FG 5620
Function generator

Single-click programming plus the powerful Clone™ function make this the most powerful automotive EMC function generator in the world.

The function generator FG 5620 is used universally throughout the NSG 5600 for the control of DC sources and power amplifiers. The AutoStar™ software defines the necessary voltage/frequency conditions. The controller converts this information into algorithms for the FG (function generator), which creates an image of the requirements in its own memory and then generates the output signals for the addressed power modules during the test run. All the requisite waveforms can be created numerically from the basic functions or by loading a Clone™, e.g. a memory map of values from a storage oscilloscope or other external application, the FG also generates waveforms that can be difficult to describe mathematically or where real-world events need to be simulated. AutoStar supports any external application that can output an ASCII list, MathCAD or Microsoft Excel, for example.
Every card incorporates a second channel for the control of a further source with a programmable, steady state voltage as well as an output for setting the current limiting of the source. The main output signal consists of analog voltage of -10 to +10V – a standard that is used by the majority of voltage sources. Limits are only imposed by the sources used for a particular application. For this reason, Schaffner offers a full range of standard-compliant battery simulators.

The FG 5620 is a module equipped with a function generator board. A second board can be added subsequently at any time. The FG 5621 is delivered equipped with two function generators.
Two of these modules can be used in a system, i.e. up to four function generators are available to control the relevant number of sources. All the generators used are programmed separately and run synchronously based on a master-slave relationship.

All the requisite waveforms can be easily created from the basic functions or by loading a memory map of values.

Technical specifications FG 5620

Basic functions:	DC voltage, sine, square, triangle, ramp and exponential function
Ramping capabilities:	Amplitude, frequency, DC offset
Output voltage:	-10V to +10V
Resolution:	10mV
Accuracy:	±10mV
Impedance:	10Ω
Short circuit protection:	Yes
Number of segments per waveform:	1 to 100
Frequency range:	DC -320kHz
Frequency resolution:	0.01Hz
Amplitude & offset ramping:	Linear
Frequency ramping sine / square / triangle:	Linear, log (base 10)
Phase angle:	0 to 360° in 15° steps
Rectification:	None, positive, negative
Test duration:	1ms to 100h, 1 to 9,999 cycles
Clone™ memory for oscilloscope capture or imported Excel or text files:	80k samples