

nRF21540

Engineering A

Errata

v1.0

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1 nRF21540 Engineering A Errata

This Errata document contains anomalies for the nRF21540 chip, revision Engineering A (QDAA-EA0).

2 Change log

See the following list for an overview of changes from previous versions of this document.

| Version | Date | Change |
|-----------------------------------|------------|---|
| nRF21540 Engineering A v1.0 | 19.12.2019 | <ul style="list-style-type: none">• Added: No. 1. "Spurs appear in output signal"• Added: No. 2. "S11 is high" |

3 New and inherited anomalies

The following anomalies are present in revision Engineering A of the nRF21540 chip.

| ID | Module | Description | New in Engineering A |
|----|--------|-------------------------------|----------------------|
| 1 | RX | Spurs appear in output signal | X |
| 2 | RX | S11 is high | X |

Table 1: New and inherited anomalies

3.1 [1] RX: Spurs appear in output signal

This anomaly applies to IC Rev. Engineering A, build codes QDAA-EA0.

Symptoms

Internal clock spurs appear in the TRX output.

Conditions

The device is in the Receive state.

Consequences

Some RX channels have degraded sensitivity of approximately 5 dB.

Workaround

The internal charge pump (CP) clock source can be halted by toggling the CSN signal in the Receiver state. The CSN high period should be less than 20 ms, and the CSN low period should be 100 μs.

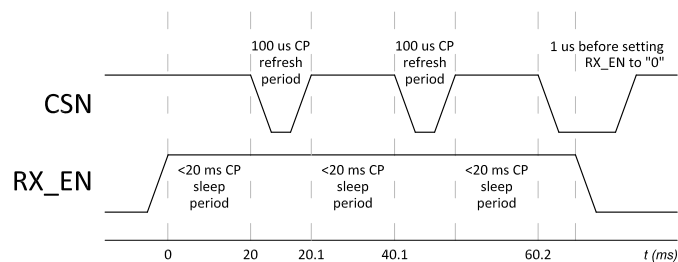


Figure 1: SPI write configuration example

The workaround can be used in temperatures below +65°C.

3.2 [2] RX: S11 is high

This anomaly applies to IC Rev. Engineering A, build codes QDAA-EA0.

Symptoms

ANT port input reflection (S11) for the RX path is higher than specified.

Conditions

The device is in the Receive state.

Consequences

In the Receive state, S11 is approximately -4 dB and therefore impacts the NF and RX sensitivity.

Workaround

None