



SKYWORKS®

Boost Data Throughput and Efficiency with Wide Instantaneous Bandwidth Power Amplifiers

The SKYR23001 reference design for 5G NR Time Division Duplex (TDD) small cell base station radios features 200 MHz (or up to 400 MHz) bandwidth, enabling more data to move faster in wireless infrastructure applications such as 4G and 5G micro- and macro-base stations.

The SKY6652x amplifier family featuring pin-to-pin compatibility for the major 3GPP bands is used in the reference design. The amplifiers include active bias that optimizes performance over temperature, voltage, and process variation. The receive side includes the SKY67183-396LF low noise amplifier (LNA), covering 400 MHz to 6 GHz, with 18 dB gain and 0.45 dB noise figure at 3.8 GHz.

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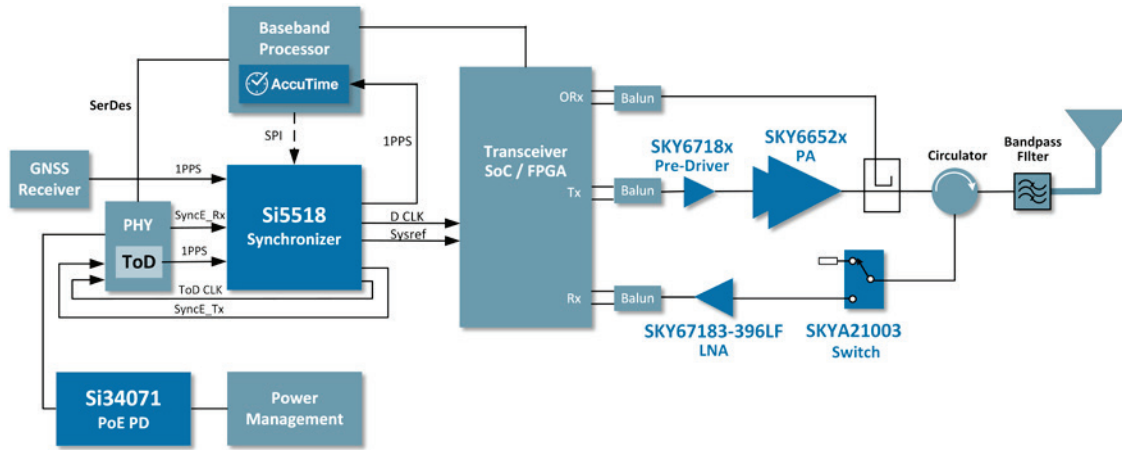


Featured Product

SKYWORKS®

SKYR23001

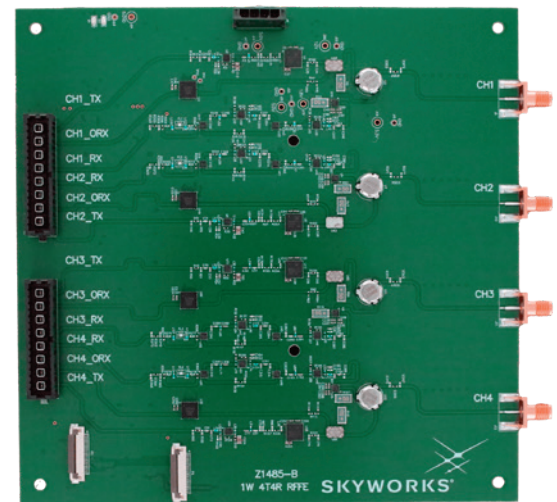
5G NR Time Division Duplex (TDD) RF Front-end Reference Design for Small Cell Base Station Radios



The reference design is pre-tuned for RF input/output and post-digital pre-distortion (DPD) linearity, increasing efficiency and enabling fast time-to-market.

Features

- Covers all 5G TDD bands
- A complete end-to-end solution with 200 MHz instantaneous bandwidth
- Up to 400 MHz bandwidth when used with the SKY66524-11 or SKY66525-11
- High linearity, high gain
- Internally matched 50 Ohm input and output
- Integrated active bias optimizes performance over temperature
- Enable/disable control increases efficiency
- The SKYA21003 high-power, fast switch can be used as a failsafe or bypass switch to protect the LNA
- ADS models and the SKYR23001 reference design streamline time-to-market



Part Number	Description	3GPP Band	Package
SKY66522-11	2300 to 2690 MHz, 200 wide MHz instantaneous BW high-efficiency PA	B7, B38, B40, B41, n41	16-pin, 5 x 5 x 1.04 mm
SKY66523-11	3550 to 4200 MHz, 200 MHz wide instantaneous BW high-efficiency PA	n77, n48	16-pin, 5 x 5 x 1.04 mm
SKY66524-11	3300 to 3800 MHz, 400 MHz wide instantaneous BW high-efficiency PA	n78, B42, and B43	16-pin, 5 x 5 x 1.04 mm
SKY66525-11	3450 to 4200 MHz, 400 MHz wide instantaneous BW high-efficiency PA	n77	16-pin, 5 x 5 x 1.04 mm
SKY67183-396LF	400 to 6000 MHz high linearity LNA	All sub-6 GHz bands	8-pin 2 x 2 mm QFN
SKYA21003	100 to 8500 MHz high power handling switch	All sub-8.5 GHz bands	12-pin, 2 x 2 mm QFN
SKYR23001-11	Reference design		

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