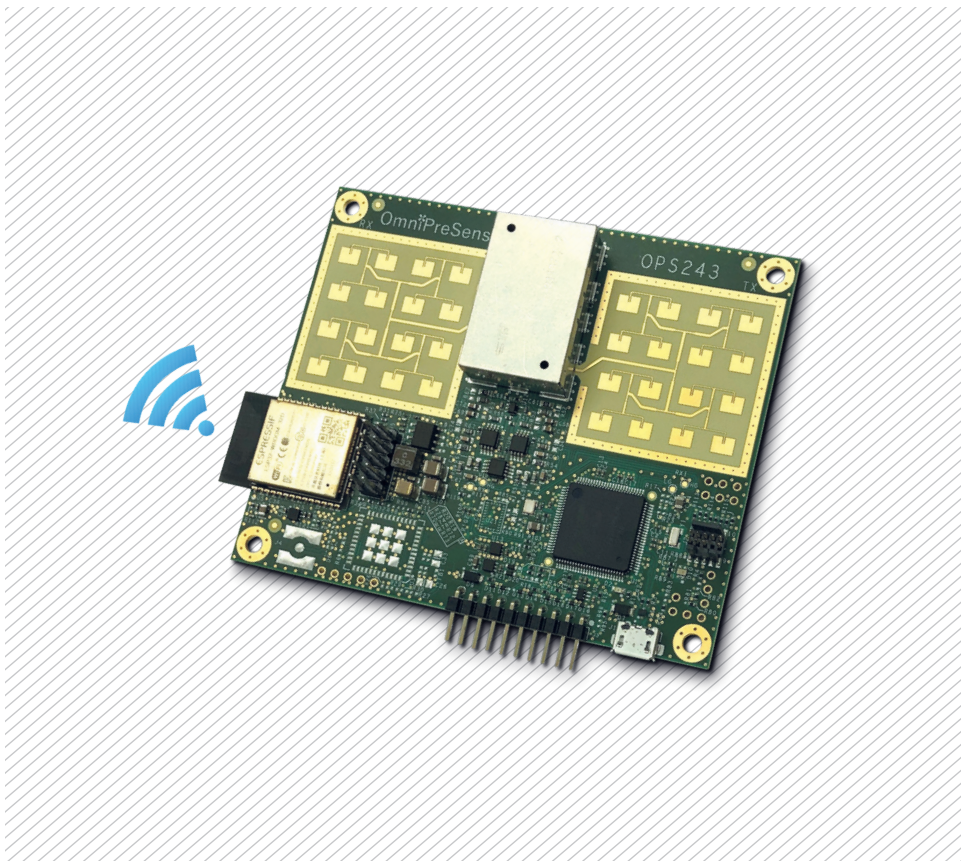


endrich news

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OUR PRODUCT OF THE MONTH:

WIFI ENABLED RADAR SENSOR OPS243-C-FC-WB



FEATURES

- Complete radar system on a single board
- 1-100 m detection range
- Narrow 20° beam width (-3 dB)
- WiFi/BTLE interface
- Simple API connects easily to PC, Android, Raspberry Pi, embedded processor
- FCC/IC regulatory modular certification
- Low power operation (0.1-1.8 W)
- Wide input voltage range (5-24 V)
- Reports motion, speed, direction, and range



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Elektronik – reader's selection
"Distributor of the Year 2021"
Evaluate our service. Vote now.
More on page 8

PROGRAMMABLE RGB IC LEDS

Cascading programmable RGB LEDs on a single data line. Simplify module circuit layout. Shrink down module size. Simple circuit for single unit control.

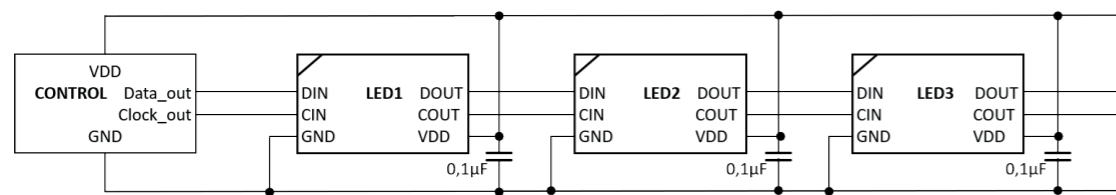


FEATURES

- IC input voltage 3.5-5.5 V
- Constant current output @ 5, 12, 20 mA
- 8 bits data transfer and 256 levels grayscale / each color
- Signal bypass of malfunctioning LEDs to avoid light off
- 32 level dimming
- Single wire option for simplest layout
- Dual wire option for faster light changes
- Power saving by sleep and wake up modes

APPLICATIONS

- Control buttons with customizable color coding
- Graphic LED display modules
- Ambient interior lighting
- Panel backlighting
- Visual effects on slot machines and point-of-sale presenters
- Color-coded indication lights
- Gaming equipment



	FEATURES		MODELS
Single Wire	4/6 pin	Single Wire	B3DK3, B3DQ3, T3AG3
	6 pin	Single Wire + Bypass	B3DJ3 Under Development
		Single Wire + Bypass + Dimming Function	B3T73 Under Development
Dual Wire	6 pin	Dual Wire	B3DB3, T3A33

WIFI ENABLED RADAR SENSOR OPS243-C-FC-WB

HAVE A LOOK

The OPS243-C-FC-WB is a small form factor, single board radar sensor capable of detecting objects up to 100 m away. The new OPS243-C utilizes WiFi to send data to the cloud and is viewable on an Android app.

The Android app enables a simple means of connecting to a WiFi network and configuring the sensor. WiFi connectivity provides more flexible mounting of the OPS243 radar sensor for remote monitoring of vehicle and people traffic. The OPS243-C-FC-WB is a simple, short range Doppler and FMCW radar sensor system which provides motion detection, speed, direction, and range information. Hence the sensor is ideal as an IoT sensor for applications such as security, foot and vehicle traffic monitoring, drone collision avoidance and robotics. All radar signal processing is embedded in the sensor and a simple API eases system integration. Data is communicated

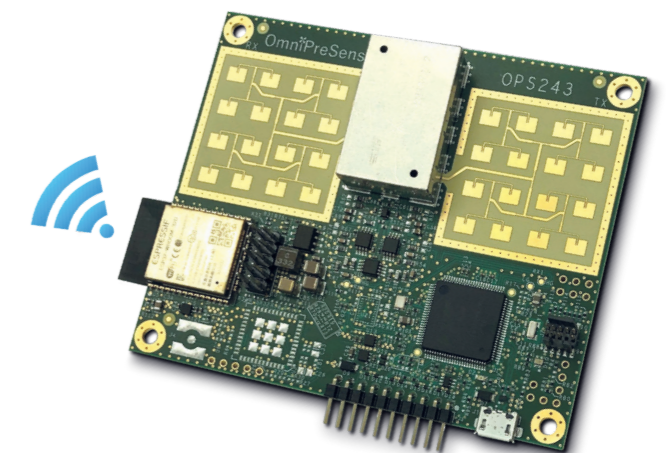
over a WiFi/Bluetooth wireless communication interface for communication to the cloud and remote sensing. A USB interface is also available. A simple API provides control over the output format of the data (units, digits, etc.). Data reported include motion detection, speed, direction (inbound/outbound), and range. Speed data is accurate to within ± 1 mph. Range information is accurate to within $\pm 10\%$ of actual distance. The OPS243-C uses additional circuitry with a tighter frequency lock to measure both the speed and range information. FCC/IC modular certification (pending) lowers development cost and time.

FEATURES

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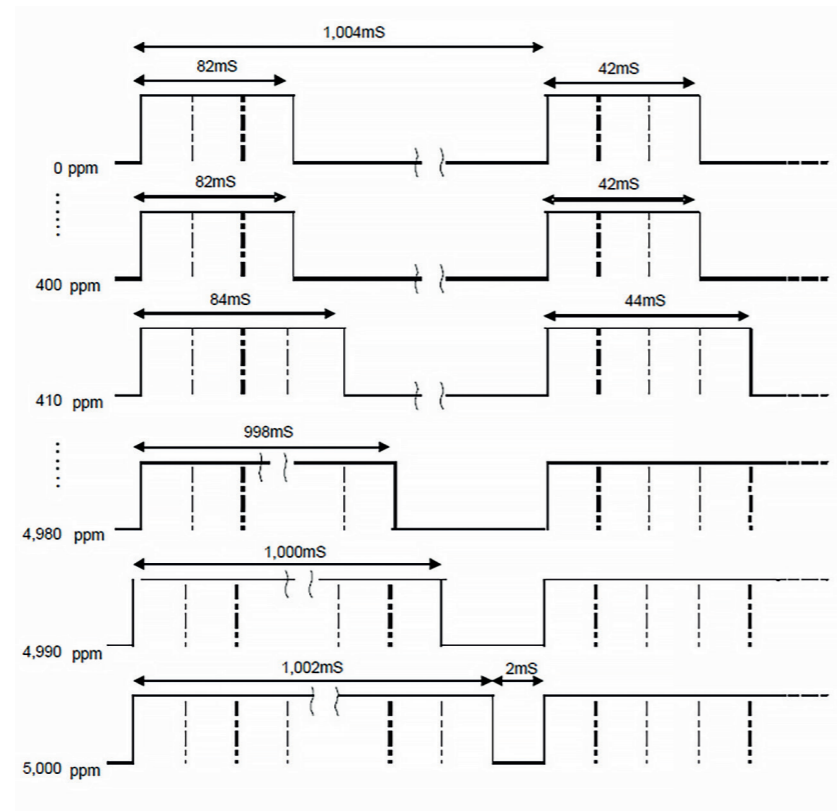
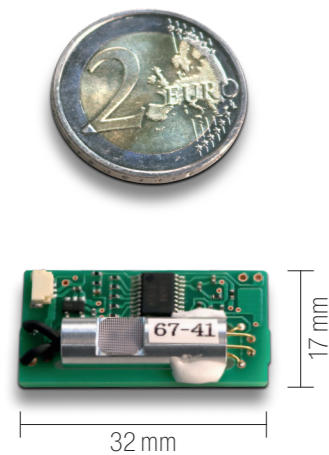
APPLICATIONS

- Indoor automation
- Movement detection
- In-room presence detection
- Foot traffic
- Vehicle traffic
- Speed measurement
- Door opening
- Intrusion alarm
- Perimeter protection
- Street light
- Counting



ULTRA SMALL CO2 GAS SENSOR MODULE

The SCO2-5K-3M-T is a new ultra small measurement unit for CO₂ gas concentration. The measurement principle is NDIR (single light source dual wavelength) which allows measurements with no cross-sensitivities to other types of gases.

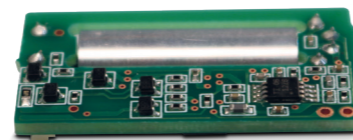


FEATURES

- Small size: 32 x 17 x 7 mm
- PWM-output: 1 kHz
- Operating voltage: 5 V
- Current consumption: 25 mA (average), 200 mA (peak)
- Measurement range: 400 – 5000 ppm CO₂ by volume
- Resolution: < 20 ppm
- Accuracy: +/- 5% FS at 25 °C
- Response time: < 3 min for a 90% step change

APPLICATIONS

- Monitoring of CO₂-concentration in offices and buildings
- Health care
- Environment engineering



ULTRA-COMPACT AC/DC CONVERTER LDXX-23BXXR2 SERIES

HAVE A LOOK



MORNSUN's AC/DC converters of the LDxx-23BxxR2 series are designed for wide input voltage ranges of 85-305 VAC or 100-430 VDC and output powers of 3 W, 5 W, 10 W, 15 W, 20 W and 30 W. In each power class, up to 24 different versions of housing or mounting types (DIL, chassis and DIN rail) are available, with output voltages of 3.3V, 5 V, 9 V, 12 V, 15 V and 24 V. Additionally available are solutions with flexible wire connections (3 W and 5 W) and an output voltage of up to 48 V (30 W). With dimensions of only 25.4 x 25.4 x 17.6 mm (LD03/05) and 69.5 x 39 x 24 mm (LD30), the ultra-compact DIL versions are up to 30% smaller than their respective predecessors.

FEATURES

- Ultra-wide input voltage range: 85-305 VAC / 100-430 VDC
- Operating temperature: -40 °C to + 85 °C
- No-load power consumption < 0.1 W
- Meets 5000 m altitude application
- Full plastic case, meets UL94V-0 standards
- EMI performance meets CISPR32/EN55032 CLASS B, EN55014 standards
- Meets IEC/EN/UL62368/EN60335/EN61558 certification standards

APPLICATIONS

- Industrial control system
- Smart home
- Smart building
- Smart agriculture
- Household appliance

AC/DC CONVERTER LDXX-23BXXR2/R2-M/WR2

INPUT VOLTAGE	ARTICLE NUMBER	OUTPUT		CONNECTIONS MOUNTING
		POWER	VOLTAGE	
85-305 VAC OR 100-430 VDC	LD03-23BRxxR2(A2S/A4S)	3 W	xx: 3.3 V, 5 V, 9 V, 12 V, 15 V, 24 V THE 30W VERSION ADDITIONALLY 48 V	SUFFIX R2, R2-M: DIL PINS SUFFIX WR2: WIRE SUFFIX R2A2S: CHASSIS SUFFIX R2A4S: DIN RAIL
	LD03-23BRxxWR2			
	LD05-23BRxxR2(A2S/A4S)	5 W		
	LD05-23BRxxWR2			
	LD05-23BRxxR2-M	10 W		
	LD10-23BRxxR2(A2S/A4S)			
	LD10-23BRxxR2-M	15 W		
	LD15-23BRxxR2(A2S/A4S)			
	LD15-23BRxxR2-M	20 W		
	LD20-23BRxxR2(A2S/A4S)			
	LD30-23BRxxR2(A2S/A4S)	30 W		

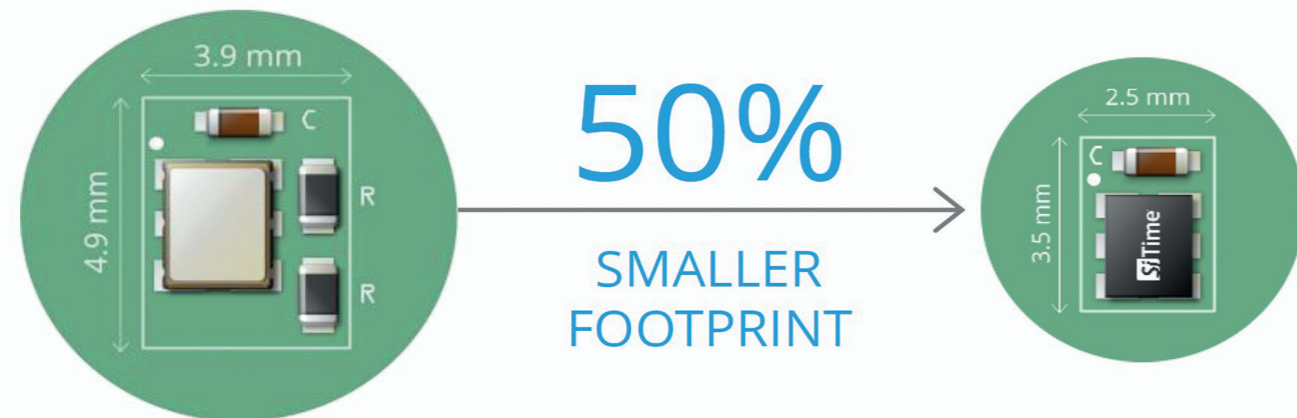
SITIME ENABLES HIGH PERFORMANCE OPTICAL AND DATA COMMUNICATIONS FOR OUTDOOR 5G DEPLOYMENT

HAVE A LOOK

SiTime Corporation (NASDAQ: SITM), a market leader in MEMS timing, introduced the SiT9501 differential MEMS oscillator. Based on SiTime's newly launched third generation MEMS technology, the device delivers uncompromising performance

for 100G – 800G optical modules. With the device's smaller size, customers get up to 50 % space savings to integrate more features and reduce development time.

Smallest package and integrated resistor – 50 % less area



Quartz 2.5x2.0 mm, plus LVPECL bias resistors

SiT9501 2.0x1.6 mm, integrated LVPECL bias resistors

The SiT9501 is ideal for other high-performance applications, including datacenter switches, telecom routers, edge servers, AI/graphics cards, and storage controllers.

"Over the past 15 years, SiTime has developed and shipped two generations of MEMS resonators that are used in all our oscillator shipments to date. Our third generation MEMS is now

ready and delivers up to 7 times better phase noise at half the power," said Rajesh Vashist, CEO of SiTime. "The SiT9501 is the first of many products to use this technology and continues our tradition of delivering dramatic performance enhancements in every product generation. In space constrained applications such as optical modules, the SiT9501 delivers an unmatched combination of higher performance and smaller size."

Meeting tough requirements of data communications and optical modules

In anticipation of massive Internet traffic growth, driven by 5G, AI and cloud computing, data centers are increasing throughput. Optical modules and data communications equipment need to deliver faster data rates. Outdoor 5G infrastructure is subject to environmental stressors such as high temperature, vibration

and airflow that can degrade throughput.

With the increased data rates and potential environmental stressors, timing margins shrink, requiring lower jitter oscillators to ensure the same quality of service.

SITIME ENABLES HIGH PERFORMANCE OPTICAL AND DATA COMMUNICATIONS FOR OUTDOOR 5G DEPLOYMENT



In optical modules, a third of the PCB area is consumed by the optical sub-assembly, leaving little room for data processing electronics, and making small size a critical factor in oscillator selection.

SiTime's new SiT9501 differential oscillator solves both key issues by offering the lowest jitter in the presence of environmental stressors, and the smallest size.

FEATURES OF THE SiT9501

- Popular networking frequencies from 25 MHz to 644.53125 MHz
- 70 femtoseconds of RMS phase jitter
- 2.0 x 1.6 mm package, the industry's smallest. Also available in other industry standard packages.
- Wide temperature range, from -40 °C to +105 °C
- On-chip voltage regulators to filter power-supply noise, enhancing power integrity for module designs
- Innovative FlexSwing™ driver reduces power consumption by 30% and integrates source-bias LVPECL resistors

TYPE	SiT9501	SiT9375	SiT9365/6/7
FREQUENCY	14 stand. frequencies	21 stand. frequencies	1 to 725 MHz
FREQUENCY STABILITY	±20 ppm, ±25 ppm, ±30 ppm, ±50 ppm		
OPERATING TEMPERATURE RANGE	-20 °C to +70 °C, -40 °C to +85 °C, -40 °C to +95 °C, -40 °C to +105 °C		
OUTPUT TYPE	LVPECL, LVDS, HCSL, Low-power HCSL "1": FlexSwing referenced to voltage on VDD pin.		
PACKAGE TYPE	2.0 x 1.6 mm, 2.5 x 2.0 mm, 3.2 x 2.5 mm		3.2 x 2.5 mm, 5.0 x 3.2 mm, 7.0 x 5.0 mm
JITTER GRADE	70 fsec	200 fsec	230 fsec
FEATURES	FlexSwing		
VOLTAGE SUPPLY	1.8V, 2.5V, 3.3V, 2.25V to 3.63V, 1.71V to 3.63V		

The SiT9501 oscillator is sampling now. Production quantities are planned to be available in Q1 2021. Pricing is provided upon request.

DISTRIBUTOR OF THE YEAR 2021**Vote
now!**

For the 15th time, the trade magazine "Elektronik" is calling for the large reader's vote "Distributor of the Year 2021". The voting is made in the four newly defined categories "volume distributors", "special distributor for semiconductors, embedded, displays and assemblies", "special distributor for interconnect technology, passive components, electronic mechanics and power supplies" and "online distributors".

As Endrich, we are standing for election in the category "special distributor for semiconductors, embedded, displays and assemblies" and Novitronic GmbH is standing for election in the category "specialty distributors of interconnect technology, passive components, electromechanics and power supplies". The voting period is from May 18th to June 28th. 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.

Scan QR code and
rate our service

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