06/2025

endrich NEWS

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REVIEW OF PCIM 2025 IN NUREMBERG

PCIM Europe 2025 was an excellent opportunity for Endrich to present our latest technologies and solutions to a broad specialist audience. The focus was on our innovations in the areas of passive components, IoT, sensor technology and semiconductor and connection technology.

In the area of passive components, we showcased new types of capacitors in electrolytic, polymer and hybrid technology, designed for up to +150 °C, as well as high-performance current measuring resistors and chokes for industrial and automotive applications.

In the IoT sector, our battery-free NeoMesh-on-LoRa® solutions met with great interest. In applications such as e-Elevator, e-Fridge and e-Environment, we demonstrated the potential of energy-autonomous sensor networking live.

Our sensor solutions - including environmental, motion, pressure and temperature sensors - impressed visitors with their easy integration into IoT systems and their contribution to safety, efficiency and convenience.

We also presented current developments in the areas of power semiconductors, power supply and connection technology, with a focus on robust, reliable systems for industrial applications.

The numerous discussions, the consistently positive feedback and the great interest in our exhibited technologies clearly show us: Endrich is excellently positioned to realize future-proof electronics solutions together with its customers as an innovation partner. We would like to thank all visitors and look forward to continuing the exchange!

R290 VS. R410A AND R32

Low global warming potential for the future of air conditioning

In a world striving to achieve net-zero emissions targets, the environmental impact of refrigerants is under intense scrutiny. For the HVAC (Heating, Ventilation, and Air Conditioning) industry, this means a fundamental shift away from traditional high-GWP gases such as R410A and R32.

R290 is emerging as a frontrunner in the future of air conditioning, offering an ultra-low Global Warming Potential (GWP), higher efficiency, and proven safety—enabled by SGX Sensortech's INIR4-R290 and INIR7-R290 gas sensors. With a drastically lower GWP, R290 is one of the most environmentally friendly refrigerants available today.

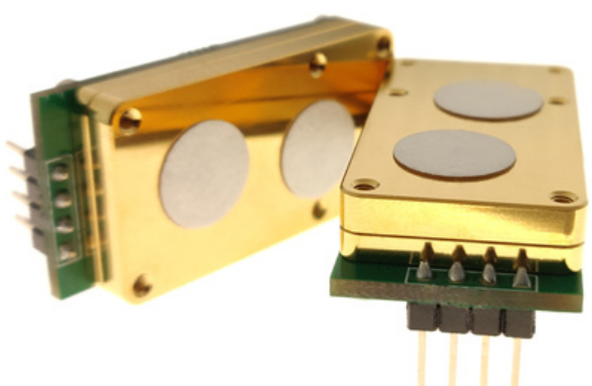
REFRIGERANT	GWP	ODP	FLAMMABILITY	TYPICAL APPLICATION	ADVANTAGES	DISADVANTAGES
R290	3	0	high	Small System Specialized air-to-water heat pumps Certain space heating heat pumps	Very low GW Peco friendly Efficient heating	Requires strict safety measures due to high flammability
R32	675	0	low	Mainstream-HlK-systems Split heat pumps Ductless mini splits	Moderate GW Widely available Good efficiency	Higher GWP than R290 and still requires careful handling
R410A	2000	0	none	Older systems Legacy HLK - units Mid-range applications	Non-flammable Predictable operation	Very high GWP, less environmentally friendly

While R290 is classified as an A3 refrigerant (higher flammability), the development of advanced gas detection technology now ensures that the safety risks are fully manageable.

While R290 is classified as an A3 refrigerant (higher flammability), the development of advanced gas detection technology now ensures that the safety risks are fully manageable. Gas sensors such as the INIR4-R290 and INIR7-R290 from SGX Sensortech have been specifically developed for propane monitoring in HVAC and refrigeration systems:

INIR4-R290

- Factory calibrated to 2.1% propane
- Extremely low power consumption (<100mW)
- High resolution (50ppm) and fast response (T90 < 30s)



SGX SENSORTECH
An Amphenol Company

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INIR7-R290

- Dual-channel operation for increased reliability
- IP65-rated housing for outdoor or harsh environments
- CAN and Modbus RS485 connectivity
- Built-in diagnostics and self-calibration

Thanks to these innovations, leak detection is fast, reliable and fully compliant with safety standarts such as IEC 60335-2-40

INIR2-R32

It is a user-friendly digital gas sensor, factory calibrated for up to 14% R32.

INIR2-PR2.1

It is a user-friendly digital gas sensor, calibrated for up to 2.1% propane.

SGX SENSORTECH
An Amphenol Company

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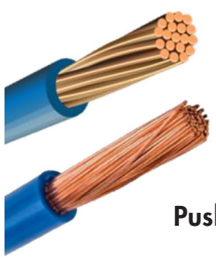
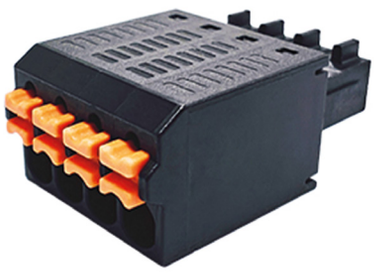
PUSH-IN STRANDED TECHNOLOGY

Pluggable PCB Terminal Block



Push-in



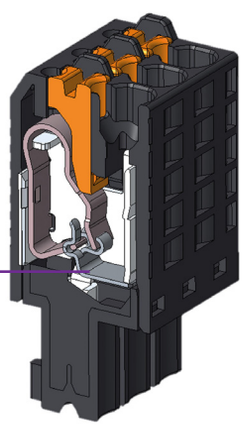
3,5mm
9A/300V
AWG16-20

This new plug allows stranded wires to be pushed-in.
No need to use a tool to clamp.

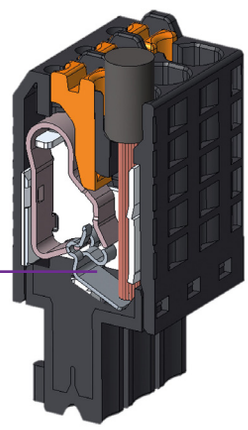
ANYTEK PART NUMBER	NUMBER OF POLE	PITCH	STANDARD COLOR
PSxx10x0000G	2P – 16P	3,5mm	Black

- Compatible with existing headers, easy upgrade of the plug
- UL Rating 9A / 300V
- Pitch 3,5mm
- Available number of pole 2P – 16P
- For wire 20 – 16AWG (ca 0,5mm² - 1,3mm²)
- 8 different body color available
- Operating temperature -40°C to 105°C

Clamping spring´s delivered preloaded



A weak push by wire activates the clamp



Amphenol ANYTEK

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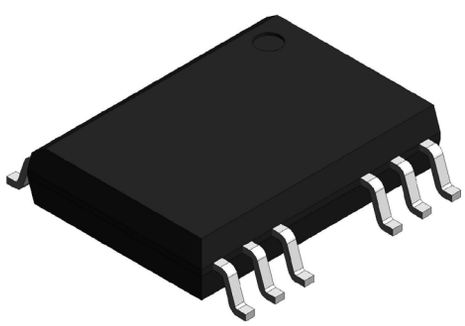
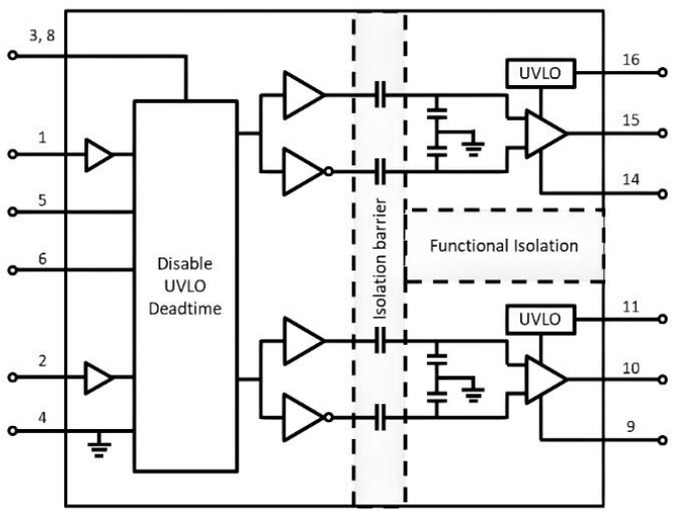
IEWS

NEW ISOLATED DUAL CHANNEL GATE DRIVER SERIES

EVERLIGHT is expanding its isolated product portfolio by offering a new isolated dual channel gate driver series in a small LSOP16 package. The CE21550x has a peak source current of 4A and a peak sink current of 8A. The maximum switching frequency can reach 5MHz. It is suitable for gate drivers of MOSFET, IGBT and SiC MOSFET.

Each driver can be configured as two low-side drivers, two high-side drivers or as a half-bridge driver with programmable dead time (DT). A DISABLE pin turns off both outputs simultaneously when set high and allows normal operation when left open or grounded. As a fail-safe measure, both outputs are set low in the event of logic errors on the primary side.





APPLICATIONS

- HEV and BEV Battery Charger
- Isolated Converters in DC-DC and AC-DC Power Supplies
- Server, Telecom, IT and Industrial Infrastructures
- Motor Drive and DC-AC Solar Inverters
- LED Lighting
- Inductive Heating
- Uninterruptible Power Supply (UPS)

FEATURES

- Universal: Dual Low-Side, Dual High-Side
- High Common mode transient immunity (CMTI = 100kV/us)
- TTL & CMOS compatible
- Operating Temperature: -40°C to +125°C
- Up to 25V VDD Output Drive Supply
- 3V to 5,5V Input VCCI Range to Interface with Digital and Analog Controllers
- Fast Disable for Power Sequencing
- Pb-Free, RoHs compliant
- Compliant to EU REACH

EVERLIGHT

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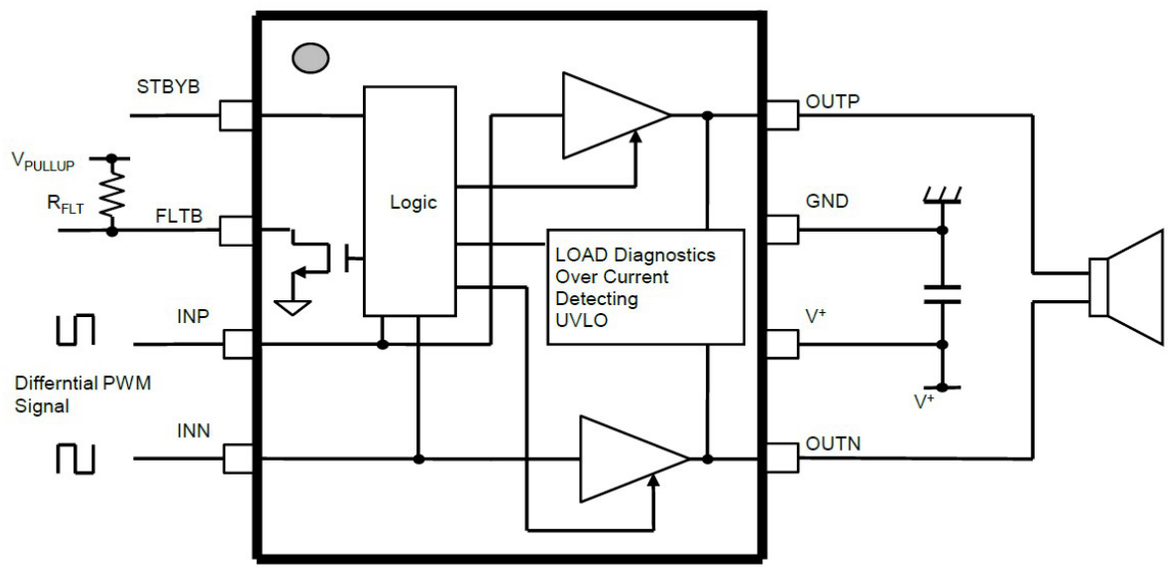
NA1150 AUDIO SWITCHING DRIVER WITH LOAD DIAGNOSTICS

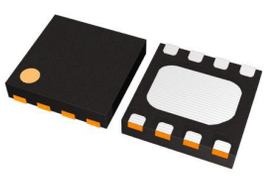
The NA1150 is a CMOS process PWM input - mono BTL output audio Switching driver, ideal for use in microcontroller-based sound systems such as security equipment, digital signage equipment and household appliances. The device provides up to 1.5 W into 8 Ω at less than 10 % THD+N from a 5Vdc supply. The integrated load diagnostic function notifies the MCU of any speaker connection anomalies through an open-drain output port. Fewer external components with a smaller package provide reliable, space-saving solution for voice speech and sound reproduction designs.



Application Circuits

APPLICATIONS

- Security equipment
- Household appliance
- Digital signage equipment
- Vending machine
- microcontroller based sound systems



FEATURES

- Monaural BTL Output
- PWM input Single-ended/Differential
- Supply Voltage: V+=2.6 V to 5.5 V
- Operating Temperature Range: –40°C to 125°C
- Quiescent Current: 2.0mAtyp. (No input signal)
- Output Power: PO = 1.5W typ. (@V+ = 5V, RL = 8Ω, THD+N = 10%)
- Load Diagnostics Function
- Over Temperature Detecting Function
- Over Current Detecting Function
- UVLO
- Package Outline DFN2323-8-GS / VSP-8-AF

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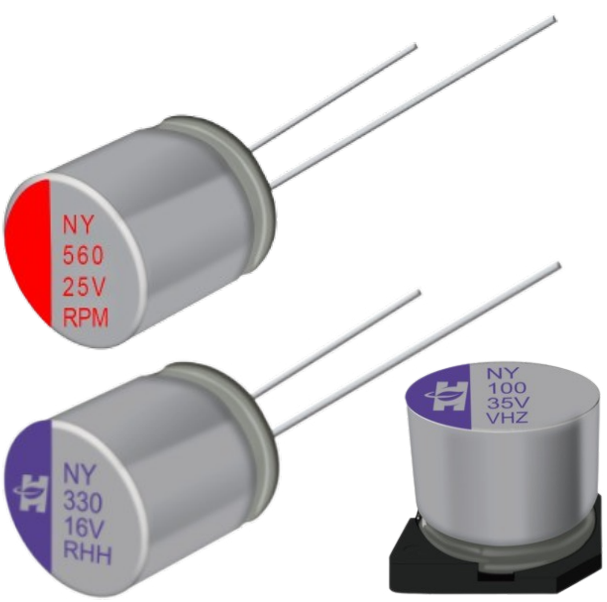
LEAGUER: A LEADING CHINESE CAPACITOR MANUFACTURER

Zhuhai Leaguer Capacitor Co., Ltd., established in 2002, has grown into a professional manufacturer of automotive-grade capacitors. The company places great emphasis on research and innovation, collaborating with Tsinghua University Research Institute to ensure continuous advancements in capacitor technology. Leaguer's commitment to quality is reflected in its compliance with international standards, including ISO 9001, IATF 16949, ISO 14001, and QC08000, making it a trusted partner for industries requiring high-performance capacitor solutions.

Internally, Leaguer employs a comprehensive ERP management system, a strict QSM system to ensure product reliability, and an MES system for full product traceability. As one of the earliest companies in China to obtain IATF 16949 certification, Leaguer strictly adheres to automotive management system requirements, producing high-quality electrolytic capacitors suitable for various applications.



Leaguer's manufacturing facility is located in Zhuhai, China. Its diverse product portfolio includes solid electrolytic capacitors, hybrid electrolytic capacitors, snap-in capacitors, screw terminal capacitors, radial leaded capacitors, and SMD electrolytic capacitors. These products cater to industries such as automotive, AI, cloud computing, new energy, industrial electronics, and consumer electronics.

Through continuous innovation, strict quality control, and an extensive product range, Leaguer has become the preferred choice for companies seeking high-quality aluminum electrolytic capacitor solutions.

leaguer

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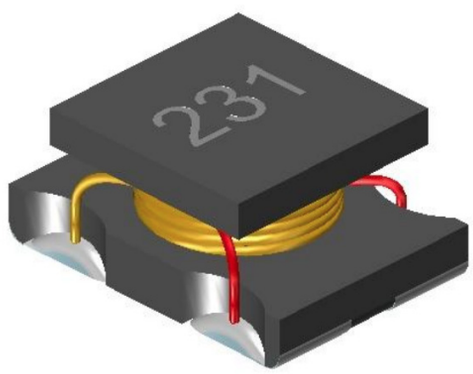
TINY COMMON MODE CHOKE

(A)SF0302-L Series

ABC-ATEC Group introduces their new (A)SF0302-L Series of tiny SMD common mode choke. This new item contributes to downsizing with it's outer dimensions of 3.5 x 5.0 x 2.5 mm (L x W x H). ABC employ ferrite drum core and enamelled H-class copper wire to ensure best performance. Common mode impedance of 230 – 2700 Ohm at 100 MHz are available as standard selection. Suitable alternative to Murata's DLW5ATH-TQ2 series.



APPLICATIONS

- Industrial electronics
- Automotive electronics (A-Type)
- Noise filtering of interfaces

FEATURES

- Available as industry standard and automotive type
- High impedance at 100MHz
- Possible substitute to Murata`s DLW5ATH-TQ2 series

ITEM	COMMON MODE IMPEDANCE (AT 10MHZ) (Ω) +/-25%	COMMON MODE IMPEDANCE (AT 100MHZ) (Ω) TYP.	INDUCTANCE (µH) REF.	RDC (OHM) MAX.	IDC (A)
SF0302231YLB-DE2	22	230	0,4	0,027	4,00
SF0302401YLB-DE2	35	400	0,64	0,034	2,00
SF0302501YLB-DE2	55	500	0,9	0,066	2,00
SF0302851YLB-DE2	60	850	1,1	0,073	1,50
SF0302112YLB-DE2	65	1100	1,25	0,075	1,50
SF0302272YLB-DE2	100	2700	1,5	0,120	1,00

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