

endrich news

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OUR PRODUCT OF THE MONTH: INTERACTIVE MIRROR



1st
place

"Products of the Year 2020"
in the category
„Industrial+IoT“

Interactive mirror

FEATURES

- Allwinner® V40 Cortex™ A7 QuadCore 1 GHz Prozessor
- 1 GB DDR3 RAM & 8 GB eMMC Flash
- Stand-alone Android device that also can be connected via Bluetooth 4.0 or WiFi to another device
- Full HD resolution – 1.920 x 1.080 px
- Mirrored screen and optically bonded touch panel
- Software to control the backlight and LED strips
- Capacitive 10-finger multi touch panel

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Elektronik – reader's selection
"Distributor of the Year 2020"
Evaluate our service. Vote now.
More on page 8

ENDRICH ACHIEVES THE 1ST PLACE

VERY HIGH PERFORMANCE SMD POWER INDUCTORS

WATCH THE AWARD VIDEO

HAVE A LOOK



Endrich won first place in the category "Industrial+IoT" in the readers' choice "Products of the Year 2020" of the trade magazine "Elektronik".

The winning product is an interactive mirror with integrated optically bonded Full HD TFT display. It is controlled by an Android panel PC. WiFi and Bluetooth™ are integrated. It is controlled via a capacitive multi-touch panel. Due to the comprehensive IP65 protection, the system can also be used in humid environments. Due to the COVID-19 pandemic, the award ceremony on May 12th was held online for the first time.

"We would like to thank the readers of Elektronik magazine for this result. It motivates us and at the same time confirms that we will continue to advance the path of system solutions", says Jens Mollitor, CTO at Endrich.

Inpaq Technology, Co. Ltd introduces their new AIPG series of SMD power inductors with very high performance. AIPG0630 is available in the size of 7.3 x 6.8 x 3.0 mm and the inductance values from 1 µH to 3.3 µH.

Based on the well established, conventional molding process on round wire but special proprietary "S7" core material, it can reach the performance of inductors with inverted t-core and flat wire such as Coilcrafts XAL series. The "S7" material improves the saturation current at high frequency and allows for thicker

wire gauge to reduce DCR drastically. The material is highly stable and reliable and shows almost no fatigue even after applied 3.000 hrs 85 °C/85 % rH test (AECQ-200 pending). The planned SoP will be Q3/2020

APPLICATIONS

DC/DC converter for industrial and commercial applications such as:

- 5G
- Computer & Pheripheral
- Automotive
- Actuators

And wherever low power consumption is needed

FEATURES

- Low DCR
- High Isat
- Proprietary material
- AEC-Q200 pending
- Highly competitive due to making on conventional process manufacturing line



WATCH THE AWARD VIDEO



Jens Mollitor, Chief Technology Officer (CTO), Christiane Endrich, Management (CEO) Jochen Bauer, Senior Product Manager and Head of Displays & Embedded Systems

SERIES	SIZE	INDUCTANCE	RDC	ISAT	IRMS
AIPG0630	7.3 x 6.8 x 3.0 mm	1.0 µH +/-20 %	5.5 mΩ	23.0 A	18.0 A
		2.2 µH +/-20 %	12.7 mΩ	16.0 A	10.0 A
		3.3 µH +/-20 %	17.0 mΩ	12.5 A	8.5 A
AIPG0530	~ 5.0 x 5.0 x 3.0 mm	Coming soon (scheduled for Q4/2020)			

AC / DC ENCLOSED SWITCHING POWER SUPPLY
LMF320-20BXX, LMF320-20BXX-C, LMF320-20BXX-QSERIES



LMF320-20Bxx series are one of Mornsun's enclosed AC/DC switching power supplies.

It features universal AC input and at the same time accepts DC input voltage, cost-effective, built-in active PFC function, high efficiency and high reliability. These converters offer excellent EMC performance and meet IEC/EN61000-4, CISPR32/EN55032, IEC62368, UL62368, EN62368, EN60335,GB4943 standards.

FEATURES

- Universal 85 – 264 VAC or 120 – 373 VDC input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature range: -30 °C to +70 °C
- Built-in active PFC function, PFC > 0.95
- High I/O isolation test voltage up to 4000 VAC
- Output short circuit, over-current, over-voltage, over-temperature protection
- Safety according to IEC / EN / UL62368, EN60335, GB4943 (CE / CCC pending)
- Compact size with a low 1U profile
- LED indicator for power on
- Built-in DC fan
- Withstand 300 VAC surge input for 5 s
- Emissions meet CISPR32/EN55032 CLASS B
- Start-up delay time less than 5 seconds at -30 °C

APPLICATIONS

- Industrial
- LED
- Streetlight control
- Electricity
- Security
- Telecommunications
- Smart home

PART NO.*	OUTPUT POWER	NOMINAL OUTPUT VOLTAGE AND CURRENT (VO/LO)	OUTPUT VOLTAGE ADJUSTABLE RANGE	EFFICIENCY AT 230 VAC TYP.	MAX. CAPACITIVE LOAD	CERTIFICATION
LMF320-20805	300.0 W	5 V / 60.0 A	4.5 – 5.5 V	81.0 %	5000 µF	CE / CCC (Pending)
LMF320-20B12	320.4 W	12 V / 26.7 A	10.0 – 13.2 V	84.0 %	5000 µF	
LMF320-20B15	321.0 W	15 V / 21.4 A	13.5 – 18.0 V	85.0 %	5000 µF	
LMF320-20824	321.6 W	24 V / 13.4 A	20.0 – 26.4 V	86.0 %	5000 µF	
LMF320-20848	321.6 W	48 V / 6.7 A	41.0 – 5.0 V	86.5 %	5000 µF	

*Note: "Use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

MEMS OSCILLATOR FROM SITIME ACCELERATES CUSTOMERS' DESIGNS

HAVE A LOOK

Highlights

- SiTime's MEMS oscillators are available within days for sampling and pre-production
- Millions of configurations, in many different oscillator categories, all configured for customers' specific requirements
- Programmable oscillator architecture enables market transformation



SiTime Corporation (NASDAQ: SITM), a market leader in MEMS timing. The MEMS Oscillator technology enables customers to accelerate their design time, reduces development efforts, and speeds time to revenue.

"Fast, efficient delivery of oscillators has been the Achilles heel of the quartz industry for decades," said Piyush Sevalia, executive vice president of marketing at SiTime. "With short lead time's due to programmability for our MEMS timing solutions, SiTime is once again transforming the timing market and leading the industry in availability."

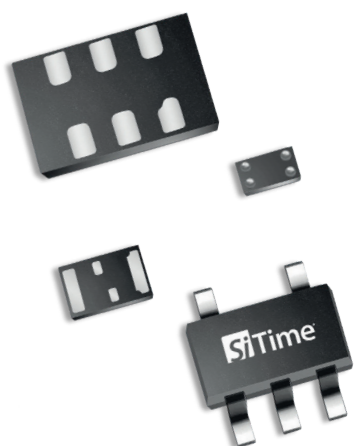
Previously, customers had to wait up to 20 weeks and sometimes pay non-recurring engineering (NRE) fees to get oscillators that were configured to their exact requirements. MEMS oscillators are not only characterized by their robustness, they can also be quickly and easily adapted to customer-specific requirements.

They key is of course the programmability of the SiTime timing products. With a dedicated programming machine for low volumes and pre-series, demand can be configured according customer's need in short time, up to 3000 pieces per hour. For example, parameters such as frequency, input voltage and tolerance can be set. This enables us to eliminate long pre-production delivery times. While Crystals and therefore Crystal Oscillators have to be produced in different processes

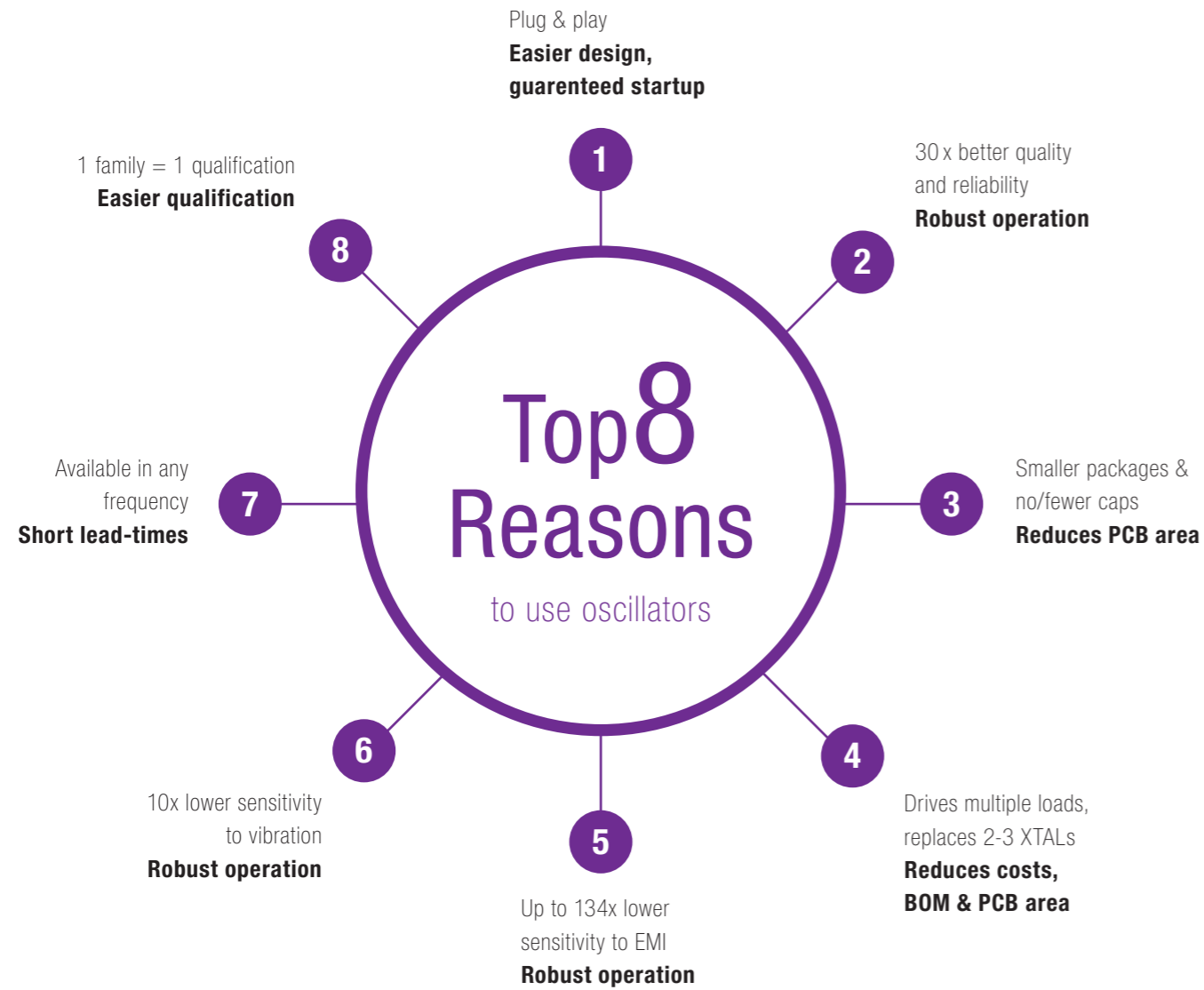
in order to be able to implement different frequencies, the MEMS Oscillator can even program the rise and fall times so that multiple ICs can be controlled from one oscillator. Or they are optimized to reduce EMI. This in turn leads to shorter development times, lower costs and faster time to market

The current portfolio includes a wide variety of low-power oscillators (SiT8008/9, SiT8208/9, SiT2001/..), high-temperature and automotive oscillators SiT8918/9, ST8920/1, SiT8924/5, SiT2018/9, SiT2020/1, SiT2024/5, as well as differential oscillators, spread spectrum oscillators, VXCOs, µPower oscillators and TCXOs.

A design usually starts with 2 to 20 sample and in validation phase typically between 100 and 1000 pieces, up to 1000 ~ 5,000 pieces during the pre-production. Even for the samples phase, SiTime offers the unique SiTime's Time Machine II. Engineers can program with this tool MEMS oscillators in seconds and test different design/specification scenarios.



MEMS OSCILLATOR FROM SITIME ACCELERATES CUSTOMERS' DESIGNS



SiTime has many components that are pin-compatible with the quartz-based Oscillators with the advantage of being immune to shock & vibration and consuming little power. Bosch manufactures the MEMS resonators in Reutlingen, the well-known companies in Asia handle the analog ICs and packaging in different places. Using multiple fabs ensure that even in a critical situation the supply chain remain stable.

Conclusion

SiTime's programming service accelerates the phases of typical product development to help technology innovators take an industrial and IoT product idea to design and

production quickly and easily. SiTime datasheets, as well as the part number generator on the SiTime website, list all the programmable configurations available for these MEMS oscillators. Among the most popular programmable options are frequency (with up to six decimal places of accuracy), supply voltage, output drive type and drive strength, operating temperature range, and frequency stability. Compared to legacy timing solutions, SiTime's MEMS timing solutions offer programmability along with high performance, reliability, small size, low power consumption, frequency stability over temperature, and resilience to mechanical shock and vibration. Customers are using these benefits to solve unique and stringent timing problems.

AUTOMOTIVE INDUCTORS

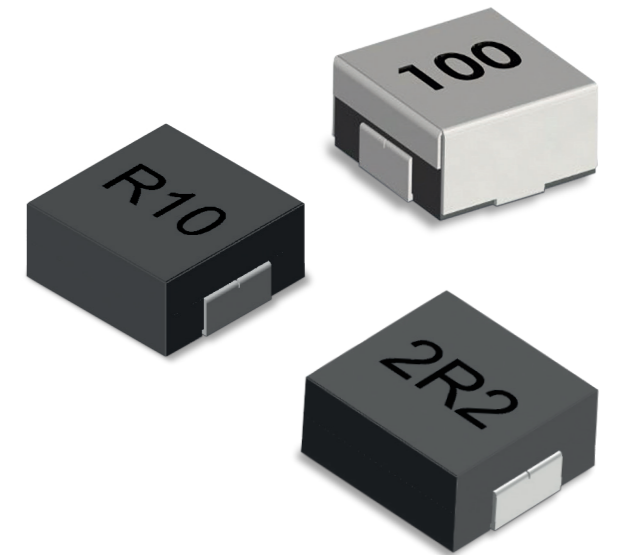
ABC-ATEC introduces their brand new MHE/MHS series, which is an enhancement of the existing HE series. The prefix "M" indicates 100 % automated process which helps to ensure utmost quality and competitiveness. HE is the basic series, using metal alloy powder pressed on a copper wire spring coil. HS series applied a metal cap on top of the inductors for best e-field shielding. All "M" type coils from ABC-ATEC are fully AECQ200 certified and suitable for use in automotive applications.

FEATURES

- Very high saturation current
- Very low DCR
- Soft saturation effect
- AECQ200 qualified
- Samples available

APPLICATIONS

- Automotive electronics
- Industrial electronics
- DC/DC converter
- Actuator
- Battery-charger or -monitors



	SERIES	SIZE	INDUCTANCE RANGE	DCR	ISAT	IRMS	E-FIELD
HAVE A LOOK	MHE0630-F	7.1 x 6.6 x 3.0 mm	0.1 – 10 µH	1.5 – 102 mΩ	70.0 – 7.0 A	34.0 – 4.0 A	no
HAVE A LOOK	MHS0735-E	7.2 x 7.2 x 3.5 mm	0.1 – 10 µH	1.5 – 102 mΩ	70.0 – 7.0 A	34.0 – 4.0 A	yes
HAVE A LOOK	MHE1040-F	11.5 x 10.0 x 4.0 mm	1.0 – 10 µH	3.0 – 33.2 mΩ	31.0 – 9.0 A	18.0 – 6.8 A	no
HAVE A LOOK	MHS1145-E	11.5 x 10.7 x 4.5 mm	1.0 – 10 µH	3.0 – 33.2 mΩ	31.0 – 9.0 A	18.0 – 6.8 A	yes

Ask for further dimensions. Modifications available!

DISTRIBUTOR OF THE YEAR 2020

VOTE
NOW!

For the 14th time, the trade magazine "Elektronik" is calling for the large readers' vote "Distributor of the Year 2020". The voting is made in the four newly defined categories "Broadliner", "Special distributor", "Distributor for interconnects, passive and electromechanical components" and "Catalog distributor".

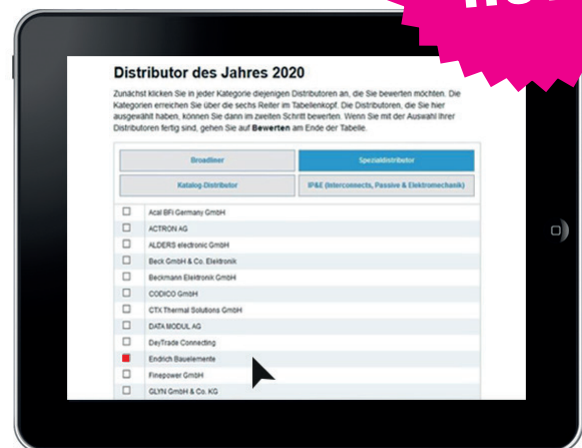
As Endrich we are standing for election in the category "Special Distributor". The voting period is from May 25th to June 22nd. Take part! Your opinion is important to us!

Evaluate our service at
www.elektronik.de/distributorwahl.

We say thank you for participating
and for your support.

Elektronik 2020
Distributor des Jahres

**Vote
now!**



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