

**SKYWORKS®**



**New and Featured Products**

# Accelerating 5G Massive IoT

Skyworks has been empowering advancements in wireless connectivity for decades. Today, our highly innovative analog semiconductors continue enabling revolutionary applications as global demand for 5G explodes across mobile and Internet of Things ecosystems.

We invite you to learn more about our newest solutions as we help to connect people, places and things - bringing everyone closer to vital information wherever it is needed.

## Contact us today!

Work with us to help you unleash the true potential of 5G and ensure that your products are among the estimated 75 billion devices that will be intelligently connected by 2025.

[sales@skyworksinc.com](mailto:sales@skyworksinc.com)



# Sky5<sup>®</sup>

## *"Commercial 5G Solution of the Year"*

Our Sky5<sup>®</sup> platform was named winner of the "Commercial 5G Solution of the Year" by Mobile Breakthrough, a leading independent market intelligence organization that recognizes top companies, technologies and products in the global wireless and mobile market.



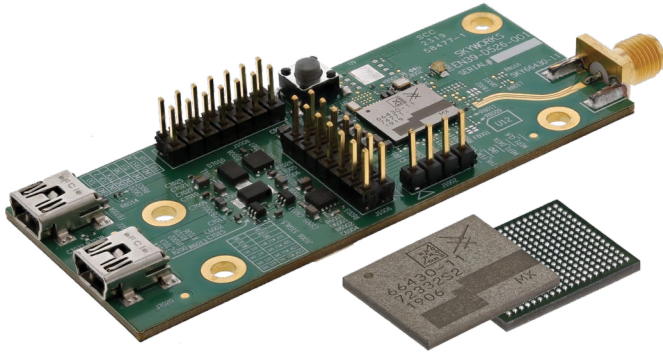
**Connecting Everyone and Everything, All the Time**

[www.skyworksinc.com](http://www.skyworksinc.com)



# World's Smallest 5G Massive IoT Solution

## SKY66430-11



### Features

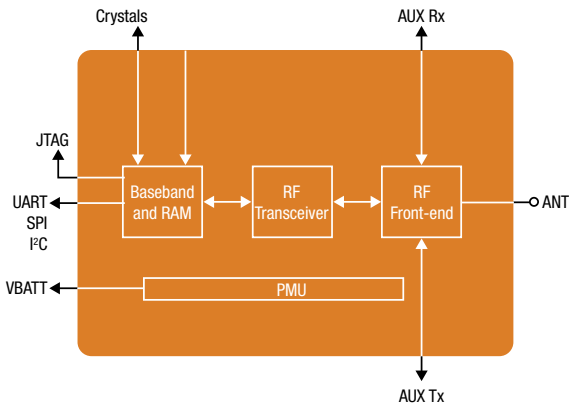
- Turnkey LTE/5G Solution Covering
  - 18 Bands
  - 700 MHz-2.2 GHz
- LTE-M and NB-IoT Ready
- Pre-certified by
  - Carrier, Industry and Regulatory Bodies
- Low Power Consumption
- Positioning Over LTE
- Proprietary Conformal Shielding – Ag Free

### Benefits

- Enables Overall Size Reduction
- Simplifies End Product Development
- Reduces Development Costs

### Applications

- Wearables
- Personal and Asset Trackers
- Alarm Systems
- Security Cameras
- Industrial Monitoring
- Low-power IoT Devices
- Smart Metering



**SKY66430-11 package size: 8.8 x 10.8 x 0.95 mm**

See Skyworks' product in action!

Rechargeable Global Tracker Enabled  
by Skyworks' Innovative IoT System-in-Package









# New and Featured Products by Market

## The Right Design Choice Starts Here

Below please find our new and featured products from our broad portfolio.

**New** products (purple, bold) are continually being introduced at Skyworks. For up-to-date information on products in development, please contact your local Skyworks sales representative.

		Markets					
							
		Automotive	Connected Home	Industrial (M2M)	Networking	Smart Energy	Wearables
Part Number	Description						
<b>Front-end Modules</b>							
<b>SKY66121-11</b>	169 to 170 MHz Transmit / Receive Front-end Module						
SKY66404-11	2.4 GHz Front-end Module for Zigbee® / Thread / Bluetooth® Applications						
<b>SKY66405-11</b>	2.4 GHz Front-end Module for Zigbee® / Thread / Bluetooth® Applications						
<b>SKY66407-11</b>	2.4 GHz Low Power, Low Profile Front-end Module for Bluetooth® IoT Applications						
<b>SKY66430-11</b>	5G Massive IoT System-in-Package						
SKY85330-21	2.4 GHz, 1024 QAM WLAN Front-end Module						
SKY85331-11	2.4 GHz High Power 802.11ax WLAN Front-end Module						
SKY85333-11	2.4 GHz WLAN Front-end Module						
SKY85743-21	5 GHz High Power WLAN Front-end Module						
SKY85747-11	5 GHz High Power WLAN Front-end Module						
SKY85748-11	5 GHz 802.11ax Ultra Linear WLAN Front-end Module with Integrated Log Detector						
SKYA21043	5.9 GHz 802.11p DSRC High Power Front-end Module						
<b>Amplifiers</b>							
SKY77762-81	SkyHi™ Power Amplifier Module for High Linearity DECT and ULE Applications						
<b>Switch</b>							
<b>SKY5®-A1007</b>	0.4 to 5.9 GHz DPDT Low Insertion Loss / High Isolation Switch						

# New and Featured Products



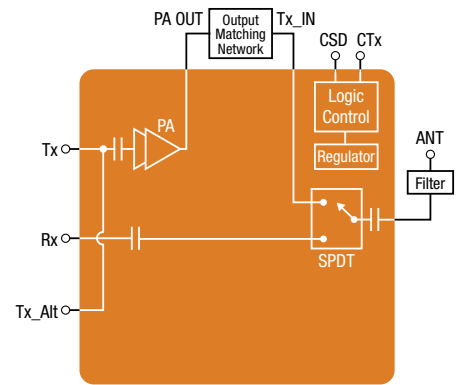
## Connected Home

Home life just got easier thanks to innovations from Skyworks. Our products allow homeowners greater control over their environment with a host of connected devices including thermostats, security systems, touch pads, security sensors, light switches, smoke and CO alarms, major appliances, and door locks. From Wi-Fi (802.11) to Zigbee®, Thread and Bluetooth® (including Low Energy), our wireless solutions deliver advanced short and long range connectivity—making the connected home that much smarter.

## 169 to 170 MHz Transmit / Receive Front-end Module for Smart Meter Systems

### SKY66121-11

- Transmit output power: >+30 dBm
- High efficiency PA
- Receive loss with filter: 0.9 dB
- Sleep mode current: < 1  $\mu$ A
- Integrated control logic
- Packaging: MCM 16-pin 4 x 4 x 0.76 mm

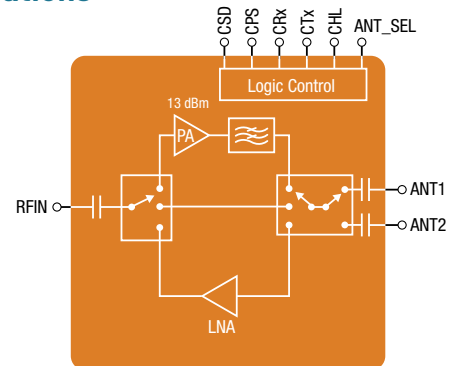


Functional Block Diagram

## 2.4 GHz Front-end Module for Zigbee® / Thread / Bluetooth® Applications

### SKY66404-21

- Integrated PA with up to +17 dBm output power
- Integrated LNA (2.5 dB noise figure typical) and bypass path
- Integrated antenna diversity switching for all modes
- Single-ended transmit/receive interface
- Fast switch on/off time: < 800 ns
- Supply range: 1.7 V to 3.6 V
- Sleep mode current: < 1  $\mu$ A typical
- Packaging: MCM 22-pin 3.5 x 3.0 x 0.82 mm

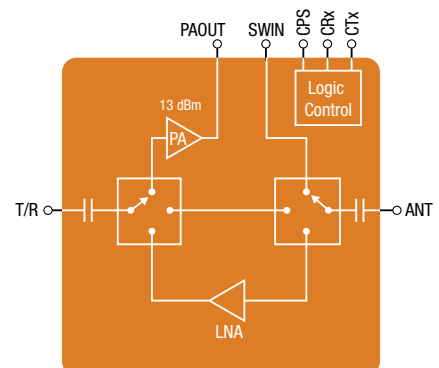


Functional Block Diagram

## 2.4 GHz Front-end Module for Zigbee® / Thread / Bluetooth® Applications

### SKY66405-11

- Integrated PA with +13 dBm output power
- Integrated LNA (2 dB noise figure typical) and bypass path
- Single-ended transmit/receive interface
- Fast switch on/off time: < 800 ns
- Supply range: 1.7 to 3.6 V
- Sleep mode current: < 1  $\mu$ A typical
- Packaging: MCM 12-pin 1.9 x 1.9 x 0.56 mm



Functional Block Diagram

# New and Featured Products

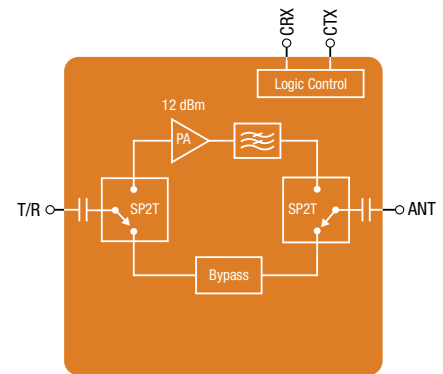


## Connected Home (Continued)

### 2.4 GHz Low Power, Low Profile Front-end Module for Bluetooth® IoT Applications

#### SKY66407-11

- Adjustable gain, output power, and current consumption
- Max BT EDR output power: +11.5 dBm
- Wide supply range: 1.7 to 3.6 V
- High ESD rating: 2 kV
- Low sleep current: < 1  $\mu$ A
- Low Rx bypass loss
- Packaging: CSP 9-pin 1.2 x 1.2 x 0.35 mm



Functional Block Diagram

### SkyHi™ Power Amplifier Module for High Linearity Digital Enhanced Cordless Telecommunications (DECT) and Ultra Low Energy (ULE) Applications

#### SKY77762-81

- Low voltage positive bias supply 3.0 V to 4.5 V
- High efficiency: 46% at 28.6 dBm
- Large dynamic range
- Supports low collector voltage operation
- Digital enable
- No VREF required
- CMOS compatible control signals
- Integrated directional coupler
- Packaging: MCM 10-pad 3 x 3 x 0.9 mm

# New and Featured Products

## Networking

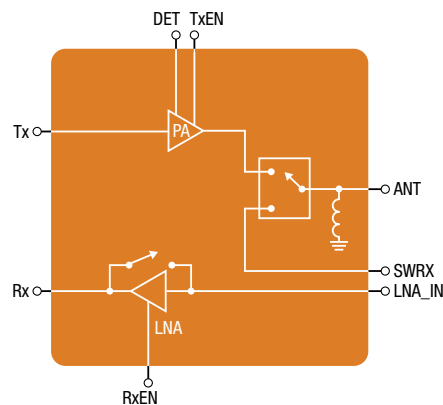


As the demand for portable, reliable, anytime connectivity increases, innovative solutions are required to deliver a better consumer Wi-Fi experience. Skyworks' diverse portfolio is enabling the rapidly growing network of wireless devices. Our advanced 2.4 GHz and 5 GHz engines provide high efficiency, low power consumption and industry-leading linearity supporting high modulation rates and multi-use MIMO operation. Our solutions accelerate the next generation standards such as Wi-Fi CERTIFIED 6™.

### 2.4 GHz, 1024 QAM WLAN FEM for 802.11ax (Wi-Fi 6) Applications

#### SKY85330-21

- Integrated high-performance 2.4 GHz PA, LNA with bypass, and T/R switch
- Fully matched input and output
- LNA with integrated bypass mode
- Transmit / receive gain: 32 / 16 dB
- Packaging: QFN 16-pin 2.5 x 2.5 x 0.45 mm

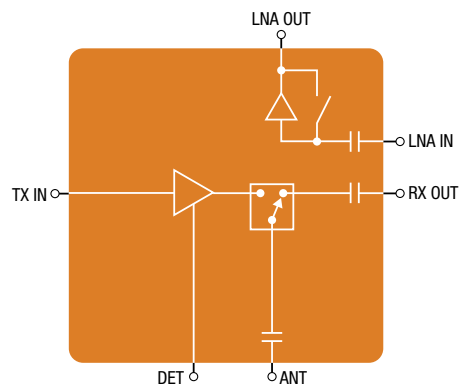


Functional Block Diagram

### 2.4 GHz High Power 802.11ax WLAN FEM for 802.11ax (Wi-Fi 6) Networking Systems

#### SKY85331-11

- Integrated high-performance 2.4 GHz PA, LNA with bypass, and T/R switch
- Fully matched input and output
- Integrated logarithmic power detector
- Transmit gain: 33 dB
- Supports 802.11ax output power:
  - +20 dBm, -43 dB DEVM, MCS11
  - +22 dBm, -40 dB DEVM, MCS11
  - +24 dBm, -35 dB DEVM, MCS9
- High LNA gain: 15 dB
- Packaging: QFN 24-pin 3 x 5 x 0.85 mm

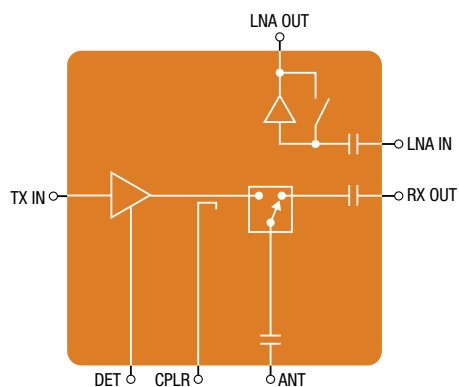


Functional Block Diagram

### 2.4 GHz WLAN Front-end Module for 802.11ax (Wi-Fi 6) Networking Systems

#### SKY85333-11

- Integrated high-performance 2.4 GHz PA, LNA with bypass, and T/R switch
- Fully matched input and output
- Integrated power detector and directional coupler
- Transmit / receive gain: 33 / 16 dB
- Output power: +28 dBm, MCS0
- Packaging: LGA 24-pin 3 x 5 x 0.85 mm



Functional Block Diagram

# New and Featured Products

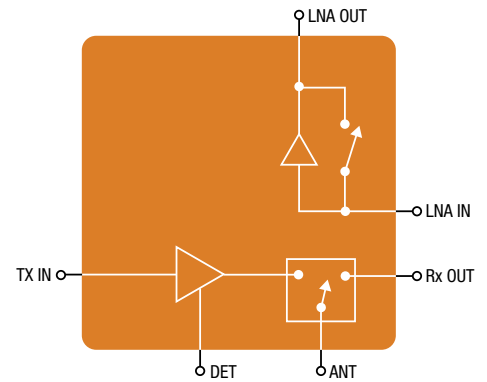


## Networking (Continued)

### 5 GHz High Power WLAN Front-end Module for 802.11ax (Wi-Fi 6) Networking Systems

#### SKY85743-21

- Integrated high-performance 5 GHz PA, LNA with bypass, and T/R switch
- Fully matched input and output
- Integrated logarithmic power detector and directional coupler
- Transmit gain: 32 dB typical
- Supports 802.11ax: output power:
  - +21 dBm, -43 dB DEVM, MCS11
  - +22 dBm, -40 dB DEVM, MCS11
  - +24 dBm, -35 dB DEVM, MCS9
- Conformally shielded part
- Packaging: LGA 24-pin 3 x 5 x 1.2 mm

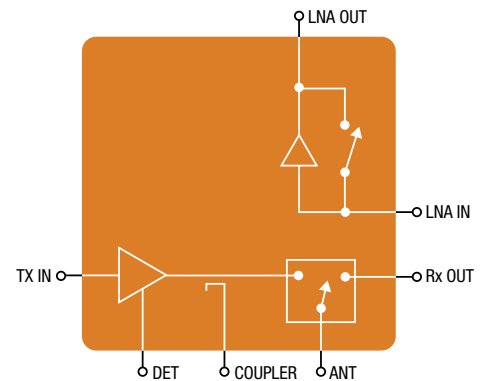


Functional Block Diagram

### 5 GHz High Power WLAN Front-end Module for 802.11ax (Wi-Fi 6) Networking Systems

#### SKY85747-11

- Integrated high-performance 5 GHz PA, LNA with bypass, and T/R switch
- Fully matched input and output
- Integrated logarithmic power detector and directional coupler
- Transmit / receive gain: 34.5 / 16 dB
- Supports 802.11ax output power: +18.5 dBm, -43 dB DEVM, MCS11
- Highly sensitive, jammer-tolerant LNA
- Packaging: LGA 24-pin 3 x 5 x 1.2 mm

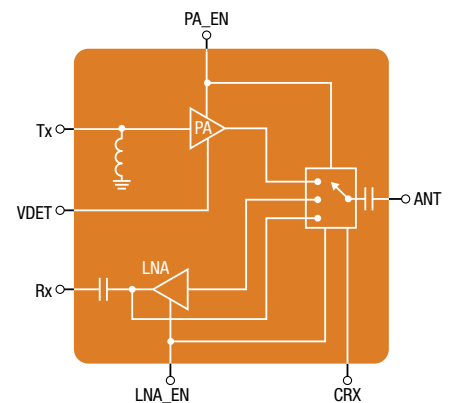


Functional Block Diagram

### 5 GHz 802.11ax Ultra Linear WLAN Front-end Module with Integrated Log Detector for 802.11ax (Wi-Fi 6) Set-top Boxes, Networking, and Personal Computer Systems

#### SKY85748-11

- Integrated 802.11ax 1024 QAM, 5 GHz PA, LNA with bypass, and T/R switch
- Fully matched input and output
- Integrated logarithmic power detector
- Transmit gain: 32 dB
- Receive gain: 13 dB
- Packaging: QFN 16-pin 2.5 x 2.5 mm



Functional Block Diagram



# New and Featured Products

## Automotive

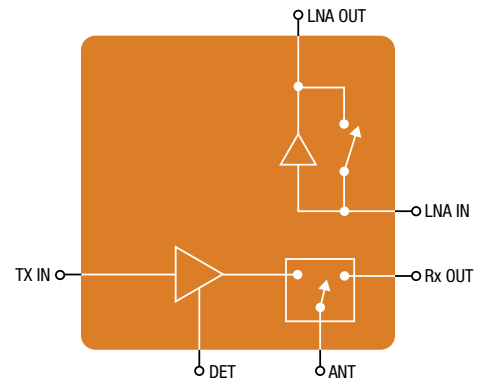


From telematics to infotainment systems, on-board diagnostics, automated emergency management, collision avoidance platforms and vehicle-to-vehicle (V2V) communications, Skyworks' extensive wireless portfolio takes seamless connectivity in today's cars to the next level—making the driving experience increasingly smarter and safer.

### DPDT Switch for Automotive Cellular Telematics Requiring C-V2X Support

#### SKY5<sup>®</sup>-A1007

- Broadband frequency range: 0.4 to 5.9 GHz
- Support for automotive PPAP
- Support for IMDS material declaration
- Independent BOM management to minimize PCN risk
- Extended operating temperature: -40 to 105 °C
- Low insertion loss: 0.7 dB (typical) @ CV2X/11p frequency (5.75 to 5.925 GHz)
- High isolation: 30 dB @ 3.8 GHz
- Packaging: QFN 12-pin 1.83 × 1.83 × 0.5 mm

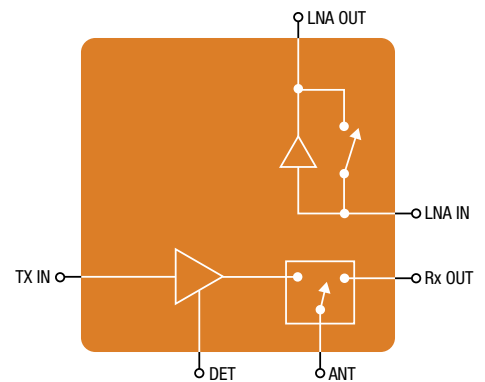


Functional Block Diagram

### 5.9 GHz 802.11p DSRC High Power Front-end Module for 802.11p V2V and V2X Applications

#### SKYA21043

- AEC-Q100 Grade 2 (-40 °C to +105 °C) qualified
- Support for automotive PPAP
- High output power across wide temperature range: +25 dBm, 802.11p/DSRC (5.85 to 5.925 GHz) at +105 °C
- 8 kV ESD protection on antenna output port
- Fully matched input and output
- Integrated logarithmic detector with wide dynamic range
- Ideal for EU toll booth location reduction to +10 dBm
- Highly sensitive, jammer-tolerant (> +10 dBm IIP3), high-gain (16 dB) LNA
- Packaging: MCM 24-pin 3 × 5 × 1.2 mm (comformally shielded)



Functional Block Diagram



## Skyworks Sales Offices

### California

Skyworks Solutions  
5221 California Avenue  
Irvine, CA 92617  
Telephone: (949) 231-3000  
Fax: (949) 231-3206  
sales@skyworksinc.com

Skyworks Solutions  
2740 Zanker Road  
San Jose, CA 95134  
Telephone: (408) 232-2900  
Fax: (408) 232-2902  
sales@skyworksinc.com

Skyworks Solutions  
880 Yosemite Way  
Milpitas, CA 95035, USA  
Telephone: (408) 946-1968  
hirel.sales@skyworksinc.com

### Massachusetts

Skyworks Solutions  
20 Sylvan Road  
Woburn, MA 01801  
Telephone: (781) 376-3000  
Fax: (781) 376-3100  
sales@skyworksinc.com

### Maryland

Skyworks Solutions  
5520 Adamstown Road  
Adamstown, MD 21710  
Telephone: (301) 695-9400  
Fax: (301) 695-7065  
RFCeramics@skyworksinc.com

### France

Skyworks Solutions  
60 rue Saint Andre des arts  
Batiment D  
75006 - Paris  
France  
Telephone: +33 1 43548540  
Fax: +33 1 43540005  
eva.delahunay@skyworksinc.com

### United Kingdom

Skyworks Solutions  
Thremhall Park  
Start Hill  
Bishop's Stortford  
Hertfordshire CM22 7WE  
United Kingdom  
Telephone: +44 7920 838883  
will.kerley@skyworksinc.com

### Finland

Skyworks Solutions  
Keilaranta 16 (5th Floor)  
FIN-02150 Espoo  
Finland  
Telephone: +358 9251 07131  
Fax: +358 9 2510 7129  
kimmo.salmela@skyworksinc.com

### China

Skyworks Solutions  
Unit 1201-1203 and 1206, Bldg# A,  
No. 868 Yinghua Road  
Pudong, Shanghai, China, PRC  
Telephone: +86 21 23066230  
ext. 60167  
Fax: +86 21 33663398  
judy.zhou@skyworksinc.com

Skyworks Solutions  
Room 2701, 27/F Tower 3  
Kerry Plaza  
No. 1 Zhongxinsi Road  
Futian District  
Shenzhen 518048 China PRC  
Telephone: +86 755 8828 8399  
Fax: +86 755 8828 8358  
jesse.li@skyworksinc.com

Skyworks Solutions  
Unit 703, 7th Floor  
Radiance Building, Qiyang Road  
Wangjing, Chaoyang District  
Beijing City, China 100102  
Telephone: +8610 652 60859  
ext. 61602  
Fax: +8610 652 61358  
abby.huang@skyworksinc.com

### Japan

Skyworks Solutions  
Shinjuku Nomura Bldg. 33F  
1-26-2 Nishi-Shinjuku  
Shinjuku-ku  
Tokyo 163-0533, Japan  
Telephone: +81 3 6894 5180  
Fax: +81 3 6894 5190  
takeae.enokida@skyworksinc.com

### Korea

Skyworks Solutions  
POSCO Center (West Wing 12F),  
440 Taeheran-ro, Gangnam-ku,  
Seoul, 06194, Korea  
Telephone: +822-3490-3800  
hannah.kim@skyworksinc.com

### Singapore

Skyworks Solutions  
10 Ang Mo Kio Street 65  
#05-15/16 Techpoint  
Singapore 569059  
Telephone: +65 64031971  
Fax: +65 64031931  
violet.hsu@skyworksinc.com

### Taiwan

Skyworks Solutions  
4F, #198, Section 2  
Tun Hwa S. Road  
Taipei 106, Taiwan, ROC  
Telephone: +886 2 2322 0200  
Fax: +886 2 2322 0201  
eleen.chang@skyworksinc.com

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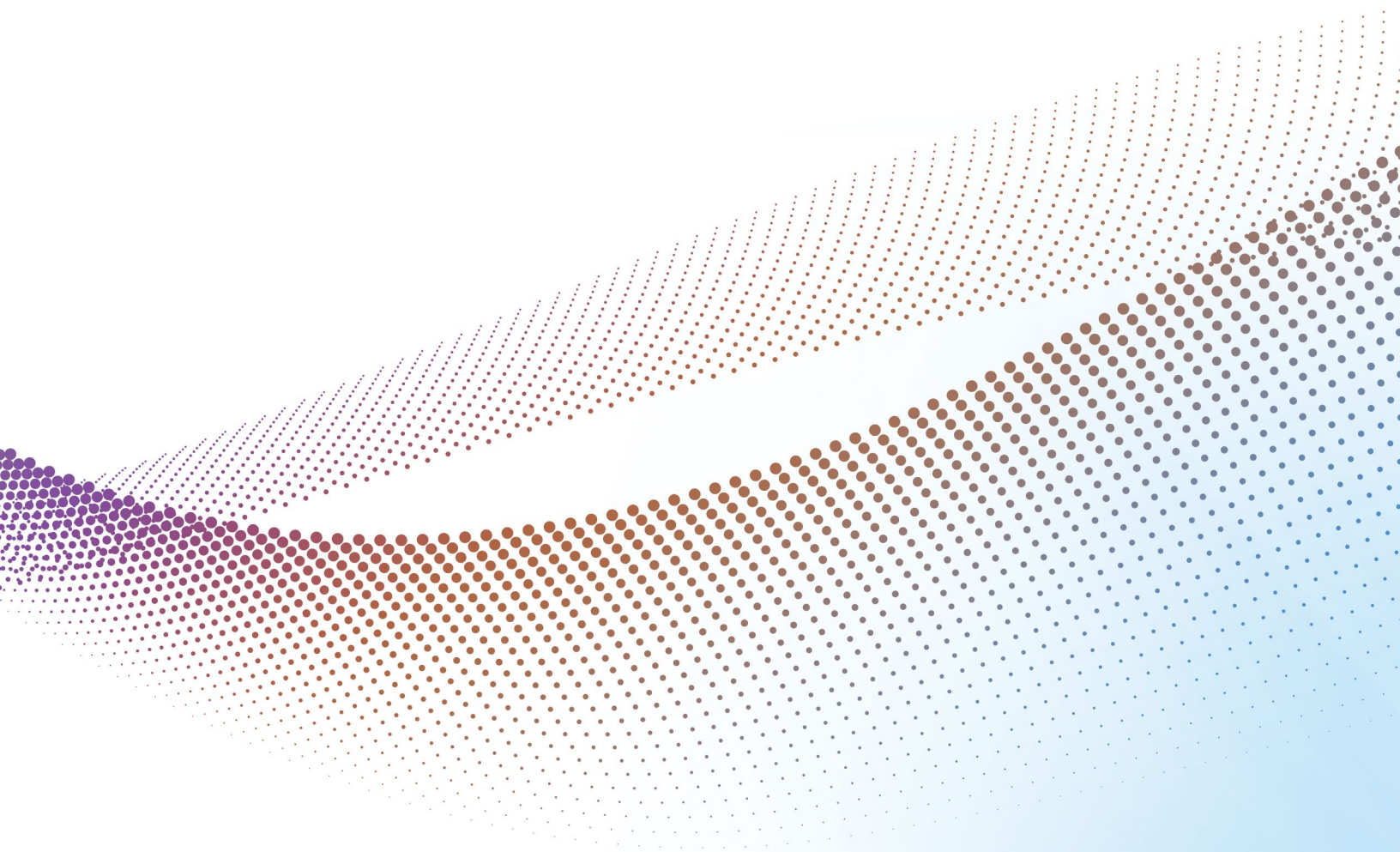
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Skyworks Solutions, Inc. | Nasdaq: SWKS | [sales@skyworksinc.com](mailto:sales@skyworksinc.com)

USA: 781-376-3000 | Asia: 886-2-2735 0399 | Europe: 33 (0) 1 43548540 | BR0425-20A 1/20 | [in](https://www.linkedin.com/company/skyworks) [f](https://www.facebook.com/skyworks) [t](https://www.twitter.com/skyworks) [y](https://www.youtube.com/skyworks)



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