

**PRODUCT SUMMARY**

# SKY58095-11 Sky5® LiTE – Mid and High Band Front-End Module for 3G / 4G / 5G Applications

**Applications**

- Multi-band 3G / 4G / 5G Mobile Devices
- Handsets, Data Cards, M2M
- LTE Advanced Carrier Aggregation (CA)

**Features**

- Paired with SKY58091 Low Band FEM for a complete 2G / 3G / 4G / 5G solution
- A single MIPI® RFFE 2.1 control interface w/ 1.8 V nominal supply
- Supports Envelope Tracking (ET) operation
- Multi-close antenna switches support a single antenna
- Integrated duplexer filter for Bands 1 and 3
- Integrated duplexers for Bands 2 and 7
- Integrated filter for Bands 34/39
- Integrated filters for Bands 40 and 41
- Two auxiliary Tx outputs for external filters
- Two auxiliary TRx ports to support additional bands
- One auxiliary HB TDD Rx switch output
- Auxiliary Mid-Band antenna switch input for 2G Tx output from SKY58091 Low Band FEM
- Integrated bi-directional RF coupler with cascade support
- All RF I/O ports matched to 50 ohm impedance
- Integrated 5 GHz WiFi notch filter
- Small, low profile package:
  - 8.6 mm x 6.5 mm x 0.75 mm
  - 62-pad Large Grid Array (LGA) configuration

**3G Features:**

- WCDMA, HSPA+
- TD-SCDMA, TD-HSPA
- CDMA2000 1x RC1, RC3, EVDO (Rev A)

**4G Features:**

- FDD/TDD LTE
- Uplink QPSK, 16QAM, and 64QAM
- Intra-band Uplink Carrier Aggregation
  - 35 MHz (175RB) for Band 39
  - 40 MHz (200RB) for Bands 1, 2, 3, 7, 40 and 41
  - 60 MHz (300RB) for Bands 40 and 41
- Inter-band Downlink CA support
  - Bands 1 and 3, Bands 3 and 41, Bands 39 and 41

**5G Features:**

- Band n41
- Uplink QPSK, 16QAM, 64QAM, 256QAM
- 100 MHz for n41

**Description**

The SKY58095-11 Multimode Multiband Tx-Rx Front-End Module (FEM) supports 2G / 3G / 4G / 5G mobile devices and operates efficiently in 3G / 4G / 5G modes. The SKY58095-11 is part of our Sky5® product portfolio. The FEM consists of separate 3G/4G/5G PA blocks operating in mid- and high bands, a silicon controller containing the MIPI RFFE interface, RF band switches, MB and HB antenna switches, bi-directional couplers, and integrated filters for Bands 1, 2, 3, 7, 34, 39, 40 and 41. RF I/O ports are internally matched to 50 ohms to minimize the need for external components. Extremely low leakage current maximizes device standby time.

The IC die and passive components are mounted on a multi-layer laminate substrate. The assembly is encapsulated in a 8.6 mm x 6.5 mm x 0.75 mm, 62-pad LGA, SMT, plastic package. This allows a highly manufacturable, low cost solution.

The SKY58095-11 FEM is optimized for LTE Advanced and 5G. The combined filtering, RF matching, and TRx switching internal to the FEM optimizes performance for popular Downlink (DL) CA band combinations, all in a compact and low-cost solution. The FEM contains all necessary components between the antenna and RFIC transceiver and are optimized to provide superior Rx sensitivity and Tx efficiency.

Exceptional RF coexistence planning and system techniques are employed to minimize Rx de-sensitizing (“de-sense”). For the Uplink, the PA blocks support very wide bandwidth operation by intra-band CA up to 40 MHz (200RB) for Bands 1, 2, 3 and 7, and up to 60 MHz (300RB) for Bands 40 and 41. The FEM also supports Downlink/Uplink CA and up to 100 MHz for n41.



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.

## Ordering Information

Part Number	Part Description	Evaluation Board Part Number
SKY58095-11	Sky5® LiTE Mid and High Band Front-End Module	SKY58095-11EK1

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