Refreshable Braille Displays and Notetakers

Things to consider: screen reader compatibility, number of cells, how it connects to a computer/device, how the device is powered, internal storage, supported file formats, ease of use, price, and braille translation functionality.

\*denotes notetaker

Empty table entries are where no information was provided on the company’s website, or the company did not respond to email inquires. Prices are reflective of what was listed in March 2020. Any companies wishing to have their information updated, please email [braille@nnels.ca](mailto:braille@nnels.ca) with the details.

## Humanware:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| Brilliant BI 14 | $1,390 CAD | 14 cells |  | USB, Bluetooth | Perkins 8 key entry with thumb keys |  | yes |
| Brailliant BI 40 | $3775 CAD | 40 cells |  | USB, Bluetooth | Perkins 8 key entry with thumb keys | Jaws, Window-Eyes, iOS, Mac, NVDA, Serotek | yes |
| Brailliant BI 80 | $9655 CAD | 80 cells |  | USB, Bluetooth | Perkins 8 key entry with thumb keys | Jaws, Window-Eyes, iOS, Mac, NVDA, Serotek | yes |
| BrailleNote Touch 18\* | $5,195 CAD | 18 cells | RTF, DOC, DOCX, TXT, BRF, HTML, XML, MP3, WMA, WAV, OGG, MP4, DAISY, PDF | USB, Bluetooth, internal storage | Perkins 8 key entry with thumb keys |  | yes |
| BrailleNote Touch 32\* | $7,095 CAD | 32 cells | RTF, DOC, DOCX, TXT, BRF, HTML, XML, MP3, WMA, WAV, OGG, MP4, DAISY, PDF | USB, Bluetooth, internal storage | Perkins 8 key entry with thumb keys |  | yes |

## Freedom Scientific:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| Focus 14 Blue | $1,295 USD | 14 cells | BRF from SD card | USB, Bluetooth, | Perkins 8 key entry | Jaws, NVDA, Voiceover, Brailleback |  |
| Focus 40 Blue | $2,995 USD | 40 cells | BRF from SD card | USB, Bluetooth | Perkins 8 key entry | Jaws, NVDA, Voiceover, Brailleback |  |
| Focus 80 Blue | $7,995 USD | 80 cells | BRF from SD card | USB, Bluetooth | Perkins 8 key entry | Jaws, NVDA, Voiceover, Brailleback |  |

## HIMS INC:

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| BrailleSense Polaris\* | $5,795 USD | 32 cells | HBL, DOC, DOCX, XLS, XLSX, CSV, PPT, PPTX, RTF, TXT, BRL, BRF, EPUB, PDF, HTML, XML, DAISY, NIMAS | USB, Bluetooth, internal storage | Perkins 11 key entry | Jaws, NVDA, Windows-Eyes, VoiceOver, BrailleBack | no |
| BrailleSense Polaris Mini\* | $4,195 USD | 20 cells | HBL, DOC, DOCX, XLS, XLSX, CSV, PPT, PPTX, RTF, TXT, BRL, BRF, EPUB, PDF, HTML, XML, DAISY, NIMAS | USB, Bluetooth, internal storage | Perkins 11 key entry | Jaws, NVDA, Windows-Eyes, VoiceOver, BrailleBack | no |
| QBraille XL | $3,195 USD | 40 cell | DOC, DOCX, BRF, TXT, RTF, PDF, DAISY | USB, Bluetooth, | Blend of 8 key Perkins entry and QWERTY function keys | JAWS, Window-Eyes, SuperNova, System Access, NVDA, Voice-Over for Mac and iOS, BrailleBack for Android, Mobile Speak, TALKS | yes |
| BrailleSense U2\* | $4,595 USD | 32 cells | HBL, DOC, DOCX, XLS, XLSX, CSV, PPT, PPTX, RTF, TXT, BRL, BRF, EPUB, PDF, HTML, XML, DAISY, NIMAS | USB, Bluetooth | Perkins 8 key entry |  | no |
| BrailleSense U2 QWERTY\* | $4,595 USD | 32 cells | HBL, DOC, DOCX, XLS, XLSX, CSV, PPT, PPTX, RTF, TXT, BRL, BRF, EPUB, PDF, HTML, XML, DAISY, NIMAS | USB, Bluetooth | QWERTY |  | no |
| BrailleSense U2 Mini\* | $2,995 USD | 18 cells | HBL, DOC, DOCX, XLS, XLSX, CSV, PPT, PPTX, RTF, TXT, BRL, BRF, EPUB, PDF, HTML, XML, DAISY, NIMAS | USB, Bluetooth | Perkins 8 key entry |  | no |
| Smart Beetle | $995 USD | 14 cells |  | USB, Bluetooth | Perkins 9 key entry | Jaws, Windows-Eyes, SuperNova, NVDA, COBRA, VoiceOver, BrailleBack |  |
| Actilino\* | $2,795 USD | 16 cells |  | USB, Bluetooth, SD card | Perkins 8 key entry | Jaws, Windows-Eyes, NVDA, Supernova |  |
| Active Star\* | $6,795 USD | 40 cells |  | USB, Bluetooth, SD card | Perkins 8 key entry | Jaws, Windows-Eyes, NVDA, Supernova |  |
| Active Braille | $6,495 USD | 40 cells |  | USB, Bluetooth, SD card | Perkins 8 key entry | All major screen-readers |  |
| Basic Braille Plus | $3,590 USD | 40 cells |  | USB, Bluetooth | Perkins 8 key entry | All major screen-readers |  |
| Basic Braille | $2,995-$7,995 USD | 32, 40, 64, or 80 cells |  | USB with Bluetooth option | Perkins 8 key entry | All common screen-readers |  |
| Connect Braille |  |  |  |  |  |  |  |
| Modular Evolution | $1,455-$13,595 USD | various |  | USB | various |  |  |
| Easy Braille Bluetooth | $4,495 | 40 cells |  | Bluetooth | Perkins 8 key entry |  |  |
| Braille Star 80 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

## Innovision Tech/Canadian Assistive Technology:

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| Braille Me | $750 CAD | 20 cells | TXT, BRL, BRF | USB, Bluetooth, SD card | Perkins 6 key entry with cursor routing keys | BrailleBack, Voiceover, NVDA | yes |

## Orbit Research:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| Orbit Reader 20 | $599 USD | 20 cells | TXT, BRF, BRL, BRA | USB, Bluetooth, SD card | Perkins 8 key entry | Jaws, ChromeVox, Voiceover, Brailleback, NVDA, Voiceview | no |
| Orbit Reader 20 Plus | $699 USD | 20 cells | DOC, DOCX, TXT, BRF, BRL | USB, Bluetooth | Perkins 8 key entry | Jaws, ChromeVox, Voiceover, Brailleback, NVDA, Voiceview | yes |
| Orbit Reader 40 | n/a | 40 cells | DOC, DOCX, TXT, BRF, BRL | Bluetooth | Perkins 8 key entry | Jaws, ChromeVox, Voiceover, Brailleback, NVDA, Voiceview | yes |

## American Printing House for the Blind:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| Braille Trail Reader LE | $995 USD | 14 cells | TXT, BRF | USB, Bluetooth | Perkins 8 key entry | Jaws, and other screen readers |  |
| Chameleon 20 |  | 20 cells | DOC, DOCX, TXT, BRF, BRL | Bluetooth | Perkins 8 key entry | VoiceOver, Jaws, NVDA |  |
| Mantis Q40 |  | 40 cells | DOC, DOCX, TXT, BRF, BRL | Bluetooth | QWERTY | VoiceOver, Jaws, NVDA |  |

## Bristol Braille Technology:

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| Canute 360 | $3,355 CAD | 360 cells (multi-line display) | BRF, PEF | USB, SD card | 3 navigation buttons |  | no |

## VisioBraille:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| VarioUltra 20\* | n/a | 20 cells | DOC, DOCX, RTF, TXT, BRF, BRL, XLS, XLSXS, PDF | USB, Bluetooth, internal storage | Perkins 8 key entry with cursor routing keys | COBRA, WindowEyes, JAWS, SuperNova |  |
| VarioUltra 40\* | n/a | 40 cells | DOC, DOCX, RTF, TXT, BRF, BRL, XLS, XLSXS, PDF | USB, Bluetooth, internal storage | Perkins 8 key entry with cursor routing keys | COBRA, WindowEyes, JAWS, SuperNova |  |
| Vario 340 | n/a | 40 cells |  | USB | Perkins 6 key entry with cursor routing keys | Most including COBRA and JAWS | no |
| VarioPro 80 | n/a | 80 cells |  | USB | Perkins 6 key entry with 4 roll-bars and key-function | Most including COBRA, JAWS, WindowsEyes | No |

## Harpo:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| BraillePen 12 Touch | $895 USD | 12 cells |  | Bluetooth | Perkins 6 key entry | VoiceOver, Talks&Zoom, MobileSpeak, Mobile Accessibility, BrailleBack, Windows-Eyes, Supernova, NVDA, System Access |  |
| BraillePen Slim | n/a | n/a |  | Bluetooth | Perkins 6 key entry | VoiceOver, Talks&Zoom, MobileSpeak, Mobile Accessibility, BrailleBack, Windows-Eyes, Supernova, NVDA, System Access |  |

## Papenmeier:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Product Name | Price | Cells | Document Types | Input/Output (hardware) | Key Entry | Software Compatibility | Onboard Braille Translation |
| BrailleX EL80c |  |  |  |  |  |  |  |
| BrailleX EL40c |  |  |  |  |  |  |  |
| BrailleX Live |  |  |  |  |  |  |  |
| BrailleX Live+ |  |  |  |  |  |  |  |
| BrailleX Live20 |  |  |  |  |  |  |  |

# Recommendations for Purchase (for Public Libraries)

All modern braille devices can connect to a mainstream computer, phone, or tablet. The screen-reading software on that mainstream device will translate text into braille for the user, and the keyboard on the braille display serves as a secondary method for typing and navigating.

Additionally, many braille displays can perform simple file management and word processing without being connected to anything, allowing such a device to become a standalone e-book reader. Books can be translated into braille using free software, loaded onto an SD card, and viewed on the Braille display. While the “note takers” in the above table are capable of more complex functions on their own, only the most expensive devices are running a modern operating system and even those may not receive security updates in the same way as a mainstream device. If the objective is simply to read books, a braille display with simple note-taking functionality should suffice.

At present, Apple’s mobile hardware has better braille support than that of Android, so an iPad or iPod touch would make a good optional portable companion for a braille display. Windows and Mac OS both provide great braille support, and NVDA is a free and open-source screen-reader for Windows that will be familiar to many.

## Braille Display Short List

* **The Humanware Brailliant displays are known for their great design and ease of use. Multiple sizes are available, and newer models include basic note-taking functions. These displays are well-rounded, are distributed in Canada, and have an excellent support team.**
* The Focus displays are lightweight and durable. They lack note-taking features but can connect with up to five computers or mobile devices over Bluetooth.
* The Orbit Reader 20 Plus is a low-cost device designed for easy book reading. It can act as an external display for a computer or mobile device and can read books and other documents from an SD card.