

DATASHEET

RTSTAND SIGNAL GENERATION

SIGNAL GENERATION
DEVICE FOR LV 124 / LV 148

DEVELOPED TO SUPPORT THE REQUIREMENTS OF THE AUTOMOTIVE NORMS:

- LV 124, ISO 16750-2, VW 80000, BMW GS 95024-2-1, MBN LV 124-1 etc.
- LV 148, VDA 320, VW 82148, BMW GS 95026 etc.

The RTStand Signal Generation was specially developed in order to support the requirements of the automotive norms LV 124 and LV 148, by allowing signal generation of arbitrary curves, constant voltages, pwm pulses etc. In combination with a 4Q-Amplifier, it can generate the required bordnet simulation voltages. Moreover it can be used to remotely control the UFI switch device (for E10 & E13 tests) in order to support automation needs.

HIGHLIGHTS

- ✓ Support signal generation requirements for the automotive norms: LV124, LV 148 and their variants
- ✓ Can be used as a stand-alone device or can be integrated in automated testing systems
- ✓ 3 modi for maximum of flexibility in the definition and generation of signals
- ✓ 2 PWM outputs on an external voltage, e.g. Ubat, 5V etc.
- ✓ Remote control of the UFI switch device for E10 & E13 tests
- ✓ Triggerer output for external devices, e.g. Tube Analyzer measurement device
- ✓ Remote control of 4Q-Amplifier for amplifying signal outputs
- ✓ Data acquisition on 2 voltage channels

USE CASES



Automotive Norm

The RTStand Signal Generation delivers a library of LV 124 / LV 148 curves, which can be expanded with additional customer-specific curves. The defined curves, together with additional settings for external devices can be saved to test configurations, which can be loaded and output.



Custom signal generation and measurement

The RTStand Signal Generation enables the generation of custom arbitrary curves and contains several functions allowing the generation of 2 PWM signals on a given external supply and the measurement of two voltage signals.

TECHNICAL DATA

Analog output

| | |
|----------------------|--|
| Number of channels | 1 |
| Voltage range | +/-10 V |
| Resolution | 16 bit |
| Update rate | Up to 2 MS/s, depending on PC capabilities |
| Output impedance | 0.2 Ohm |
| Output current drive | +/-5 mA |

PWM output

| | |
|--------------------|--------------------------|
| Number of channels | 2 |
| Power supply | Ubat or constant voltage |
| Frequency | < 100 kHz |

Counter output

| | |
|--------------------|---|
| Number of channels | 4 (all in counter mode) or 2 + 2(in PWM mode) |
|--------------------|---|

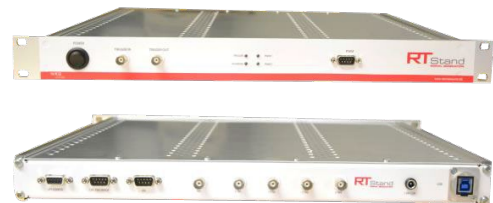
Trigger

| | |
|----------------|---|
| Trigger input | For external triggering or bridging from trigger output |
| Trigger output | For triggering external devices |

Analog input

| | |
|--------------------|--|
| Number of channels | 2, NRSE |
| Analog input 0 | Voltage range: +/-33 V, Impedance: 10 MOhm |
| Analog input 1 | Voltage range: +/-10 V |
| Sample rate | Up to 1MS/s, recommended 100kHz |
| Noise | 21 mVpp at 10V on +/-10 V range 0.7 Vpp at 10V on +/-33 V range – due to its impedance characteristic this channel has a very high noise. The channel's purpose is to be used for LV124 E21 tests and not for normal logging, unless the noise is acceptable. |

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ARBITRARY CURVE LIBRARY

Arbitrary LV 124 Library

E01-E09, E11-E12, E15 **included** **Currently supported: VW80000 (2013)**

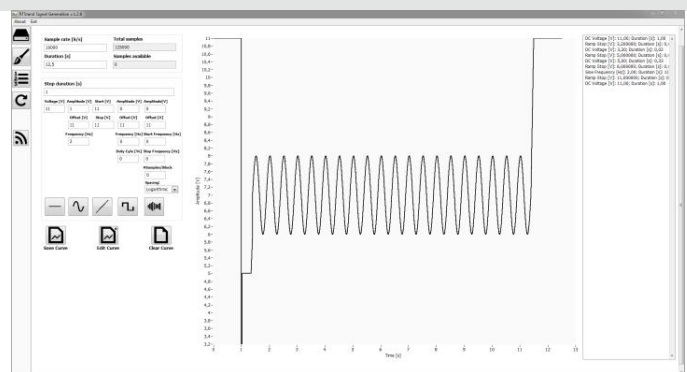
LV 148 Library

Available soon

SOFTWARE

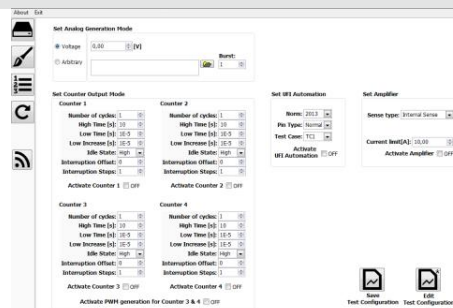
Paint mode

Enables the definition of arbitrary curves for the LV 124 and LV 148 automotive norms, as well as for any additional arbitrary curve. The defined curves are saved to *.warb files.



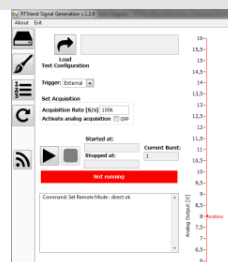
Configuration mode

Enables the configuration of channel properties, such as constant voltage or arbitrary curve as an analog output, or counter settings for interruption tests and pwm outputs. Together with UFI switch device configurations and amplifier settings, these properties are saved to *.ecfg files.



Generation mode

Enables the generation of signals according to the properties defined in the configuration mode – a corresponding *.ecfg file must be loaded. A parallel data acquisition on up to 2 channels is possible. The analog data for output is loaded in a graph display and the current output value is marked correspondingly.



Remote mode

For automation purposes, the device can be set into a remote mode – only the generation mode is active. Over a defined Shared Variables interface, the generation mode operations can be read and set by software.

GENERAL DATA

| | |
|-----------------------------|---|
| Dimensions | 19" / 1HE / 450mm x 360mm x 45mm (length x width x height) |
| Weight | 3 kg |
| Power supply | 12V/3A external wall power supply – cable delivered with the device |
| Interface | USB – cable delivered with the device |
| Temperature range | 0 °C bis 45 °C |
| Humidity | 25% to 75% noncondensing |
| Max. altitude | 2000 m |
| FOR INDOOR USE ONLY! | |