

TECHNOLOGY | TEST | RESEARCH | DEVELOPMENT

**DC and arbitrary power supplies
Arbitrary and function generators
4-quadrant and broadband amplifiers
Special instruments**

Developed and manufactured in
Germany

LINECARD

TOELLNER®

Applications

Industry, automotive, research, aviation, aerospace, railways, IT sector, automation, photovoltaics, laser, particle accelerator, general electronics.

The product range comprises:

Device series	Highlights
Laboratory power supplies	Linear and switch mode 150 W to 400 W
High-performance power supplies	1 kW to 10 kW
Arbitrary power supplies	160 W to 5200 W – incl. WaveControl software
Function generators	Up to 63 W output power – DC to 44 MHz
Arbitrary generators	1 million sampling points – DC to 40 MHz
Broadband amplifiers	DC to 5 MHz – up to 63 W output power
4-quadrant power supplies	160 W to 3200 W source and sink power – DC to 100 kHz/400 kHz
Electronic switches	Up to 60 V / 100 A – tr/ff < 500 ns

Systems for carrying out standardized tests

e.g. in the automotive industry

Including comprehensive library of waveforms in the inherent WaveControl software

Selection of supported standardized tests in the automotive industry:

BMW GS 95024-2-1	LV124	MBN 10615	MBN LV124-1	VW80000-1
BMW GS 95026	LV148	VDA 320	VW 82148	e.t.c.

Services:

- Free demo devices of all popular models
- Technical support
- Calibration and repair service
- Hire equipment and leasing offers

Certification:

DIN ISO 9001

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Laboratory, high-performance and arbitrary power supplies

4-quadrant power supplies

Function and arbitrary generators

All units feature state-of-the-art technology and sophisticated circuit technology. They satisfy all demands placed nowadays on cutting edge equipment. Ingenuity in detail, finishing and assembly carried out perfectly by hand, unmatched precision of mechanics and electronics.

Series	Image	Number of outputs	Max. W total	Max. V per output	Max. I per output	Interface (partially optional)	Highlights
TOE 8730		2 – 5	150 W	48 V	5 A	Analog	Dual-output, triple-output and quintuple-output power supplies. Linear control. Extremely low residual ripple: 50 µV. Very compact design.
TOE 8850		1 – 2	320 W	130 V	20 A	GPIO RS 232 Analog	Single-output and dual-output power supplies, system-compatible, V/A settings using incremental spinwheel. Sensing as standard. Linear control. Low residual ripple.
TOE 8950		1 – 2	400 W	130 V	40 A	GPIO USB + LAN RS 232 Analog	Automatic setting to existing line voltage 115 V or 230 V, autoranging, outputs at front and rear, sensing, very compact, numerous safety functions. Arbitrary mode, WaveControl arbitrary software.
TOE 8870		1	1.500 W	400 V	100 A	GPIO RS 232 Analog	Autoranging, active PFC, system-compatible, high slew rates. High endurance, even under extreme load conditions. Best EMC characteristics. Arbitrary mode, WaveControl arbitrary software.
TOE 8805 bis TOE 88165		1	160 W bis 5.200 W	100 V	320 A	GPIO Analog	Very fast arbitrary power supplies, generate any voltage and current characteristics, accept real-time signals, high slew rate: approx. 2 V/µs, brief load currents up to 1000 A, internal sink up to 16,000 W, AC superimposition up to 70 kHz, user-friendly WaveControl arbitrary software.
TOE 7621		1	320 W	± 100 V	± 40 A	Analog	320 W source and sink power, brief load current $3 \times I_{rated}$ (optional), analog control input 0 to ± 5 V or 0 to ± 10 V, rise/fall time < 2.5 µs in CV mode, sensing, outputs at front and rear. Optimally suitable for immunity testing of components against vehicle electric systems ripple. ***Power expansion to 3200W using parallel operation (up to 10 devices).
Series	Image	Frequency		Max. V	Max. W	Interface	Highlights
		Min.	Max.				
TOE 7761		1 µHz	40 MHz	20 V _{ss}	0,5 W	GPIO RS232	Arbitrary function generator with 1 000 000 sampling points, 80 MS/s sampling rate and 14-bit resolution

Vehicle / avionics electric systems simulation

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System components e.g.

- Arbitrary power generators 160 W – 5.200 W
- 4-quadrant power supplies/amplifiers 320 W – 3.200 W
- Microswitch for brief interruptions < 500 ns (LV124: E10+E13)
- Reference resistance kit etc.

WaveControl software – intuitive operation – comprehensive library of waveforms for controlling the power supplies, amplifiers and switches

New high-speed switch

for brief interruptions in power supply and ground lines

- Input voltage Up to 60 V
- Output current Up to 100 A
- Interruption of supply and ground lines
- Rise and fall time < 500 ns
- Short-circuit-proof
- Discharging of load current circuit
- 4 signal line switches
- Control by any signal generator (TTL level)

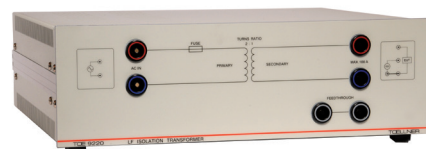


Particularly suitable for automotive tests

12 V vehicle electric system	48 V vehicle electric system
BMW GS 95024-2-1	BMW GS 95026
LV124	LV148
Mercedes-Benz MBN 10615	VDA 320
Mercedes-Benz MBN LV 124-1	VW82148
VW 80000-1	

Coupling network

Superimposition of an AC signal on a power supply circuit
e.g. for LV123, MIL-STD-461F/CS 101, Ford EMC-CS-2009-1/CI 250 etc.



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