
RF Design Kit ATAK57xx Selection Guide

Atmel offers various kinds of RF Design Kits for different RF frequencies. These kits consist of a motherboard, a transmitter design board, a receiver design board, the RF design kit software and a number of other components.

This selection guide for the different ATAK57xx RF Design Kits makes it easy to find the order number for your specific requirements. To make the selection clear the procedure is illustrated in the flowchart on page 2.

Please proceed with the selection as follows:

1. Choose the desired RF frequency
2. Decide whether a SAW front-end filter on the receiver board is needed or not. Using a SAW front-end filter results in the following advantages:
 - Increased system selectivity
 - Improved large signal handling capability
 - Improved blocking of nearby disturbing signals
 - Higher image frequency suppression

But:

 - Additional insertion loss reduces receiver sensitivity and hence also the link range (rule of thumb: approximately 3 dB)
 - Higher system costs
3. For some kits, the receiving bandwidth can be chosen optionally

Lower bandwidth results in increased system selectivity and higher receiver sensitivity in case of ASK modulation, but also requires a smaller frequency tolerance of the transmitter.

With these three decisions, follow the flow chart to select the appropriate order number for your RF Design Kit.

If other transmitter or receiver design boards will be operated with the RF Design Kit (e.g., other RF frequencies), these boards can be ordered separately.

The currently supported design boards are listed in Table 1 on page 3. This table lists their features, order numbers, and assignment to the order numbers of the RF Design Kit where they are included.



ATAK57xx RF Design Kit

Selection Guide

Preliminary



Figure 1. Flow Chart

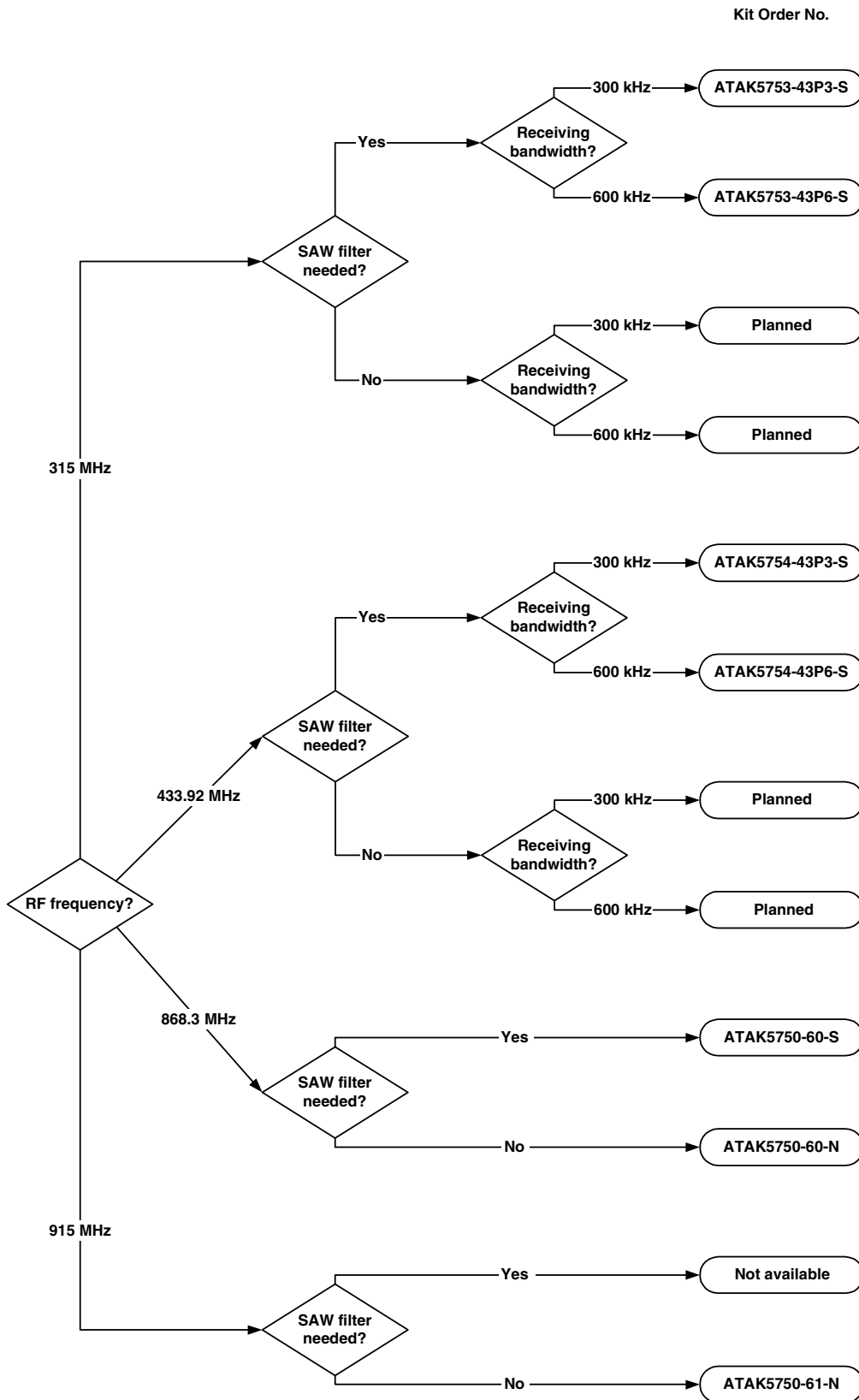


Table 1. Currently Supported Design Boards

| Order Number for RF Design Kit | ATAK5750-60-S | ATAK5750-60-N | ATAK5750-61-N | ATAK5753-43P3-S | ATAK5753-43P6-S | ATAK5754-43P3-S | ATAK5754-43P6-S | RF Frequency (MHz) | IF Bandwidth (kHz) | SAW Front End Filter |
|---------------------------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|--------------------|--------------------|----------------------|
| Transmitter Design Board | | | | | | | | | | |
| ATAB5750-8 | X | X | | | | | | 868.3 | - | - |
| ATAB5750-9 | | | X | | | | | 915 | - | - |
| ATAB5753 | | | | X | X | | | 315 | - | - |
| ATAB5754 | | | | | | X | X | 433.92 | - | - |
| Receiver Design Board | | | | | | | | | | |
| ATAB5760-S | X | | | | | | | 868.3 | 600 | Yes |
| ATAB5760-N | | X | | | | | | 868.3 | 600 | No |
| ATAB5761-N | | | X | | | | | 915 | 600 | No |
| ATAB5743P3-S3 | | | | X | | | | 315 | 300 | Yes |
| ATAB5743P6-S3 | | | | | X | | | 315 | 600 | Yes |
| ATAB5743P3-S4 | | | | | | X | | 433.92 | 300 | Yes |
| ATAB5743P6-S4 | | | | | | | X | 433.92 | 600 | Yes |



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