FlowCharts:

Return -1

Swap iBfrPair

GetBuffer <-> PutBuffer

iBfrPair Get buffer Closed

iBfrPair Put buffer Closed

GetByte()

No

Yes

Yes

No

iBfrPair Get Buffer Closed

No

Yes

Unmask RX interrupt

GetBufferRemByte(&iBfrPair)

Return Next byte

iBfrPair putBfr Closed?

RXNE=1?

ServiceRx()

Return

No

Yes

No

Yes

Return

PutBfrAddByte(iBfrPair,UART->DR)

Return

Mask Rx interrupt