

PRODUCT SUMMARY

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

Applications

- 802.11p V2V and V2X applications

Features

- 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
- Compact conformally shielded package:
 - 24-pin, 3 x 5 mm package
 - MSL3, 260 °C, per JEDEC J-STD-020



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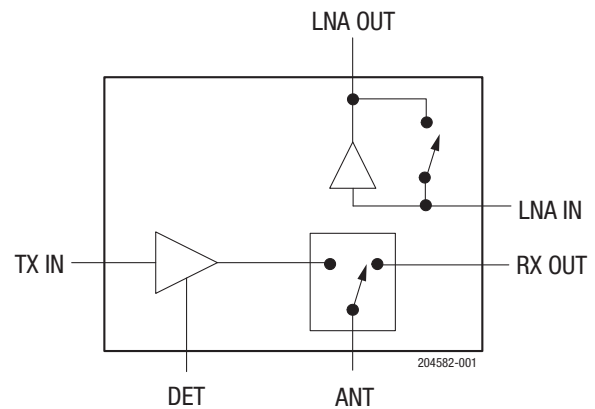


Figure 1. SKYA21043 Block Diagram

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 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 conformally 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.

Ordering Information

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

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