

**PRODUCT SUMMARY**

# SKY85302-11: 2.4 GHz, 256 QAM Front-End Module for WLAN/ and Port Suitable for Bluetooth® Applications

**Applications**

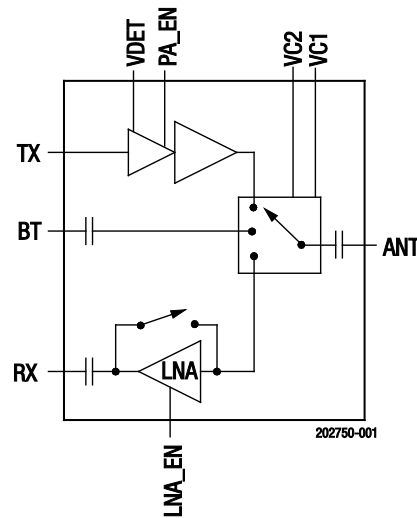
- Wi-Fi-enabled smartphones, tablets, and mobile/portable devices
- System-in-Package (SIP) modules for embedded systems

**Features**

- Integrated high-performance 2.4 GHz PA, harmonic filter, low noise amplifier (LNA) with bypass, and T/R switch
- Fully matched input and output
- LNA with integrated bypass mode
- High-performance SP3T switch to support a port suitable for Bluetooth® applications/Wi-Fi functions
- Transmit loopback mode
- Integrated positive slope power detector
- Transmit gain: 26 dB
- Receive gain: 14 dB
- Output power:
  - +18 dBm @ 1.8% EVM, MCS8
  - +19 dBm @ 3% EVM, 54 Mbps
  - +23 dBm, 802.11b mask compliant
- Direct connection to battery with 3.6 V nominal supply
- Small QFN (16-pin, 2.5 x 2.5 mm) package (MSL1, 260 °C per JEDEC J-STD-020)



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**Figure 1. SKY85302-11 Block Diagram**

**Description**

The SKY85302-11 is a complete 802.11ac WLAN RF front-end module (FEM) with support for a port suitable for Bluetooth® signals. The device provides all the functionality of a fully matched power amplifier (PA), power detector, harmonic filter, LNA, and single-pole, triple-throw (SP3T) switch.

The SKY85302-11 provides a complete 2.4 GHz WLAN RF solution from the output of the transceiver to the antenna, and from the antenna to the input of the transceiver. The LNA increases the receive sensitivity of embedded solutions to improve range or to overcome the insertion loss of cellular filters (often included for mobile applications).

The SKY85302-11 also includes a transmitter power detector with 20 dB of dynamic range, and a digital enable control for transmitter power ramp on/off control.

The device is provided in an ultra-compact, 16-pin 2.5 x 2.5 mm Quad Flat No-Lead (QFN) package. A functional block diagram is shown in Figure 1.

## Ordering Information

Product Description	Product Part Number	Evaluation Board Part Number
SKY85302-11: 2.4 GHz Front-End Module	SKY85302-11	SKY85302-11EK1

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