

## Sivers Insights

### **Mobile World Congress** – Back again after three years!

## Back again!

A whole industry has been waiting for this moment. Three years of building relations in 2D over virtual connections finally came to an end! It was not quite as we remembered from before, but it was live and it was vibrant! With more than 60,000 visitors and 1,900 exhibitors, the industry is definitely back on track and from a Sivers Semiconductors perspective, it was a feeling of pre-pandemic intensity when it comes to the number of meetings and the willingness of the eco-system to work together.

When planning for the event, there was a bit of uncertainty around customer's willingness to travel and how many that would show up physically in Barcelona. But that uncertainty turned out to be non-justified and we had 30+ meetings pre-booked when arriving in Barcelona and we ended the four intensive days with between 40 and 50 meetings with existing customers, partners and potential new customers at our stand, where we presented two impressive and fully performing live demonstrations: both our new 28 GHz products from the Mixcomm acquisition and the existing 60 GHz solution, represented by the Blu Wireless Track-to-Train system.

We all have been waiting for this very moment. To have the world's most important telecom event back in a big way again and MWC22 was maybe not as big as in 2019, but it kept us quite busy during these four intense days.



**Figure 1.** Sivers products to the left and Sivers Semiconductors CEO interviewed by NHK World Japan in Sivers booth. In the background also Sivers 28 GHz live demo of MixComm phased array module with 25 BFIC's

## 5G is on the move

The perception in general was that Sub 6 GHz 5G NR is what is deployed "as we speak" and there are lots of aspects to address relating to these massive deployments. But it is also obvious that 5G mmWave is and will be a strategic asset for mobile operators to better utilize the total network resources. At the special 5G mmWave Summit, hosted by the GSMA, several of the biggest players on the market shared proof points of what only 5G mmWave can offer. Verizon, one of the largest mobile operators in the US showed how they used 5G mmWave during the Super Bowl 2022. Telstra, a leading operator in Australia, was excited about how to use it for network densification and how to apply repeaters to improve coverage and make an even better use case. From South Korea they showed examples of how they added 28 GHz mmWave solutions to offer track to train solutions with 10x better capacity for the end users on the trains compared to WiFi. There we couldn't help ourselves to reflect on the situation if they would apply the unlicensed 60 GHz solutions for an even better end user experience.

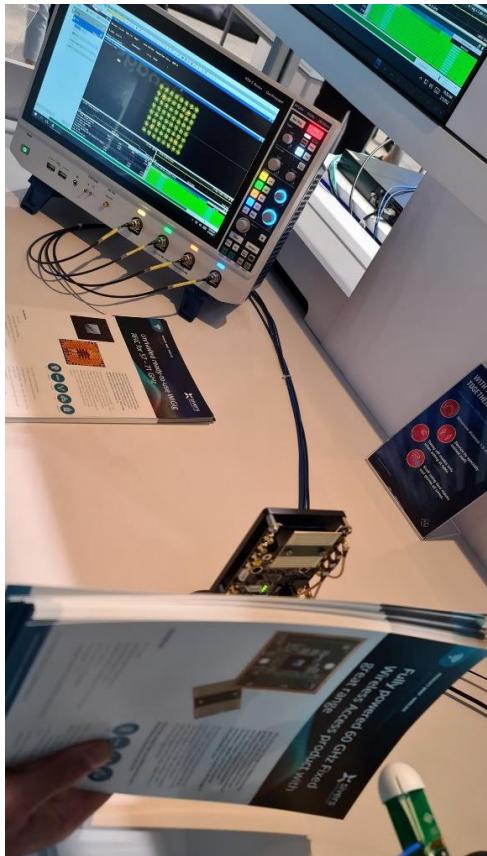
Another hot theme during MWC was the progress seen within the Open RAN initiatives around the world. This initiative, where an open standard is applied instead of proprietary solutions within a system, opens up for more competition and a possibility to select the best of breed within the full eco-system. This is an area, where Sivers is active and facilitate several co-operations with eco-system partners to offer leading RF capabilities. These partners range from the biggest, most respected companies within the eco-system to the small, fast moving and innovative start-ups that are popping up with very interesting solutions and offerings.



*Figure 2. Examples of leading companies active in the Open RAN initiative*

## Sivers and partner demos

Sivers did not just share live demonstrations in our own booth, we were also active in being part of partner's live demonstrations. Examples of those were Rhode & Schwartz, who used Sivers products to demonstrate a live link with 5G NR-U, the use of the unlicensed 60 GHz spectrum within the frame of the 5G NR standard, Cambium, who showed their new 28 GHz Point-to-Multipoint product with Sivers inside as well as both Fujikura and Adtran who showed products in operation with gigabit traffic speeds and low latency using Sivers components.



**Figure 3.** Rohde & Schwarz Demo of 60 GHz 5G NR-U, **Figure 4.** Fujikura Demo of 60 GHz “no” latency video shooting radio waves through many sheets of thick paper and still offering 64 QAM modulation



## New products and concepts

The MWC show is a show and a market window, where many new products are launched and made visible to the public for the first time. This is also applicable to Sivers and we launched a series of new products originating from the acquisition of Mixcomm together with several products and concepts that we presented together with partners.

One of the more innovative and truly interesting products was the new 360-degree Metaverse module from our Korean partner, Kreemo. This groundbreaking module can be used in USB dongles, VR/AR Glasses and various handset applications. The unique feature of this module is the 360-degree antenna coverage, which effectively addresses one of the key characteristics of mmWave – line-of-sight propagation. With this technology a vast variety of very interesting and consumer near applications becomes viable and clearly addressable.



Figure 5. Kreemo 360 degree Metaverse module that can be used in USB dongles

Together with our partner MaxLinear, Sivers launched a disruptive concept of combining two market leading technologies to address a major opportunity in the 5G networks -the backhaul solutions. By combining the Sivers unlicensed 60 GHz technology, characterized by its superior RF performance, with the market leading baseband solution for Point-to-Point mmWave by MaxLinear, a 10 Gbit/s solution can be achieved at a fraction of the cost for traditional wireless 10 Gbit/s products. This is a truly innovative concept being developed together with a lead customer, which is expected to be available towards the end of 2022.

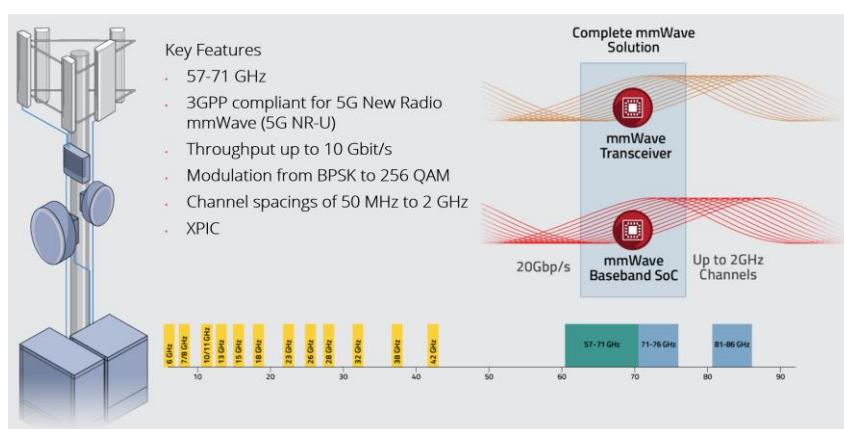


Figure 6. Disruptive use of the unlicensed 60 GHz band

## Conclusion

*It is obvious that these types of events are needed, where people can meet in real life, have dynamic discussions, exchange ideas and challenge each other to drive the development of the eco-system. It is important to everyone, including Sivers. MWC has been missed and we are confident that the energy and the live meetings with customers and partners we had during MWC22 will fuel existing as well as new business over the full year of 2022.*

**Anders Storm**  
Group CEO  
Sivers Semiconductors