

	ID = 4 bytes	ID = 7 bytes	ID = 10 bytes
NFCID1.Q			nfcid1 ₀
NFCID1.R			nfcid1 ₁
NFCID1.S			nfcid1 ₂
NFCID1.T		nfcid1 ₀	nfcid1 ₃
NFCID1.U		nfcid1 ₁	nfcid1 ₄
NFCID1.V		nfcid1 ₂	nfcid1 ₅
NFCID1.W	nfcid1 ₀	nfcid1 ₃	nfcid1 ₆
NFCID1.X	nfcid1 ₁	nfcid1 ₄	nfcid1 ₇
NFCID1.Y	nfcid1 ₂	nfcid1 ₅	nfcid1 ₈
NFCID1.Z	nfcid1 ₃	nfcid1 ₆	nfcid1 ₉

Table 45: NFCID1 byte allocation (top sent first on air)

The hardware implementation can handle the states from IDLE to ACTIVE_A automatically as defined in the *NFC Forum, NFC Activity Technical Specification*, and the other states are to be handled by software. The software keeps track of the state through events. The collision resolution will trigger an **AUTOCOLRESSTARTED** event when it has started. Reaching the ACTIVE_A state is indicated by the **SELECTED** event.

If collision resolution fails, a **COLLISION** event is triggered. Note that errors occurring during automatic collision resolution may also cause **ERROR** and/or **RXERROR** events to be generated. Other events may also get generated. It is recommended that the software ignores any event except COLLISION, SELECTED and FIELDLOST during automatic collision resolution. Software shall also make sure that any unwanted SHORT or PPI shortcut is disabled during automatic collision resolution.

The automatic collision resolution will be restarted, if the packets are received with CRC or parity errors while in ACTIVE_A state. The automatic collision resolution feature can be disabled while in ACTIVE_A state to avoid this.

The SLP_REQ is automatically handled by the NFCT peripheral when the automatic collision resolution is enabled. However, this results in an ERROR event (with FRAMEDELAYTIMEOUT cause in ERRORSTATUS) since the SLP_REQ has no response. This error must be ignored until the SELECTED event is triggered and this error should be cleared by the software when the SELECTED event is triggered.

8.13.9 Antenna interface

In ACTIVATED state, an amplitude regulator will adjust the voltage swing on the antenna pins to a value that is within the V_{swing} limit.

Refer to [NFCT Electrical Specification](#) on page 901.

8.13.10 NFCT antenna recommendations

The NFCT antenna coil must be connected differential between NFC1 and NFC2 pins of the device.

Two external capacitors should be used to tune the resonance of the antenna circuit to 13.56 MHz.