

PRODUCT SUMMARY

SKY85791-11: 5 GHz Wi-Fi 6 (802.11ax) Front-End Module with Integrated DPD Coupler

Applications

- Wireless routers
- Access points
- Home gateways
- Customer Premise Equipment (CPE)
- Mesh/whole-home Wi-Fi systems
- Wi-Fi based home entertainment systems

Features

- Integrated 802.11ax 5 GHz 1024 QAM, PA, LNA with bypass, and T/R switch
- Fully-matched input and output
- Integrated logarithmic power detector and directional coupler
- Transmit gain: 32 dB
- Receive gain: 16 dB
- Output power:
 - MCS11, 17 dBm, -43 dB DEVM
 - MCS9, 22 dBm, -35 dB DEVM
- Small QFN (16-pin, 3.0 x 3.0 mm) 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.

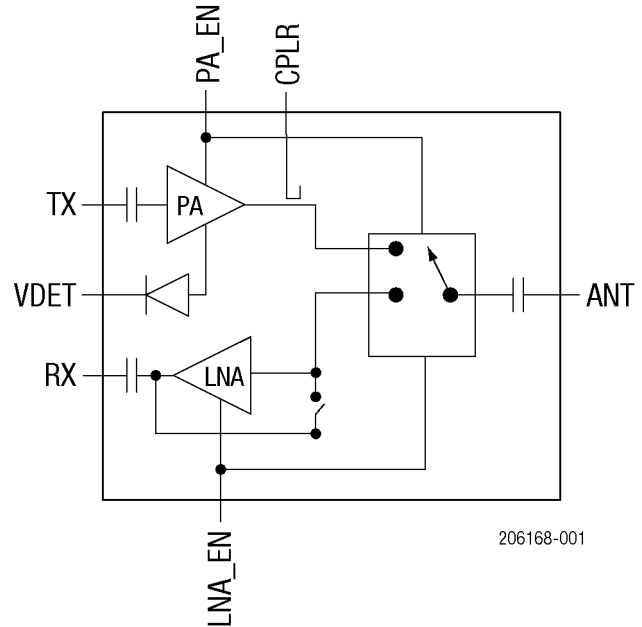


Figure 1. SKY85791-11 Block Diagram

Description

The SKY85791-11 is a highly integrated, 5 GHz front-end module (FEM) incorporating a single-pole, double-throw (SPDT) transmit/receive (T/R) switch, a low-noise amplifier (LNA) with bypass, and a power amplifier (PA) intended for 802.11ax applications and systems. The PA output includes a coupler to allow for digital pre-distortion (DPD) in applications. In DPD applications, the coupler is also used in place of the power detector.

An integrated logarithmic power detector is included to provide closed-loop power control within the system.

The device is provided in a compact, 16-pin, 3.0 x 3.0 mm Quad Flat No-Lead (QFN) package. A functional block diagram is shown in Figure 1.

Ordering Information

| Part Number | Product Description | Evaluation Board Part Number |
|-------------|---|------------------------------|
| SKY85791-11 | 5 GHz Wi-Fi 6 (802.11ax) Front-End Module with Integrated DPD Coupler | SKY85791-11EK1 |

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