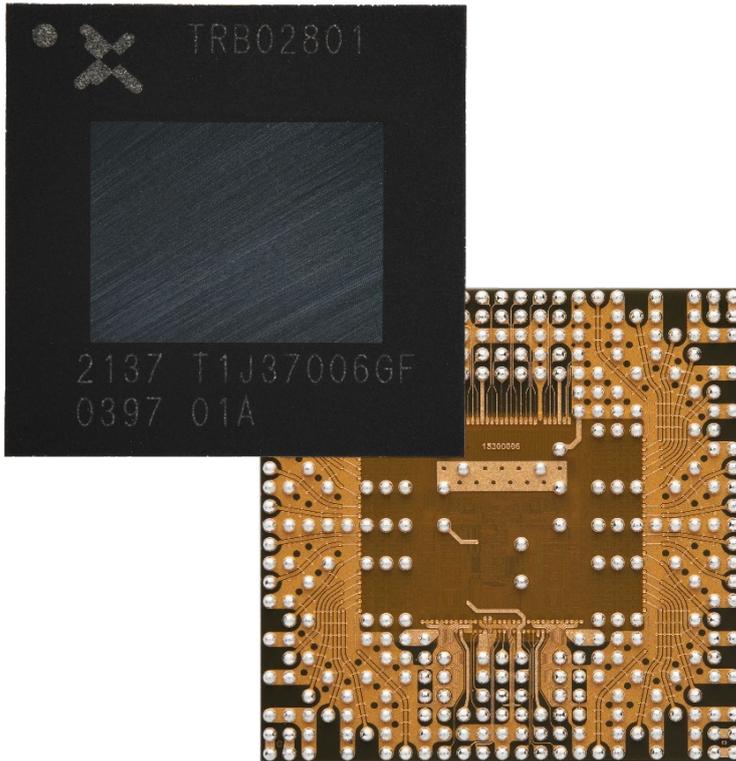




Highly integrated, state of the art 5G NR RFIC



Sivers Semiconductors pushes ahead with more 5G innovations.

The TRB02801 support the full frequency range from 24.25 to 29.5 GHz with speeds up to 5 Gbit/s. The unique level of integration enables support for different markets and frequency bands using the same hardware. Explore how this groundbreaking RFIC will improve and speed-up your licensed 5G rollout.

TRB02801 is a 32 channel beam forming transceiver Radio Frequency Integrated Circuit (RFIC). With support for both Zero-IF and IF baseband interface, it may easily be integrated to your product with any 5G mmWave modem.



FWA



5G MMWAVE



BACKHAUL



V2X

KEY FEATURES

- 24.25 GHz-29.5 GHz
- Wide band transmit and receive antenna array optimized for the 28 and 39 GHz bands
- Designed for 3GPP NR 5G Fixed Wireless Access (FWA) applications
- Beamforming transceiver with 32 (2x16 H+V) ports enabling two data streams supporting 2 MIMO layers
- RF tiling of multiple transceivers for large array antenna configurations
- Integrated T/R-switches, linear power and low noise amplifiers
- Excellent RF performance providing best in class EVM performance
- High-performance synthesizer
- Connection to the baseband modem through:
 - Analog IQ-interface (Zero IF) or
 - IF-interface
- Integrated programmable baseband filters
- Easy to use with autonomous calibration routines and simple baseband interface

The unique high level of integration enables full transceiver design. Several RFICs may be tiled together in bigger arrays for longer reach and greater performance.

Less components means less cost and higher quality - critical parameters to consider when designing a Customer Premises Equipment (CPE) or small "hot spot" base stations. The transceiver IC supports unique wide band coverage of 24.25 – 29.5 GHz, superior link budget, excellent Error Vector Magnitude (EVM) performance enabling more than 256 QAM OFDM modulation, full temperature range of -40 to +85 deg C, small form-factor and flexible channelization. All of which make the RFIC uniquely well fitted for outdoor infrastructure 5G mmWave applications.

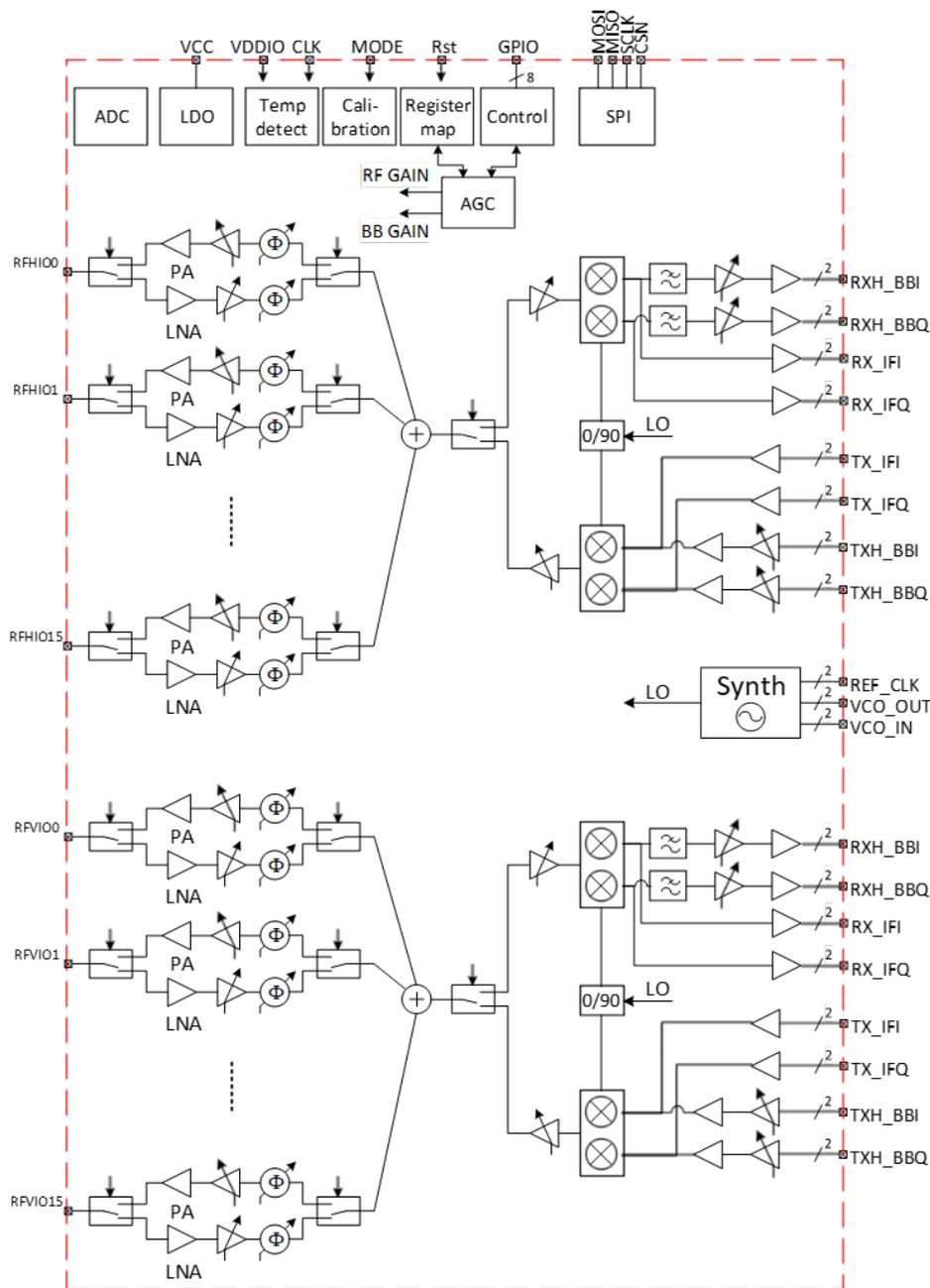
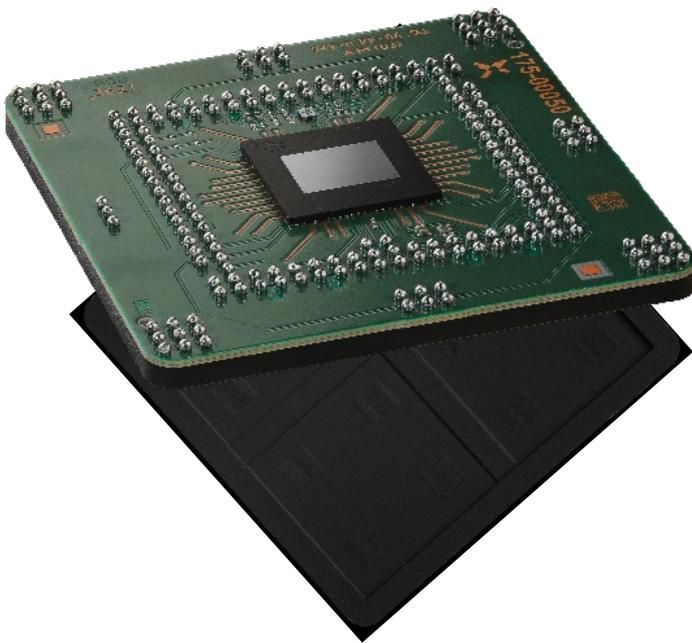


Figure 1. Block schematics TRB02801

For more information please contact: sales@sivers-wireless.com



Best in class beamforming antenna module covering the licensed 28 GHz 5G mmWave band



Utilize the award-winning experienced RF engineering team at Sivers Semiconductors and let us design the Radio Frequency part in your 5G-NR mmwave access product. Our RF module BFM02801 has unmatched power performance and throughput together with an integrated antenna that gives you a competitive advantage in the licensed 5G race.

By combining the unmatched performance of the TRB02801 RFIC with innovative antenna design, you get the flexibility and performance required for large deployments of your licensed 5G networks.



5G MMWAVE



BACKHAUL



FWA



V2X

KEY FEATURES

- 24.25 GHz - 29.5 GHz
- Wide band transmit and receive antenna array optimized for the 28 GHz band
- Designed for 3GPP NR 5G Fixed Wireless Access (FWA) applications
- Dual polarisation beamforming transceiver with 32 (2x16 H+V) ports enabling two data streams supporting 2x2 MIMO
- RF tiling of multiple transceivers for large array antenna configurations
- Beam steering:
 - Azimuth ± 45 degrees
 - Elevation ± 45 degrees
- Integrated T/R-switches, linear power and low noise amplifiers
- Excellent RF performance providing best in class EVM performance
- High-performance synthesizer
- Connection to the baseband modem through:
 - Analog IQ-interface (Zero IF) or
 - IF-interface
- Integrated programmable baseband filters
- Easy to use with autonomous calibration routines and simple baseband interface

Transmitted power of up to +48 dBm with electronic beam steering in one single module enable product deployments in the most diverse applications. Furthermore, autonomous calibration routines and simple baseband interfaces make it easy to install and manage.

Small form factor will be key going forward addressing FWA/RAN/O-RAN solutions. This module is setting the scene for 5G-NR RFIC and antenna modules through its high output power levels, intelligent power management and flexibility.

For more information please contact: sales@sivers-wireless.com

Sivers Semiconductors AB (STO: SIVE) is a leader in SATCOM, 5G, 6G, Photonics, and Silicon Photonics that drives innovation in global communications and sensor technology. Our business units, Photonics and Wireless, supply cutting-edge, integrated chips and modules critical for high-performance gigabit wireless and optical networks. Catering to a broad spectrum of industries from telecommunication to aerospace, we fulfill the increasing demand for computational speed and AI application performance, replacing electric with optical connections for a more sustainable world. Our wireless solutions are forging paths in advanced SATCOM/5G/6G systems, while our photonics expertise is revolutionizing custom semiconductor photonic devices for optical networks and optical sensing, making us a trusted partner to Fortune 100 companies as well as emerging unicorns. With innovation at our core, Sivers Semiconductors is committed to delivering bespoke, high-performance solutions for a better-connected and safer world. Discover our passion for perfection at www.sivers-semiconductors.com.