SKYWORKS®

SKY5A2205: Sky5® TX/RX Front-End Module with 15 Linear TRX Switch Ports (No 2G Integration)

Applications

- 4G/5G automotive and telematics Network Attached Device (NAD)
- 4G/5G Customer Premises Equipment (CPE)

Features

- P2P compatible with SKY5A2204
- TX harmonics below –50 dBm
- 15 low loss/high linearity/high isolation TRX switch ports
- RF input switching to external 5G/4G/3G path
- Integrated directional coupler with forward directionality
- Dual antenna downlink inter-band Carrier Aggregation (CA) support with dedicated LB and M/HB antenna ports
- Built-in IEC-compliant antenna ESD protection
- RF ports internally matched to 50 Ω with 0 dc offset
- Fully baseband agnostic design:
  - MIPI® RFFE control with dual-standard support
  - User-selectable register mappings
- Automotive support:
  - Production Part Approval Process (PPAP)
  - AEC-Q104 qualification
  - International Material Data System (IMDS)
- Small, low profile Land Grid Array (LGA) package:
  - 5.5 mm x 5.5 mm x 0.755 mm
  - 44-pad configuration
- For RoHS and other product compliance information, see the Skyworks Certificate of Conformance.

Description

The SKY5A2205 Sky5® TX/RX Front-End Module (FEM) offers switching solutions for 4G/5G automotive and telematics NAD or CPE.

The SKY5A2205 delivers flexibility and efficiency by providing common PCB design capability for multiple regional variants, where 2G functionality is required selectively.

The SKY5A2204 includes a 2G power amplifier and is pin-to-pin compatible with the SKY5A2205. The SKY5A2205 is part of our Sky5® product portfolio.

The FEM facilitates flexible broadband RF switching using 15 transmit/receive (TRX) antenna switch ports, covering all 3G/4G/5G bands, from 700 MHz through 2300 to 2700 MHz.

In support of downlink inter-band CA, the TRX ports are partitioned into two independent switch blocks, including six LB ports and nine M/HB ports. Each switch block includes a forward directional coupler that may be monitored on the coupler port.

For dual antenna application designs, the SKY5A2205 has dedicated LB and M/HB antenna ports. These ports provide the simultaneous LB and M/HB reception required for downlink CA.

Ordering Information

Part Number	Description	Evaluation Board Part Number
SKY5A2205	Sky5® TX/RX Front-End Module with 15 Linear TRX Switch Ports (No 2G Integration)	SKY5A2205EK1