

# endrich news

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## Our Product of the Month SiT8021 – $\mu$ Power MEMS-Oscillator



- SiTime sets new benchmarks in oscillator power, size and weight
- SiT8021 is the first  $\mu$ Power oscillator for wearables, IoT and mobile
- World's smallest, lowest power oscillator – 90% smaller power, 40% smaller and 70% lighter compared to quartz
- Silicon MEMS quality and reliability, excellent pricing

**SiTime**<sup>™</sup>

MEMS Field Programmable Oscillators

## DRIVERS FOR HIGH POWER LED/INDOOR – UPDATE



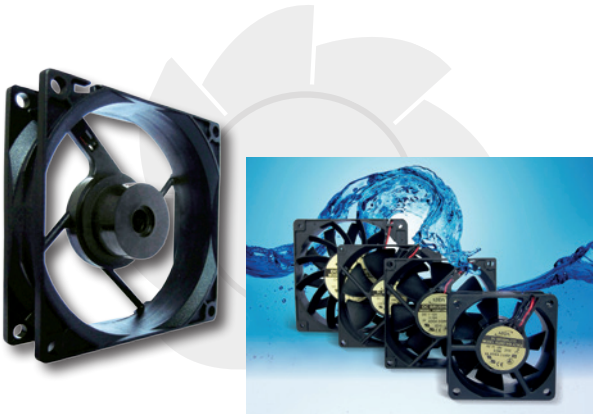
With our leading manufacturer Lumotech we have the best concerted drivers for all our LEDs, suitable for the most diverse indoor applications. Whether 5 Watt driver or 100 Watt driver with adjustable output current between 350 mA and 2800 mA or drivers with 2-channel output, ideal for spot lights using 2 LEDs, or low-cost versions for cost-sensitive applications, which only require one fixed constant current output without dimming—we have the suitable driver for you. More information and data sheets can be found at: [http://www.endrich.com/de/182084/indoor?prodnv=6\\_181441\\_182084](http://www.endrich.com/de/182084/indoor?prodnv=6_181441_182084)

### Advantages of the indoor drivers

- » 5 years warranty
- » ENEC approval
- » Design and manufacturing in Europe
- » Only use of traceable components from Europe, Japan and USA
- » All wattage groups also with enhanced output voltage level of more than 40Volts
- » Dimming level down to 1% at the 20 Watt drivers
- » Lowest inrush current available on the market
- » Ripple current below 10%
- » EMC-optimized, testing also conducted in installed state with metal housing
- » Customized solutions possible
- » No switch-off when reaching the maximum temperature, but current reduction

| PART NUMBER   | POWER | OUTPUT VOLTAGE RANGE      | CURRENT RANGE               | CONSTANT VOLTAGE MODE    | INPUT VOLTAGE               | DIMMABLE                |
|---------------|-------|---------------------------|-----------------------------|--------------------------|-----------------------------|-------------------------|
| L05050        | 6.5 W | 3 ... 12 V <sub>DC</sub>  | 700 mA                      |                          | 100 ... 240 V <sub>AC</sub> | no                      |
| L05150        | 5.5 W | 3 ... 16 V <sub>DC</sub>  | 350 mA                      |                          | 100 ... 240 V <sub>AC</sub> | no                      |
| L05020        | 12 W  | 3 ... 32 V <sub>DC</sub>  | 350/700 mA                  |                          | 110 ... 240 V <sub>AC</sub> | no                      |
| L05020-500    | 12 W  | 3 ... 24 V <sub>DC</sub>  | 500/700 mA                  |                          | 110 ... 240 V <sub>AC</sub> | no                      |
| L05020-40250  | 12 W  | 20 ... 43 V <sub>DC</sub> | 200/250 mA                  |                          | 110 ... 240 V <sub>AC</sub> | no                      |
| L05020-390    | 12 W  | 3 ... 32 V <sub>DC</sub>  | 270/390 mA                  |                          | 110 ... 240 V <sub>AC</sub> | no                      |
| L05020-40300  | 12 W  | 20 ... 43 V <sub>DC</sub> | 180/300 mA                  |                          | 110 ... 240 V <sub>AC</sub> | no                      |
| L05021        | 12 W  | 3 ... 32 V <sub>DC</sub>  | 350/700 mA                  |                          | 230 ... 240 V <sub>AC</sub> | Mains, trailing edge    |
| L05021-40250  | 12 W  | 20 ... 40 V <sub>DC</sub> | 200/250 mA                  |                          | 230 ... 240 V <sub>AC</sub> | Mains, trailing edge    |
| L05021-40300  | 12 W  | 20 ... 40 V <sub>DC</sub> | 180/300 mA                  |                          | 230 ... 240 V <sub>AC</sub> | Mains, trailing edge    |
| L05011i2      | 20 W  | 6 ... 42 V <sub>DC</sub>  | 150 ... 1200 mA             | 6 ... 42 V <sub>DC</sub> | 180 ... 240 V <sub>AC</sub> | 1-10 V, potmeter, pulse |
| L05011i3      | 24 W  | 6 ... 42 V <sub>DC</sub>  | 200 ... 1200 mA             |                          | 180 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |
| L05011i4      | 24 W  | 6 ... 42 V <sub>DC</sub>  | 200 ... 1200 mA             |                          | 180 ... 240 V <sub>AC</sub> | Pulse                   |
| L05012        | 20 W  | 3 ... 33 V <sub>DC</sub>  | 350 ... 1400 mA             |                          | 115 ... 240 V <sub>AC</sub> | no                      |
| L05013        | 20 W  | 3 ... 33 V <sub>DC</sub>  | 700 mA                      |                          | 115 ... 240 V <sub>AC</sub> | no                      |
| L05013-40500  | 20 W  | 3 ... 40 V <sub>DC</sub>  | 500 mA                      |                          | 115 ... 240 V <sub>AC</sub> | no                      |
| L05013-48350  | 20 W  | 3 ... 48 V <sub>DC</sub>  | 350 mA                      |                          | 115 ... 240 V <sub>AC</sub> | no                      |
| L05013-1050   | 20 W  | 3 ... 24 V <sub>DC</sub>  | 1050 mA                     |                          | 115 ... 240 V <sub>AC</sub> | no                      |
| L05013-1200   | 20 W  | 3 ... 24 V <sub>DC</sub>  | 1200 mA                     |                          | 115 ... 240 V <sub>AC</sub> | no                      |
| L05016i       | 20 W  | 3 ... 33 V <sub>DC</sub>  | Output 1/2: je 250...500 mA |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter, pulse |
| L05016Ci      | 20 W  | 3 ... 43 V <sub>DC</sub>  | 110 ... 500 mA              |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter, pulse |
| L05016CiD     | 20 W  | 3 ... 45 V <sub>DC</sub>  | Output 1/2: je 100...300 mA |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter, pulse |
| L05030        | 20 W  | 3 ... 22 V <sub>DC</sub>  | 350/700 mA                  | 4 ... 24 V <sub>DC</sub> | 24 ... 32 V <sub>AC</sub>   | no                      |
| L05035        | 20 W  | 3 ... 30 V <sub>DC</sub>  | Output 1/2: je 350 mA       |                          | 12 ... 32 V <sub>AC</sub>   | 1-10 V, potmeter        |
| L05025        | 30 W  | 7 ... 42 V <sub>DC</sub>  | 100 ... 1000 mA             |                          | 110 ... 240 V <sub>AC</sub> | DALI                    |
| L05031        | 30 W  | 6 ... 43 V <sub>DC</sub>  | 100 ... 1400 mA             |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |
| L05040        | 40 W  | 7 ... 55 V <sub>DC</sub>  | 100 ... 1000 mA             |                          | 110 ... 240 V <sub>AC</sub> | DALI                    |
| L05044        | 40 W  | 12 ... 32 V <sub>DC</sub> | 300 ... 1400 mA             |                          | 110 ... 240 V <sub>AC</sub> | no                      |
| L05045        | 40 W  | 12 ... 32 V <sub>DC</sub> | 300 ... 1400 mA             |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |
| L05046        | 40 W  | 24 V <sub>DC</sub>        | max. 1700 mA                | 24 V <sub>DC</sub>       | 110 ... 240 V <sub>AC</sub> | no                      |
| L05049-601000 | 40 W  | 22 ... 60 V <sub>DC</sub> | 245 ... 1050 mA             |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |
| L05055        | 60 W  | 22 ... 46 V <sub>DC</sub> | 245 ... 2000 mA             |                          | 220 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |
| L05060        | 100 W | 20 ... 60 V <sub>DC</sub> | 350 ... 2800 mA             |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |
| L05065        | 150 W | 20 ... 60 V <sub>DC</sub> | 1000 ... 4000 mA            |                          | 110 ... 240 V <sub>AC</sub> | 1-10 V, potmeter        |

# ADDA AQ-SERIES MEET IP 68 PROTECTION LEVEL

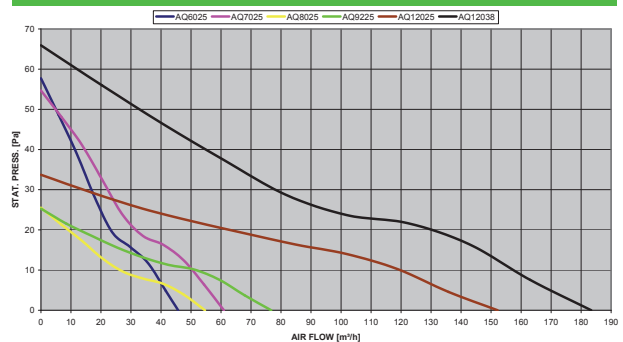


The enclosure of **AQ series** is designed to meet IP68 grad according to IEC 60529 "Degrees of protection provided by enclosures". The main purpose on an ADDA AQ product designated IP68 is to make safe an adequate degree of protection against foreign solid objects and water. The fan's motor and its built-in electronics are separated from the elements hermetically. The AQ enclosure "hermetic seal" offers therefore much more than just sufficient protection on the enclosed motor and on its enclosed electronics against the

ingress of dust of IP6x grade and against the ingress of water of IPx8 grade. It also provides a protection against electrical shock. The AQ series can be operated under harsh environmental conditions up to IP68 degree with respect to their general use to move air or other comparable media of similar density.

- Dust proof according to IEC 60529: IP6x not certified
  - Water proof according to IEC 60529: IPx8 not certified
- Certificates will be available on request optionally, testing and certification fee will be charged.

## P-Q-CHARACTERISTICS – AQ-SERIES

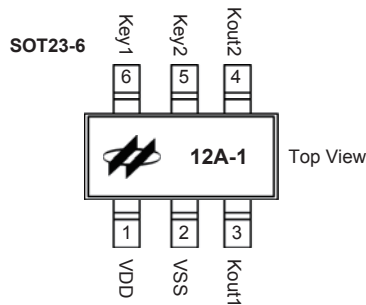


## LINE-UP

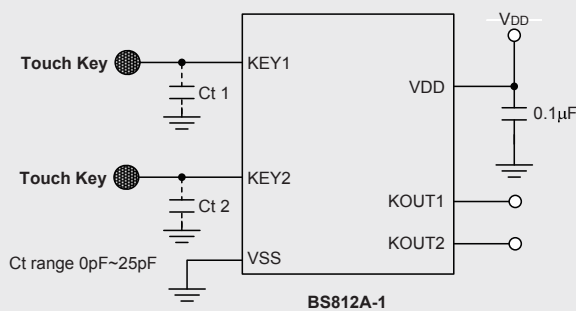
| SERIES  | FRAME SIZE [mm] | MODEL NUMBER      | RATED VOLTAGE [V] | MAX. AIR FLOW [m³/h] | MAX. PRESSURE [Pa] |
|---------|-----------------|-------------------|-------------------|----------------------|--------------------|
| AQ6025  | 60×60×25        | AQ0612LB-A70GL(T) | 12                | 22,2                 | 15,7               |
|         | 60×60×25        | AQ0612MB-A71GL(T) | 12                | 30,6                 | 29,4               |
|         | 60×60×25        | AQ0612HB-A71GL(T) | 12                | 42,6                 | 46,9               |
|         | 60×60×25        | AQ0612UB-A70GL(T) | 12                | 46,2                 | 57,3               |
|         | 60×60×25        | AQ0624HB-A70GL(T) | 24                | 42,6                 | 46,9               |
| AQ7025  | 70×70×25        | AQ0712LB-A70GL(T) | 12                | 48,0                 | 37,4               |
|         | 70×70×25        | AQ0712MB-A70GL(T) | 12                | 54,6                 | 43,9               |
|         | 70×70×25        | AQ0712HB-A70GL(T) | 12                | 60,0                 | 54,1               |
| AQ8025  | 80×80×25        | AQ0812LB-A70GL(T) | 12                | 45,6                 | 18,0               |
|         | 80×80×25        | AQ0812MB-A70GL(T) | 12                | 55,2                 | 25,4               |
|         | 80×80×25        | AQ0824LB-A70GL(T) | 24                | 45,6                 | 18,0               |
| AQ9225  | 80×80×25        | AQ0824MB-A70GL(T) | 24                | 55,2                 | 25,4               |
|         | 92×92×25        | AQ0912LB-A70GL(T) | 12                | 69,0                 | 20,2               |
|         | 92×92×25        | AQ0912MB-A70GL(T) | 12                | 75,6                 | 25,2               |
| AQ12025 | 120×120×25      | AQ1212DB-A71GL(T) | 12                | 97,2                 | 18,4               |
|         | 120×120×25      | AQ1212LB-A71GL(T) | 12                | 121,8                | 23,2               |
|         | 120×120×25      | AQ1212MB-A71GL(T) | 12                | 137,4                | 28,2               |
|         | 120×120×25      | AQ1212HB-A71GL(T) | 12                | 149,4                | 33,4               |
|         | 120×120×25      | AQ1224DB-A71GL(T) | 24                | 97,2                 | 18,4               |
|         | 120×120×25      | AQ1224LB-A71GL(T) | 24                | 121,8                | 23,2               |
|         | 120×120×25      | AQ1224MB-A71GL(T) | 24                | 137,4                | 28,2               |
| AQ12038 | 120×120×25      | AQ1224HB-A71GL(T) | 24                | 149,4                | 33,4               |
|         | 120×120×38      | AQ1212DB-F51(FN)  | 12                | 97,2                 | 21,2               |
|         | 120×120×38      | AQ1212LB-F51(FN)  | 12                | 121,8                | 39,1               |
|         | 120×120×38      | AQ1212MB-F51(FN)  | 12                | 163,8                | 56,8               |
|         | 120×120×38      | AQ1212HB-F51(FN)  | 12                | 178,8                | 66,0               |
|         | 120×120×38      | AQ1224DB-F51(FN)  | 24                | 97,2                 | 21,2               |
|         | 120×120×38      | AQ1224LB-F51(FN)  | 24                | 121,8                | 39,1               |
|         | 120×120×38      | AQ1224MB-F51(FN)  | 24                | 163,8                | 56,8               |
|         | 120×120×38      | AQ1224HB-F51(FN)  | 24                | 178,8                | 66,0               |
|         | 120×120×38      | AQ1248LB-F51(FN)  | 48                | 121,8                | 39,1               |
|         | 120×120×38      | AQ1248MB-F51(FN)  | 48                | 163,8                | 56,8               |
|         | 120×120×38      | AQ1248HB-F51(FN)  | 48                | 178,8                | 66,0               |

# TOUCH KEY – SERIES BS81x

## PIN ASSIGNMENT – BS812A-1



## EXAMPLE OF APPLICATION – BS812A-1



Note:

1. Ct (C threshold) is used for adjustment of Trigger Threshold.

Recommended value: 0~25 pF

2. Ct value can be changed to obtain different sensitivity values. Higher Ct values will result in lower sensitivity levels. (0pF = no Ct)

The **BS81x** is a series of 2~16 key touch key devices which can detect human body contact using external touch pads. The high level of device integration enable applications to be implemented with a minimum number of external components. The BS81x series devices are equipped with serial or parallel interfaces to allow easy communication with an external MCU for device setup and for touch pin monitoring purposes. Special internal circuitry is also employed to ensure excellent power noise rejection to reduce the possibility of false detections, increasing the touch switch application reliability under adverse environmental conditions. With auto-calibration, low standby current, excellent resistance to voltage fluctuation and other features, this range of touch key devices provide a simple and effective means of implementing touch key operation in a wide variety of applications

## FEATURES

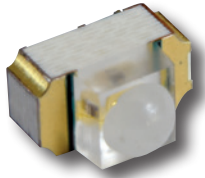
- » Operating voltage: 2.2V~5.5V
- » Low standby current
- » Auto-calibration
- » Reliable touch detections
- » Standby and normal operating modes
- » Maximum key on duration time detection
- » Adaptive voltage drop function
- » Level Hold, selectable active level- low or high
- » NMOS output with internal pull-high/CMOS Direct Output
- » Both serial interface and parallel outputs
- » Sensitivity adjustment using an external capacitor

## SELECTION TABLE

| PART NUMBER | TOUCH KEY | $I_{STB}$ @ 3V   | PARALLEL OUTPUTS                             | SERIAL INTERFACE | AUTO CALIBRATION | PACKAGE    |
|-------------|-----------|------------------|--|------------------|------------------|------------|
| BS812A-1    | 2-Key     | 2.0 $\mu$ A      | NMOS<br>(internal pull-high)                 | ×                | ×                | SOT23-6    |
| BS813A-1    | 3-Key     | 4.5 $\mu$ A      |  | ×                | ×                | 8SOP       |
| BS814A-1    | 4-Key     | 5.0 $\mu$ A      |  | ×                | ×                | 10MSOP     |
| BS814A-2    | 4-Key     | 5.0 $\mu$ A      | ×  | ×                | 8SOP             |            |
| BS816A-2    | 6-Key     | 12.0/6.0 $\mu$ A | NMOS<br>(internal pull-high)/<br>CMOS-Direct | ×                | ×                | 16NSOP     |
| BS818A-1    | 8-Key     | 12.0/6.0 $\mu$ A | Binary                                       | ×                | ×                | 16NSOP     |
| BS8112A-3   | 12-Key    | 13.0/3.0 $\mu$ A | ×  | I <sup>2</sup> C | ×                | 16NSOP     |
| BS8116A-3   | 16-Key    | 17.0/3.5 $\mu$ A | ×  | I <sup>2</sup> C | ×                | 20SOP/SSOP |



# SMD IR-DIODE IRP3016L24-B2 – 940nm / $\pm 6^\circ$ VIEWING ANGLE



## FEATURES

- » Small side view package  $3.0 \times 2.34 \times 1.6 \text{ mm}^3$
- » Viewing Angle =  $\pm 6^\circ$
- » High reliability
- » Good spectral matching to Si photo detector
- » RoHS compliance

## APPLICATIONS

- » Infrared sensor
- » Infrared Touch Panel applications

## ABSOLUTE MAXIMUM RATINGS

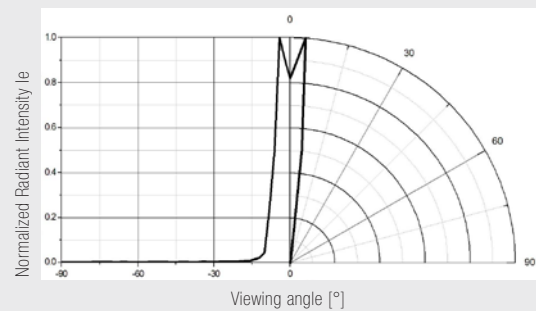
| PARAMETER  | RATING       |
|--|--------------|
| Continuous forward current $I_F$ [mA]  | 10           |
| Peak forward current $I_{FP}$ [A] (pulse $\leq 100\mu\text{s}$ , duty $\leq 1\%$ ) | 30           |
| Reverse voltage $V_R$ [V]  | 5            |
| Operating temperature $T_{OPR}$ [ $^\circ\text{C}$ ]                               | -40 ... +85  |
| Storage temperature $T_{STG}$ [ $^\circ\text{C}$ ]                                 | -40 ... +100 |
| Thermal resistance (junction-ambient) $R_{th(j-a)}$ [ $^\circ\text{C}/\text{W}$ ]  | 550          |
| Power dissipation $P_D$ [mW]   | 30           |

## ELECTRO-OPTICAL SPECIFICATIONS

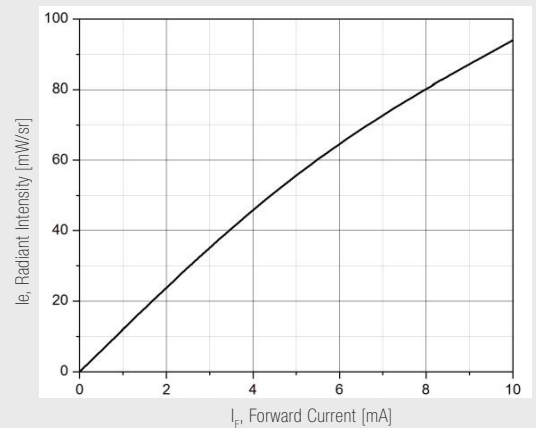
| PARAMETER   | RATING |         |      |
|---|--------|---------|------|
|   | min.   | typ.    | max. |
| Radiant intensity @ $I_F=5\text{mA}$ $I_e$ [mW/sr]              | 25     | 60      | -    |
| Radiant intensity @ $I_F=10\text{mA}$ $I_e$ [mW/sr]             | -      | 94      | -    |
| Peak wavelength @ $I_F=5\text{mA}$ $\lambda_p$ [nm]             | -      | 940     | -    |
| Spectral bandwidth @ $I_F=5\text{mA}$ $\Delta\lambda$ [nm]      | -      | 9       | -    |
| Angle of half intensity @ $I_F=5\text{mA}$ $\theta_{1/2}$ [deg] | -      | $\pm 6$ | -    |
| Forward voltage @ $I_F=5\text{mA}$ $V_F$ [V]                    | 1.70   | 2.06    | 2.50 |
| Forward voltage @ $I_F=10\text{mA}$ $V_F$ [V]                   | 2.00   | 2.40    | 3.00 |
| Reverse current @ $V_R=5\text{V}$ $I_R$ [ $\mu\text{A}$ ]       | -      | -       | 10   |

The **IRP3016L24-B2** is a GaAs infrared LED in a small SMD package with tight viewing angle of  $\pm 6^\circ$ . The device has a peak wavelength of 940nm LED spectrally matched with phototransistor or photodiode.

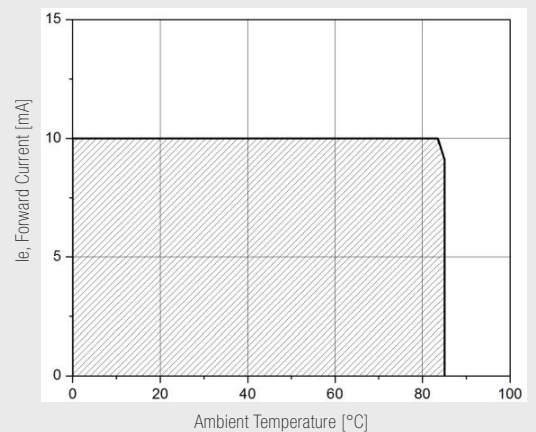
## ANGULAR DISPLACEMENT



## RADIANT INTENSITY VS. FORWARD CURRENT



## FORWARD CURRENT VS. AMBIENT TEMPERATURE



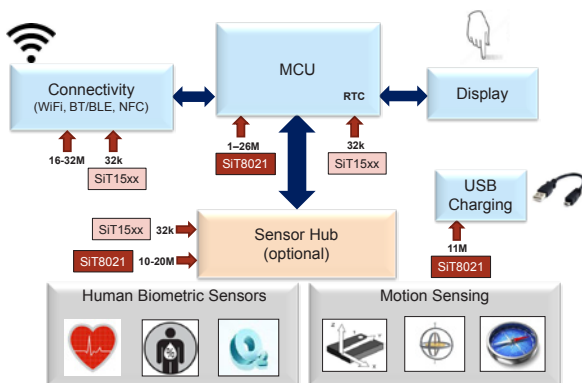
## WORLD'S SMALLEST, LOWEST POWER OSCILLATOR



SiTime sets new benchmarks in oscillator power, size and weight

### APPLICATIONS

A SiTime Oscillator for Every Block in Wearables and IoT



### FEATURES

- » 90% lower power than MHz quartz XO
- » 1.5×0.8 mm CSP – 40% smaller than quartz
- » 70% lighter than quartz
- » < 5 MHz output in small packages (not available from quartz)
- » Pricing is very competitive
- » Shortest lead time and supply continuity
- » Expands MEMS timing portfolio for wearables, mobile, IoT
- » Silicon MEMS quality and reliability

The **SiT8021** is the first device in SiTime's new μPower family of ultra-low-power, ultra-small MHz oscillators targeted at wearables, IoT and mobile products.

The SiT8021 is primarily used to replace a quartz-based XO by offering 90% lower power consumption and 40% smaller footprint. The SiT8021 can also be used to replace an XTAL for size reduction. Wearable products use low frequency clocks which were not previously in very small sizes. The SiT8021 enables very small size at low frequencies ranging from 1 to 26 MHz.

To generate a MHz frequency from an oscillator, one can use a kHz reference or a MHz reference. The benefit of using a kHz reference is that it consumes much lower power. The SiT8021 uses a 524 kHz MEMS resonator and utilizes a highly optimized PLL to attain excellent performance.

The resonator in the SiT8021 based on TempFlat MEMS™ technology.

The SiT8021 is ideal for battery-operated products where low power and small size are absolutely critical. Examples include fitness bands, health monitoring devices, smart watches, tablets, portable audio players, portable speakers, and wireless IP cameras.

The SiT8021 comes in a CSP measuring 1.5×0.8 mm which is the industry's smallest oscillator package. Because the SiT8021 is composed of two all-silicon die mounted together, it can be integrated into a SIP module.

The SiT8021, at 1.28 mg, is 70% lighter than the lightest quartz-based oscillator. This gives designers of wearable devices a new way to reduce the overall product weight.

| FREQUENCY RANGE | FREQUENCY STABILITY | SUPPLY VOLTAGE | PACKAGE          | ACTIVE CURRENT    | RESUME TIME | OUTPUT  | OPERATING TEMP. |
|-----------------|---------------------|----------------|------------------|-------------------|-------------|---------|-----------------|
| 1 ... 26 MHz    | 100 ppm             | 1.8V ±10%      | 1.5 × 0.8 mm CSP | 60 μA @ 3.072 MHz | 5 ms        | LVC MOS | -40°C ... +85°C |

# ULTRA SMALL ULTRASONIC SENSORS

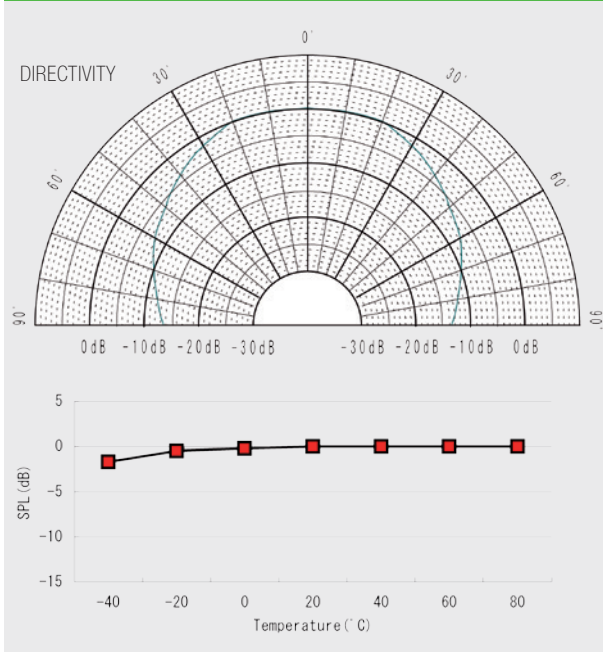


**NICERA offers a new series T/R4008A1** of ultra small ultrasonic sensors at frequency 40 kHz. The diameter is 8 mm only at similar sound pressure level as sensors with larger diameter. This allows miniaturization of ultrasonic applications.

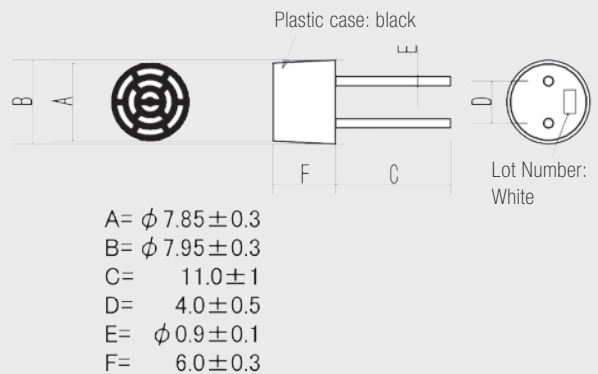
## APPLICATIONS

- » Car alarm system
- » Lighting control
- » Automatic door control
- » Liquid level measurement
- » Distance measurement

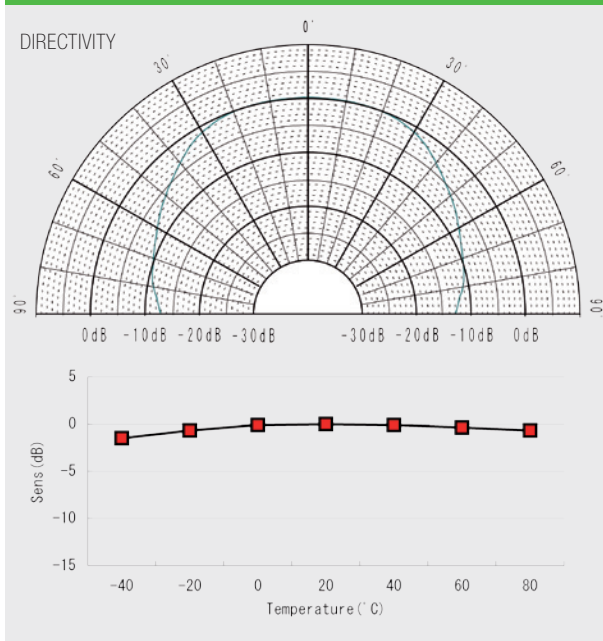
## CHARACTERISTICS – TRANSMITTER T4008A1



## DIMENSIONS (mm)



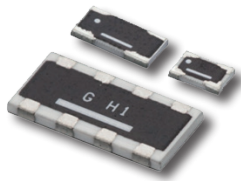
## CHARACTERISTICS – RECEIVER R4008A1



## SPECIFICATIONS

| PARAMETER  | TRANSMITT. T4008A1 | RECEIVER R4008A1 |
|--|--------------------|------------------|
| <b>Center frequency [kHz]</b><br>(0 dB=0.0002 $\mu$ bar, 10 Vrms, 30 cm)               | 40.0 ± 1.0         | 40.0 ± 1.0       |
| <b>Sound pressure level [dB]</b><br>(0 dB=1V/ $\mu$ bar, $R_L=3.9$ k $\Omega$ , 30 cm) | 117 min.           | –                |
| <b>Sensitivity [dB/V/<math>\mu</math>bar]</b>  | –                  | -67 min.         |
| <b>Maximum input voltage [Vp-p]</b>  | 30                 | –                |
| <b>Resonant impedance [<math>\Omega</math>]</b>  | 809 typ.           | –                |
| <b>Anti-resonant impedance [<math>\Omega</math>]</b>                                   | –                  | 2890             |
| <b>Capacitance at 1 kHz [pF]</b>   | 2830               | 2780             |
| <b>Operating temperature [°C]</b>  | -40 ... +85        | -40 ... +85      |

# THIN FILM PRECISION RESISTOR NETWORKS – RM SERIES



## Susumu thin film resistor networks RM series

are thin film resistor networks that offer all the known features of the thin film single chip resistors (Susumu RG series), such as very tight tolerance and small temperature drift, excellent stability, low noise in high frequency applications and high temperature operation. It has the additional feature that resistance ratio matching is defined. Possible ratios reach from 1:1 up to 1:500 which are very difficult to realize in high precision with single chip resistors.

## FEATURES

- » Case sizes from 0805 up to 2512
- » Available ratios: 1:1 ... 1:500
- » Resistance values: 100  $\Omega$  ... 500 k $\Omega$
- » Ratio tolerances: 0.5% ... 0,01%
- » Ratio TCR: 1 ppm/ $^{\circ}\text{C}$  ... 5 ppm/ $^{\circ}\text{C}$
- » Operating temperature range: -55 $^{\circ}\text{C}$  ... +155 $^{\circ}\text{C}$
- » Custom values (outside E96) and housings available unmatched reliability and stability
- » AEC-Q200 certified

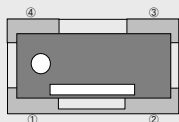
## APPLICATIONS

RM networks are excellent suitable as voltage divider or for measurement and feedback circuits at different branches.

## AVAILABLE STANDARD CIRCUITS

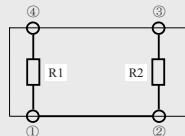
### 2 element

Top view and terminal number



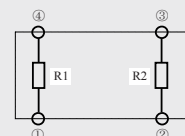
Circuit type code=A

Circuit



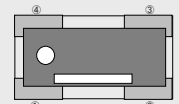
Circuit type code=B

Circuit



### 3 element

Top view and terminal number



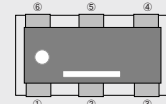
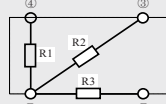
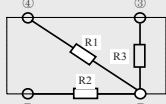
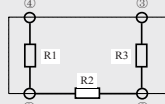
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Circuit type code=D

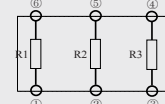
Circuit type code=E

Top view and terminal number

Circuit

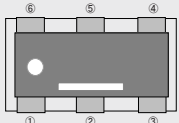


Circuit type code=parallel



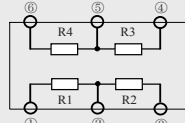
### 4 element

Top view and terminal number

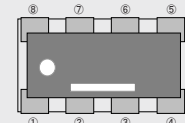


Circuit type code=custom

Circuit

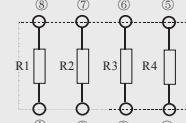


Top view and terminal number



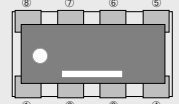
Circuit type code=F

Circuit



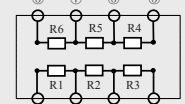
### 6 element

Top view and terminal number



Circuit type code=custom

Circuit



Please contact us for any special solutions such as resistance values, combinations, number of elements, size, etc.

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