05/2025

endrich NEWS

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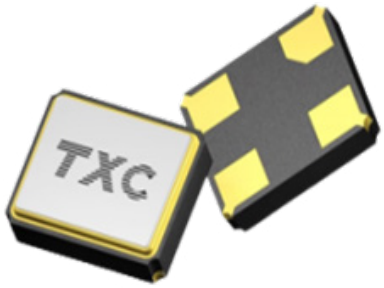
TXC: NEW SUPPLIER IN THE FIELD OF TIMING

Elevating our product lineup with precision, innovation and local support

We are thrilled to announce the addition of **TXC Corp** to our lineup of manufacturers! We continually seek partners who share our commitment to quality, innovation, and reliability. TXC , the global no.1 in frequency control and quartz crystal products, perfectly aligns with these values, bringing cutting-edge solutions to enhance our product portfolio.



About TXC

Founded in 1983, TXC has established itself as a premier manufacturer of high-precision frequency control components, specializing in SMD quartz crystal products. With a relentless focus on research, design, and manufacturing excellence, TXC serves industries ranging from consumer electronics and telecommunications to automotive and defense. Their products are integral to applications requiring precise timing, such as avionics, navigation systems, and communication devices.

Why TXC? Key Benefits and Unique Selling Points

1. Unmatched Precision and Reliability

TXC's quartz crystal products are engineered for exceptional accuracy and stability, ensuring optimal performance in mission-critical applications. Their rigorous quality control processes guarantee components that meet the highest industry standards.

2. Innovative Product Portfolio

TXC adds value especially but not only on the edges of our current portfolio, adding crystal quartzes as small as 1.0 x 0.8mm and with high frequencies up to 320MHz to our lineup. They are fully AECQ-100 & 200 certified and excel in specialized timing devices such as Stratum 3 TCXOs.

3. Global Reach with Localized Support

We at Endrich are working closely with TXC Europe, who are based in Frankfurt and have a German speaking team of experts (including a FAE and sales team). Being in the same time zone and area brings huge advantages in response time, communication, joint visits and overall support for our customers. With manufacturing facilities in Taiwan, China, Indonesia and Japan and support networks worldwide, TXC combines global expertise with responsive, localized service. This ensures faster lead times and seamless integration into any supply chain.

TXC

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GD32G553XX ARM CORTEX-M33 32-BIT MCU

The GD32G5 series MCUs, featuring exceptional processing performance, a wide range of digital and analog interface resources, and enhanced security capabilities, can be widely applied across diverse scenarios such as digital power systems, charging stations, energy storage inverters, frequency converters, servo motors, and optical communication. This new product lineup offers 14 models across 7 package types, including LQFP, QFN, and WLCSP.

The GD32G5 series MCUs are equipped with 256KB to 512KB of embedded Flash memory, supporting the dual-bank Flash feature, and 128KB of SRAM, which includes 32KB Tightly Coupled Memory RAM (TCMRAM) for zero-wait execution of critical instructions and data. Additionally, they feature high-speed cache memory, with up to 2KB I-Cache and 512B D-Cache, further boosting core processing performance.

The above features make GD32G553xx devices suitable for a wide range of interconnection and advanced applications, especially in areas such as industrial control, consumer and handheld equipment, embedded modules, human machine interface, security and alarm systems, graphic display, audio player, automotive navigation, drone and IoT.

GD32G553-SERIE	FLASH KB	PACKAGE	TEMPERATURE RANGE	SUPPLY
GD32G553QET7	512	LQFP128	-40°C to +105°C	1.71V to 3.6V
GD32G553QCT7	256	LQFP128	-40°C to +105°C	1.71V to 3.6V
GD32G553VET7	512	LQFP100	-40°C to +105°C	1.71V to 3.6V
GD32G553VCT7	256	LQFP100	-40°C to +105°C	1.71V to 3.6V
GD32G553MEY7TR	512	WLCSP81	-40°C to +105°C	1.71V to 3.6V
GD32G553MCY7TR	256	WLCSP81	-40°C to +105°C	1.71V to 3.6V
GD32G553MET7	512	LQFP80	-40°C to +105°C	1.71V to 3.6V
GD32G553MCT7	256	LQFP80	-40°C to +105°C	1.71V to 3.6V
GD32G553RET7	512	LQFP64	-40°C to +105°C	1.71V to 3.6V
GD32G553RCT7	256	LQFP64	-40°C to +105°C	1.71V to 3.6V
GD32G553CET7	512	LQFP48	-40°C to +105°C	1.71V to 3.6V
GD32G553CCT7	256	LQFP48	-40°C to +105°C	1.71V to 3.6V
GD32G553CEU7	512	QFN48	-40°C to +105°C	1.71V to 3.6V
GD32G553CCU7	256	QFN48	-40°C to +105°C	1.71V to 3.6V

GigaDevice

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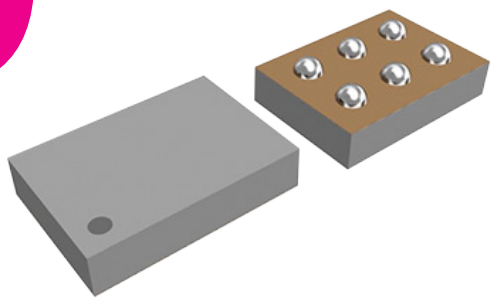
EWS



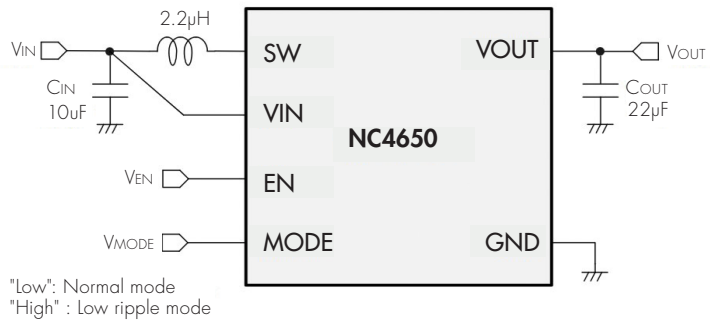
ULTRA-LOW QUIESCENT

Current (Iq=70nA) Boost Switching Regulator with Low Ripple Mode

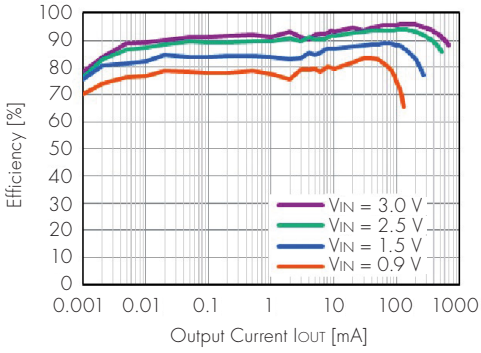
The NC4650 is a synchronous rectification boost switching regulator featuring ultra-low quiescent current of 70nA, utilizing a CMOS process. It is optimal for portable devices powered by coin or button batteries. With high efficiency under light load conditions, it is ideal for intermittent operation applications, ensuring long battery life.

The MODE pin enables the selection of "Low Ripple Mode" for improved load transient response and reduced ripple. The EN pin allows shutdown operations, with options such as VIN-VOUT Complete Disconnect, VOUT discharge, and Pass-Through. Selecting the optimal version according to system sleep conditions enables system optimization.

TYPICAL APPLICATION



EFFICIENCY TYPICAL CHARACTERISTICS



NC4650ZA VOUT = 3.3V MODE = "LOW"

APPLICATIONS

- IoT Edge Devices
- Devices Powered by Coin/ Button/Dry Batteries
- Alarms, Smartwatches etc.

FEATURES

- Operating Junction Temperature Range: -40°C to 125°C
- Input Voltage Range (Maximum Rating): 0.6V to 5.5V (6.5V)
- Startup Voltage: Typ. 0.8V
- Output Voltage Range: 1.8V to 5.0V (Int.Fixed)
- Quiescent Current: Normal Mode: Typ. 70nA
  Low Ripple Mode: Typ. 90µA
- Shutdown Current: Typ. 50nA
- Efficiency (VIN = 1.5V, VOUT = 3.3V, IOUT = 10µA): Typ. 85%
- Switch Current Limit: Typ. 1A (VSET ≥ 2.5V) Typ. 0.65A (VSET < 2.5V)
- Soft Start Function
- Buck Operation or Pass-Through whe VIN > VOUT

NISSHINBO

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MITIGATE THE IMPACT OF THE NEXT MLCC SHORTAGE

Transition to Panasonic Polymer Capacitors

Capacitors are essential components in modern electronic systems. While Multilayer Ceramic Capacitors (MLCCs) are favoured for their compact size, cost-effectiveness, and wide range of available options, Panasonic Polymer Capacitors present distinct advantages in certain applications, addressing some of the limitations commonly associated with MLCCs.

Comparing MLCCs and Panasonic Polymer Capacitors

- **MLCCs:** Known for their compactness and affordability, MLCCs are commonly used in applications such as decoupling, filtering, and high-frequency circuits.

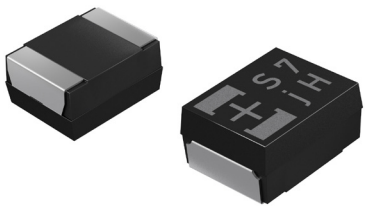
- **Panasonic Polymer Capacitors:** These capacitors utilize a conductive polymer as the electrolyte, providing lower equivalent series resistance (ESR), superior ripple current handling, and enhanced thermal stability. They are particularly well-suited for applications where long-term reliability and consistent performances in different environments are of the highest importance.

When to consider replacing MLCCs with Panasonic Polymer Capacitors

While a direct 1:1 replacement of MLCCs with Panasonic Polymer capacitors may not be commercially advantageous, there are specific instances where such a transition makes sense. For applications that require higher capacitance values and medium voltage, particularly those utilizing multiple MLCCs in parallel, Panasonic Polymer capacitors offer both technical and commercial benefits. This solution can be implemented using various technologies within Panasonic's comprehensive Polymer capacitor product line, tailored to meet customer-specific requirements.

For capacitance values between 1uF and 1000uF, the replacement of MLCCs with Panasonic Polymer capacitors is ideal for applications demanding enhanced ripple current handling, improved thermal stability, and long-term reliability.

Contact us to discuss the most suitable solution for your application and optimize both performance and cost-efficiency.



Panasonic
INDUSTRY

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EWS

80MM COMPACT-DC-FAN

for High-End Industrial Applications

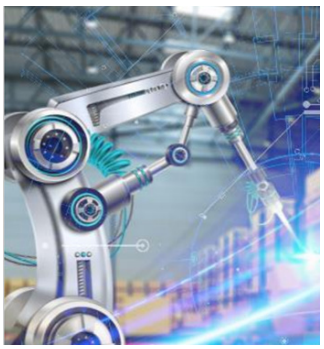
Supported DC voltages and product versions: 12V, 24V, 48V

Designations according to manufacturer: AS08012HB385BB2(05NS5HSB) -A00
AS08024HB385BB2(05NS5HSB) -A00
AS08048HB385BB2(05NS5HSB) -A00

Areas of application: Power generation & drive controls

Renewable energy

Smart Manufacturing



Equipment features: Suitable for outdoor use with the respective IP protection

WATERPROOF/DUSTPROOF				ANTI-SALT MIST	
					
Water Resistance	IP-52	IP-55	IP-68	IP-55	IP-68
Salt mist Resistance	-	-	-	Salt Spray IEC 60068	Long-term Salt Spray GR-487
Solution	UV Glue protection	Parylene Coating	Hot Melt Adhesive protection	Epoxy protection (PCBA)	Epoxy protection (PCBA)
Implementation	All available		Customized project		
Stage	Mass Production		Customized Design for oder		
Application	General application		Photovoltaic Inverter / Charging Station / Industrial Products		

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LOW FORWARD VOLTAGE BRIDGE RECTIFIER

Eris' latest low VF bridge rectifier series is engineered with thin EPI Chip junction technology and Sipos protection layers and offers superior performance. The products are characterized by high efficiency with an incredibly low forward voltage that reduces energy waste and optimizes power utilization. With a very low leakage current, these bridge rectifiers guarantee efficient power transfer and improve the reliability and stability of the system, even under the most demanding conditions. The series is ready to redefine the standards of power efficiency and reliability across various applications, including server power, AI Power, gaming power, and 80+ platinum/titanium PC power, among other high efficiency power applications.

APPLICATIONS

- AI Power
- Server Power
- Gaming Power
- 80+ platinum/titanium PC power
- EV charger
- LED drivers

FEATURES

- Thin EPI + Sipos passivation structure
- Ultra-Low forward voltage drop
- High TJ: 150 C°
- Excellent VF uniformity (D1,D2,D3,D4)
- High surge current capability
- UL recognized file #E95060
- Lead-Free finish; RoHS compliant
- Halogen and Antimony free. "Green" device
- For automotive applications requiring specific change control

PART NUMBER	PACKAGES	FORWARD VOLTAGE DROP V_F(V)@ 25C°	TOTAL CAPACITANCE C_T (PF)	MAX. AVERAGE RECTIFIED CURRENT I_O (A)	PEAK REPETITIVE REVERSE VOLTAGE V_{RRM} (V)	MAX. PEAK FORWARD SURGE CURRENT I_{FSM} (A)	MAX. REVERSE CURRENT I_R (μA)
GB J15JL	GBJ	0,9	137	15	600	200	10
GBJ15V10	GBJ	0,92	137	15	1000	400	5
GBJ25JL	GBJ	0,92	150	25	600	320	10
GBJ25L06	GBJ	0,92	150	25	600	320	10
GBJ25L08	GBJ	0,9	250	25	800	320	10
GBJ25V08	GBJ	0,92	168	25	800	600	5
GBJ35L06	GBJ	0,91	270	35	600	400	10
GBJ35S06	GBJ	0,93	240	35	600	400	10
GBJ40L06	GBJ	0,9	400	40	600	420	10
GBJ50S06	GBJ	0,93	400	50	600	500	10
GBP6L06	GBP	0,9	75	6	600	135	5
GBU15L08	GBU	0,9	160	15	800	250	10
KBJ15L06	KBJ	0,9	120	15	600	200	5
KBJ15L08	KBJ	0,9	165	15	800	200	5
KBJ20L06	KBJ	0,9	180	20	600	200	10
KBJL10L06	KBJL	0,9	95	10	600	180	10
KBJL15L06	KBJL	0,9	140	15	600	250	10
TT6JL	TTL	0,9	85	6	600	150	5
TT8L08	TTL	0,9	90	8	800	165	5

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SCIOSENSE WINDSHIELD ANTI-FOGGING SENSOR

for fast & accurate detection of windshield dewpoint and optimal energy efficiency and safety

The dew point is the temperature the air needs to be cooled to (at constant pressure) in order to produce a relative humidity of 100%.This temperature depends on the pressure and water content of the air. When the air is cooled below the dew point, its moisture capacity is reduced and airborne water vapor will condense to form liquid water known as dew. When this occurs through the air's contact with a colder surface, dew will form on that surface.

The dew point is affected by the air's humidity. The more moisture the air contains, the higher its dew point. When the temperature is below the freezing point of water, the dew point is called the frost point, as frost is formed via deposition rather than condensation. In liquids, the analog to the dew point is the cloud point.

Modern vehicles are equipped with various sensors to enhance the driving experience and improve safety. One crucial yet often overlooked sensor is the dew point sensor integrated into the windshield. This sensor plays a vital role in preventing condensation and ensuring clear visibility.

The WSS2 WindShield Sensor is a fully automotivequalified module (AEC-Q100, ISO/IATF16949:2016 and VDA6.3 conformant design with full traceability) for precise dewpoint detection on vehicle windshields for effective fogging prevention. The WSS2 utilizes a state-of-the-art temperature and humidity sensor to calculate accurate dew points at said location, ensuring maximum HVAC efficiency at optimal passenger experience and safety.

The device extends battery ranges of modern electric vehicles by maximizing HVAC energy savings, making WSS2 yet another game-changer in the pursuit of sustainable and eco-friendly transportation. The WSS2 WindShield Sensor is fully OEM customizable with LIN communication and fits standard sensor farm brackets at mirror base.

ScioSense

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NEW ADVANCES IN LINEAR MOTOR TECHNOLOGY

Since the advent of linear motors, has been favored by enterprises an individual consumers, and other motors compared to the structure of the linear motor gives it a special advantage, there is no mechanical contact, the transmission of power is generated in the air gap, so there is no friction, no wear. In such a consumer market, Zhejiang Baolong has also started a linear motor technology research and development war... The following is our linear motor, which has been widely recognized by enterprises and consumers in the consumer market.

MODEL	PICTURE	RATED VOLTAGE	OPERATING VOLTAGE RANGE	DIRECTION OF VIBRATION	RATED CURRENT	RATED OPERATING FREQUENZY	OPERATING TEMPERATURE RANGE
BLM0410G-FP249-0SUB9		1.8Vrms AC, Sine wave	0.1 ~1.85Vrms AC	Z axis	MAX.60 mArms	250 HZ	-20°C ~+60°C,Ordinary Humidity:65± 20%RH

ITEM		POWER-UP	VOICE	SEISESTH ESIA	VIBRATION FEEDBACK TIME	RELIABILITY
0410 Linear Motor (Mi Band 9)	Advantage	Rated voltage AC1.8V, rate current MAX60mA, low power consumption, increase battery life	The sound is crisp and small	strong vibration	(0-50% vibration) (approx. 30ms)	Normal temperature life limit 100W times
	Disadvantage	240HZ AC current, and the chip cost is high	/	/	/	/

Introduction

The vibration motor used by the Mi Band 9 is a linear motor, which provides 20 vibration modes, and the vibration feedback is more delicate and natural, which can bring a better touch experience. It is no exaggeration to say that the vibration brought by the Mi Band 9 compared to the Mi Band 8 is an epic improvement. Of course, in the hardware configuration processor, sensor, waterproof level and battery above the Mi Band 9 have been greatly changed.

ZHEJIANG BAOLONG M&E CO.,LTD.

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