

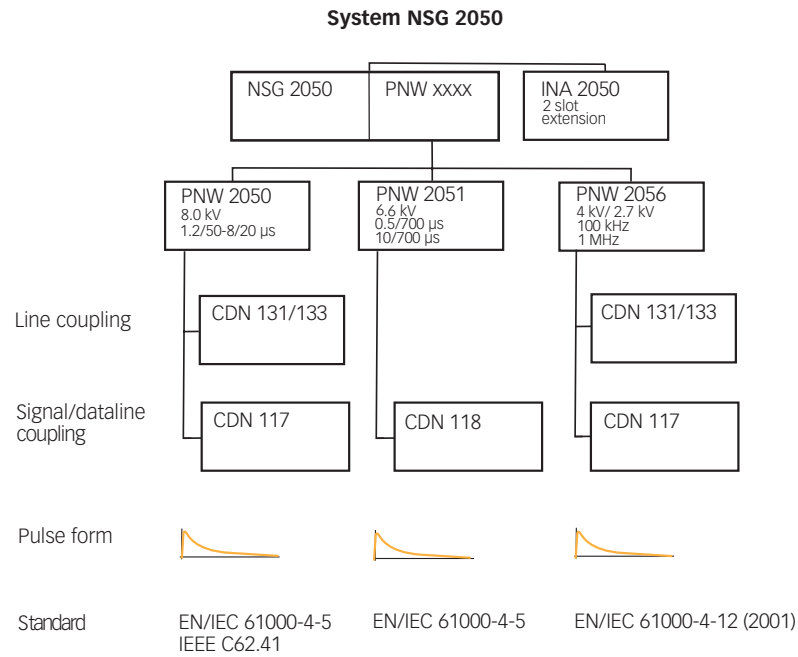


NSG 2050 CONDUCTED IMMUNITY EMC TEST SYSTEM



System NSG 2050 is a modular, multi-role EMC test facility adaptable to meet variety of test specifications, from compliance with basic national and international standards, through detailed design characterisation to compliance with manufacturers' own, more exacting EMC specifications. Its modularity offers each test lab a configuration to suit its test needs while remaining expandable so that, as test needs grow and change, system NSG 2050 can be extended accordingly.

- Modular concept
- Pulse networks conforming to IEC, ANSI etc.
- Industrial/telecom test application
- Professional test management software



NSG 2050 CONDUCTED IMMUNITY EMC TEST SYSTEM

Technical information NSG 2050

Power:	100 to 240 VAC, 50/60 Hz
Pulse amplitude:	200 V to 8 kV
Pulse polarity:	+, -, alternating
Pulse output:	via 10 kV connectors
Operating elements:	Keypad and wheel
Display:	LCD screen
Operating modes:	Microprocessor control recognises all systems elements, oscilloscope trigger output, remote pulse trigger output, voltage/current monitor, peak current detector, emergency stop to IEC safety regulations
Control interfaces:	RS 232 computer interface, interface to coupling networks, interface extension chassis for pulse and control, safety interlock, end of test signal, line synchronization input, EUT fail input with program control
Dimensions:	Table top unit or rack mount, 310 x 449 x 510 mm
Weight:	20 kg approx.

Intelligent mainframe

At the heart of system 2050 is the NSG 2050 mainframe unit, consisting of a microprocessor based control unit, a high voltage source and accommodation for user selected plug-in pulse networks. Each of the system 2050 plug-in modules and extension units comes complete with its own firmware, so that the system automatically recognises its presence and presents the user with the appropriate software menus and front-panel options. Intelligent control is effected either through the front panel controls and display or via a PC. Further, system 2050 is designed for inter-compatibility, using open architecture principles and modular Windows control software. As such, it can be combined seamlessly with any of Teseq's specialist test and measurement instrumentation and with third party products, including radiated interference test equipment, in a complete ProfLine test system to meet the most demanding test needs.



NSG 2050 **CONDUCTED IMMUNITY EMC TEST SYSTEM**



A complete conducted immunity test system

System 2050 offers a complete set of plug-in networks for full compliance testing to basic, generic and product standards, for single-phase and three-phase power lines as well as data and telecom lines. The NSG 2050 system may include just one or several modules and each of these provides a self-contained test facility that requires no external coupling unit for single-phase power line immunity tests to the basic standard. As requirements change in the future, system 2050 remains expandable with further networks and extensions for new applications.

An additional range of high current, high voltage pulse generator plug-in networks and external single- and three-phase extension units is available for more demanding industrial test applications. These can be used to create a complete user-defined system for testing to, and beyond, the full IEC, ANSI, IEEE, VDE standards and European norms.

PNW 2050-8

provides high energy hybrid surge pulses of 1.2/50 - 8/20 μ s with an extended voltage range as required by IEC, ANSI-IEEE and many other standards. It is used with single- and 3-phase power-line coupling networks or data-line couplers.

PNW 2051

provides a 10/700 μ s pulse, as specified in telecom applications and also required in some industrial electronics standards, e.g. EN/IEC 61000-4-5. For higher test specifications, PNW 2051 also provides the sharper pulse rise time of 0.5 μ s. The matching pulse networks, required in some applications, are available. PNW 2052 generates a 100 kHz ringwave, as required by the ANSI-IEEE standard. It can be used with external coupling unit CDN 131 or CDN 133 for single- or three-phase testing up to 25 A.

PNW 2056

is a high frequency pulse generator which produces damped oscillatory waves of 100 kHz and 1 MHz with amplitudes up to 4 kV. Coupling units A comprehensive range of couplers and extension units is available for single- and three-phase powerline and dataline testing.

CDN 131

are designed to couple surge pulses respectively to single-phase power lines. They can be used with all the surge and fast transient pulse generator networks, for testing up to 240 VAC and 25 A.

CDN 133

are providing three-phase coupling for tests up to 440 VAC (phase to phase) and 25 A continuous operation. All combinations of coupling modes are selectable under software control. There are separate inputs for high energy surge pulses with one common output to the equipment under test.

NSG 2050 CONDUCTED IMMUNITY EMC TEST SYSTEM

Technical specifications CDN 131

Surge coupling	single-phase coupling network, 20 V to 230 VAC, 50/60 Hz, 25 A continuous, 30 A for 0.5 hour
Burst coupling	CDN 151 option
Mechanical	310 x 449 x 510 mm, 22 kg approx.

Technical specifications CDN 133

Surge coupling	3-phase coupling network, 3 x 20 V to 440 VAC, 50/60 Hz 25 A continuous, 30 A for 0.5 hour
Burst coupling	CDN 153 option, 3-phase
Mechanical	310 x 449 x 510 mm, 32 kg approx.

Technical specifications PNW 2050-8

Hybrid pulse	1.2/50 - 8/20 μ s, 200 to 800 V, up to 4000 A
Impedance	2 and 12 Ω
Pulse rep.	10 to 10000 s

Technical specifications PNW 2051

Telecom	10/700 and 0.5/700 μ s, 200 to 6600 V up to 440 A
Impedance	15 and 40 Ω
Pulse rep.	10 to 1000 s

Technical specifications PNW 2056

Damped osc.	0.5 μ s/100 kHz up to 4000 V, 75 ns/100 kHz up to 2700 V, 75 ns/1 MHz up to 2700 V
Rep rate	40 Hz at 100 kHz, 400 Hz at 1 MHz

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Telecom test system

a range of specialist telecom test plug-in networks for the NSG 2050 system is available for testing to current telecom standards. There is also a full set of coupling units available, for coupling fast transient and surge pulses to two-wire, four-wire and ISDN lines.

PNW 2051

generates 10/700 and 0.5/700 μ s test pulses as used in telecom specs such as CCITT. Normally applied in non-powered test arrangements, it can also be used with coupling networks for powered system tests.

Technical specifications PNW 2051

CCITT	10/700 and 0.5/700 μ s, 200 to 6600 V, up to 440 A
Impedance	15 and 40 Ω
Pulse rep	10 to 10000 s