In this simple demonstration implementation the Receive FIFO/buffer is Independent from the CODEC and the pointers to the buffer are simple FIFO pointers. This is inefficient as the CODEC must have separate Counters for the flow control mechanisms required to Write data to the receive buffer.
In SpW-b the CODEC boundary is extended to include the write and read pointers of the Receive FIFO so efficient encoding of the flow control mechanism can be performed. Remember the SpaceWire CODEC must be the master of the receive buffer as flow control is employed so there must be space to store the data characters requested. The implementation of the Storage locations and output mux is specific to the requirements of the system.