

Schaffner NSG 500C/506C EMC Test System for Automotive Electronics

The NSG500C unit contains two generators in a compact form; one for the microsecond pulse range (pulses 1 and 2) and the other for the fast pulse bursts in the nanosecond range (pulses 3a and 3b), together with a common control section.

The rise time, pulse width and amplitude of the pulses 1 and 2 can be varied within wide limits. Facilities are provided to connect external impedances to match the generator to the conditions such as are to be found in a vehicle's supply system.

The pulse bursts, 3a and 3b, can be set in amplitude and polarity to suit the test specification.

The front panel is equipped with a presettable counter which enables automatic tests to be carried out for a predetermined time or number of cycles. Triggering can be set for manual or external operation and a trigger output is provided to drive an oscilloscope.

Dampening of the interference pulses by the supply source is prevented by a built-in network.

NSG500C

- **Pulse 1**
 - * Peak Voltage: -30 to -300 V
 - * Risetime: 1 / 2 / 3 / 4 μ s
 - * Pulse width: 50 / 200 μ s / 2 ms
 - * Repetition rate: 0.5 / 5 s
 - * Selectable Battery Off time: 200 ms
 - * Source Impedance: 4 / 10 / 20 / 30 / 40 / 50 ohm
- **Pulse 2**
 - * Peak Voltage: +30 to +300 V
 - * Risetime: 1 / 2 / 3 / 4 μ s
 - * Pulse width: 50 / 200 μ s / 2 ms
 - * Repetition rate: 0.5 / 5 s
 - * Selectable Battery Off time: 200 ms
 - * Source Impedance: 4 / 10 / 20 / 30 / 40 / 50 ohm
- **Pulses 3a/3b**
 - * Peak Voltage: +-40 to +-200 V
 - * Risetime: 5 ns
 - * Pulse width: 100 ns
 - * Repetition rate: 100 μ s
 - * Burst Length: 10 ms
 - * Time between burst groups: 90 ms
 - * Source Impedance: 50 ohm
- **Operating Modes:**
 - * Single pulses or bursts
 - * Manual or external triggering
 - * Repetitive pulses or bursts
 - * Repetition frequency according to pulse type
- **Test Duration:** Settable with built-in preselection counter for defined time or number of pulses: 1 - 999999 secs or 1 - 999999 pulses
- **External Trigger:** TTL input. 0=true; also suitable for a momentary push-button
- **CRO Trigger:** trigger output + 10V, Tr 1.5 μ s
- **DUT Supply Voltage:** 12 - 30 Vdc
- **DUT Supply Current:** 25A max. (circuit breaker)
- **DUT Connection:** Universal connector sockets
- **Weight:** 16 - 20 kg (35-44 lbs) approx.

Applicable Standards:

- ISO 12V; ISO DP 7637/1
- ISO 24V; ISO DP 7637/2
- SAE J 1113
- DIN 40839-T3

NSG506C

The two-part Generator, Type NSG506C, has been designed as an auxiliary unit for the NSG500C and enables the production of high energy pulses (pulses 5 and 7).

- **Pulse 5**
 - * Peak Voltage: 0 to +200 V
 - * Risetime: 0.1 / > 5 <10 ms
 - * Pulse width: 40 / 100 / 150 / 200 / 300 / 350 / 400 / 500 ms
 - * Source Impedance: 0.5 to 5.5 ohm
- **Pulse 7**
 - * Peak Voltage: 0 to -200 V
 - * Risetime: 0.1 / > 5 <10 ms
 - * Pulse width: 40 / 100 / 150 / 200 / 300 / 350 / 400 / 500 ms
 - * Source Impedance: 8.5 to 13.5 ohm
- Storage Capacitor: 47 000µF
- Energy: 940 Joule max.
- Pulse Triggering: controlled via the NSG500C; manual; external trigger; automatic (pulse interval 5 secs)
- Pulse Interval: 5 secs min.
- Weight: 36 kg approx. (79 lbs) (part 1 and 2)

Please [contact us](#) for more information on the Schaffner NSG 500C/506C system