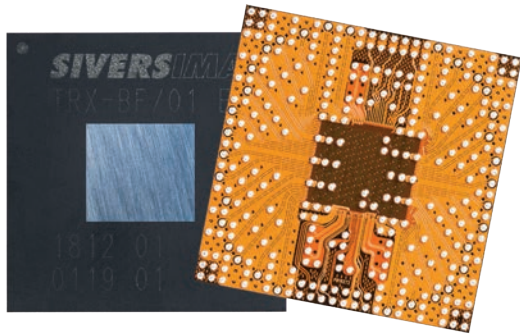


Sivers IMA launches a fully compliant 5G NR 16+16 Transceiver RFIC with outstanding performance



This Transceiver RFIC is developed for data and telecommunication infrastructure solutions such as, 5G indoor small cells, 5G outdoor small cell, 5G access points, Fixed wireless access CPE, Residential broadband access, self haul, Fronthaul, Small cell backhaul, Wireless high speed point to multipoint networks, multipoint mesh networks, Wireless access points and more.

Sivers IMA can now offer a 5G NR compliant 16+16 beam forming transceiver RFIC that support the need for the increased demand of data traffic. The RFIC has excellent EVM performance and can be used with 64 QAM modulation with speeds up to 4 Gbps.

The 16+16 beam forming transceiver RFIC is developed in Silicon Germanium and offers outstanding performance and integration levels compared to other RFICs on the market, in some cases more than 5 times higher output power per channel compared with other products.

Benefits

- Increased power by using multiple channels with a factor $10 \log(x)$, where x is number of channels
- Increased gain and directivity
- Reduced interference outside the beam
- Low installation cost, since there is no need for manual antenna alignment in point to point links
- Low link maintenance cost, due to no risk of misalignment due to masts way or other changes in position of the end-points

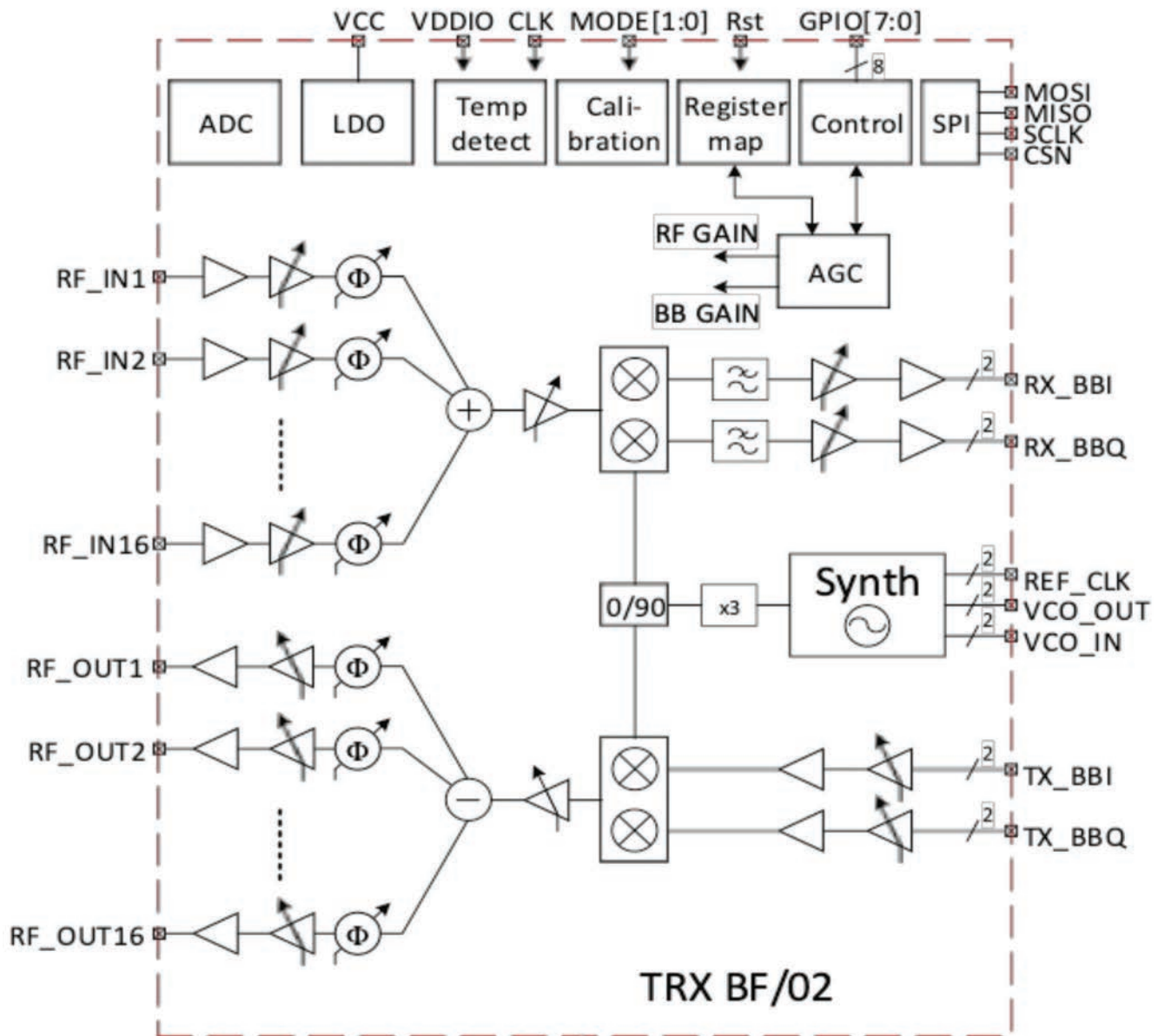
Features

- Optimized for 5G NR systems (TDD)
- Supports FDD systems with two transceivers
- Support modulation schemes: up to 64 QAM (with internal LO)
- Direct conversion I/Q transceiver
- Base Band I/Q- bandwidth up to 1 GHz
- 16+16 Tx/RxPhase shifters
- Beam steering and beam forming based
- Typically, + 24 dBm combined linear output power
- <7 dB NF (Noise Figure)
- Support 24-29.5 GHz operation
- eWLB (embedded Wafer Level Ball Grid Array) packaged device

Fully integrated Analog baseband functionality (BBTx and BBRx), optimized for seamless integration with the modem, results in low integration cost.

Thanks to advanced SiGe (Silicon Germanium) technology and a very high f_{max} of 300GHz, Sivers IMA is able to provide superior EVM and interference performance. The SiGe transceiver is delivered in a 12,5x12,5 mm eWLB (embedded Wafer Level Ball Grid Array) packaged device that includes all building blocks - such as millimeter wave phase shifters, up and down converters, 16 x Power Amplifier (PA), 16 x Low Noise Amplifier (LNA), Fractional-N synthesizer including Voltage Controlled Oscillator (VCO), Analog baseband (BBTx and BBRx), fully autonomous AGC, calibration routines of IQ-error/DC-offset/LOleakage, beam book, digital blocks for transceiver and beam book control.

- all of this into a single chip.



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