

Annex A (informative) Communication example Type A

This example shows the select sequence with 2 PICCs in the field on the assumption of:

- PICC #1 with UID size: single, value of UID0 is '10'
- PICC #2 with UID size: double

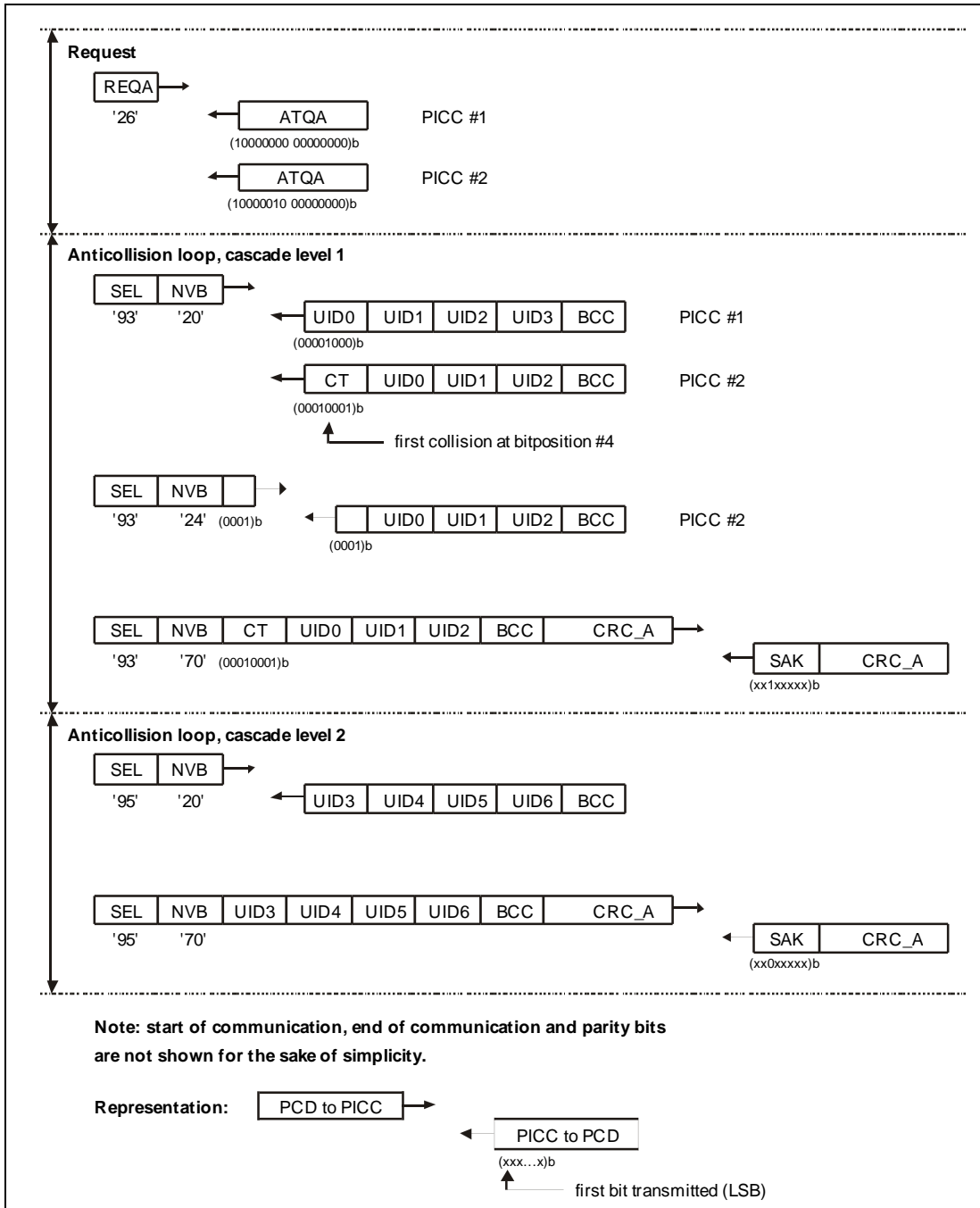


Figure A1 - Select sequence with bit frame anticollision

Explanations to figure A1:

Request

- PCD transmits the REQUEST Command
- All PICCs respond with their ATQA:
 - PICC #1 indicates bit frame anticollision and UID size: single
 - PICC #2 indicates bit frame anticollision and UID size: double

Anticollision loop, cascade level 1

- PCD transmits an ANTICOLLISION Command:
 - SEL specifies bit frame anticollision and cascade level 1
 - The value '20' of NVB specifies that the PCD will transmit no part of UID CL1
- Consequently all PICCs in the field respond with their complete UID CL1
- Due to the value '88' of the cascade tag, the first collision occurs at bitposition #4
- PCD transmits another ANTICOLLISION Command that includes the first 3 bits of UID CL1 that were received before the collision occurs, followed by a (1)b.
 - Consequently the PCD assigns NVB with the value '24'
- These 4 bits correspond to the first bits of UID CL1 of PICC #2
- PICC #2 responds with its 36 remaining bits of UID CL1. Since PICC #1 does not respond, no collision occurs
- Since the PCD "knows" all bits of UID CL1 of PICC #2, it transmits a SELECT Command for PICC #2
- PICC #2 responds with SAK, indicating that UID is not complete
- Consequently, the PCD increases the cascade level

Anticollision loop, cascade level 2

- PCD transmits another ANTICOLLISION Command:
 - SEL specifies bit frame anticollision and cascade level 2
 - NVB is reset to '20' to force PICC #2 to respond with its complete UID CL2
- PICC #2 responds with all 40 bits of its UID CL2
- PCD transmits the SELECT Command for PICC #2, cascade level 2
- PICC #2 responds with SAK, indicating that UID is complete, and transits from READY State to ACTIVE State