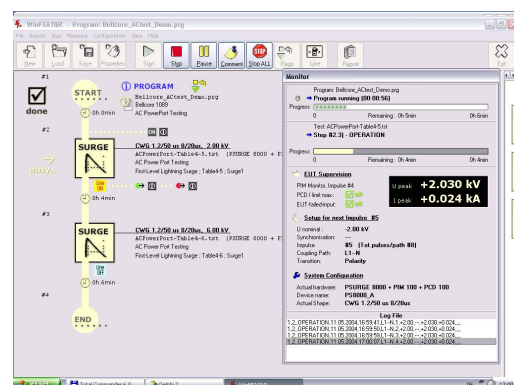
PIM 800	45 x 16 x 57 cm	19 kg
PIM 810	45 x 16 x 57 cm	17 kg
PCD 800	45 x 20 x 57 cm	11 kg

■ Ordering Information

PIM 800	Impulse module 10/560us, 10/160us and 9/720us. <i>Art. No. 249906</i>
PIM 810	Impulse module 2/10us <i>Art. No. 249907</i>
PCD 800	Automatic Coupling Network for telecom applications. <i>Art. No. 249908</i>

The necessary cables to connect the modules to the PSURGE 8000 and the user manual are in the scope of supply.

WinFEAT&R Control Window



■ Options and Accessories

PCD 100	Single phase Coupling Decoupling Network up to 16A.
PCD 130	Three phase Coupling Decoupling Network up to 32A per phase.
DEC 5	Decoupling network for telecom lines.
WinFEAT&R	Control and reporting software. Runs under windows 98, NT, ME, 2000, XP

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