

### 8.18.6 EasyDMA

After configuring [RESULT.PTR](#) and [RESULT.MAXCNT](#), the ADC resources are started by triggering the START task. The ADC is using EasyDMA to store results in a Result buffer in RAM.

The Result buffer is located at the address specified in the [RESULT.PTR](#) register. The [RESULT.PTR](#) register is double-buffered and it can be updated and prepared for the next START task immediately after the STARTED event is generated. The size of the Result buffer (in bytes) is specified in the [RESULT.MAXCNT](#) register and the ADC will generate an END event when it has filled up the Result buffer, see [ADC](#) on page 559. Results are stored in little-endian byte order in Data RAM. Every sample will be sign extended to 16 bit before stored in the Result buffer.

The ADC is stopped by triggering the STOP task. The STOP task will terminate an ongoing sampling. The ADC will generate a STOPPED event when it has stopped. If the ADC is already stopped when the STOP task is triggered, the STOPPED event will still be generated.

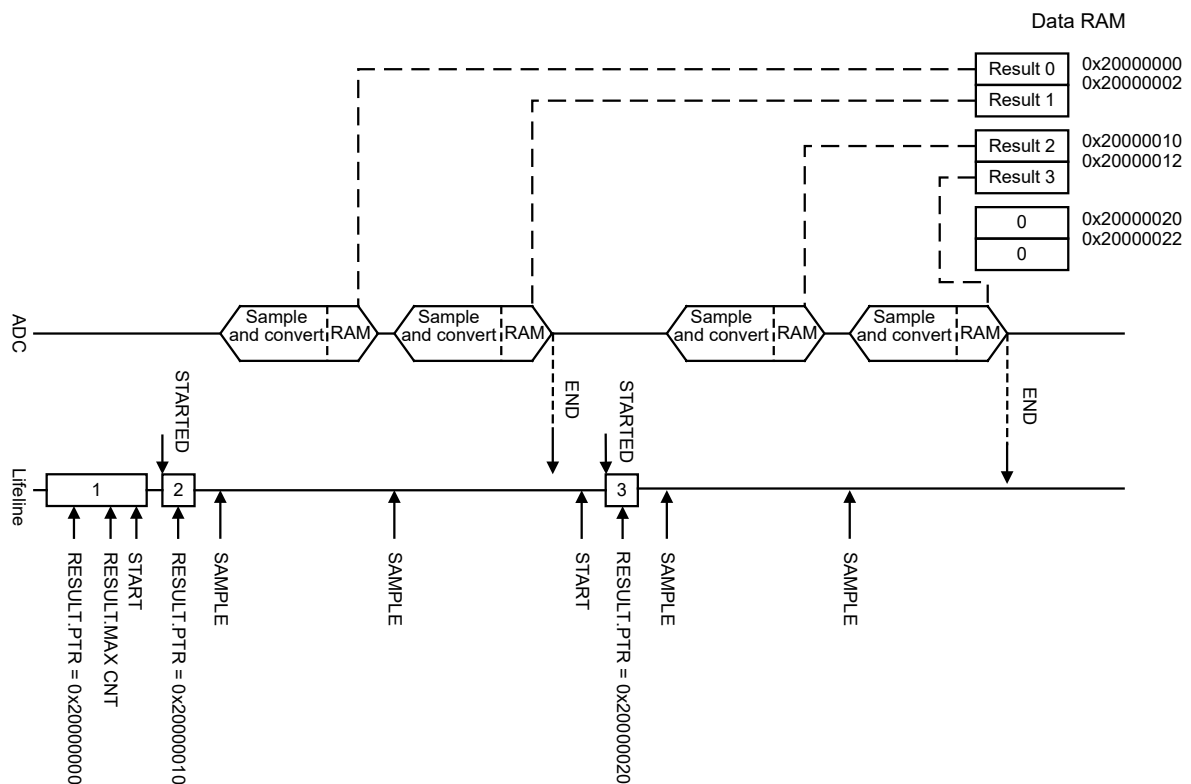


Figure 132: ADC

If the [RESULT.PTR](#) is not pointing to a RAM region accessible from the peripheral, an EasyDMA transfer may result in a HardFault and/or memory corruption. See [Memory](#) on page 13 for more information about the different memory regions.

The EasyDMA will have finished accessing the RAM when the END or STOPPED event has been generated.

The [RESULT.AMOUNT](#) register can be read following an END event or a STOPPED event to see how many bytes have been transferred to the Result buffer in RAM since the START task was triggered.

In scan mode, SAMPLE tasks can be triggered once the START task is triggered. The END event is generated when the number of samples transferred to memory reaches the value specified by [RESULT.MAXCNT](#). After an END event, the START task needs to be triggered again before new samples can be taken. For more information about the scan mode, see [Scan mode](#) on page 558.