PRODUCT SUMMARY

SKY78130 SkyOne® Ultra 3.0 Front-End Module for WCDMA / LTE Bands 8, 12, 13, 20, 26, 27, 28, 29

Applications

- Multiband 3G/4G handsets
- CDMA / WCDMA / HSPA / HSPA+ / FDD LTE-modulated handsets for bands 8, 12, 13, 20, 26, 27, 28A, 28B, 29, BC0 and BC10

Features

- Fully integrated LB multiband module
- Optimized for average power tracking system
- CDMA compatible
- Integrated filters for bands 8, 12, 13, 20, 26, 27, 28A, 28B, 29, BC0 & BC10
- Integrated harmonic filter
- MIPI 2.0/RFFE interface
- Closed loop architecture with the Implemented coupler output port
- Integrated LNA module
- Flexible TX input
- Support VLB/LB Transmit Output port
- Small, low profile package
  - 6.5 mm x 6.2 mm x 0.75 mm
  - 54-pad configuration
- For RoHS and other product compliance information, see the Skyworks Certificate of Conformance

Description

The SKY78130 SkyOne® Ultra 3.0 is a multimode multiband (MMMB) Front-End Module (FEM) that supports 3G/4G, and CDMA handsets and operates efficiently in CDMA, WCDMA, HSPA, and LTE modes. RF I/O ports internally matched to 50 ohms, minimize the need for external components. Extremely low leakage current maximizes handset standby time. The InGaP/GaAs die and passive components are mounted on a multi-layer laminate substrate and the assembly encapsulated in plastic overmold.

WCDMA: The SKY78130 enhanced architecture supports WCDMA/High Speed Downlink Packet Access (HSDPA) and High Speed Uplink Packet Access (HSUPA) modulations, covers multiple bands for 3GPP including bands 5, 8 and operates at different power modes. The module is fully controllable via a MIPI serial interface.

LTE: The SKY78130 meets spectral linearity requirements of LTE modulation with QPSK/16QAM up to 20 MHz bandwidth, including various resource block allocations, with excellent power-added efficiency.

CDMA: The SKY78130 meets spectral linearity requirements of CDMA2000 and EVDO Release A modulation with good power-added efficiency.

Receiver Section: The SKY78130's integrated Duplexers, RX SAWs, LNA and an Antenna switch support simultaneous Downlink Carrier Aggregation for additional Rx data rate provides 3G/4G Rx paths from antenna to input ports of RFIC. Carrier Aggregation (CA) requirements for noise and harmonics are designed-in for best desense performance. Optimized low insertion-loss Rx paths, matching circuits, and well-grounded guard traces (high Tx–Rx isolation) inside module mitigate desense problems and enhance sensitivity performance.

LNA Rx Ports: The SKY78130 provides two LNA input ports to support additional bands.

TRx and Rx Ports: The SKY78130 provides three TRx ports.

PA AUX Ports: The SKY78130 provides two PA AUX output ports.

Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY78130 SkyOne® Ultra 3.0 Front–End Module	SKY78130