Application Note

AN_116

FTDI Devices Tape, Reel, Tray & Tube Dimensions

Version 2.1

Issue Date: 20-07-2021

This document provides information on the Tape, Reel, Tray and Tube dimensions for FT232BL, FT245BL, FT232BQ, FT245BQ, FT232RL, FT245RL, FT232RQ, FT245RQ, FT2232D, FT232D, FT232HL, FT232HQ, FT2232HL, FT2232HQ, FT4232HL, FT4232HQ, FT-X series, FT120, FT311D, FT312D FT313H, FT4222HQ, VNC1L, VNC2, FT600Q, FT601Q, FT602Q, FT260S, FT260Q, FT232HPQ, FT233HPQ, FT2232HPQ, FT2233HPQ, FT4232HPQ and FT4233HPQ.

This Application Note supersedes the FTDI Application Note AN232B-11.

Use of FTDI devices in life support and/or safety applications is entirely at the user’s risk, and the user agrees to defend, indemnify and hold FTDI harmless from any and all damages, claims, suits or expense resulting from such use.
Table of Contents

1 Introduction ........................................................................................................... 5
2 Packaging options .................................................................................................... 6
   2.1 Tape and Reel Packaging .................................................................................. 6
   2.2 Tray/Tube Packaging ................................................................--------------------- 7
3 FT232BL, FT245BL and FT2232D Tape Dimensions .......... 8
4 FT232BL, FT245BL and FT2232D Reel Dimensions .......... 9
5 FT232BQ and FT245BQ Tape Dimensions .............................. 10
6 FT232BQ and FT245BQ Reel Dimensions ................................ 11
7 FT232RL and FT245RL Tape Dimensions ......................... 12
8 FT232RL and FT245RL Reel Dimensions ................................. 13
9 FT232RL and FT245RL Tube Dimensions ................................. 14
10 FT232RQ and FT245RQ Tape Dimensions ....................... 15
11 FT232RQ and FT245RQ Reel Dimensions ........................... 16
12 FT232RQ and FT245RQ Tray Dimensions ......................... 17
13 FT2232HL and FT4232HL Tape Dimensions ...................... 18
14 FT2232HL and FT4232HL Reel Dimensions ......................... 19
15 FT2232HL and FT4232HL Tray Dimensions .................... 20
16 FT2232HQ and FT4232HQ Tape Dimensions .................... 21
17 FT2232HQ and FT4232HQ Reel Dimensions .................... 22
18 FT2232HQ and FT4232HQ Tray Dimensions .................... 23
19 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions ......................................................... 24
20 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions ......................................................... 25
21 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions ......................................................... 26
22 VNC1L – A – Reel Vendor Part No. RD33008SW ............ 27
23 VNC1L – A – Cover Tape Vendor Part No. AA13305NP... 28
<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Dimensions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A</td>
<td>Q07X07-A</td>
<td>Tape Dimensions</td>
</tr>
<tr>
<td>FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP</td>
<td>30</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP</td>
<td>31</td>
<td>Carrier Tape Dimensions</td>
</tr>
<tr>
<td>VNC2-48L1C, FT232HL – LQFP</td>
<td>32</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>VNC2-48L1C, FT232HL – LQFP</td>
<td>33</td>
<td>Carrier Tape Dimensions</td>
</tr>
<tr>
<td>FT311D-32L1C, FT312D-32L1C, VNC2-48L1C, FT232HL – LQFP</td>
<td>34</td>
<td>Tray Dimensions</td>
</tr>
<tr>
<td>FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN</td>
<td>35</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN</td>
<td>36</td>
<td>Carrier Tape Dimensions</td>
</tr>
<tr>
<td>FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN</td>
<td>37</td>
<td>Tray Dimensions</td>
</tr>
<tr>
<td>FT200XD, FT234XD</td>
<td>38</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>FT200XD, FT234XD</td>
<td>39</td>
<td>Tape Dimensions</td>
</tr>
<tr>
<td>FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ</td>
<td>40</td>
<td>QFN Reel Dimensions</td>
</tr>
<tr>
<td>FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ</td>
<td>41</td>
<td>QFN Tape Dimensions</td>
</tr>
<tr>
<td>FT201XQ, FT220XQ, FT230XQ SSOP</td>
<td>42</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>FT201XQ, FT220XQ, FT230XQ SSOP</td>
<td>43</td>
<td>Tape Dimensions</td>
</tr>
<tr>
<td>FT221XQ, FT231XQ, FT240XQ SSOP</td>
<td>44</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>FT221XQ, FT231XQ, FT240XQ SSOP</td>
<td>45</td>
<td>Tape Dimensions</td>
</tr>
<tr>
<td>FT120T TSSOP</td>
<td>46</td>
<td>Reel Dimensions</td>
</tr>
<tr>
<td>FT120T TSSOP</td>
<td>47</td>
<td>Tube Dimensions</td>
</tr>
<tr>
<td>FT120T TSSOP</td>
<td>48</td>
<td>Tape Dimensions</td>
</tr>
<tr>
<td>FT201XS, FT220XS, FT230XS, FT240XS</td>
<td>49</td>
<td>Reel Dimensions</td>
</tr>
</tbody>
</table>
45 FT221XS, FT231XS Reel Dimensions .................................. 50
46 FT231XS Tube Dimensions ............................................. 51
47 FT313H-QFN Reel Dimensions ........................................ 52
48 FT313H-QFN Tape Dimensions ........................................ 53
49 FT313H-LQFP Reel Dimensions ....................................... 54
50 FT313H-LQFP Tape Dimensions ...................................... 55
51 FT313H-TQFP Reel Dimensions ....................................... 56
52 FT313H-TQFP Tape Dimensions ...................................... 57
53 FT600Q Reel Dimensions ................................................ 58
54 FT600Q Tape Dimensions ................................................ 59
55 FT601Q, FT602Q Reel Dimensions ................................... 60
56 FT601Q, FT602Q Tape Dimensions ................................... 61
57 FT601Q, FT602Q Tray Dimensions ................................... 62
58 FT4222HQ Reel Dimensions ............................................ 63
59 FT4222HQ Tape Dimensions ............................................ 64
60 FT4222HQ Tray Dimensions ............................................ 65
61 FT260Q Tray Dimensions ................................................ 66
62 FT260Q Reel Dimensions ................................................ 67
63 FT260Q Tape Dimensions ................................................ 68
64 FT260S Reel Dimensions ................................................ 69
65 FT260S Tape Dimensions ................................................ 70
66 FT260S Tube Dimensions ................................................ 71
67 FT232HPQ, FT2232HPQ and FT4232HPQ Tape Dimensions 72
68 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions 73
69 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions 74
70 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions

71 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions

72 FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions

73 Contact Information

Appendix A – References

Document References

Acronyms and Abbreviations

Appendix B – List of Figures and Tables

List of Figures

List of Tables

Appendix C – Revision History
1 Introduction

This document provides information on the tape and reel dimensions for FT232BL, FT245BL, FT232BQ, FT245BQ, FT232RL, FT245RL, FT232RQ, FT245RQ, FT232D, FT2232HL, FT2232HQ, FT4232HL, FT4232HQ, FT232HL, FT232HQ, FT-X series, FT120, FT311D, FT312D, FT313H, FT4222HQ, VNC1L, VNC2, FT600Q, FT601Q, FT602Q, FT260S, FT260Q, FT232HPQ, FT233HPQ, FT2232HPQ, FT2233HPQ, FT4232HPQ and FT4233HPQ.
2 Packaging options

FTDI can supply devices packaged in tape and reel packaging or in trays or tubes. The quantities in each package type are described below.

## 2.1 Tape and Reel Packaging

<table>
<thead>
<tr>
<th>IC – Tape and Reel</th>
<th>Package</th>
<th>Quantities (pieces)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT232BL, FT245BL – R</td>
<td>LQFP</td>
<td>1000</td>
</tr>
<tr>
<td>FT232BQ</td>
<td>QFN</td>
<td>2500</td>
</tr>
<tr>
<td>FT232RL, FT245RL – R</td>
<td>SSOP</td>
<td>2000</td>
</tr>
<tr>
<td>FT232RQ, FT245RQ – R</td>
<td>QFN</td>
<td>6000</td>
</tr>
<tr>
<td>FT2232D – R</td>
<td>LQFP</td>
<td>1000</td>
</tr>
<tr>
<td>FT2232HL – R</td>
<td>LQFP</td>
<td>1000</td>
</tr>
<tr>
<td>FT2232HQ – R 9x9</td>
<td>QFN</td>
<td>4000</td>
</tr>
<tr>
<td>FT4232HL – R</td>
<td>LQFP</td>
<td>1000</td>
</tr>
<tr>
<td>FT4232HQ – R 9x9</td>
<td>QFN</td>
<td>4000</td>
</tr>
<tr>
<td>FT2232H-56Q – R 8x8</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT4232H-56Q – R 8x8</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT232HQ – R 8x8</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT232HL</td>
<td>LQFP</td>
<td>1500</td>
</tr>
<tr>
<td>FT4222HQ</td>
<td>QFN</td>
<td>5000</td>
</tr>
<tr>
<td>VINC1L – A – R</td>
<td>LQFP</td>
<td>2000</td>
</tr>
<tr>
<td>VNC2-32LQFP</td>
<td>LQFP</td>
<td>1500</td>
</tr>
<tr>
<td>VNC2-48LQFP</td>
<td>LQFP</td>
<td>1500</td>
</tr>
<tr>
<td>VNC2-32 QFN 7x7</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>VNC2-48 QFN 8x8</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT311DQFP</td>
<td>LQFP</td>
<td>1500</td>
</tr>
<tr>
<td>FT311D QFN 7x7</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT312DLQFP</td>
<td>LQFP</td>
<td>1500</td>
</tr>
<tr>
<td>FT312D QFN 7x7</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT200XD- R, FT234XD-R</td>
<td>DFN</td>
<td>5000</td>
</tr>
<tr>
<td>FT231XS – R</td>
<td>SSOP</td>
<td>2000</td>
</tr>
<tr>
<td>FT313HQ – R</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT313HL – R</td>
<td>LQFP</td>
<td>1000</td>
</tr>
<tr>
<td>FT313HP – R</td>
<td>TQFP</td>
<td>2500</td>
</tr>
<tr>
<td>FT4222HQ-R</td>
<td>VQFN</td>
<td>5000</td>
</tr>
<tr>
<td>FT260Q - R</td>
<td>WQFN</td>
<td>2500</td>
</tr>
<tr>
<td>FT260S - R</td>
<td>TSSOP</td>
<td>2500</td>
</tr>
<tr>
<td>FT232HPQ-REEL, FT233HPQ-REEL, FT232HPQ-REEL, FT233HPQ-REEL</td>
<td>QFN</td>
<td>3000</td>
</tr>
</tbody>
</table>

Table 2.1 – Tape and Reel Quantities
2.2 Tray/Tube Packaging

<table>
<thead>
<tr>
<th>IC – Tray/Tube</th>
<th>Package</th>
<th>Quantities (pieces)</th>
<th>Box of Trays/Tube (pieces)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT232BL, FT245BL – Tray</td>
<td>LQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>FT232RQ, FT245RQ – Tray</td>
<td>QFN</td>
<td>490</td>
<td>4900</td>
</tr>
<tr>
<td>FT2232D – Tray</td>
<td>LQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>FT2232HL – Tray</td>
<td>LQFP</td>
<td>160</td>
<td>1600</td>
</tr>
<tr>
<td>FT2232HQ – Tray</td>
<td>QFN</td>
<td>260</td>
<td>2600</td>
</tr>
<tr>
<td>FT4232HL – Tray</td>
<td>LQFP</td>
<td>160</td>
<td>1600</td>
</tr>
<tr>
<td>FT4232HQ – Tray</td>
<td>QFN</td>
<td>260</td>
<td>2600</td>
</tr>
<tr>
<td>VINC1L – A – Tray</td>
<td>LQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>VNC2-32LQFP</td>
<td>LQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>VNC2-48LQFP</td>
<td>LQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>VNC2-32 QFN 7x7x.9</td>
<td>QFN</td>
<td>260</td>
<td>2600</td>
</tr>
<tr>
<td>VNC2-48 QFN 8x8x.9</td>
<td>QFN</td>
<td>260</td>
<td>2600</td>
</tr>
<tr>
<td>FT311DQFP</td>
<td>LQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>FT311D QFN 7X 7 X .9</td>
<td>QFN</td>
<td>260</td>
<td>2600</td>
</tr>
<tr>
<td>FT200XQD- T, FT234XD-T</td>
<td>DFN</td>
<td>490</td>
<td>4900</td>
</tr>
<tr>
<td>FT201XS- U, FT220XS- U, FT230XS- U,</td>
<td>SSOP</td>
<td>100</td>
<td>10000</td>
</tr>
<tr>
<td>FT240XS - U, FT231XS- U</td>
<td>SSOP</td>
<td>58</td>
<td>5800</td>
</tr>
<tr>
<td>FT201XQ- T, FT220XQ- T, FT230XQ- T, FT240XQ- T</td>
<td>QFN</td>
<td>490</td>
<td>4900</td>
</tr>
<tr>
<td>FT120T- U</td>
<td>TSSOP</td>
<td>50</td>
<td>3000</td>
</tr>
<tr>
<td>FT120Q- T</td>
<td>QFN</td>
<td>490</td>
<td></td>
</tr>
<tr>
<td>FT313HP – T</td>
<td>TQFP</td>
<td>250</td>
<td>2500</td>
</tr>
<tr>
<td>FT313HQ – T</td>
<td>QFN</td>
<td>260</td>
<td>2600</td>
</tr>
<tr>
<td>FT313HL – T</td>
<td>LQFP</td>
<td>160</td>
<td>1600</td>
</tr>
<tr>
<td>FT260Q - T</td>
<td>WQFN</td>
<td>490</td>
<td></td>
</tr>
<tr>
<td>FT260S - U</td>
<td>TSSOP</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>FT232HPQ-TRAY, FT233HPQ-TRAY, FT2232HPQ-TRAY, FT2233HPQ-TRAY, FT4232HPQ-TRAY, FT4233HPQ-TRAY,</td>
<td>QFN</td>
<td>260</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.2 – Tube/Tray Quantities
3 FT232BL, FT245BL and FT2232D Tape Dimensions

Figure 3.1 – FT232BL, FT245BL and FT2232D Tape Dimensions
4 FT232BL, FT245BL and FT2232D Reel Dimensions

Figure 4.1 – FT232BL, FT245BL and FT2232D Reel Dimensions
5 FT232BQ and FT245BQ Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance ± 0.2
2. Camber Block, Advantek Polyethylene.
3. Ao and Bo measured from a plane on the inside bottom of the pocket.
4. The pocket to the window surface of the corner.
5. R0.3 measured from a plane on the inside bottom of the pocket.
6. R0.3 measured from the position of pocket, not pocket hole.

Figure 5.1 – FT232BQ and FT245BQ Tape Dimensions
6 FT232BQ and FT245BQ Reel Dimensions

![Diagram of FT232BQ and FT245BQ Reel Dimensions]

Figure 6.1 – FT232BQ and FT245BQ Reel Dimensions
7 FT232RL and FT245RL Tape Dimensions

Figure 7.1 – FT232RL and FT245RL Tape Dimensions
8 FT232RL and FT245RL Reel Dimensions

Figure 8.1 – FT232RL and FT245RL Reel Dimensions
9 FT232RL and FT245RL Tube Dimensions

Figure 9.1 – FT232RL and FT245RL Tube Dimensions
10 FT232RQ and FT245RQ Tape Dimensions

Figure 10.1 – FT232RQ and FT245RQ Tape Dimensions
11 FT232RQ and FT245RQ Reel Dimensions

Figure 11.1 – FT232RQ and FT245RQ Reel Dimensions
12 FT232RQ and FT245RQ Tray Dimensions

Figure 12.1 FT232RQ and FT245RQ Tray Dimensions
13 FT2232HL and FT4232HL Tape Dimensions

NOTES:
1. DIMENSIONS PER MIL STD 379-1B.
2. PIN 1 IDENTIFIER: TO BE PLACED ON STAMPING (TOP) AND 2MM DISTANCE FROM PIN 1.
3. PIN 2 IDENTIFIER: TO BE PLACED ON STAMPING (TOP) AND 2MM DISTANCE FROM PIN 2.
4. DIMENSION A IS THE POSITION OF PIN 1.

SECTION A - A

Figure 13.1 – FT2232HL and FT4232HL Tape Dimensions
14 FT2232HL and FT4232HL Reel Dimensions

Figure 14.1 – FT2232HL and FT4232HL Reel Dimensions
15 FT2232HL and FT4232HL Tray Dimensions

Figure 15.1 FT2232HL and FT4232HL Tray Dimensions
16 FT2232HQ and FT4232HQ Tape Dimensions

Figure 16.1 – FT2232HQ and FT4232HQ Tape Dimensions
17  FT2232HQ and FT4232HQ Reel Dimensions

Figure 17.1 – FT2232HQ and FT4232HQ Reel Dimensions
18 FT2232HQ and FT4232HQ Tray Dimensions

Figure 18.1 FT2232HQ and FT4232HQ Tray Dimensions
19 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions

Figure 19.1– FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions
20 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions

Figure 20.1 - FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions
21 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions

Figure 21.1 – FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions
22 VNC1L – A – Reel Vendor Part No. RD33008SW

Figure 22.1 – VNC1L – A – Reel Vendor Part No. RD33008SW
23 VNC1L – A – Cover Tape Vendor Part No. AA13305NP

**Figure 23.1 – VNC1L – A – Cover Tape Vendor Part No. AA13305NP**
24  VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A

Figure 24.1 – VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A
25 FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Reel Dimensions

Figure 25.1 – FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Reel Dimensions
26 FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Carrier Tape Dimensions

Figure 26.1 - FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Carrier Tape Dimensions
27  VNC2-48L1C, FT232HL – LQFP Reel Dimensions

![Diagram of VNC2-48L1C, FT232HL – LQFP Reel Dimensions]

Figure 27.1 - VNC2-48L1C, FT232HL – LQFP Reel Dimensions
28  VNC2-48L1C, FT232HL – LQFP Carrier Tape Dimensions

Figure 28.1 - VNC2-48L1C, FT232HL – LQFP Carrier Tape Dimensions

Figure 29.1- FT311D-32L1C, FT312D-32L1C, VNC2-32L1C, VNC2-48L1C, FT232HL - LQFP Tray Dimensions
30 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C –QFN Reel Dimensions

Figure 30.1 - FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C –QFN Reel Dimensions
31 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Carrier Tape Dimensions

Figure 31.1 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Carrier Tape Dimensions
32 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Tray Dimensions

Figure 32.1 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Tray Dimensions
33 FT200XD, FT234XD Reel Dimensions

Figure 33.1 FT200XD, FT234XD Reel Dimensions
34 FT200XD, FT234XD Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance ± 0.2.
2. Camber not to exceed 1 mm in 100 mm.
4. Ao and Bo measured on a plane 0.3 mm above the bottom of the package.
5. The pitch between a plane on the inside bottom of the package and a plane off the center of the sprocket hole measured.
6. The pitch position relative to the center of the sprocket hole measured.
7. Cover tape width 9.3±1.0 mm.

Figure 34.1 FT200XD, FT234XD Tape Dimensions
Figure 35.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Reel Dimensions
36 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Tape Dimensions

Notes:
1. Tolerance of ±0.02 mm except where noted
2. 10 sprocket-hole spacing measured from center of hole to center of hole
3. Material: Black Adonese Polystyrene
4. 40 and 40 measured from a plane on the inside bottom of the package to the top surface of the carrier
5. Pocket position tolerance: sprocket hole measured as per Pocket ID. Pocket ID measured as per Pocket ID.

Pin 1 Identifier

Figure 36.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Tape Dimensions
37 FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions

Figure 37.1 FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions
FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions

Notes:
1. 10 sprocket hole pitch cumulative tolerance ± 0.2mm
2. Camber: not to exceed 1mm in 100mm
3. Material: Anti-Static Black Adventek Polyethylene
4. A6 and B measured on a plane 0.2mm above the bottom of the pocket
5. A4 measured from a plane on the inside bottom of the pocket to the top surface of the carrier
6. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole

Figure 38.1 FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions
39 FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions

Figure 39.1 FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions
40 FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance ± 0.2 mm.
2. Camber not to exceed 1 mm in 100 mm.
4. Aa and Bb measured on a plane 0.3 mm above the bottom of the pocket.
5. Ka measured from a plane of the top surface of the corner.
6. Pocket position of pocket, not pocket hole.

Figure 40.1 FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions
41 FT120T TSSOP Reel Dimensions

Figure 41.1 FT120T TSSOP Reel Dimensions
42 FT120T TSSOP Tube Dimensions

![Figure 42.1 FT120T TSSOP Tube Dimensions](image-url)
43 FT120T TSSOP Tape Dimensions

Figure 43.1 FT120T TSSOP Tape Dimensions
Figure 44.1 FT201XS, FT220XS, FT230XS, FT240XS Reel Dimensions
45  FT221XS, FT231XS Reel Dimensions

Figure 45.1 FT221XS, FT231XS Reel Dimensions
46 FT231XS Tube Dimensions

Figure 46.1 FT231XS Tube Dimensions
47 FT313H-QFN Reel Dimensions

Figure 47.1 FT313H-QFN Reel Dimensions
Figure 48.1 FT313H-QFN Tape Dimensions
49 FT313H-LQFP Reel Dimensions

Figure 49.1 FT313H-LQFP Reel Dimensions
50  FT313H-LQFP Tape Dimensions

Figure 50.1 FT313H-LQFP Tape Dimensions
51 FT313H-TQFP Reel Dimensions

Figure 51.1 FT313H-TQFP Reel Dimensions
52 FT313H-TQFP Tape Dimensions

NOTES:
1. 10 SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ±0.2
2. CAMBER IN COMPLIANCE WITH EIA 481
3. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE
4. COVER TAPE WIDTH : 13.0±0.1

Figure 52.1 FT313H-TQFP Tape Dimensions
53 FT600Q Reel Dimensions

Figure 53.1 FT600Q Reel Dimensions
54 FT600Q Tape Dimensions

Figure 54.1 FT600Q Tape Dimensions
55  FT601Q, FT602Q Reel Dimensions

Figure 55.1 FT601Q, FT602Q Reel Dimensions
56 FT601Q, FT602Q Tape Dimensions

Notes:
1. 10 socket hole pitch cumulative tolerance ± 0.2
2. Camber not to exceed 1mm in 100mm.
4. No. 10 socket hole position from a plane on the inside bottom of the package to a plane 0.3mm above the surface of the package.
5. No. 10 socket hole position as measured from the top surface of the package.
6. Pin 1 identifier

Figure 56.1 FT601Q, FT602Q Tape Dimensions
57 FT601Q, FT602Q Tray Dimensions

Figure 57.1 FT601Q, FT602Q Tray Dimensions
58 FT4222HQ Reel Dimensions

Figure 58.1 FT4222HQ Reel Dimensions
59  FT4222HQ Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance + 0.2
2. Sprocket holes not to exceed 1mm in 100mm.
4. Ao and Bo measured on a plane 0.3mm above the bottom of the pocket.
5. The distance of the center of the hole from the inside bottom of the pocket relative to sprocket position.

Figure 59.1 FT4222HQ Tape Dimensions
60 FT4222HQ Tray Dimensions

NOTES:
1. LED CHIPS MEANS SURFACE ELECTRIC RESISTIVITY OF THE CHIP.
2. THE MOLDED TRAYS MATERIAL SHALL BE RIGID ENOUGH TO AVOID DAMAGE TO THE COMPONENTS DURING SHIPPING AND HANDLING TESTING.
3. TRAYS ARE STACKABLE WITHOUT INTERFERENCE AND WILL NOT STICK TOGETHER DURING HANDLING.
4. WARPING IS WITHIN 0.7 mm.
5. THE CELLS ARE FOR VACUUM PICKUP AREA AND WITHOUT TRAYS.
6. TOTAL GROSS VOLUME MU 46 ML.
7. ALL DIMENSIONS ARE IN MILLIMETERS.

Figure 60.1 FT4222HQ Tray Dimensions
61 FT260Q Tray Dimensions

Figure 61.1 FT260Q Tray Dimensions
62 FT260Q Reel Dimensions

Figure 62.1 FT260Q Reel Dimensions
63 FT260Q Tape Dimensions

Notes:
1. sprocket hole pitch cumulative tolerance ± 0.2
2. Center line to exceed 1 mm in 100 mm.
3. Adjustable - Sprocket is at the top of the reel.
4. Measured from a plane on the inside bottom of the pocket to the top surface of the center.
5. Measured from a plane on the inside bottom of the pocket to the sprocket.
6. Pocket position or pocket sprocket measured at right position or pocket sprocket.

Figure 63.1 FT260Q Tape Dimensions
64 FT260S Reel Dimensions

Figure 64.1 FT260S Reel Dimensions
65  FT260S Tape Dimensions

Figure 65.1 FT260S Tape Dimensions
66  FT260S Tube Dimensions

Figure 66.1 FT260S Tube Dimensions
Figure 67.1 FT232HPQ, FT2232HPQ and FT4232HPQ Tape Dimensions

**NOTES:**

1. 100 pocket hole, cumulative tolerance ± 0.2
2. 2. abnormal pitch, cumulative tolerance ± 0.2
3. 3. Abnormal header alignment, FOunter.
4. 4. pocket position relative to product hole measured.
5. 5. the pocket is the top surface of the cutter.
6. 6. the position of the pocket is the top surface of the header.
7. 7. The pocket is a printed on the reverse side of the header.
8. 8. The header is a printed on the reverse side of the header.
9. 9. The pocket is a printed on the reverse side of the header.
10. 10. The header is a printed on the reverse side of the header.
11. 11. The pocket is a printed on the reverse side of the header.
12. 12. The header is a printed on the reverse side of the header.
13. 13. The pocket is a printed on the reverse side of the header.
14. 14. The header is a printed on the reverse side of the header.
15. 15. The pocket is a printed on the reverse side of the header.
16. 16. The header is a printed on the reverse side of the header.
17. 17. The pocket is a printed on the reverse side of the header.
18. 18. The header is a printed on the reverse side of the header.
19. 19. The pocket is a printed on the reverse side of the header.
20. 20. The header is a printed on the reverse side of the header.
21. 21. The pocket is a printed on the reverse side of the header.
22. 22. The header is a printed on the reverse side of the header.
23. 23. The pocket is a printed on the reverse side of the header.
24. 24. The header is a printed on the reverse side of the header.
25. 25. The pocket is a printed on the reverse side of the header.
26. 26. The header is a printed on the reverse side of the header.
27. 27. The pocket is a printed on the reverse side of the header.
28. 28. The header is a printed on the reverse side of the header.
29. 29. The pocket is a printed on the reverse side of the header.
30. 30. The header is a printed on the reverse side of the header.
31. 31. The pocket is a printed on the reverse side of the header.
32. 32. The header is a printed on the reverse side of the header.
33. 33. The pocket is a printed on the reverse side of the header.
34. 34. The header is a printed on the reverse side of the header.
35. 35. The pocket is a printed on the reverse side of the header.
36. 36. The header is a printed on the reverse side of the header.
37. 37. The pocket is a printed on the reverse side of the header.
38. 38. The header is a printed on the reverse side of the header.
39. 39. The pocket is a printed on the reverse side of the header.
40. 40. The header is a printed on the reverse side of the header.
41. 41. The pocket is a printed on the reverse side of the header.
42. 42. The header is a printed on the reverse side of the header.
43. 43. The pocket is a printed on the reverse side of the header.
44. 44. The header is a printed on the reverse side of the header.
45. 45. The pocket is a printed on the reverse side of the header.
46. 46. The header is a printed on the reverse side of the header.
47. 47. The pocket is a printed on the reverse side of the header.
48. 48. The header is a printed on the reverse side of the header.
49. 49. The pocket is a printed on the reverse side of the header.
50. 50. The header is a printed on the reverse side of the header.
51. 51. The pocket is a printed on the reverse side of the header.
52. 52. The header is a printed on the reverse side of the header.
53. 53. The pocket is a printed on the reverse side of the header.
54. 54. The header is a printed on the reverse side of the header.
55. 55. The pocket is a printed on the reverse side of the header.
56. 56. The header is a printed on the reverse side of the header.
57. 57. The pocket is a printed on the reverse side of the header.
58. 58. The header is a printed on the reverse side of the header.
59. 59. The pocket is a printed on the reverse side of the header.
60. 60. The header is a printed on the reverse side of the header.
61. 61. The pocket is a printed on the reverse side of the header.
62. 62. The header is a printed on the reverse side of the header.
63. 63. The pocket is a printed on the reverse side of the header.
64. 64. The header is a printed on the reverse side of the header.
65. 65. The pocket is a printed on the reverse side of the header.
66. 66. The header is a printed on the reverse side of the header.
67. 67. The pocket is a printed on the reverse side of the header.
68. 68. The header is a printed on the reverse side of the header.
69. 69. The pocket is a printed on the reverse side of the header.
70. 70. The header is a printed on the reverse side of the header.
71. 71. The pocket is a printed on the reverse side of the header.
72. 72. The header is a printed on the reverse side of the header.
73. 73. The pocket is a printed on the reverse side of the header.
74. 74. The header is a printed on the reverse side of the header.
68 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions

Figure 68.1 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions
69 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions

Figure 69.1 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions
70 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions

Notes:
1. To ensure that the dimensional tolerances are achieved, the tape shall be a plane parallel to the plane of the tape, with a tolerance of ± 0.2 mm.

2. Nominal Block Dimensions:
   - FT233HPQ: 20.0 ± 0.1 mm
   - FT2233HPQ: 40.0 ± 0.1 mm
   - FT4233HPQ: 60.0 ± 0.1 mm

3. Width Tolerance:
   - FT233HPQ: 12.0 ± 0.1 mm
   - FT2233HPQ: 12.0 ± 0.1 mm
   - FT4233HPQ: 12.0 ± 0.1 mm

4. Tape Edge Tolerance:
   - FT233HPQ: 0.1 mm
   - FT2233HPQ: 0.1 mm
   - FT4233HPQ: 0.1 mm

5. Tape Solder Mask Tolerance:
   - FT233HPQ: 0.1 mm
   - FT2233HPQ: 0.1 mm
   - FT4233HPQ: 0.1 mm

Figure 70.1 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions
71. **FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions**

![Diagram showing dimensions of FT233HPQ, FT2233HPQ and FT4233HPQ reels]

**Figure 71.1 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions**
72  FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions

Figure 72.1 FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions
Contact Information

Head Office – Glasgow, UK

Future Technology Devices International Limited
Unit 1, 2 Seaward Place, Centurion Business Park
Glasgow G41 1HH
United Kingdom
Tel: +44 (0) 141 429 2777
Fax: +44 (0) 141 429 2758

E-mail (Sales) sales1@ftdichip.com
E-mail (Support) support1@ftdichip.com
E-mail (General Enquiries) admin1@ftdichip.com

Branch Office – Tigard, Oregon, USA

Future Technology Devices International Limited (USA)
7130 SW Fir Loop
Tigard, OR 97223-8160
USA
Tel: +1 (503) 547 0988
Fax: +1 (503) 547 0987

E-mail (Sales) us.sales@ftdichip.com
E-mail (Support) us.support@ftdichip.com
E-mail (General Enquiries) us.admin@ftdichip.com

Branch Office – Taipei, Taiwan

Future Technology Devices International Limited (Taiwan)
2F, No. 516, Sec. 1, NeiHu Road
Taipei 114
Taiwan, R.O.C.
Tel: +886 (0) 2 8797 1330
Fax: +886 (0) 2 8751 9737

E-mail (Sales) tw.sales1@ftdichip.com
E-mail (Support) tw.support1@ftdichip.com
E-mail (General Enquiries) tw.admin1@ftdichip.com

Branch Office – Shanghai, China

Future Technology Devices International Limited (China)
Room 1103, No. 666 West Huaihai Road,
Shanghai, 200052
China
Tel: +86 21 62351596
Fax: +86 21 62351595

E-mail (Sales) cn.sales@ftdichip.com
E-mail (Support) cn.support@ftdichip.com
E-mail (General Enquiries) cn.admin@ftdichip.com

Web Site

http://ftdichip.com

Distributor and Sales Representatives

Please visit the Sales Network page of the FTDI Web site for the contact details of our distributor(s) and sales representative(s) in your country.

System and equipment manufacturers and designers are responsible to ensure that their systems, and any Future Technology Devices International Ltd (FTDI) devices incorporated in their systems, meet all applicable safety, regulatory and system-level performance requirements. All application-related information in this document (including application descriptions, suggested FTDI devices and other materials) is provided for reference only. While FTDI has taken care to assure it is accurate, this information is subject to customer confirmation, and FTDI disclaims all liability for system designs and for any applications assistance provided by FTDI. Use of FTDI devices in life support and/or safety applications is entirely at the user’s risk, and the user agrees to defend, indemnify and hold harmless FTDI from any and all damages, claims, suits or expense resulting from such use. This document is subject to change without notice. No freedom to use patents or other intellectual property rights is implied by the publication of this document. Neither the whole nor any part of the information contained in, or the product described in this document, may be adapted or reproduced in any material or electronic form without the prior written consent of the copyright holder. Future Technology Devices International Ltd, Unit 1, 2 Seaward Place, Centurion Business Park, Glasgow G41 1HH, United Kingdom. Scotland Registered Company Number: SC136640
Appendix A – References

Document References

NA

Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Terms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LQFP</td>
<td>Low Profile Quad Flat Pack</td>
</tr>
<tr>
<td>QFN</td>
<td>Quad Flat No-Leads Package</td>
</tr>
<tr>
<td>TSSOP</td>
<td>Think Shrink Small Outline Package</td>
</tr>
<tr>
<td>VNC2</td>
<td>Vinculum-II</td>
</tr>
</tbody>
</table>
Appendix B – List of Figures and Tables

List of Figures

Figure 3.1 – FT232BL, FT245BL and FT2232D Tape Dimensions ........................................ 8
Figure 4.1 – FT232BL, FT245BL and FT2232D Reel Dimensions .......................................... 9
Figure 5.1 – FT232BQ and FT245BQ Tape Dimensions .......................................................... 10
Figure 6.1 – FT232BQ and FT245BQ Reel Dimensions ............................................................ 11
Figure 7.1 – FT232RL and FT245RL Tape Dimensions ............................................................ 12
Figure 8.1 – FT232RL and FT245RL Reel Dimensions ............................................................. 13
Figure 9.1 – FT232RL and FT245RL Tube Dimensions ............................................................. 14
Figure 10.1 – FT232RQ and FT245RQ Tape Dimensions .......................................................... 15
Figure 11.1 – FT232RQ and FT245RQ Reel Dimensions .......................................................... 16
Figure 12.1 FT232RQ and FT245RQ Tray Dimensions ............................................................. 17
Figure 13.1 – FT2232HL and FT4232HL Tape Dimensions ...................................................... 18
Figure 14.1 – FT2232HL and FT4232HL Reel Dimensions ...................................................... 19
Figure 15.1 FT2232HL and FT4232HL Tray Dimensions .......................................................... 20
Figure 16.1 – FT2232HQ and FT4232HQ Tape Dimensions ..................................................... 21
Figure 17.1 – FT2232HQ and FT4232HQ Reel Dimensions ..................................................... 22
Figure 18.1 FT2232HQ and FT4232HQ Tray Dimensions ........................................................ 23
Figure 19.1- FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions .... 24
Figure 20.1 - FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions ... 25
Figure 21.1 – FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions ... 26
Figure 22.1 – VNC1L – A – Reel Vendor Part No. RD33008SW ................................................ 27
Figure 23.1 – VNC1L – A – Cover Tape Vendor Part No. AA13305NP ......................................... 28
Figure 24.1 – VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A ......................................... 29
Figure 25.1 – FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Reel Dimensions .......... 30
Figure 26.1 – FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Carrier Tape Dimensions ... 31
Figure 27.1 – VNC2-48L1C, FT232HL – LQFP Reel Dimensions ............................................... 32
Figure 28.1 – VNC2-48L1C, FT232HL – LQFP Carrier Tape Dimensions .................................... 33
Figure 29.1- FT311D-32L1C, FT312D-32L1C, VNC2-32L1C, VNC2-48L1C, FT232HL – LQFP Tray Dimensions ................................................................. 34
Figure 30.1 – FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Reel Dimensions .......... 35
Figure 31.1 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Carrier Tape Dimensions ...... 36
Figure 32.1 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Tray Dimensions ................. 37
Figure 33.1 FT200XD, FT234XD Reel Dimensions ................................................................. 38
Figure 34.1 FT200XD, FT234XD Tape Dimensions ................................................................. 39
Figure 35.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Reel Dimensions 40
Figure 36.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Tape Dimensions 41
Figure 37.1 FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions ........................................... 42
Figure 38.1 FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions ........................................ 43
Figure 39.1 FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions ........................................ 44
Figure 40.1 FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions ........................................ 45
Figure 41.1 FT120T TSSOP Reel Dimensions ............................................................................. 46
Figure 42.1 FT120T TSSOP Tube Dimensions .......................................................................... 47
Figure 43.1 FT120T TSSOP Tape Dimensions .......................................................................... 48
Figure 44.1 FT201XS, FT220XS, FT230XS, FT240XS Reel Dimensions ................................. 49
Figure 45.1 FT221XS, FT231XS Reel Dimensions ................................................................... 50
Figure 46.1 FT231XS Tube Dimensions ..................................................................................... 51
Figure 47.1 FT313H-QFN Reel Dimensions .............................................................................. 52
Figure 48.1 FT313H-QFN Tape Dimensions .............................................................................. 53
Figure 49.1 FT313H-LQFP Reel Dimensions ............................................................................. 54
Figure 50.1 FT313H-LQFP Tape Dimensions ............................................................................ 55
Figure 51.1 FT313H-TQFP Reel Dimensions ............................................................................. 56
Figure 52.1 FT313H-TQFP Tape Dimensions ............................................................................ 57
Figure 53.1 FT600Q Reel Dimensions ....................................................................................... 58
Figure 54.1 FT600Q Tape Dimensions ...................................................................................... 59
Figure 55.1 FT601Q, FT602Q Reel Dimensions ......................................................................... 60
Figure 56.1 FT601Q, FT602Q Tape Dimensions ........................................................................ 61
Figure 57.1 FT601Q, FT602Q Tray Dimensions ......................................................................... 62
Figure 58.1 FT4222HQ Reel Dimensions .................................................................................. 63
Figure 59.1 FT4222HQ Tape Dimensions .................................................................................. 64
Figure 60.1 FT4222HQ Tray Dimensions .................................................................................. 65
Figure 61.1 FT260Q Tray Dimensions ....................................................................................... 66
Figure 62.1 FT260Q Reel Dimensions ....................................................................................... 67
Figure 63.1 FT260Q Tape Dimensions ....................................................................................... 68
Figure 64.1 FT260S Reel Dimensions ....................................................................................... 69
Figure 65.1 FT260S Tape Dimensions ....................................................................................... 70
Figure 66.1 FT260S Tube Dimensions ....................................................................................... 71
Figure 68.1 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions ................................. 76
Figure 69.1 FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions ................................. 77
List of Tables

Table 2.1 – Tape and Reel Quantities ................................................................. 6
Table 2.2 – Tube/Tray Quantities .................................................................. 7
## Appendix C – Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Changes</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Initial Release (based on and supersedes AN232B-11)</td>
<td>11-08-2009</td>
</tr>
<tr>
<td>1.1</td>
<td>Added the VNC2 tray and T&amp;R dimensions drawings</td>
<td>24-05-2010</td>
</tr>
<tr>
<td>1.2</td>
<td>Updated VNC2 tray dimensions drawings</td>
<td>17-01-2011</td>
</tr>
<tr>
<td>1.3</td>
<td>Added pin 1 identifier to tapes</td>
<td>17-02-2011</td>
</tr>
<tr>
<td>1.4</td>
<td>Added FT232H tape/reel /tray dimensions</td>
<td>07-11-2011</td>
</tr>
<tr>
<td>1.5</td>
<td>Add Reel &amp; Tape information of FTX series chips, FT12 series chips, FT311D and FT313H ; Updated contacts page ;</td>
<td>06-12-2012</td>
</tr>
<tr>
<td>1.6</td>
<td>Added section FT231XS tube dimension; Added FT234XD tape and reel (same as FT200XD); Added FT200XD, FT234XD pin 1 identifier; Added FT600Q, FT601Q and FT602Q</td>
<td>12-07-2017</td>
</tr>
<tr>
<td>1.7</td>
<td>Added Reel &amp; Tape information for FT4222HQ</td>
<td>02-11-2017</td>
</tr>
<tr>
<td>1.8</td>
<td>Added Pin 1 identifier for FT4222HQ</td>
<td>08-05-2018</td>
</tr>
<tr>
<td>1.9</td>
<td>Correction Pin 1 identifier for FT200XD &amp; FT234XD</td>
<td>06-06-2018</td>
</tr>
<tr>
<td>2.1</td>
<td>Added Reel &amp; Tape information for FT260Q, updated FT120T Reel &amp; Tube information; Deleted FT120Q's Dimensions for its EOL. Add Tray dimension for FT601; Added FT232HPQ, FT233HPQ, FT2232HPQ, FT2233HPQ, FT4232HPQ and FT4233HPQ tape, reel and tray dimensions; Added FT260S tape, reel and tube dimensions.</td>
<td>20-07-2021</td>
</tr>
</tbody>
</table>