

endrich news

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OUR PRODUCT OF THE MONTH: NEW HIGH PERFORMANCE 868 MHZ NARROW BAND TRANSCEIVER



RTX-868-NB

FEATURES

- 5 channels in the 886 ~ 868.6 MHz band
- Long distance up to 2 km LOS
- Tiny dimensions (20 x 20 x 2.5 mm)
- 40 mW max RF output power
- Superb sensitivity -115 dBm
- Blocking category 1
- 10 uA average current consumption
- Encrypted data transmission

It's time again:
Electronic
reader's election
"Distributor of the Year 2019"

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UNDER DEVELOPMENT: DIGITAL 61GHZ 3D FMCW MODULE V-MD3 WITH INTEGRATED SIGNAL PROCESSING

The new 61 GHz FMCW radar module is designed as a 3D radar with angular resolution in azimuth and elevation. It can measure distance, speed and angle of moving and static objects and makes them available as point cloud via an Ethernet interface. Two configurable digital outputs are available for stand-alone use which can be triggered via various parameters like distance, speed or angle.

The PLL controlled wideband FMCW modulation from 57 – 64 GHz allows distance resolution of less than 4 cm. The integrated signal processing can handle multiple targets with frame rate of 20 measurements per second.

Persons can be detected up to a distance of 30m and cars up to 100 m.

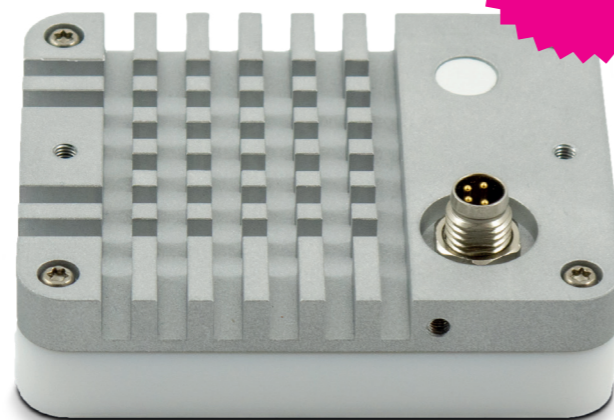
Major advantage for the user is that no special knowledge is necessary in analogue or digital circuit technology to realize a multi-target FMCW radar sensor. Time to market can be significantly reduced in this way.

For quick start a GUI software with display of distance, speed and angle targets will be available. The software also allows the setting of all sensor parameters and thus enables the testing of possible applications for their feasibility.

Another significant difference to other solutions on the market: user has full access to analogue data of the radar module and hence is able to execute own further evaluations.

The V-MD3 is particularly suitable for applications in industrial sensors, traffic and safety technology and as well as anti-collision radar for autonomous vehicles. The V-MD3 will be available in IP65 housing with M8 plug and integrated radome or as an OEM module for installation in customer specific products.

UNDER
DEVELOPMENT



Further information will be available at
SENSOR + TEST 2019 – Hall 5, booth 140
25. – 27.06.2019, Nürnberg, Germany

COMING SOON: 2D RADAR MODULE K-LD7

The K-LD7 is a small and low cost digital 24 GHz radar sensor with two receiving channels. The sensor measures the distance and angle of moving objects and provides a target list via the digital serial interface.

The sensor includes a radar front-end and powerful signal processing with an integrated tracking filter. As usual for RFbeam, the sensor is fully configurable and has the possibility to read out raw signals as well. The angle and distance measurement allows use of the K-LD7 for distance and angle triggered detection applications. Even simple gesture recognition or counting applications are possible with this low cost sensor.

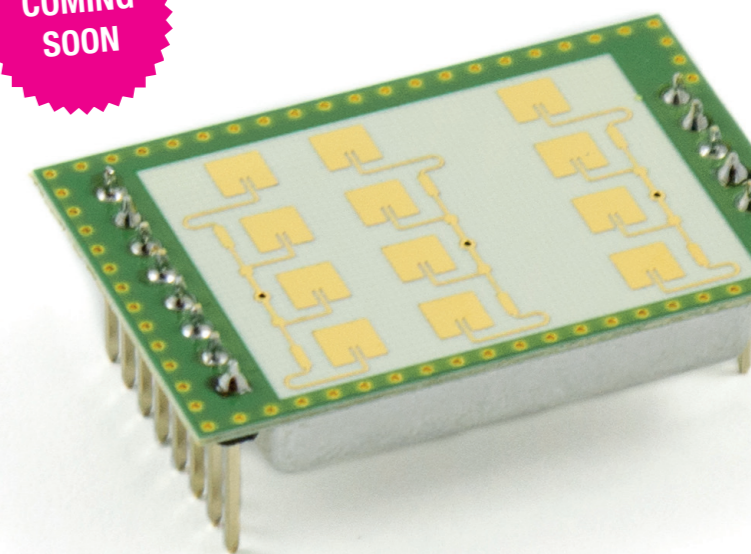
Internal FSK frequency modulation and the usage of two receiving paths allows distance and angle measurement of moving objects.

With help from UART interface the user can parameterize the module especially to his application as well process the output target list. Due to extensive filter functions and other parameters users can quickly adapt the module to different applications. Developers do not need special knowledge in analogue or digital circuit technology which reduces the "time-to-market" substantially.

There will be an evaluation kit available with a powerful GUI including a real time view of all data the sensor delivers. Furthermore, all parameters can be changed in real time to optimize the sensor for an application.

The K-LD7 is designed for a wide supply voltage range from 3.2V to 5.5V and with 38x25x13.5 mm, it is very compact.

COMING
SOON



Further information will be available at
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NEW HIGH PERFORMANCE 868 MHZ NARROW BAND TRANSCEIVER – IDEAL FOR SMOKE/FIRE ALARM APPLICATIONS

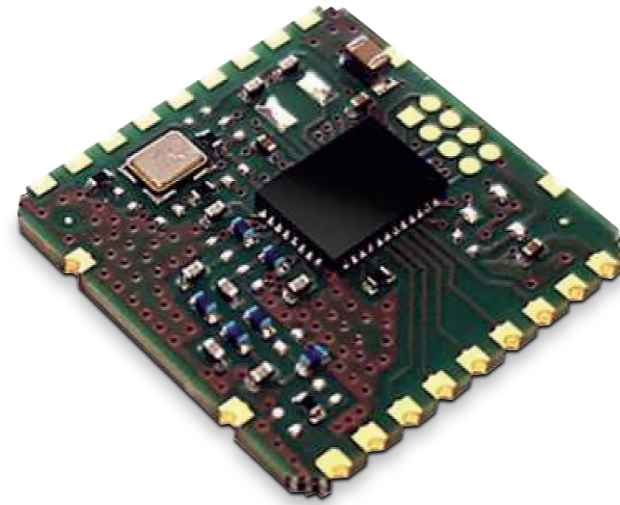
HAVE A LOOK

RTX-868-NB is a SMD multichannel narrow band transceiver operating in 868.00 – 868.60 MHz band allowing long distances with very low power consumption. The device is suitable for battery powered sensors requiring very low power consumption, in particular for smoke and fire detection applications. A typical scenario is an alarm sensor network in which each node is able to detect an alarm. When a device detects the alarm, it activates a node local warning and it sends a broadcast RF message to notify the alert to all the other devices of the network.

RTX-868-NB has also the possibility to locally deactivate the alarm and notify the deactivation to all the devices of the network. It is furthermore possible to test the link radio between two devices, an useful feature during the network installation. For security reasons, each radio communication is encrypted with AES 128 algorithm.

AUR^{EL} RF WIRELESS MODULES

AUR^{EL} has more than thirty years of experience in the design, industrialization and production of wireless modules. A full line of standard RF solutions on free-license frequencies in 433 MHz, 868 MHz and 2.4 GHz compliant with European normative and FCC regulations are available



FEATURES

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- Tiny dimensions (20 x 20 x 2.5 mm)
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- Superb sensitivity -115 dBm
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- 10 uA average current consumption
- Encrypted data transmission

APPLICATIONS



HIGH RELIABLE AC/DC CONVERTER SERIES LD03-20BXXWG FOR SMART HOME WHITE GOODS

HAVE A LOOK

MORNSUN recently launched a new AC/DC converter series LD03-20BxxWG, which is targeted at smart home white goods. The new LD03-20BxxWG series feature compact size, high efficiency, high reliability, high cost effective, and multiple protections, which is suitable for industrial electronics devices, office equipment, smart house-white goods and consumer electronics applications.



PRODUCT ADVANTAGES

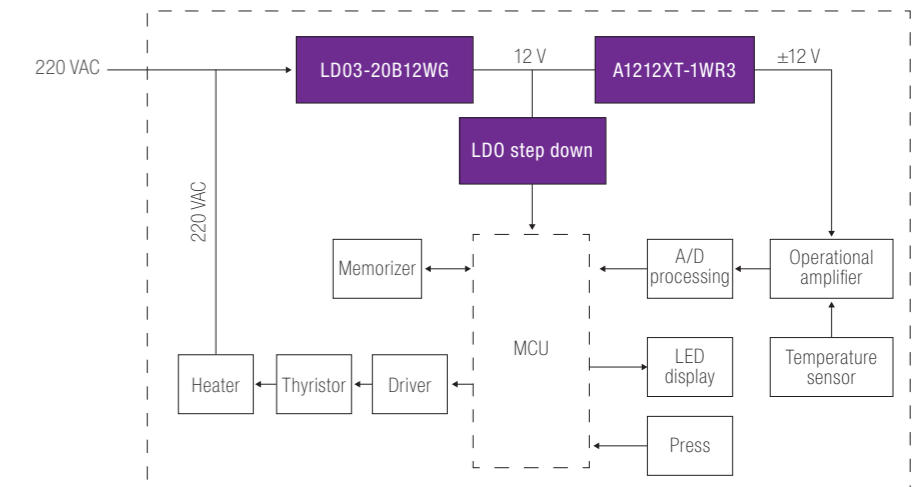
1. Meet the latest safety standards and white goods standards. This LD03-20BxxWG series meets EN/UL62368, EN/UL60335 (white goods standards), EN/UL60950, GB4943 safety standards (CE pending)
2. Low cost, compact size and high reliability.
 - a. Compact size (the external EMC circuit and electrolytic capacity are not required).
 - b. Meets 5000 m altitude requirements.
3. Superior EMC performance. EMI performance meets CISPR32/EN55032 CLASS B.
4. Green power. Standby power consumption as low as 0.2 W

FEATURES

- Universal input: 85 – 265 VAC / 120 – 370 VDC
- Operating temperature range: -25 °C to +70 °C
- Standby power consumption as low as 0.2 W
- High isolation voltage up to 4000 VAC
- Meets 5000 m altitude requirements
- Output short circuit, over current, over voltage protection
- High efficiency and high reliability
- Plastic case conforms with UL94V-0
- EN/UL62368, EN/UL60335, EN/UL60950, GB4943 approval (CE pending)
- EMI performance meets CISPR32/EN55032 CLASS B
- 3 years warranty

APPLICATIONS

- Industrial electronics devices
- Office equipment
- Smart home white goods and consumer electronics such as electric rice cooker, electric oven, refrigerator, desinfection cabinet



PART NUMBER	POWER	NOMINAL OUTPUT VOLTAGE & CURRENT (VO/IO)	EFFICIENCY (230 VAC, %/TYP.)	MAX. CAPACITIVE LOAD (µF) If NOM.	CERTIFICATION
LD03-20B05WG	3 W	5 V / 0.6 A	72 %	470 µF	CE
LD03-20B12WG	3 W	12 V / 0.25 A	74 %	330 µF	CE
LD03-20B24WG	3 W	24 V / 0.125 A	75 %	220 µF	CE

NEW TYPES OF HIGH TEMPERATURE ITEMS

In the area of acoustics, different markets and applications need more and more better performances. But in addition to the performance, the requirement of high temperature is also increasing, which is why our manufacturers have developed suitable components. Beside the SMD items, there are also different kinds of high temperature items. Herewith we want to show you a small selection.

FEATURES

- Smaller size with higher power and high sensitivity
- Complex cone of carbon fabric, aluminum, plastic, fabric, sponge or PU
- Customized sound box on request
- Wide range of sizes available
- Wire / connector assembly available
- Automotive specification available
- Expert advice & design-in support available
- **High temperature from -40 °C up to +125 °C**

	PART NO.	APPEARANCE	DIMENSIONS	IMPEDANCE ±15%	NORMAL POWER	SPL	OPERATING TEMP.	LOW RES. FREQ.	FREQUENCY RANGE
MORE LOUDSPEAKER									
HAVE A LOOK	CLS70S34.8-4F2-E300R	Square	70.0x70.0x34.8 mm	4 Ω	2000 mW	102 dB	-40 to +85 °C	300 Hz	300 to 10.000 Hz
HAVE A LOOK	CLS40R16.5-16N2-BN450R	Round	∅ 40.0x16.5 mm	16 Ω	2000 mW	94 dB	-40 to +85 °C	450 Hz	450 to 5.000 Hz
HAVE A LOOK	CMS28R7-8N0.5-P700R	Round	∅ 28.0x7.0 mm	8 Ω	500 mW	86 dB	-40 to +105 °C	700 Hz	700 to 8.000 Hz
HAVE A LOOK	32KUG08XNT-W	Square	32.7x32.7x16.5 mm	8 Ω	3000 mW	85 dB	-25 to +70 °C	200 Hz	200 to 20.000 Hz
HAVE A LOOK	28CRG08-2-N50BD-W	Round	∅ 28.0x4.7 mm	8 Ω	650 mW	88 dB	-40 to +85 °C	650 Hz	650 to 20.000 Hz
HAVE A LOOK	45RW04-1	Round	∅ 45.0 x 10.2 mm	4 Ω	5000 mW	84 dB	-40 to +90 °C	340 Hz	340 to 4.000 Hz
HAVE A LOOK	16CR08G-9	Round	∅ 16.0x3.2 mm	8 Ω	1200 mW	83 dB	-40 to +85 °C	1200 Hz	1.200 to 20.000 Hz
HAVE A LOOK	4028KUG04X-2	Square	40.0x28.5x11.5 mm	4 Ω	4000 mW	82 dB	-40 to +85 °C	430 Hz	430 to 20.000 Hz

	CPT17BM03-4.0-P3.5R	CPT22IM09-4.0-P3.5R
Mode	Piezoelectric Transducer	Piezoelectric Transducer
Dimensions	∅ 17.0x7.0 mm	∅ 22.0x10.8 mm
Rated Voltage	3V	9V
Operating Voltage	1 ... 30V	1 ... 30V
Max. Rated Current	1 mA	5 mA
Sound Output at 10 cm	80 dB	95 dB
Operating Temperature	-40 ... +105 °C	-30 ... +105 °C
Resonant Frequency	4000 ±500 Hz	4000 ±500 Hz

APPLICATIONS

- Parking devices
- E-call
- Laptop
- GPS
- Telecommunication
- Household appliances (e.g. white goods)
- Smart home
- Medical devices

NEW TYPES OF HIGH TEMPERATURE ITEMS

Parking devices & e-call



32KUG08XNT-W

HAVE A LOOK



CPT22IM09-4.0-P3.5R

HAVE A LOOK

Household appliances



CMS28R7-8N0.5-P700R

HAVE A LOOK

GPS



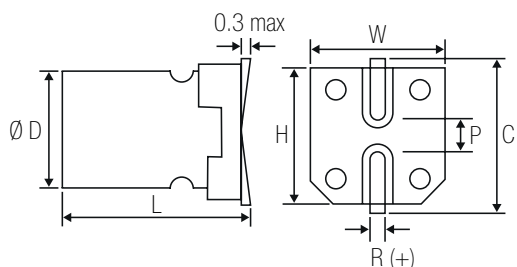
28CRG08-2-N50BD-W

HAVE A LOOK

NEW HYBRID CONDUCTIVE POLYMER SERIE HVPY

HAVE A LOOK

ITEMS	CONDITION	SPECIFICATIONS	
Rated voltage	–	25 V	35 V
Surge voltage	Room temperature	32 V	44 V
Category temperature range	–	-55 °C to +125 °C	
Capacitance tolerance	120 Hz / 20 °C	M: ±20 %	
Dissipation factor	tanδ (max) 120 Hz / 20 °C	0.14 tanδ	0.12 tanδ
Leakage current	µ A/ after 2 minutes (max)	0.01 CV	
Endurance	125 °C rated voltage applied (with the rated ripple current)	Test	4,000 hrs.
		Δ C / C	Within ± 30 % of the initial value
		tanδ	Less than 200 % of the specified value
		ESR	Less than 200 % of the specified value
		LC	Less than the specified value



D ±0.5	L ±0.3	W ±0.2	H ±0.2	C ±0.2	R	P
10	10.5	10.3	10.3	11.0	1.0 to 1.4	4.6
10	12.5	10.3	10.3	11.0	1.0 to 1.4	4.6

	25 V			35 V		
	Case size: φ D x L	ESR max at 100 kHz, 20 °C	Rated ripple current mArms (100 kHz, 125 °C)	Case size: φ D x L	ESR max at 100 kHz, 20 °C	Rated ripple current mArms (100 kHz, 125 °C)
270 µ F	–	–	–	10 x 10.5 mm	18 mΩ	4.000 mArms
330 µ F	10 x 10.5 mm	18 mΩ	4.000 mArms	10 x 12.5 mm	14 mΩ	4.700 mArms
470 µ F	10 x 12.5 mm	14 mΩ	4.700 mArms	–	–	–

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