

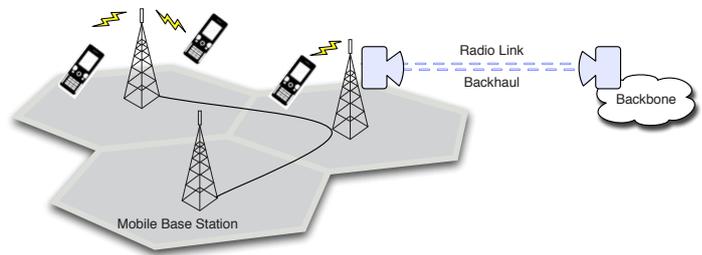
mm-wave converter

series

for high capacity wireless transfer

Demand for high capacity radio links

Connection speeds of mobile devices increase with each new generation; 3G and 4G mobile devices are designed to handle speeds of 14 Mbps and 100 Mbps. Exploding number of users and new services with rich content such as streaming video, web surfing, and line gaming demand a dramatic increase in backhaul capacity in the Gbps range. This capacity is not currently offered by traditional radio links.



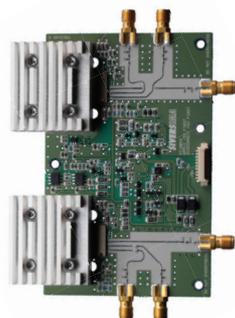
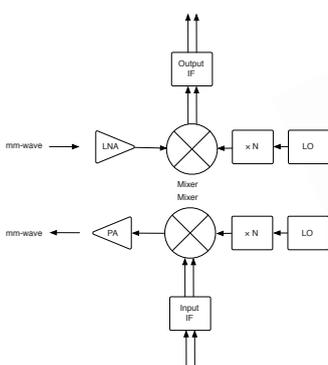
The answer for high capacity radio links

The mm-wave bands are the V-band from 57-64 GHz and the E-band from 71-76 GHz and 81-86 GHz. The mm-wave bands offer huge bandwidths and are capable of multiple Gbps throughput while being available worldwide. Sivers IMA is offering a short cut around the complex development process traditionally needed for mm-wave radio links. Our converters only require a baseband or RF signal as a source prior to conversion to 60 or 70/80 GHz.

60 GHz v-band This product has an on board frequency synthesizer and fully covers the V-band from 57-64 GHz. The design is capable of full duplex operation and has a waveguide interface for a diplexer sharing an antenna or direct mounting of individual antennas.

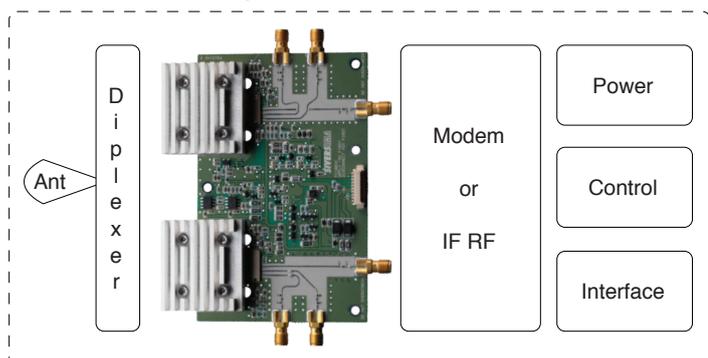
70 GHz e-band **80 GHz e-band** This product has an on board frequency synthesizer. In RX it covers the full E-band from 71-86 GHz; two models, depending on TX frequency are available; one covering 71-76 GHz and one covering 81-86 GHz. The design is capable of full duplex operation and has a waveguide interface for a diplexer sharing an antenna or direct mounting of individual antennas.

The converters share the same design philosophy and are characterized by a simplified architecture based upon



Sivers IMA developed sub-blocks. These create a complete and cost-efficient mm-wave front-end. The design can easily be adapted to customer specifications and integrated into a customer's product range. The Sivers IMA converter platform and associated accessories are mass-production components that can be used as the foundation for next generation communications systems. Applications include high capacity links for IP data, video, or telemetry at speeds up to several gigabits per second. These converter are an extremely cost competitive product for a traditionally high-cost component.

Sivers IMA is offering the heart of the radio link, the radio front-end. However, to assemble a complete radio link



some additional components must be integrated. The converter needs be fed with either a baseband signal or a modulated RF signal. The power, control and interface specifications can be easily modified as per customer requirements. Antenna choice is dependent on the required system gain, and also on whether one antenna is used in conjunction with a diplexer, or if two antennas are mounted directly to the WR-12 or -15 waveguide interfaces.