

**EMV® Specification Bulletin No. 283**  
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***PCD Carrier Phase Drift***

*This Specification Bulletin introduces a new PCD requirement related to carrier phase drift.*

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***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*
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***Description***

This Specification Bulletin implements the following updates:

- It introduces a new requirement which limits the PCD carrier phase drift
- It adds a carrier phase drift entry to Table A.2: RF Power and Signal Interface

## Specification Changes

Add new requirement 3.2.4.2 as follows:

### Requirements 3.4: Carrier Frequency $f_c$ and Phase Drift $\Delta\Phi_c$ (PCD Transmission)

#### PCD

3.2.4.1 The frequency of the Operating Field (carrier frequency) provided by the PCD shall be  $f_c$ .

The frequency shall be measured as described in Table 3.6.

Refer to Annex A.2 for the value of  $f_c$ .

3.2.4.2 The phase drift of the frequency of the Operating Field (carrier phase drift) provided by the PCD throughout the duration of a transaction shall be  $\Delta\Phi_c$ .

Refer to Annex A.2 for the value of  $\Delta\Phi_c$ .

Add a new entry to Table A.2: RF Power and Signal Interface as follows:

**Table A.2: RF Power and Signal Interface**

Topic	Parameter	EMV – TEST PICC	Value		Units
			Min	Max	
...	...	...	...	...	...
Carrier Frequency	$f_c$		13.553	13.567	MHz
<u>Carrier Phase Drift</u>	<u><math>\Delta\Phi_c</math></u>		<u>-5</u>	<u>+5</u>	<u>°</u> <u>-</u>
...	...	...	...	...	...

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