

2.4 GHz Bluetooth and Wi-Fi SAW Filters

for hearing aids and other wearables

Qualcomm

Wearables such as hearing aids typically use 2.4 GHz based Bluetooth® and/or Wi-Fi for connection and data transfer to control units and mobile phones.

Qualcomm Technologies – a leader in SAW filters

Here we present SAW filter highlights for 2.4 GHz based wireless connections. Especially the filters in the extreme small package size 0.9 mm x 0.7 mm are tailor made for wearable applications where each mm² counts.

Product Range

Filters for 2.4 GHz Bluetooth and Wi-Fi

| Part Number | Package size [mm x mm] | fstart [MHz] | fc [MHz] | fstop [MHz] | BW [MHz] | IL, typ [dB] | IL, max [dB] | Highlight |
|-----------------|---------------------------|-----------------|-------------|----------------|-------------|-----------------|-----------------|--|
| B39242B7544L210 | 0.9 x 0.7 | 2403.1 | 2442 | 2480.9 | 1.7 | 1.1-1.4 | 1.6-2.1 | B7/B40/B41 coexistence, very low insertion attenuation |
| B39242B7530L210 | 0.9 x 0.7 | 2403.1 | 2442 | 2480.9 | 7.0 | 0.6-1.0 | 1.2-1.9 | superior B7/B40/B41 coexistence |
| B39242B7520P810 | 1.1 x 0.9 | 2403.1 | 2442 | 2480.9 | 14.0 | 0.9-1.4 | 1.5-2.0 | B7/B40/B41 coexistence, very low insertion attenuation |
| B39242B7509L210 | 1.1 x 0.9 | 2403.1 | 2442 | 2480.9 | 2.0 | 1.1-1.7 | 1.7-2.5 | superior B7/B40/B41 coexistence |
| B39242B7506P810 | 1.1 x 0.9 | 2403.1 | 2442 | 2480.9 | 2.0 | 1.0-1.4 | 1.5-1.9 | very low insertion attenuation |
| B39242B7539P810 | 1.1 x 0.9 | 2403.1 | 2437 | 2470.9 | 2.0 | 0.7-1.0 | 1.1-1.6 | band edge filter CH1 to 11 |
| B39242B7511P810 | 1.1 x 0.9 | 2402.5 | 2448 | 2493.5 | 2.0 | 1.0-1.2 | 1.3-1.8 | band edge filter CH1 to 14 |
| B39242B8371P810 | 1.4 x 1.1 | 2400 | 2442 | 2483.5 | 26.0 | 1.6 | 2.6 | B7/B40/B41 coexistence |

Technical data subject to change. Filter specification must be taken from the respective product data sheet.

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

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