Application Note

AN_116

FTDI Devices Tape, Reel, Tray & Tube Dimensions

Version 2.3

Issue Date: 24-08-2022

This document provides information on the Tape, Reel, Tray, and Tube dimensions for FT232BL, FT245BL, FT232BQ, FT245BQ, FT232RL, FT245RL, FT232RNL, FT245RNL, FT232RQ, FT245RQ, FT232RNQ, FT245RNQ, FT232CD, FT2322CD, FT232HL, FT2322HL, FT2322HQ, FT4232HL, FT4232HQ, FT-X series, FT120, FT312D, FT312D FT313H, FT4222HQ, VNC1L, VNC2, FT600Q, FT601Q, FT602Q, FT260S, FT260Q, FT232HPQ, FT233HPQ, FT2232HPQ, FT2233HPQ, FT4232HPQ, FT4233HPQ and FT4232HAQ.

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.

Future Technology Devices International Limited (FTDI)
Unit 1, 2 Seaward Place, Glasgow G41 1HH, United Kingdom
Tel.: +44 (0) 141 429 2777  Fax: + 44 (0) 141 429 2758
E-Mail (Support): support1@ftdichip.com  Web: http://www.ftdichip.com
Copyright © Future Technology Devices International Limited
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/FT232RNL and FT245RL/FT245RNL Reel Dimensions ...................................... 13
9 FT232RL and FT245RL Tube Dimensions ...................................................................... 14
10 FT232RNL and FT245RNL Tape Dimensions ................................................................. 15
11 FT232RNL and FT245RNL Tube Dimensions ................................................................. 16
12 FT232RQ and FT245RQ Tape Dimensions ...................................................................... 17
13 FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Reel Dimensions ...................................... 18
14 FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Tray Dimensions ...................................... 19
15 FT232RNQ and FT245RNQ Tape Dimensions ................................................................. 20
16 FT2232HL and FT4232HL Tape Dimensions .................................................................. 21
17 FT2232HL and FT4232HL Reel Dimensions .................................................................. 22
18 FT2232HL and FT4232HL Tray Dimensions .................................................................. 23
19 FT2232HQ and FT4232HQ Tape Dimensions .................................................................. 24
20 FT2232HQ and FT4232HQ Reel Dimensions .................................................................. 25
21 FT2232HQ and FT4232HQ Tray Dimensions .................................................................. 26
22 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions .............. 27
23 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions ................................................................. 28
24 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions............................................................... 29
25 VNC1L – A – Reel Vendor Part No. RD33008SW ............ 30
26 VNC1L – A – Cover Tape Vendor Part No. AA13305NP... 31
27 VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A ... 32
28 FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Reel Dimensions ........................................................................ 33
29 FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Carrier Tape Dimensions ................................................................. 34
30 VNC2-48L1C, FT232HL – LQFP Reel Dimensions.......... 35
31 VNC2-48L1C, FT232HL – LQFP Carrier Tape Dimensions 36
33 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Reel Dimensions ........................................................................ 38
34 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Carrier Tape Dimensions ............................................................... 39
35 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Tray Dimensions ........................................................................ 40
36 FT200XD, FT234XD Reel Dimensions.......................... 41
37 FT200XD, FT234XD Tape Dimensions............................ 42
38 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Reel Dimensions ........................................................... 43
39 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Tape Dimensions .......................................................... 44
40 FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions ... 45
41 FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions .. 46
42 FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions ... 47
43 FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions .. 48
44 FT120T TSSOP Reel Dimensions ........................................ 49
45 FT120T TSSOP Tube Dimensions ...................................... 50
46 FT120T TSSOP Tape Dimensions ..................................... 51
47 FT201XS, FT220XS, FT230XS, FT240XS Reel Dimensions 52
48 FT221XS, FT231XS Reel Dimensions ................................ 53
49 FT231XS Tube Dimensions .............................................. 54
50 FT313H-QFN Reel Dimensions ........................................ 55
51 FT313H-QFN Tape Dimensions ........................................ 56
52 FT313H-LQFP Reel Dimensions ........................................ 57
53 FT313H-LQFP Tape Dimensions ....................................... 58
54 FT313H-TQFP Reel Dimensions ....................................... 59
55 FT313H-TQFP Tape Dimensions ....................................... 60
56 FT600Q Reel Dimensions ............................................... 61
57 FT600Q Tape Dimensions ............................................... 62
58 FT601Q, FT602Q Reel Dimensions ................................... 63
59 FT601Q, FT602Q Tape Dimensions ................................... 64
60 FT601Q, FT602Q Tray Dimensions ................................... 65
61 FT4222HQ Reel Dimensions ........................................... 66
62 FT4222HQ Tape Dimensions ........................................... 67
63 FT4222HQ Tray Dimensions ........................................... 68
64 FT260Q Tray Dimensions .............................................. 69
65 FT260Q Reel Dimensions .............................................. 70
66 FT260Q Tape Dimensions .............................................. 71
67 FT260S Reel Dimensions .............................................. 72
68 FT260S Tape Dimensions .............................................. 73
69 FT260S Tube Dimensions .............................................. 74
70 FT232HPQ, FT2232HPQ and FT4232HPQ Tape Dimensions 75
71 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions
72 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions
73 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions
74 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions
75 FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions
76 FT4232HAQ Tape Dimensions ........................................ 81
77 FT4232HAQ Reel Dimensions ........................................ 82
78 FT4232HAQ Tray Dimensions ........................................ 83
79 Contact Information .................................................. 85
Appendix A – References ................................................ 70
  Document References .................................................. 70
  Acronyms and Abbreviations ........................................ 70
Appendix B – List of Figures and Tables ............................. 71
  List of Figures .......................................................... 71
  List of Tables .......................................................... 73
Appendix C – Revision History ......................................... 74
1 Introduction

This document provides information on the tape and reel dimensions for FT232BL, FT245BL, FT232BQ, FT245BQ, FT232RL, FT245RL, FT232RNL, FT245RNL, FT232RQ, FT245RQ, FT232RNQ, FT245RNQ, FT2232D, FT2232HL, FT2322HQ, FT4232HL, FT232HL, FT232HQ, FT-X series, FT120, FT311D, FT312D, FT313H, FT4222HQ, VNC1L, VNC2, FT600Q, FT601Q, FT602Q, FT260S, FT260Q, FT232HPQ, FT233HPQ, FT2232HPQ, FT2233HPQ, FT4232HPQ, FT4233HPQ and FT4232HAQ.
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>2500</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>FT311DLQFP</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, FT2232HPQ-REEL, FT2233HPQ-REEL</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT4232HPQ-REEL, FT4233HPQ-REEL</td>
<td>QFN</td>
<td>3000</td>
</tr>
<tr>
<td>FT4232H</td>
<td>QFN</td>
<td>2600</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>VINCIL – 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>FT311DLQFP</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>FT200XD- 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>FT201QX- T, FT220QX- T, FT230QX- T, FT240QX- 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>
<tr>
<td>FT4232HAQ – Tray</td>
<td>QFN</td>
<td>260</td>
<td>2600</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

![Diagram of FT232BL, FT245BL and FT2232D Reel Dimensions]

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

Notes:
1. 10 sprocket hole pitch cumulative tolerance ± 0.2
2. Camber not to exceed 1mm in 100mm.
3. Material Block, Antislip Polyethylene.
4. Ao and Bo measured on a plane 0.3mm above the bottom of the pocket to the top surface of the carrier.
5. No measured from the inside bottom of the pocket to the true position of pocket, for pocket hole.

Figure 5.1 – FT232BQ and FT245BQ Tape Dimensions
6 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/FT232RNL and FT245RL/FT245RNL Reel Dimensions

Figure 8.1 – FT232RL/FT232RNL and FT245RL/FT245RNL Reel Dimensions
9 FT232RL and FT245RL Tube Dimensions

Figure 9.1 – FT232RL and FT245RL Tube Dimensions
10 FT232RNL and FT245RNL Tape Dimensions

![Diagram of FT232RNL and FT245RNL Tape Dimensions]

**Figure 10.1 FT232RNL and FT245RNL Tape Dimensions**
11 FT232RNL and FT245RNL Tube Dimensions

Figure 11.1 FT232RNL and FT245RNL Tube Dimensions
12 FT232RQ and FT245RQ Tape Dimensions

| Ao   | 5.26 ± 0.18 |
| P1   | 8.00 ± 0.10 |
| F    | 5.30 ± 0.10 |
| Ko   | 3.10 ± 0.10 |
| 1280 + 0.10 |

Figure 12.1 – FT232RQ and FT245RQ Tape Dimensions
13 FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Reel Dimensions

Figure 13.1 – FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Reel Dimensions
14 FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Tray Dimensions

Figure 14.1 FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Tray Dimensions
15 FT232RNQ and FT245RNQ Tape Dimensions

Figure 15.1 FT232RNQ and FT245RNQ Tape Dimensions
16 FT2232HL and FT4232HL Tape Dimensions

Figure 16.1 – FT2232HL and FT4232HL Tape Dimensions
17  FT2232HL and FT4232HL Reel Dimensions

Figure 17.1 – FT2232HL and FT4232HL Reel Dimensions
18 FT2232HL and FT4232HL Tray Dimensions

Figure 18.1 FT2232HL and FT4232HL Tray Dimensions
19  FT2232HQ and FT4232HQ Tape Dimensions

Figure 19.1 – FT2232HQ and FT4232HQ Tape Dimensions
20 FT2232HQ and FT4232HQ Reel Dimensions

Figure 20.1 – FT2232HQ and FT4232HQ Reel Dimensions
21 FT2232HQ and FT4232HQ Tray Dimensions

Figure 21.1 FT2232HQ and FT4232HQ Tray Dimensions
22 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions

Figure 22.1– FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel Dimensions
23 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions

Figure 23.1 – FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tape Dimensions
24 FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions

Figure 24.1 – FT2232H-56Q, FT4232H-56Q, VNC2-48Q1C, FT232HQ – QFN Tray Dimensions
25 VNC1L – A – Reel Vendor Part No. RD33008SW

Figure 25.1 – VNC1L – A – Reel Vendor Part No. RD33008SW
26  VNC1L – A – Cover Tape Vendor Part No. AA13305NP

**Figure 26.1 – VNC1L – A – Cover Tape Vendor Part No. AA13305NP**
27  VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A

---

Figure 27.1 – VNC1L – A – Carrier Tape Vendor Part No. Q07X07-A
28 FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Reel Dimensions

Figure 28.1 – FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Reel Dimensions
29 FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Carrier Tape Dimensions

Notes:
1. Solder mask, thickness: 50 ± 5μm (0.002 ± 0.0002")
2. EIAJ package coding is optional.
3. Material: P0 + C.
4. Pin 1 identifier:
5. No measured from a plane on the inside bottom of the package to the top surface of the carrier.
6. Measured on a plane on the inside bottom of the pocket to the top surface of the carrier, not pocket hole.

Figure 29.1 – FT311D-32L1C, FT312D-32L1C, VNC2-32L1C – LQFP Carrier Tape Dimensions
30 VNC2-48L1C, FT232HL – LQFP Reel Dimensions

Figure 30.1 – VNC2-48L1C, FT232HL – LQFP Reel Dimensions
31 VNC2-48L1C, FT232HL – LQFP Carrier Tape Dimensions

Notes:
1. 10-screwed hole pitch cumulative tolerance ±0.2 mm.
2. Carrier not to exceed 1 mm in height.
3. Material: 0.3 mm ± 0.05 mm.
4. Material: 0.5 mm ± 0.1 mm.
5. 0 holes measured from the top surface of the pocket to a plane 0.3 mm above the bottom of the pocket.
6. Pocket position relative to screw hole: center of the pocket.
7. Carrier position relative to pocket: center of the pocket.

Figure 31.1 – VNC2-48L1C, FT232HL – LQFP Carrier Tape Dimensions

Figure 32.1- FT311D-32L1C, FT312D-32L1C, VNC2-32L1C, VNC2-48L1C, FT232HL – LQFP Tray Dimensions
33 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C –QFN Reel Dimensions

Figure 33.1 – FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C –QFN Reel Dimensions
34 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Carrier Tape Dimensions

Figure 34.1 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Carrier Tape Dimensions
35 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Tray Dimensions

Figure 35.1 FT311D-32Q1C, FT312D-32Q1C, VNC2-32Q1C – QFN Tray Dimensions
36  FT200XD, FT234XD Reel Dimensions

Figure 36.1 FT200XD, FT234XD Reel Dimensions
37  FT200XD, FT234XD Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance ± 0.2
2. Camber not to exceed 1mm in 100mm.
4. A0 and B0 measured on a plane 0.3mm above the bottom of the pocket.
5. The measured point is 0.02mm from 0.3mm above the bottom of the pocket.
6. Pocket position relative to sprocket hole measured as true position of pocket.
7. Cover tape width ± 0.1mm.

Figure 37.1 FT200XD, FT234XD Tape Dimensions
38 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Reel Dimensions

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

Notes:
1. 10 sprocket hole pitch cumulative tolerance ± 0.2
2. Camber not to exceed 1mm in 100mm.
4. Ao and Bo measured on a plane 0.3mm above the bottom of the pocket to the top surface of the carrier.
5. Ko measured from the plane on the inside bottom of the pocket, pocket to pocket.
6. Pocket position measured from true pocket position.

Figure 39.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Tape Dimensions
40  FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions

Figure 40.1 FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions
41 FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions

Notes:
1. 10 sprocket hole pitch cumulative tolerance ±0.2mm.
2. Camber: Not to exceed 1mm in 100mm.
4. A0 and B0 measured on a plane 0.3mm above the bottom of the pocket.
5. Ka measured from the top surface of the pocket to the bottom of the pocket.
6. Slot position relative to sprocket hole, not pocket hole.

Pin 1 Identifier

Figure 41.1 FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions
42  FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions

Figure 42.1 FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions
43  FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance ± 0.2
2. Camber not to exceed 1 mm in 100 mm.
4. A0 and B0 measured on a plane 0.3 mm above the bottom of the pocket.
5. Pocket to the top surface of the case.
6. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

Figure 43.1 FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions
44  FT120T TSSOP Reel Dimensions

Figure 44.1 FT120T TSSOP Reel Dimensions
45 FT120T TSSOP Tube Dimensions

Figure 45.1 FT120T TSSOP Tube Dimensions
46 FT120T TSSOP Tape Dimensions

NOTES:
1. соседство-hole pitch cumulative tolerance ±0.2
2. Pin position relative to socket hole measured as the position of socket, not socket hole.

SECTION A - A

Figure 46.1 FT120T TSSOP Tape Dimensions
47 FT201XS, FT220XS, FT230XS, FT240XS Reel Dimensions

Figure 47.1 FT201XS, FT220XS, FT230XS, FT240XS Reel Dimensions
48 FT221XS, FT231XS Reel Dimensions

Figure 48.1 FT221XS, FT231XS Reel Dimensions
49  FT231XS Tube Dimensions

Figure 49.1 FT231XS Tube Dimensions
50 FT313H-QFN Reel Dimensions

Figure 50.1 FT313H-QFN Reel Dimensions
51 FT313H-QFN Tape Dimensions

Notes:
1. Specified hole pitch cumulative tolerance ±0.2
2. Dimensional tolerances are based on overall dimensions.
4. Aa and Bb measured on a plane 0.5mm above the bottom of the pocket to the top surface of the corner, and 0.5mm below the pocket, not to pocket hole.
5. Pin 1 Identifier

Figure 51.1 FT313H-QFN Tape Dimensions
52 FT313H-LQFP Reel Dimensions

![Diagram of FT313H-LQFP Reel Dimensions]

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

Figure 53.1 FT313H-LQFP Tape Dimensions
54 FT313H-TQFP Reel Dimensions

Figure 54.1 FT313H-TQFP Reel Dimensions
55 FT313H-TQFP Tape Dimensions

NOTES:
1. SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ±0.2
2. CAMBER IN COMPLIANCE WITH EA 481
3. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE
4. COVER TAPE WIDTH: 13.3±0.1

Figure 55.1 FT313H-TQFP Tape Dimensions
56  FT600Q Reel Dimensions

Figure 56.1 FT600Q Reel Dimensions
57 FT600Q Tape Dimensions

NOTES:
1. DIM. IN MM.
2. SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ±0.2
3. CAMER NOT TO EXCEED 1 MM IN 100 MM.
4. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE.
5. SURFACE RESISTIVITY LESS THAN OR EQUAL TO 1000 OHMS/SQ.

SECTION A-A

Figure 57.1 FT600Q Tape Dimensions
58 FT601Q, FT602Q Reel Dimensions

Figure 58.1 FT601Q, FT602Q Reel Dimensions
59  FT601Q, FT602Q Tape Dimensions

Notes:
1. Solder hole pitch cumulative tolerance ± 0.2
2. Camber: 0.05 mm in 100mm.
4. The bottom of the pocket is a plane 0.3mm above the pocket to the top surface of the carrier.
5. Wafer measured from a plane on the inside bottom of the pocket.
6. Pin 1 identifier:

Figure 59.1 FT601Q, FT602Q Tape Dimensions
60  FT601Q, FT602Q Tray Dimensions

Figure 60.1 FT601Q, FT602Q Tray Dimensions
61 FT4222HQ Reel Dimensions

Figure 61.1 FT4222HQ Reel Dimensions
62 FT4222HQ Tape Dimensions

Notes:
1. 10 sprocket hole pitch cumulative tolerance ± 0.2
2. Camber: Black printed on a plane 0.3mm above the bottom of the pocket.
4. Ao and Be measured from a plane 0.3mm above the inside bottom of pocket position relative to sprocket hole position.

Figure 62.1 FT4222HQ Tape Dimensions
63 FT4222HQ Tray Dimensions

**NOTES:**
1. USE CHAMPS MEANS SURFACE ELECTRO.
2. RESISTIVITY OF THE TRAY
3. THE MOLDED TRAYS MATERIAL SHALL BE RIGID ENOUGH TO AVOID DAMAGE TO THE COMPONENTS
4. TRAYS ARE STACKABLE WITHOUT INTERFERENCE AND WILL NOT SPEW OUT DURING SHIPPING AND PACKING TESTING.
5. ARE FOR VACUUM PICKUP AREA AND DISPLACED FROM MOLDLINE
6. TOTAL GUARD DARK AREA
7. ALL DIMENSIONS ARE MILLIMETERS.

---

**SECTION A (A1)**

---

Figure 63.1 FT4222HQ Tray Dimensions
64 FT260Q Tray Dimensions

Figure 64.1 FT260Q Tray Dimensions
65  FT260Q Reel Dimensions

Figure 65.1 FT260Q Reel Dimensions
66 FT260Q Tape Dimensions

Notes:
1. Sprocket hole pitch cumulative tolerance ± 0.2
2. Center hole to exceed 1 mm in 100mm
3. Measured from the top surface of the center
4. Measured from the top surface of the center
5. K0 measured from a plane on the inside bottom of the pocket
6. Pocket position or pocket pocket, measured at top position or pocket pocket

Figure 66.1 FT260Q Tape Dimensions
67  FT260S Reel Dimensions

Figure 67.1 FT260S Reel Dimensions
68 FT260S Tape Dimensions

Figure 68.1 FT260S Tape Dimensions
69 FT260S Tube Dimensions

Figure 69.1 FT260S Tube Dimensions
70  FT232HPQ, FT2232HPQ and FT4232HPQ Tape Dimensions

Notes:
1. Tapped hole pitch cumulative tolerance ± 0.2
2. Center to center, 1.0mm in 10um.
4. The bottom of board is 0.1mm above the bottom of tape.
5. No measured from a plane on the inside bottom of pocket.
6. Total position of pocket, not within pocket.

Figure 70.1 FT232HPQ, FT2232HPQ and FT4232HPQ Tape Dimensions
71 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions

Figure 71.1 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions
72 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions

Figure 72.1 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions
73 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions

Notes:
1. To protect the pitch cumulative tolerance ± 0.2.
3. Pin 1 is measured from plane of top surface of the package to the top of the pin.
4. 404 grid is measured from plane of top surface of the package to the top of the pin.
5. 404 grid is measured from plane of top surface of the package to the top of the pin.

Figure 73.1 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions
74 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions

Figure 74.1 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions
75  FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions

Figure 75.1  FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions
76  FT4232HAQ Tape Dimensions

Figure 76.1 FT4232HAQ Tape Dimensions
77 FT4232HAQ Reel Dimensions

Figure 77.1 FT4232HAQ Reel Dimensions
78 FT4232HAQ Tray Dimensions

Figure 78.1 FT4232HAQ Tray Dimensions Part 1
Figure 78.2 FT4232HAQ Tray Dimensions Part 2
79 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/FT232RNL and FT245RL/FT245RNL Reel Dimensions .............................................. 13
Figure 9.1 – FT232RL and FT245RL Tube Dimensions .................................................................................... 14
Figure 10.1 FT232RNL and FT245RNL Tape Dimensions .............................................................................. 15
Figure 11.1 FT232RN and FT245RN Tube Dimensions ................................................................................... 16
Figure 12.1 – FT232RQ and FT245RQ Tape Dimensions ................................................................................. 17
Figure 13.1 – FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Reel Dimensions ............................................. 18
Figure 14.1 FT232RQ/FT232RNQ and FT245RQ/FT245RNQ Tray Dimensions .............................................. 19

**Figure 15.1 FT232RNQ and FT245RNQ Tape Dimensions** ................................................................. 20

Figure 16.1 – FT2232HL and FT4232HL Tape Dimensions .............................................................................. 21
Figure 17.1 – FT2232HL and FT4232HL Reel Dimensions .............................................................................. 22
Figure 18.1 – FT2232HQ and FT4232HQ Reel Dimensions ........................................................................... 23
Figure 19.1 – FT2232HQ and FT4232HQ Tray Dimensions ........................................................................... 24
Figure 20.1 – FT2232HQ and FT4232HQ Tray Dimensions ........................................................................... 25
Figure 21.1 – FT2232H-56Q, FT2432H-56Q, VNC2-48Q1C, FT232HQ – QFN Reel 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 – VNC2-48L1C, FT232HL – 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 Reel 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

71
Figure 35.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Reel Dimensions .......... 43
Figure 36.1 FT201XQ, FT220XQ, FT221XQ, FT230XQ, FT231XQ, FT240XQ QFN Tape Dimensions ...... 44
Figure 37.1 FT201XQ, FT220XQ, FT230XQ SSOP Reel Dimensions ............................................. 45
Figure 38.1 FT201XQ, FT220XQ, FT230XQ SSOP Tape Dimensions ............................................. 46
Figure 39.1 FT221XQ, FT231XQ, FT240XQ SSOP Reel Dimensions ............................................. 47
Figure 40.1 FT221XQ, FT231XQ, FT240XQ SSOP Tape Dimensions ............................................. 48
Figure 41.1 FT120T TSSOP Reel Dimensions .................................................................................. 49
Figure 42.1 FT120T TSSOP Tube Dimensions .................................................................................. 50
Figure 43.1 FT120T TSSOP Tape Dimensions .................................................................................. 51
Figure 44.1 FT201XS, FT220XS, FT230XS, FT240XS Reel Dimensions ......................................... 52
Figure 45.1 FT221XS, FT231XS Reel Dimensions ........................................................................... 53
Figure 46.1 FT231XS Tube Dimensions ............................................................................................ 54
Figure 47.1 FT313H-QFN Reel Dimensions ....................................................................................... 55
Figure 48.1 FT313H-QFN Tape Dimensions ....................................................................................... 56
Figure 49.1 FT313H-LQFP Reel Dimensions ....................................................................................... 57
Figure 50.1 FT313H-LQFP Tape Dimensions ....................................................................................... 58
Figure 51.1 FT313H-TQFP Reel Dimensions ....................................................................................... 59
Figure 52.1 FT313H-TQFP Tape Dimensions ....................................................................................... 60
Figure 53.1 FT600Q Reel Dimensions ............................................................................................... 61
Figure 54.1 FT600Q Tape Dimensions ............................................................................................... 62
Figure 55.1 FT601Q, FT602Q Reel Dimensions ................................................................................... 63
Figure 56.1 FT601Q, FT602Q Tape Dimensions ................................................................................... 64
Figure 57.1 FT601Q, FT602Q Tray Dimensions ................................................................................... 65
Figure 58.1 FT4222HQ Reel Dimensions ........................................................................................... 66
Figure 59.1 FT4222HQ Tape Dimensions ........................................................................................... 67
Figure 60.1 FT4222HQ Tray Dimensions ........................................................................................... 68
Figure 61.1 FT260Q Tray Dimensions ............................................................................................... 69
Figure 62.1 FT260Q Reel Dimensions ............................................................................................... 70
Figure 63.1 FT260Q Tape Dimensions ............................................................................................... 71
Figure 64.1 FT260S Reel Dimensions ............................................................................................... 72
Figure 65.1 FT260S Tape Dimensions ............................................................................................... 73
Figure 66.1 FT260S Tube Dimensions ............................................................................................... 74
Figure 67.1 FT232HPQ, FT2232HPQ and FT4232HPQ Tape Dimensions .......................................... 75
Figure 68.1 FT232HPQ, FT2232HPQ and FT4232HPQ Reel Dimensions ........................................... 76
Figure 69.1 FT232HPQ, FT2232HPQ and FT4232HPQ Tray Dimensions ........................................... 77
Figure 70.1 FT233HPQ, FT2233HPQ and FT4233HPQ Tape Dimensions ........................................... 78
Figure 71.1 FT233HPQ, FT2233HPQ and FT4233HPQ Reel Dimensions ........................................... 79
Figure 72.1 FT233HPQ, FT2233HPQ and FT4233HPQ Tray Dimensions ........................................... 80

Copyright © Future Technology Devices International Limited
Figure 73.1 FT4232HAQ Tape Dimensions ................................................................. 81
Figure 74.1 FT4232HAQ Reel Dimensions ................................................................. 82
Figure 75.1 FT4232HAQ Tray Dimensions Part 1 ......................................................... 83
Figure 75.2 FT4232HAQ Tray Dimensions Part 2 ......................................................... 84

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

Document Title : AN_116 FTDI Devices Tape, Reel, Tray & Tube Dimensions
Document Reference No. : FT_000154
Clearance No. : FTDI#98
Document Feedback : Send Feedback

<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 contact’s 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>
<tr>
<td>2.2</td>
<td>Added Reel, Tape and Tray Information for FT4232HAQ.</td>
<td>18-07-2022</td>
</tr>
<tr>
<td>2.3</td>
<td>Added FT232RNL/Q, FT245RNL/Q, Tape and Tube dimensions</td>
<td>24-08-2022</td>
</tr>
</tbody>
</table>