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Adding an Optional Suspend and a Mandatory Suspend in the Polling Loop

This Specification Bulletin describes the specification change related to the introduction in the Polling Loop of an optional suspend of the Operating Field when no other technologies are supported and a mandatory suspend of the Operating Field when other technologies are supported.

Applicability

This Specification Bulletin applies to:

- *EMV Level 1 Specifications for Payment Systems, EMV Contactless Interface Specification, Version 3.2 – July 2022.*

Related Documents

- *None*

Description

This Specification Bulletin introduces an optional suspend of the Operating Field (between 5 ms and 30 ms) in the polling loop when no other technologies are supported. When other technologies are supported, then it replaces the mandatory reset of the Operating Field with a mandatory suspend of the Operating Field.

Specification Changes

Add a new section 3.2.10:

3.2.10 PCD Requirements for Suspending the Operating Field

This section specifies how the PCD performs a suspend of the Operating Field. Table 3.16 describes how to measure whether the Operating Field is correctly suspended by the PCD.

Table 3.16: Measurement of Suspending the Operating Field

Step #	Action
Step 1	Activate the PCD to execute the polling loop.
Step 2	Place the [ISO/IEC 10373-6] calibration coil 1 in the Operating Volume of the PCD.
Step 3	Capture the signal from the start to the end of the period of the suspension of the Operating Field.
Step 4	Repeat Step 3 for any second period of suspension of the Operating Field

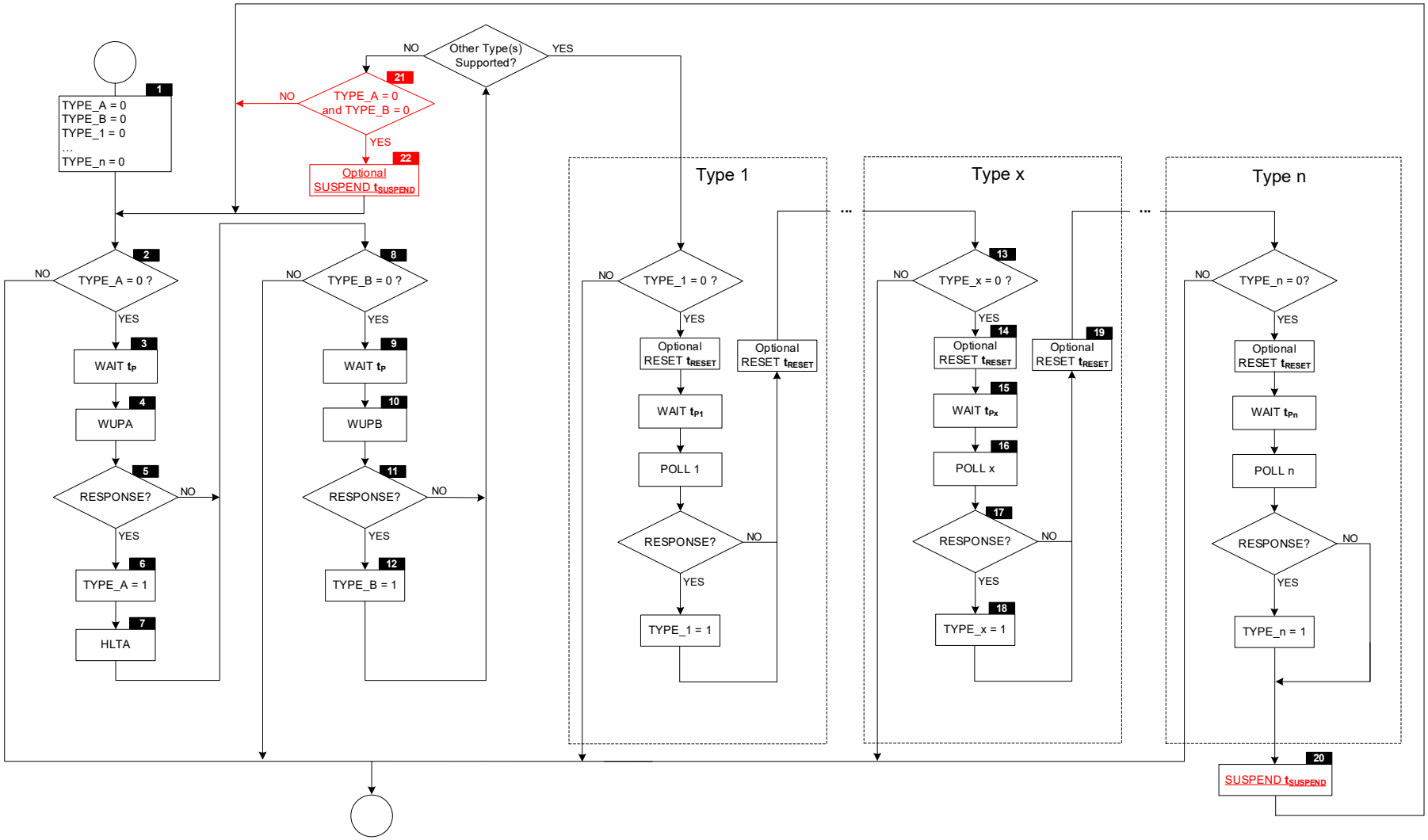
Requirements 3.6: Suspend Operating Field (PCD Transmission)

PCD	
3.2.10.1	When the PCD suspends the Operating Field, then within the Operating Volume, the PCD shall not generate any field for a time $t_{SUSPEND}$.[1] Refer to Annex A.5 for the value of $t_{SUSPEND}$.

[1] Note that the minimum time for $t_{SUSPEND}$ guarantees the PICC is reset with a suspend of the Operating Field.

Change Figure 9.2 – Polling as follows:

Figure 9.2: Polling



Change Requirements 9.2.1.5 and 9.2.17 as follows:

Requirements 9.2: Polling

PCD	
[…]	
9.2.1.5	If the PCD supports only Type A and Type B, then the PCD shall continue with 9.2.1.3. Otherwise, the PCD shall continue with 9.2.1.6.
If the PCD supports only Type A and Type B and both the TYPE_A and TYPE_B polling flags are equal to zero, then the PCD may optionally suspend the Operating Field (as defined in section 3.2.10) before continuing with 9.2.1.3 (symbol 21 and symbol 22).	
[…]	
9.2.1.7	If the PCD supports other technologies, then the PCD shall ~~reset~~ suspend the Operating Field (as defined in section 3.2.10) before continuing with 9.2.1.3 (symbol 20). *PCDs that implement other technologies are responsible for suppressing any unintentional collision indications. These would occur when PICCs support more than one technology and are due to the same PICC responding both before and after the ~~RESET~~ suspend of the Operating Field (symbol 20).*

Add **$t_{SUSPEND}$** to Table A.6 of Annex A.5 as follows:

Table A.6: PCD Processing

Parameter	PCD Value Min	PCD Value Max	PICC Value	Units
t_{RESET}	5.1	10	5	ms
$t_{SUSPEND}$	5.1[2]	30		ms
t_P	5.1	10	5	ms
[…]				

[2] The minimum time for **$t_{SUSPEND}$** guarantees the PICC is reset with a suspend of the Operating Field.

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