SAW and Qualcomm® ultraBAW™ Filters  
for Wi-Fi and Bluetooth 2.4 GHz and Wi-Fi 5 GHz to 7 GHz

More and more devices in homes and public and industrial areas are connected for seamless operation with many of them wirelessly using Wi-Fi and/or Bluetooth®. While 2.4 GHz is the typically used Wi-Fi and Bluetooth frequency band, the frequency area between 5 and 7 GHz becomes more and more important for more reliable and faster connection (e.g. Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7). Qualcomm ultraBAW filters ensure simultaneous operation in the 5 and 6 GHz bands enabling the full potential of Wi-Fi 6/6E/7 to provide highest data rate and widest bandwidth.

Qualcomm Technologies – a leader in SAW filters  
Here we present SAW and Qualcomm ultraBAW filters for Wi-Fi systems operating in the 2.4 GHz and 5 to 7 GHz areas.

Reference designs  
You will find our filters in many of our reference designs.

Application Examples

Example of Wi-Fi Front End Design

Qualcomm® ultraSAW™ and Qualcomm ultraBAW filters are designed for Wi-Fi spectrum coexistence challenging applications. Acoustic filters offer superior performance to other technologies.
Coexistence of LTE and/or 5GNR can interfere with Wi-Fi channels in 2.4 GHz and 5-7 GHz spectrums during operation. The 2.4 GHz Wi-Fi channel is adjacent to the LTE / 5G bands 41, 40, and 7, while 5-7 GHz Wi-Fi is adjacent to the n79. Also of concern is the relative nearness of n77/78 and even the CBRS spectrum at 3.5 GHz. Due to their excellent nearby attenuation, Qualcomm SAW and Qualcomm ultraBAW filters are able to suppress interferer from the mentioned sources and ensure seamless operation of the Wi-Fi device.

For datasheets see [rfe.qualcomm.com](http://rfe.qualcomm.com)