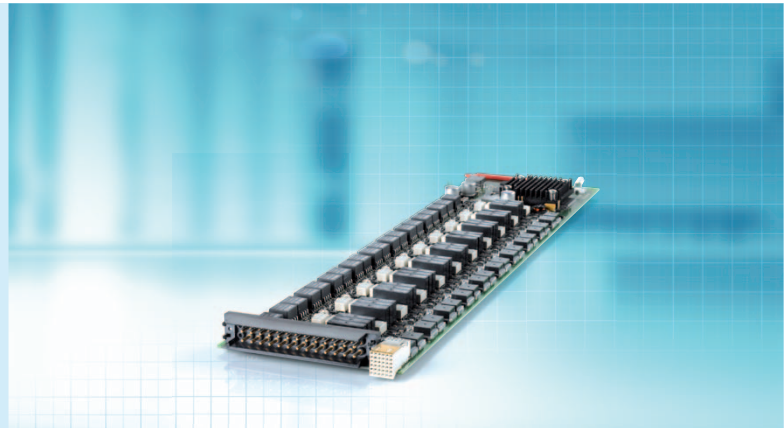


DS2621 Signal Generation Board

HighFlex I/O board for simulating ECU input signals

Highlights

- Signal generation for simulating voltage, current, resistance and switches
- Channel bundling to increase output voltage
- Onboard failure routing unit
- Galvanically isolated channels



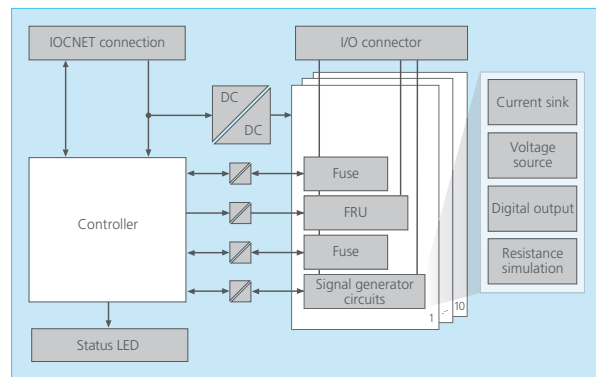
Application

The DS2621 Signal Generation Board stimulates ECU inputs. It mimics sensors or switches such as door contact switches, Hall sensors, and sensors for wheel speed and oil temperature. Each of the DS2621's 10 channels can be software-configured as a voltage source, a current sink, a digital output simulation or a resistance simulation.

For information on the failure simulation function, please refer to Failure Simulation on p. 8.

I/O Functionality

The DS2621 has 10 flexibly configurable output channels to make analog and digital signal generators available. To increase the current or voltage range, up to 10 channels can be bundled in parallel or in series. For example, two voltage sources can be switched in sequence, or two current sinks in parallel, to increase the output voltage or current. The digital output can be used as a switch and can generate time- and frequency-dependent signals (such as PWM). For example, the resistance simulation can be used to pass the specified temperature changes to an ECU via the environment model. Channel bundling is supported by the software. ConfigurationDesk displays the bundled channels as one single I/O function.



Technical Details

Parameter		Specification
General		<ul style="list-style-type: none"> 10 galvanically isolated channels Up to 10 channels can be connected in sequence or in parallel to increase the current range to max. ± 320 mA and the voltage range to max. ± 60 V Status LED for overall board status
Signal generation (Flexible Out 1)	Voltage source	<ul style="list-style-type: none"> Output voltage ± 20 V Output current ± 40 mA DAC resolution 16 bit Signal frequency 0 ... 140 kHz (sine)
	Current sink	<ul style="list-style-type: none"> Voltage range ± 60 V Current range ± 40 mA DAC resolution 15 bit Signal frequency 0 ... 140 kHz (sine)
	Resistance simulation	<ul style="list-style-type: none"> Resistance range 17.5Ω ... 1 kΩ Voltage range ± 20 V Current range ± 40 mA
	Digital output	<ul style="list-style-type: none"> Voltage range ± 60 V Current range ± 40 mA Signal frequency 0 ... 1 MHz
Failure simulation (p. 8)		<ul style="list-style-type: none"> Onboard failure routing unit (FRU) Signal forwarding to central FIU Relay-based Available for each channel
Electronic fuses		<ul style="list-style-type: none"> 100 mA RMS ECU (effective value) On ECU side tripping at $I = 100$ mA On sensor side with configurable trip range $I = 5$... 40 mA
Internal communication interface		<ul style="list-style-type: none"> IOCNET
Physical data	Physical size	<ul style="list-style-type: none"> 410 x 100 x 15 mm (16.1 x 3.9 x 0.6 in) Requires 1 slot
	Voltage supply	<ul style="list-style-type: none"> 24 V

Order Information

Product	Order Number
DS2621 Signal Generation Board	<ul style="list-style-type: none"> DS2621