

endrich news

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Liebe Leser und Leserinnen,

das rasche Wachstum unserer Firma hat uns bei der Beschaffung von Büro- und Lagerflächen immer wieder vor große Problemen gestellt, was teilweise nur durch Anmieten von Gebäuden bewältigt werden konnte. Nun haben wir es endlich geschafft, auf einem 10.000 m² großen Gelände eine Lagerhalle mit Verwaltungstrakt von 5000 m² in einer Rekordzeit von neun Monaten zu erstellen. Anfang September 2018 konnten wir nun die Fertigstellung des Gebäudes gebührend feiern. Das neue Lagergebäude befindet sich nur wenige Kilometer entfernt von unserem Verwaltungsgebäude, und zwar im neuen Industriegebiet in Nagold auf dem Eisberg und ist verkehrsmäßig sehr gut erschlossen, d.h. eine schnelle und gute Verbindung zur Autobahn Stuttgart und Singen ist vorhanden.



Kurze Fakten

- 10.000 m² Grundstück
- 5.000 m² Lagerhalle
- 12 m Gebäudehöhe
- 9 Monate Bauzeit
- 20.000 Behälterplätze
- 8 vollautomatische Roboter

ES WIRD GEFEIERT! – DAS NEUE LAGER AUF DEM EISBERG

Vorausgegangen ist eine längere Analyse und Planung der Lagerflächen unter der Einbeziehung des Ablaufs der Lager und Umschlagsabläufe. Dabei war es unser Ziel, mit den modernsten vollautomatischen Lagereinrichtungen auch ein weiteres Wachstum bereits einzuplanen, die Zugriffszeit auf die Lagerteile zu verkürzen und zu optimieren. Das Kernstück der gesamten Anlage ist eine computergesteuerte Lagereinrichtung mit 20.000 Stellplätzen, die vollautomatisch durch acht Roboter angefahren und wieder entleert werden können. Das Bedienpersonal muss nur noch die Waren in die entsprechenden Behälter einlegen und bekommt auf Knopfdruck die gewünschten Teile zum Verpacken wieder bereitgestellt.



Ziel, die allmodernste Beleuchtung im Lager und im Büro zu installieren, d.h. voll abgestimmt auf das jeweilige Tageslicht, wird die Beleuchtung in den Innenräumen entsprechend gesteuert, sodass zu jeder Tages- oder Nachtzeit, ob Sommer oder Winter, an jedem Arbeitsplatz die besten und optimalen Lichtbedingungen bestehen. Die Gebäudehöhe von 12 Metern stellte hohe Anforderungen an die Lichtplanung und zwar sowohl die statische Beleuchtung des Innenraums des Gebäudes als auch die Beleuchtung der fahrbaren Palettenregale, und dies alles unter der Prämisse der optimalen Energieeinsparung.



Da wir im eigenen Haus einen Spezialisten für Beleuchtungstechnik haben, unsere Firma euroLighting GmbH, war es gleichzeitig das

ES WIRD GEFEIERT! – DAS NEUE LAGER AUF DEM EISBERG



Der Verwaltungstrakt, der die gesamte Import- und Versandabteilung einschließlich Fakturierung beinhaltet, ist mit hochmodernen und beweglichen Schreibtischen ausgerüstet, sodass die Arbeitsfläche beliebig hoch verstellbar ist und den Mitarbeitern ihre Arbeit im Sitzen oder Stehen erlaubt. Damit konnten allen Mitarbeitern in der Verwaltung, aber auch im Lager optimale Arbeitsbedingungen geboten werden. Somit wird es auch möglich sein, mit gleichbleibendem Personal größeren Umsatzwachstum zügig und optimal zu bewältigen.

Das Gebäude als solches konnte architektonisch so funktionell und wiederum schön ge-

staltet werden, dass es den Zeitgeist unserer Firma, nämlich Schönheit und Funktionalität am besten präsentiert.

Mit freundlichen Grüßen
W. Endrich



10-20 W 90-528 VAC INPUT VOLTAGE AC/DC CONVERTERS FOR THREE-PHASE FOUR-WIRE SYSTEM

NEW 43" DIGITAL POSTER STAND

HAVE A LOOK

10-20 W ultra-wide input voltage LD10-26Bxx and LD20-26Bxx series are new AC/DC converters to meet the demand for higher power after LS03-16BxxSS and LD03-16Bxx series. These series provide ultra-wide input voltage of 90-528 VAC, and meet the requirement of nominal voltage 380/220 VAC and any two-wire connection from three-phase four-wire system.

LD10-26Bxx and LD20-26Bxx series also meet EN62368 standard (pending). Isolations of input-output and output-output are up to 4000 VAC. The converters without external components meet the IEC/EN61000 standard "EFT (4 KV)", "surge (2 KV)" and EN55032 "CE/RE Class B". Protections are output SCP, OCP and OVP, which make higher reliability and ideal for users-end applications requiring high isolation voltage and strict electromagnetic compatibility.

APPLICATIONS

Power instrumentation, industrial control, smart home and other industries, especially where there are wide grid voltage changes.

FEATURES

- Ultra-wide input voltage: 90-528 VAC / 100-745 VDC
- Suitable for any two-wire connection from three-phase four-wire system
- CE/RE: CISPR22 / EN55032 CLASS B
- EFT: ± 4 KV Perf. Criteria B
- Surge: ± 2 KV Perf. Criteria B
- Protections: output SCP, OCP and OVP
- High efficiency, high reliability
- Low ripple & noise, low stand-by power consumption
- Meet EN62368 standard (pending)



LD10-26Bxx



LD20-26Bxx

SERIES	POWER	VIN	VOUT	NO OF OUTPUT	ISOLATION	PACKAGE	DIMENSION
LD10 AND LD20 SERIES							
LD10-26B03	6.6 W	90-528 VAC	3.3 VDC	1	4000 VAC	DIP	62.0 x 45.0 x 30.0 mm
LD10-26B05	10 W	90-528 VAC	5 VDC	1	4000 VAC	DIP	62.0 x 45.0 x 30.0 mm
LD10-26B09	10 W	90-528 VAC	9 VDC	1	4000 VAC	DIP	62.0 x 45.0 x 30.0 mm
LD10-26B12	10 W	90-528 VAC	12 VDC	1	4000 VAC	DIP	62.0 x 45.0 x 30.0 mm
LD10-26B15	10 W	90-528 VAC	15 VDC	1	4000 VAC	DIP	62.0 x 45.0 x 30.0 mm
LD10-26B24	10 W	90-528 VAC	24 VDC	1	4000 VAC	DIP	62.0 x 45.0 x 30.0 mm
LD20-26B03	11.88 W	90-528 VAC	3.3 VDC	1	4000 VAC	DIP	70.0 x 48.0 x 30.0 mm
LD20-26B05	18 W	90-528 VAC	5 VDC	1	4000 VAC	DIP	70.0 x 48.0 x 30.0 mm
LD20-26B09	20 W	90-528 VAC	9 VDC	1	4000 VAC	DIP	70.0 x 48.0 x 30.0 mm
LD20-26B12	20 W	90-528 VAC	12 VDC	1	4000 VAC	DIP	70.0 x 48.0 x 30.0 mm
LD20-26B15	20 W	90-528 VAC	15 VDC	1	4000 VAC	DIP	70.0 x 48.0 x 30.0 mm
LD20-26B24	20 W	90-528 VAC	24 VDC	1	4000 VAC	DIP	70.0 x 48.0 x 30.0 mm

HAVE A LOOK

Endrich is proud to introduce the 43" IP65 high brightness embedded PC. It is the perfect replacement and modern alternative for in- and outdoor stand up posters, also known as customer stopper. Attract attention of pedestrians or guide your guests with this enhanced multi-media monitor.

The screen of this faytech PC has a ratio of 16:9 in portrait format and stands firm and solid with the aluminum stand attached. It has an industrial A+ quality LCD panel backed by faytech's 100% no dead pixel guarantee, with anti-glare treatment (chemical etched) and glass front reaching MosH 7. The housing consists of aluminum and metal and

has complete IP65 protection for applications under harsh circumstances, including water- and dust-proof.

The device has an optically bonded glass protection front, which will improve the stability, reduce the reflection, but also increase the viewing angle. It has a brightness of at least 1000 cd/m², which guarantees a super sharp and clear picture, even under direct sunlight. Beside this, it is completely safe to install it as outdoor application because it runs on 24 V power. The PC is powered by Allwinner V40 Cortex™ A7 QuadCore CPU, 1GB DDR3 RAM and 8GB EMMC Flash, and has pre-installed Android 6.0 OS. With LAN and WiFi. This device is the perfect cost-effective solution for in- and outdoor applications in the field of digital signage. With its modern design and sleek look, the device would fit perfectly in a store, company entrance, restaurant, shopping mall, waiting room or any other related application.



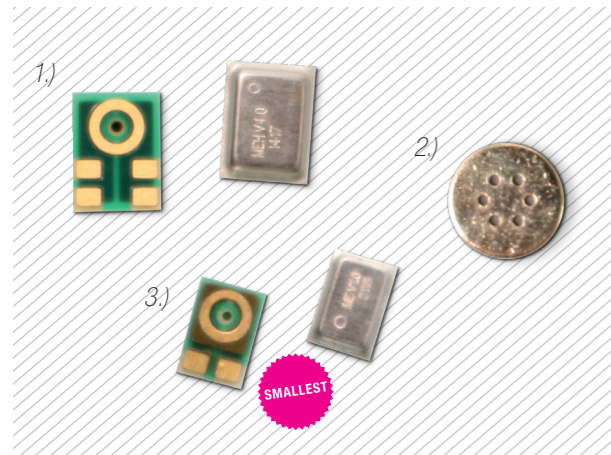
Super slim shape



FEATURES

- Allwinner® V40 Cortex™ A7 QuadCore 1GHz Processor
- 1 GB DDR3 RAM & 8 GB EMMC FLASH
- Supports Android up to version 6.X
- Full HD Resolution – 1920 × 1080 dots
- Comprehensive IP65 protection for applications under harsh environment, including water- and dustproof
- 1000 cd/m² brightness for increased visibility
- 2 years guarantee

NEW TYPES OF MICROPHONES



- 1.) F4-(A)HMOE-J098R38-F2124-5P (high SNR)
 2.) VM4013B-YRCQ423G (SMD ECM)
 3.) F1-(A)MOE-N090R38-3P (smallest bottom port; analog MEMS microphone; omni-directional)

FEATURES

- Stable electro-acoustic properties after reflow process
- Superior reliability for high temperature
- Excellent signal to noise ratio
- Significant RF noise reduction
- High sensitivity & extremely low distortion at high input level maintain high SNR and low distortion after signal processing
- Tape&reel packaging for fully automated processing
- Omni-directional character

APPLICATIONS

- Smart home
- Industry devices
- Measuring devices
- Communication devices (analog and digital)

PART NO.	DIMENSION	SENSITIVITY*	SNR	REMARKS
MEMS				
F2-(A)HCDMO-D100T26-5P	4.0 x 3.0 x 1.0 mm	-26.0 dB	61.0 dB	Top Port; Digital MEMS Microphone; Omni-directional
F4-(A)HMOE-J098R38-F2124-5P	3.5 x 2.65 x 0.98 mm	-38.0 dB	66.0 dB	Bottom Port; Analog MEMS Microphone; Omni-directional
F1-(A)HDMO-D100R26-5P	4.0 x 3.0 x 1.0 mm	-26.0 dB	61,6 dB	Bottom Port; Digital MEMS Microphone; Omni-directional
F1-(A)MOE-N090R38-3P	2.75 x 1.85 x 0.90 mm	-38.0 dB	62.5 dB	Smallest Bottom Port; Analog MEMS Microphone; Omni-directional

PART NO.	DIMENSION	SENSITIVITY*	SNR	REMARKS
SMD ECM				
ASMO-C110T42-3P H/F	3.76 x 2.95 x 1.1 mm	-42.0 dB	62.0 dB	Top Port; Omni-directional Back Electret Condenser Microphone
VM-4013B-DSR443GT	∅ 4.0 x 1.3 mm	-44.0 dB	58.0 dB	Top Port; Omni-directional SMD Electret Condenser Microphone
VM4013B-YRCQ423G	∅ 4.0 x 1.3 mm	-42.0 dB	58.0 dB	Top Port; Omni-directional Back Electret Condenser Microphone
VM-4015B-2C423GT	∅ 4.0 x 1.5 mm	-42.0 dB	58.0 dB	Top Port; Omni-directional SMD Electret Condenser Microphone
VM-6022B-2C454G-T	∅ 6.0 x 2.2 mm	-45.0 dB	58.0 dB	Top Port; Omni-directional Back Electret Condenser Microphone

*0dB=1V/Pa, 1kHz [dB ±3]

CITIZEN FINEDEVICE NEW AEC-Q200 COMPLIANT SMD TUNING FORK CM315H

HAVE A LOOK



With the 32.768 kHz SMD Tuning Fork CM315H Citizen FineDevice launches the AEC-Q200 compliant part of the CM315 series.

The Automotive Electronics Council (AEC) Component Technical Committee is the standardization body for estab-

lishing standards for reliable, high quality electronic components. Components meeting these specifications are suitable for use in the harsh automotive environment without additional component-level qualification testing. The Component Technical Committee established AEC-Q200 "Stress Qualification for Passive Components" to define the minimum stress test driven qualification requirements for passive electrical devices including quartz crystals units.

The CM315H is therefore especially suitable for applications in the automotive (car audio, car navigation, electronic control unit) but also in the industrial and medical environment market when extended temperature range from -40 °C up to 125 °C is required.

32.768 kHz tuning fork CM315 series of Citizen FineDevice – one package, several options to optimize your application

Application-specific requirements in the kHz oscillator design can be optimized by using the perfect quartz crystals. These refer to the accuracy and frequency tolerance over temperature range. Furthermore regarding ESR (Equivalent Series Resistance), to improve the safety factor in start up of oscillation and to reduce current consumption in battery driven devices. In addition, choosing a special pin assignment avoids



EMI problems, especially in applications that are exposed to increased electromagnetic interference. Citizen FineDevice's CM315 series (3 x 1.5 mm) provides the following solutions to the challenges outlined above:

The standard CM315D type offers an ESR of 70 kΩ and cost optimization.

While with the CM315DL the Citizen engineers succeeded in guaranteeing an ESR value of 50 kΩ despite concomitant miniaturization. An improvement of approximately 30% compared to the usual ESR of 70 kΩ for a 3.2 x 1.5 mm tuning fork design. This tuning fork crystal is therefore perfectly suitable for applications using battery power supply as "low power microcomputer" applications.

The CM315E provides interconnection terminals at the front end of the crystal package. This opens up new variation possibilities in the design of the circuit board and even more important, reduces trace lengths to the processor inputs to a minimum which improves the EMI performance. The CM315E is highly recommended for noise sensitive applications. This type will be launched soon in a low ESR version as well (CM315EL).

Citizen FineDevice has succeeded in designing first prototypes of a kHz quartz, whose frequency versus temperature profile corresponds to the third-order cubic profile of MHz AT-cut quartz crystals. CM315G improves the stability over temperature range significantly by factor 2~3 compared to the conventional versions. The CM315G is particularly suitable for applications as smart metering or wireless communication modules, in which exact time synchronization is required in order to save battery power.

Continuous miniaturization of electronic devices is a goal for most designers. Thus, the R&D teams of the component manufacturers successively improve the form factor of their products, too. A full line of kHz quartz crystals in cylindrical, plastic, metal and ceramic packages are produced by Citizen FineDevice down to 1.6 x 1.0 mm footprint. These can be found in multiple applications such as household, metering, mobile phones and many more products which provide date and time information.

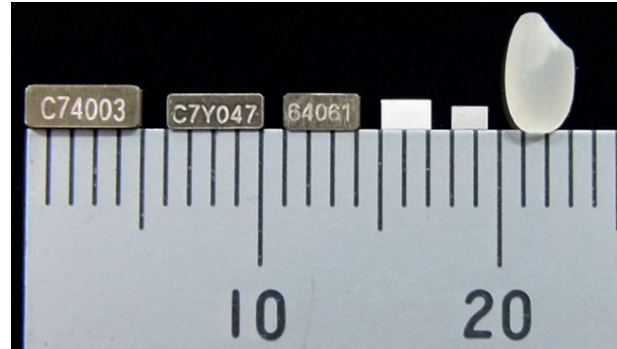
The crystals are manufactured with most common load capacitance of 12.5 pF. Also feasible on request are 9.0 pF, 7.0 pF and 6.0 pF.

CITIZEN FINEDEVICE NEW AEC-Q200 COMPLIANT SMD TUNING FORK CM315H

Crystal Devices, the “Salt of Industry”

Citizen Finedevice, one of the world's largest manufacturers of kHz quartz crystals provide ultra-compact, high-precision and highly reliable products based on unique technology, in integrated production extending from crystal chips to packaging.

A complete overview of the Citizen Finedevice kHz SMD products can be found below:



MODEL	OPERATING TEMPERATURE RANGE	FREQUENCY TOLERANCE $\Delta f/f_0$	DIMENSION	LOAD CAPACITANCE
CITIZEN FINEDEVICE				
CMR200T	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	$\varnothing 2.0$ mm, 6.1 mm (H)	6.0, 7.0, 12.5 PF
CMJ206T	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	8.6x2.7x2.4 mm	6.0, 12.5 PF
CM250C	-40 °C ... +85 °C	± 20 ppm / ± 30 ppm	8.0x3.8x2.55 mm	12.5 PF
CM200C	-40 °C ... +85 °C	± 5 ppm / ± 10 ppm / ± 20 ppm	8.0x3.8x2.55 mm	6.0, 7.0, 9.0, 12.5 PF
CM130	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	7.0x1.5x1.4 mm	6.0, 7.0, 9.0, 12.5 PF
CM519	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	5.1x2.0x1.0 mm	6.0, 7.0, 9.0, 12.5 PF
CM415	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	4.2x1.6x0.9 mm	6.0, 7.0, 9.0, 12.5 PF
CM315D	-40 °C ... +85 °C	± 5 ppm / ± 10 ppm / ± 20 ppm	3.3x1.6x0.9 mm	6.0, 7.0, 9.0, 12.5 PF
CM315DL (Low ESR)	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	3.3x1.6x0.9 mm	6.0, 7.0, 9.0, 12.5 PF
CM315E (Different Pin Out)	-40 °C ... +85 °C	± 20 ppm	3.3x1.6x0.9 mm	4.0, 6.0, 8.0, 9.0, 12.5 PF
CM315H (Launched 25 July 2018) (AEC-Q200)	-40 °C ... +125 °C	± 20 ppm	3.2x1.5x0.9 mm	9.0, 12.5 PF
CM2012H	-40 °C ... +85 °C	± 10 ppm / ± 20 ppm	2.1x1.3x0.6 mm	6.0, 7.0, 9.0, 12.5 PF
CM1610H	-40 °C ... +85 °C	± 20 ppm	1.6x1.0x0.5 mm	6.0, 7.0, 9.0, 12.5 PF

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