IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Proposed Resolution for CIDs – 7124, 7125, 7126, 7127, 7128, 7129, 7130, 7131, 7132, 7133, 7134, 7135 – time of departure accuracy requirements | | | | |
| Date: 2024-05-16 | | | | |
| 05 | | | | |
| Name | Affiliation | Address | Phone | email |
| Joseph LEVY | InterDigital Communication, Inc. | 111 W 33rd Street New York, NY 10120 | +1.631.622.4139 | [jslevy@ieee.org](mailto:jslevy@ieee.org) |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

The document provides a proposed specification change to normatively state the required performance for Time of Departure accuracy, the current specification only provides an implicit requirement based on parameters provided in the test for time of departure accuracy.

| **CID** | **Clause** | **p.l** | **Comment** | **Proposed Change** |
| --- | --- | --- | --- | --- |
| 7124 | 15.4.5.11 | 3350.2 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading (line 2): "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7125 | 16.3.7.10 | 3378.43 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7126 | 17.3.9.9 | 3419.1 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading (line 2): "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7127 | 19.2.18.8 | 3526.21 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7128 | 21.3.17.5 | 3699.22 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7129 | 23.2.17.5 | 3897.45 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7130 | 24.5.4.1.2 | 3952.25 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7131 | 25.5.7.1.3 | 4003.2 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7132 | 25.6.9.2.3 | 4025.29 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7133 | 27.3.21.5 | 4434.60 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- 80 ns." |
| 7134 | 28.5.11.1.2 | 4658.38 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- aDMGTimeOfDepartureAccuacyThresh." |
| 7135 | 28.6.11.1.2 | 4698.32 | Time of Departure accuracy clause provides test parameters to enable the testing of the departure accuracy and the test threshold. But, there is no requirement provided in the clause, only an implied requirement: the TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80ns. | Add a requirement for time of departure accuracy by inserting the following requirement following the clause heading: "The accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to +/- aDMGTimeOfDepartureAccuacyThresh." |

**Discussion:**

The requirements for Time of Departure accuracy in 802.11REVme D5.0 are implied requirements, as they are defined by a described test and the set of parameters used in the test. The current text referenced in D5.0 is provided below for the Time of Departure accuracy clauses with redlined additional text. Note the correct page and line number provided below for P802.11-REVme/D5.0. Also note 20.5.4.1.2 has been added (as there is no CID addressing it. Change locations: 3350.1, 3378.42, 3419.1, 3526.20, 3586.53, 3699.20, 3896.44, 3952.25, 4001.53, 4022.33, 4416.60, 4641.36, and 4681.31.

**Proposed changes to the D5.0:**

*P802.11-REVme/D5.0 – page 3350 line 1 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is sample/s

where

*f*H is the nominal center frequency in Hz of the highest channel in the channel set

*f*L is the nominal center frequency in Hz of the lowest channel in the channel set, the channel set is the set of channels upon which (#14)PPDUs providing measurements are transmitted, the channel set comprises channels uniformly spaced across *f*H – *f*L ³ 50 MHz

* FIRST\_TRANSITION\_FIELD is the SYNC field.
* SECOND\_TRANSITION\_FIELD is the SFD field.
* TRAINING\_FIELD is the concatenation of the SYNC and SFD fields, using a chip pulse that should approximate a rectangular pulse of duration 1/ 11 MHz convolved with a brick-wall low pass filter of bandwidth 11 MHz.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns.

NOTE—The indicated chip pulse applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3378 line 42 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is  sample/s

where

*f*H is the nominal center frequency in Hz of the highest channel in the channel set

*f*L is the nominal center frequency in Hz of the lowest channel in the channel set, the channel set is the set of channels upon which (#14)PPDUs providing measurements are transmitted, the channel set comprises channels uniformly spaced across *f*H – *f*L ³50 MHz

* FIRST\_TRANSITION\_FIELD is the SYNC field.
* SECOND\_TRANSITION\_FIELD is the SFD field.
* TRAINING\_FIELD is the concatenation of the appropriate short or long SYNC and SFD fields, using a chip pulse which should approximate a rectangular pulse of duration 1/ 11 MHz convolved with a brick-wall low pass filter of bandwidth 11 MHz.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns.

NOTE—The indicated chip pulse applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3419 line 1 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is sample/s

where

*f*H is the nominal center frequency in Hz of the highest channel in the channel set

*f*L is the nominal center frequency in Hz of the lowest channel in the channel set, the channel set is the set of channels upon which (#14)PPDUs providing measurements are transmitted, the channel set comprises channels uniformly spaced across *f*H – *f*L ³ 50 MHz

* FIRST\_TRANSITION\_FIELD is the Short symbols.
* SECOND\_TRANSITION\_FIELD is the Long symbols.
* TRAINING\_FIELD is the Long symbols windowed in a manner which should approximate the windowing described in 17.3.2.5 (Mathematical conventions in the signal descriptions) with *T*TR = 100 ns for 20 MHz channel spacing, *T*TR = 200 ns for 10 MHz channel spacing and *T*TR = 400 ns for 5 MHz channel spacing.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns.

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3526 line 20 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is

sample/s, for a CH\_BANDWIDTH parameter equal to HT\_CBW20

sample/s, for a CH\_BANDWIDTH parameter equal to HT\_CBW40

where

*f*H is the nominal center frequency in Hz of the highest channel in the channel set

*f*L is the nominal center frequency in Hz of the lowest channel in the channel set, the channel set is the set of channels upon which (#14)PPDUs providing measurements are transmitted, the channel set comprises channels uniformly spaced across *f*H – *f*L ³ 50 MHz

* FIRST\_TRANSITION\_FIELD is L-STF (for HT-mixed format) or HT-GF-STF (for HT-greenfield format)
* SECOND\_TRANSITION\_FIELD is L-LTF (for HT-mixed format) or HT-GF-LTF1 (for HT-greenfield format)
* TRAINING\_FIELD is L-LTF (for HT-mixed format) or HT-LTF1 (for HT-greenfield                 format) windowed in a manner which should approximate the windowing described in 17.3.2.5 (Mathematical conventions in the signal descriptions) with TTR = 100 ns.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns (for a CH\_BANDWIDTH parameter equal to HT\_CBW20) or 80 ns (for a CH\_BANDWIDTH parameter equal to HT\_CBW40).

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3586 line 53 (redlined text added) – there is no CID addressing this clause, but it should be corrected for consistency:*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is 1760x106 sample/s
* FIRST\_TRANSITION\_FIELD is Short Training field
* SECOND\_TRANSITION\_FIELD is Channel Estimation field
* TRAINING\_FIELD is Channel Estimation field
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3699 line 20 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW20

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW40

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW80

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW160 or CBW80+80

where

*fH* is the nominal center frequency in Hz of the highest channel in the channel set

*fL* is the nominal center frequency in Hz of the lowest channel in the channel set, the channel set is the set of channels upon which (#14)PPDUs providing measurements are transmitted, the channel set comprises channels uniformly spaced across 

* FIRST\_TRANSITION\_FIELD is L-STF.
* SECOND\_TRANSITION\_FIELD is L-LTF.
* TRAINING\_FIELD is L-LTF windowed in a manner which should approximate the windowing described in 17.3.2.5 (Mathematical conventions in the signal descriptions) with TTR = 100 ns.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns.

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3896 line 44 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns for a CH\_BANDWIDTH parameter equal to CBW16, and unspecified otherwise.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex T with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW1

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW2

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW4

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW8

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW16

where

*f*H is the nominal center frequency in Hz of the highest channel in the channel set

*f*L is the nominal center frequency in Hz of the lowest channel in the channel set, the channel set is the set of channels upon which (#14)PPDUs providing measurements are transmitted.

* FIRST\_TRANSITION\_FIELD is the STF field.
* SECOND\_TRANSITION\_FIELD is the LTF1 field.
* TRAINING\_FIELD is the LTF1 field windowed in a manner that should approximate the windowing described in 17.3.2.5 (Mathematical conventions in the signal descriptions) with TTR = 1000 ns.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns for a CH\_BANDWIDTH parameter equal to CBW16, and unspecified otherwise.

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 3952 line 25 (redlined text added):*

* Time of departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is  sample/s.
* FIRST\_TRANSITION\_FIELD is Short Training field.
* SECOND\_TRANSITION\_FIELD is Channel Estimation field.
* TRAINING\_FIELD is Channel Estimation field.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns.

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 4001 line 53 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* (#385)MULTICHANNEL\_SAMPLING\_RATE is 440×106 sample/s for a 540 MHz channel and 880×106 sample/s for a 1080 MHz channel.
* (#385)FIRST\_TRANSITION\_FIELD is Short Training field.
* (#385)SECOND\_TRANSITION\_FIELD is Channel Estimation field.
* (#385)TRAINING\_FIELD is Channel Estimation field.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 4022 line 33 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* (#385)MULTICHANNEL\_SAMPLING\_RATE is 660×106 sample/s for a 540 MHz channel and 1320×106 sample/s for a 1080 MHz channel.
* FIRST\_TRANSITION\_FIELD is Short Training field.
* SECOND\_TRANSITION\_FIELD is Channel Estimation field.
* TRAINING\_FIELD is Channel Estimation field.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns.

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 4416 line 60 (redlined text added):*

* Time of departure accuracy(11az)

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to 80 ns.

The time of departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is:

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW20

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW40

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW80

 sample/s, for a CH\_BANDWIDTH parameter equal to CBW160 or CBW80+80

where

*fH* is the nominal center frequency in Hz of the highest channel in the channel set

*fL* is the nominal center frequency in Hz of the lowest channel in the channel set

the channel set is the set of channels upon which frames providing measurements are transmitted, the channel set comprises channels uniformly spaced across

* FIRST\_TRANSITION\_FIELD is L-STF
* SECOND\_TRANSITION\_FIELD is L-LTF
* TRAINING\_FIELD is L-LTF windowed in a manner which should approximate the windowing described in 17.3.2.5 (Mathematical conventions in the signal descriptions) with TTR = 100 ns
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is 80 ns

NOTE—The indicated windowing applies to the time of departure accuracy test equipment, and not the transmitter or receiver.

*P802.11-REVme/D5.0 – page 4641 line 36 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to aDMGTimeOfDepartureAccuacyThresh.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is set to aDMGChipRate.
* FIRST\_TRANSITION\_FIELD is L-STF of the waveform transmitted in the primary channel.
* SECOND\_TRANSITION\_FIELD is L-CEF of the waveform transmitted in the primary channel.
* TRAINING\_FIELD is L-CEF of the waveform transmitted in the primary channel.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is set to aDMGTimeOfDepartureAccuracyThresh.

*P802.11-REVme/D5.0 – page 4681 line 31 (redlined text added):*

* Time of Departure accuracy

The RMS accuracy of the time of departure provided in TIME\_OF\_DEPARTURE shall be less than or equal to aDMGTimeOfDepartureAccuacyThresh.

The Time of Departure accuracy test evaluates TIME\_OF\_DEPARTURE against aTxPHYTxStartRMS and aTxPHYTxStartRMS against TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH as defined in Annex P with the following test parameters:

* MULTICHANNEL\_SAMPLING\_RATE is set to aDMGChipRate.
* FIRST\_TRANSITION\_FIELD is L-STF of the waveform transmitted in the primary channel.
* SECOND\_TRANSITION\_FIELD is L-CEF of the waveform transmitted in the primary channel.
* TRAINING\_FIELD is L-CEF of the waveform transmitted in the primary channel.
* TIME\_OF\_DEPARTURE\_ACCURACY\_TEST\_THRESH is set to aDMGTimeOfDepartureAccuracyThresh.

**References:**