# Sivers at IMS2022

AT THE HEART OF INNOVATION



#### MEET US AT IMS2022

MM WAVE LIVE DEMOS

When you visit us at IMS2022, you will be able to see several ground-breaking live demonstrations covering both 26,28,39 and 60 GHz solutions.

You will also be able to see examples of successful implementations in commercial products.

Several demos will also include configurations with partners like Airvine, Kreemo and Rhode&Schwartz and you will be able to see them both in the Sivers booths as well as in our partners' booths.



# **PRODUCT UPDATES** COMPLETING THE PORTFOLIO

Improved output power and power efficiency bring our beam former products to a pole position on the market.

Separate Up & Down converter ICs complementing the beam former IC for bigger array configurations.

True antenna-in-package solution for 39 GHz, minimizing technical risks and complexity in system design.



#### **MEET WITH US!**

We will be in booths #12013 and #12014 during the whole IMS2022 show. If you want to reach out and book a meeting with us, please send us an e-mail at <u>events@sivers-wireless.com</u>

Also, enjoy Mr Mike Noonen, Sivers Wireless, who will participate in the panel "<u>Race to the Next G – Ride the mmWave or Wave</u> <u>Goodbye!</u>", Tuesday June 21 at 12:10pm.

For generic requests or to get in contact, please e-mail: <u>sales@sivers-wireless.com</u>



# Meet Us at IMS2022

## The new Sivers Wireless

Take the opportunity to meet the team behind the new Sivers Wireless, after the acquisition of former Mixcomm. You will find us in booth #12013 AND #12014, where we will run several interesting live demonstrations and exhibit some successful implementations of our technology in commercial products. The updated portfolio includes the highest performing 5G NR FR2 beam former products on the market, unparallel 60 GHz transceiver solutions for various use cases requiring true broadband connectivity as well as the ground breaking, highly integrated FR2 transceiver solutions optimized for smaller configurations like CPEs and Small cell implementations.

## Live Demonstrations

During IMS2022, Sivers will live demonstrate "over the air", a number of our market leading products.

#### SUMMIT2629 and SUMMIT3741

The SUMMIT family offers eight-channel RF front ends for 28 GHz and 39 GHz, 5G phased array antenna systems fabricated in RF-SOI. The SUMMIT products bring value to our customers by means of:

- Extending the link range to decrease infrastructure costs and improve customer satisfaction.
- Reducing power consumption and thermal dissipation.
- Reducing antenna array complexity and overall RF front-end cost.

The SUMMIT products will be live demonstrated both in the Sivers booth as well as with Richardson RFPD (booth #4090).

#### TRB02801 and TRB03901/BFM02801 and BFM03901

TRB02801/TRB03901 is a family of 32 channel beam forming transceiver Radio Frequency Integrated Circuits (RFICs) including both up-and down-conversion as well as a built in synthesizer/PLL. With support for both Zero-IF and IF baseband interface, it is easily integrated in to your product with any 5G mmWave modem or Sub-6 GHz FR1 transceiver. The BFM02801 and BFM03901 is the active antenna module based on the TRB RFICs.

#### 39 GHz Antenna-in-Package (AiP)

With state-of-the art integration of the SUMMIT beamformer ICs with a unique antenna building practice, Sivers can now offer a 39 GHz antenna in package solution, which will remove the system integration headache when implementing 39 GHz into your products. By taking care of the complex RF routing and matching issues in the module, Sivers enables a more rapid and straight forward implementation of 39 GHz functionality. The 39 GHz AiP product will be demonstrated at the Rhode Schwartz booth #7056.



#### Partnerships

Sivers works closely with several leading companies within the millimeter wave eco system and we have joint demos and exposure with some of them at IMS2022.

#### Airvine – the WaveTunnel™

Airvine recently announced the availability of their innovative WaveTunnel product, which is based on the Sivers TRXBF/01 RFIC for superior performance in the 60 GHz band. At IMS2022, you will be able to see this product running live traffic at the Sivers booth.

#### Kreemo – redefining wireless connectivity

Kreemo has integrated the Sivers beamformer ICs with their innovative antenna solutions, exemplified by the Antenna on Display (AoD) e.g. for handset implementations and stackable antenna solutions for 360 degree coverage of 5G FR2 radios. These solutions will be showed and shared at both the Sivers and the Kreemo booths at IMS2022.

#### Adtran/CCS – providing the industry's first selforganizing, self-optimizing and self-healing (SON) products for 60 GHz FWA

Come and have a look at the products based on Sivers BFM06010 and developed by CCS/Adtran for 60 GHz FWA. This product is one of the very few complying to the RDOF requirements aimed for bringing broadband connectivity also to the rural areas of the US.

#### Tachyon Networks - Affordable 60 GHz PTP & PTMP Fixed Wireless Solutions

Tachyon Networks offer a truly cost-effective product benefitting from the unique features enabled by the Sivers RF module, the BFM06009. With its flexibility, performance and robustness, it is a very good choice for FWA applications. Visit our stand and see for yourself.

#### www.sivers-semiconductors.com

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# **PRODUCT UPDATES**

#### Completing the portfolio

Sivers Wireless offers a complete, value adding 5G NR FR2 RF portfolio, suitable for any configurations from the biggest antenna arrays with high requirements on output power down to the smallest CPE configurations or the solutions for indoor coverage or hot spots. On top of that, Sivers also offer the RF products for the unlicensed 60 GHz band, already now ready to be used in 5G NR-U applications, and RFICs for the SatCom space, where performance and efficiency is key. Sivers also adds value to our customers by providing software algorithms that can be run on a customer's baseband unit to further boost the RF performance of your product.



#### 5G mmWave RFICs

Family of RFIC with highest level of integration including BF, UDC and  $\ensuremath{\mathsf{PLL}}$ 

Support for both IF and Zero IF i/f (configurable)

Part of verified solution Integrated with 4x4 antenna array

Optimized for CPE and Small cell implementation

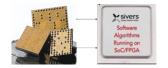


# *5G NR FR2 Beamformers and Antenna In package*

Family of highly integrated beamformer ICs with remarkable output power and efficiency

GlobalFoundries Enhanced 45RFSOI, following 10 years of collaboration

Chip-scale package and industry-first Antenna-in-Package technology



#### Algorithms

Performance boosting algorithms that run on a customer's baseband

World's first array predistortion algorithm

Adds value and "stickiness" to Open RAN and Open RF architectures



#### Unlicensed 5G RFICs and Antenna modules

Highest level of performance and widest frequency coverage with one Hardware

Sivers offer "Chip only" or integrated with antenna (several antenna options available)

Support for 802.11ad and 60 GHz 5G NR-U

Optimized for infrastructure applications in the unlicensed 60 GHz space



SatCom Tx and Rx Chipsets

Dual-pol 4-antenna multi-beam Ka Band Satcom RX and TX Chipset

Developed for and funded by Satellite Terminal vendor

Prototype systems in trial, production ramp in 2022

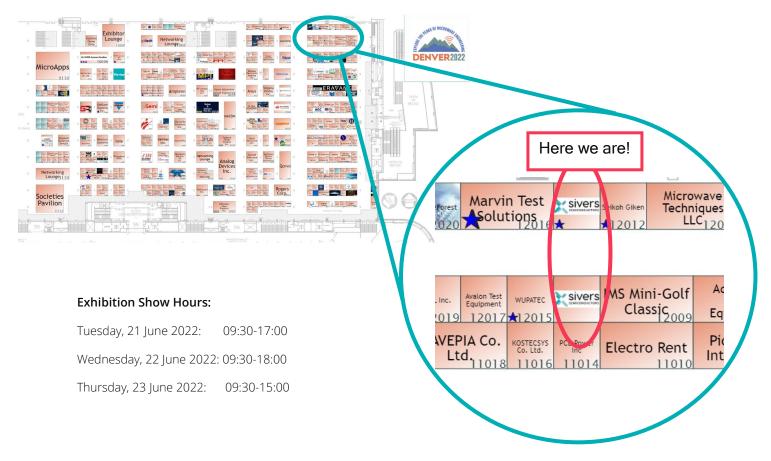




## FIND US AT THE IMS2022

Take the opportunity to come and visit us during the exhibition and discuss how we can assist you in getting the most out of the millimeter wave technology, either it relates to licensed or unlicensed 5G, Satellite Communication or any other application requiring high data rates and throughput. We are here to make you successful!

This year Sivers Semiconductors has two booths (#12013 and #12014) not far from each other, where we show our capabilities, and you can meet our experts.



# You can also find our products demonstrated at the following partner booths:

Rhode & Schwartz: Booth #7056. Demonstrating Sivers unique beamforming Antenna in Package (AiP) for 37-41 GHz applications

Kreemo: Booth #9091. Live demonstration of unique mmWave antenna solutions like Antenna in Display (AiD) and the world's first beamforming mmWave antenna with 360 degree coverage...with Sivers inside!

Richardson RFPD: Booth #4090. Demonstrating the SUMMIT family of beam formers

Sivers Semiconductors AB is a leading and internationally recognized technology company that supplies ICs and integrated modules through its two business areas Wireless and Photonics. Wireless develops mmWave products for advanced 5G systems for data and telecommunications networks and satellite communication. The portfolio includes RF transceivers, beamforming front end ICs, integrated mmwave antennas, repeaters, and software algorithms for optimum mmWave RF performance. Photonics develops and manufactures semiconductor based optical products for optical fiber networks, sensors and optical fiber communications (Li-Fi). The company is listed on Nasdaq Stockholm under SIVE. The head office is located in Kista, Sweden. For more information: http://www.sivers-semiconductors.com



E&SCHWARZ

**KREEMO** 

**RichardsonRFPD**