

PRODUCT SUMMARY

SKYA21043: 5.9 GHz 802.11p DSRC and C-V2X High-Power Front-End Module

Applications

- 802.11p DSRC applications
- C-V2X applications

Features

- AEC-Q104 Grade 2 (-40 °C to +105 °C) qualified
- Support for automotive PPAP
- High output power across wide temperature range:
 - 802.11p DSRC: +26 dBm typical at +105 °C
 - C-V2X: +29 dBm typical at +105 °C
- Fully matched input and output
- Integrated logarithmic detector with wide dynamic range
- Wide dynamic range, down to -30 dBm with recommended system design
- Highly sensitive, jammer-tolerant (> +10 dBm IIP3), high-gain (16 dB) LNA
- Auto-friendly package
 - 24-pin, 3 x 5 mm shielded LGA package
 - MSL3, 260 °C, per JEDEC J-STD-020



Skyworks Green™ products are compliant with all applicable legislation and are halogen-free. For additional information, refer to *Skyworks Definition of Green™*, document number SQ04-0074.

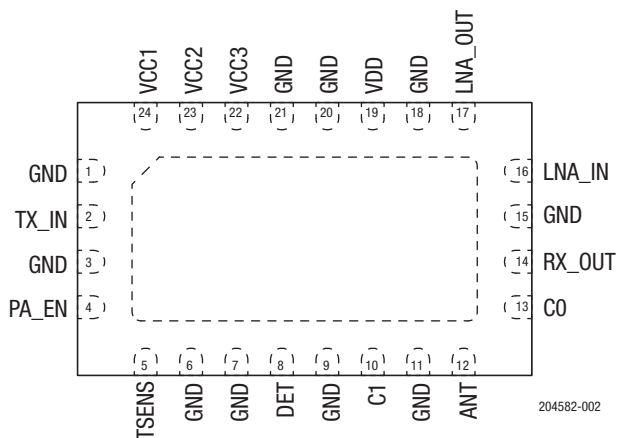


Figure 2. SKYA21043 Pinout (Top View)

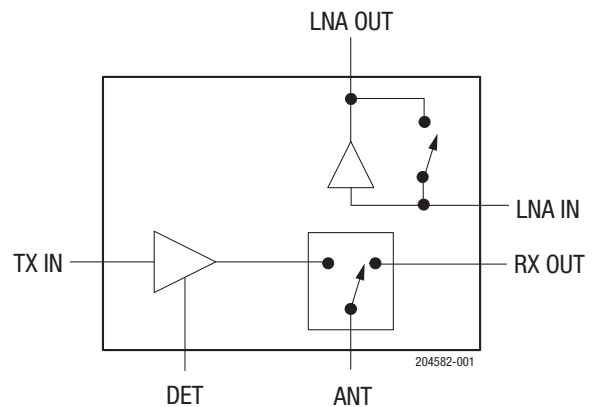


Figure 1. SKYA21043 Block Diagram

Description

The SKYA21043 is a highly integrated, 5 GHz front-end module (FEM) incorporating a 5 GHz single-pole, double-throw (SPDT) transmit/receive (T/R) switch, a 5 GHz high-gain low-noise amplifier (LNA) with bypass, and a 5 GHz power amplifier (PA) intended for high-power 802.11p DSRC and C-V2X applications and systems.

The LNA and PA disable functions ensure low leakage current in the off mode. An integrated logarithmic power detector is included to provide closed-loop power control over 20 dB of dynamic range.

The device is provided in a compact, 24-pin 3 x 5 mm shielded Land Grid Array (LGA) package, which may reduce the front-end board space by more than 50 percent. A functional block diagram is shown in Figure 1. The pin configuration and package are shown in Figure 2.

Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKYA21043	5.9 GHz 802.11p DSRC and C-V2X High-Power FEM	SKYA21043EK1

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