

PRODUCT SUMMARY

SKY5™ -8211 SkyOne® ET Front-End Module w/ Integrated LNAs for WCDMA / LTE Bands 8, 12, 13, 14, 20, 26, 28, 71

Applications

- Multiband 3G / 4G / 5G handsets
- Multiband FDD LTE handsets

Features

- Fully integrated LB/VLB multiband module
- Envelope Tracking (ET) for WCDMA/FDD LTE bands
- CDMA compatible
- Integrated Low Noise Amplifiers (LNA)
- Fully programmable Mobile Industry Processor Interface (MIPI®) digital control
- MIPI/RFFE interface
- Closed loop architecture with the Implemented coupler output port
- Fully configurable RF inputs
- Support B29 receiver port
- Small, low profile package
 - 5.5 x 8.0 x 0.65 mm
 - 50-pad configuration



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.

Description

The SKY58211 Envelope Tracking Front-End Module (FEM) is a multimode multiband (MMMB) module with integrated Low Noise Amplifiers (LNAs) which supports 2.5G / 3G / 4G / 5G and CDMA handsets, and operates efficiently in WCDMA, HSPA, and LTE modes. The FEM consists of a GSM800/ EGSM900 PA block, separate WCDMA blocks operating in the low bands, a logic control block for multiple power control levels, and band enable functions in both cellular and UMTS. RF I/O ports are internally matched to 50 ohms to 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 SKY58211 enhanced architecture supports WCDMA/High Speed Downlink Packet Access (HSDPA) and High Speed Uplink Packet Access (HSUPA) modulations, covers multiple bands for 3GPP including band 8 and band 26, and operates at different power modes. The module is fully controllable via a MIPI serial interface.

LTE: The SKY58211 meets spectral linearity requirements of LTE modulation with QPSK/16QAM up to 20 MHz bandwidth, including various resource block allocations, with good power-added efficiency.

CDMA: The SKY58211 meets spectral linearity requirements of CDMA2000 and EVDO Release A modulation with good power-added efficiency.

Receiver Section: The SKY58211 integrated duplexers and LNAs provide 2G / 3G / 4G / 5G Rx paths from antenna to transceiver. Additionally, GPS and LB/HB WiFi coexistence are designed-in for exceptional support to maintain all radio performance, even in user scenarios of simultaneous use. Optimized low insertion-loss Rx paths, matching circuits, and well-grounded guard traces (high Tx–Rx isolation) inside module mitigate de-sense problems and enhance sensitivity performance.

TRx and Rx Ports: The SKY58211 provides two TRx ports and two Aux LNA inputs.

Ordering Information

Part Number	Part Description	Evaluation Board Part Number
SKY58211	SkyOne® ET Front-End Module	SKY58211EK1

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