The communication industry is faced with a challenge concerning future wireless communication systems. Since the demand on frequency spectrum resources is increasing, wireless communication systems have to deal with coexistence and interference problems. Ever-evolving communication standards and the need for multi-standard communication devices to keep pace with these developments make digitally tunable filters essential.

**INCREASED FLEXIBILITY OF RF FRONT ENDS**
Frequency-agile filters enhance the flexibility of RF front ends, which can be easily adapted to new communication standards and country- or application-specific frequency ranges even during run-time.

**FLEXIBLE COEXISTENCE AND INTERFERENCE MANAGEMENT**
Based on their high switching speed and reliability, the digitally tunable filters help to avoid interference between wireless systems and enable flexible coexistence solutions.

**SIMPLE IMPLEMENTATION AND OPERATION**
Replacing filter banks with digitally tunable filter modules saves space and reduces the material usage in RF front ends.

The tunable RF filters developed by Fraunhofer IIS reliably select the required frequency spectrum while rejecting out-of-band signals. They are digitally tunable and can be reconfigured even during operation, which decreases latency and allows for dynamic spectrum access.

We have different tunable filters available for a wide range of applications in the fields of mobile communication, public safety, the Internet of Things (IoT) and satellite communication. Furthermore we carry out technical feasibility studies and develop prototypes for various frequencies in the microwave range.

If you are interested in the available filters, if you need customized RF filters or if you have further specific requirements – we look forward to your request!