



Figure 89: NFCT state diagram, automatic collision resolution disabled

Important:

- FIELDLOST event is not generated in SENSE mode.
- Sending SENSE task while field is still present does not generate **FIELDDETECTED** event.
- If the FIELDDETECTED event is cleared before sending the **ACTIVATE** task, then the FIELDDETECTED event shows up again after sending the ACTIVATE task. The shortcut FIELDDETECTED_ACTIVATE can be used to avoid this condition.

8.13.3 Pin configuration

NFCT uses two pins to connect the antenna and these pins are shared with GPIOs.

The ENABLE field in register **PADCONFIG** on page 398 defines the usage of these pins and their protection level against excessive voltages. See **Pin assignments** on page 859 for the pins used by the NFCT peripheral.

When **PADCONFIG.ENABLE=Enabled**, a protection circuit will be enabled on the dedicated pins, preventing the chip from being damaged in the presence of a strong NFC field. The protection circuit will short the two pins together if the voltage difference exceeds approximately 2V. The GPIO function on those pins will also be disabled.

When **PADCONFIG.ENABLE=Disabled**, the device will not be protected against strong NFC field damages caught by a connected NFCT antenna, and the NFCT peripheral will not operate as expected, as it will never leave the DISABLE state.

The pins dedicated to the NFCT antenna function will have some limitation when the pins are configured for normal GPIO operation. The pin capacitance will be higher on those pins (refer to C_{PAD_NFC} in the