













Comparison of TSL® Mobile RAIN® RFID UHF Readers

|  | <br><b>1153</b>   | <br><b>1128</b>  | <br><b>2128</b>  | <br><b>2128P</b>   | <br><b>2128L</b>   | <br><b>1166</b>   | <br><b>3166</b>   |  |   |  |                        |
|--|--|---|---|---|---|--|--|--|---|--|------------------------|
| Read Range   | Up to 2 m (6.5 ft)   | Up to 5.5 m (18 ft)   | Up to 6 m (19.6 ft)   | Up to 9 m (29.5 ft)   | Up to 15 m (49 ft)<br><small>*Orientation dependent</small>   | Up to 9 m (29.5 ft)  | Up to 9 m (29.5 ft)  | Read Range   |   |  |                        |
| Maximum RF Output Power  | Up to 26 dBm EIRP (region dependant)   | Up to 32 dBm EIRP (region dependant)  | Up to 33 dBm EIRP (region dependant)  | Up to 34 dBm EIRP (region dependant)  | Up to 35 dBm EIRP (region dependant)  | Up to 34 dBm EIRP (region dependant)   | Up to 34 dBm EIRP (region dependant)   | Maximum RF Output Power  |   |  |                        |
| IP Rating  | IP54   | IP54  | IP54  | IP54  | IP54  | IP67   | IP67   | IP Rating  |   |  |                        |
| Bluetooth® version   | Bluetooth® 2.1   | Bluetooth® 2.1  | Bluetooth® 4.2<br><small>Supports Classic, BLE &amp; IAP2</small>   | Bluetooth® 4.2<br><small>Supports Classic, BLE &amp; IAP2</small>   | Bluetooth® 4.2<br><small>Supports Classic, BLE &amp; IAP2</small>   | Bluetooth® 2.1   | Bluetooth® 4.2 compliant (v5.1 compatible)<br><small>Supports Classic, BLE &amp; IAP2</small>  | Bluetooth® version   |   |  |                        |
| Apple Mfi certified  | Yes  | Yes   | Yes   | Yes   | Yes   | Yes  | Yes  | Apple Mfi certified  |   |  |                        |
| Optional 2D barcode imager                                     | Yes  | Yes   | No  | Yes   | No  | Yes  | Yes  | Optional 2D barcode imager                                     |   |  |                        |
| Internal Storage   | Up to 32 GB*<br><small>*Via Micro SD card (not supplied)</small>   | Up to 32 GB*<br><small>*Via Micro SD card (not supplied)</small>  | Up to 32 GB*<br><small>*Via Micro SD card (not supplied)</small>  | Up to 32 GB*<br><small>*Via Micro SD card (not supplied)</small>  | 16 GB*<br><small>*For units manufactured in August 2020 onwards. Units manufactured before this date will be 8 GB.</small>                                  | 16 GB*<br><small>*For units manufactured in August 2020 onwards. Units manufactured before this date will be 4 or 8 GB.</small>                  | 32 GB  | Internal Storage   |   |  |                        |
| No. of tags that can be stored on an SD card (Batch Data Mode) | Up to 500 million tags<br><small>*Via Micro SD card (not supplied)</small>   | Up to 500 million tags<br><small>*Via Micro SD card (not supplied)</small>  | Up to 500 million tags<br><small>*Via Micro SD card (not supplied)</small>  | Up to 500 million tags<br><small>*Via Micro SD card (not supplied)</small>  | Up to 250 million tags<br><small>*For units manufactured in August 2020 onwards.</small>  | Up to 250 million tags<br><small>*For units manufactured in August 2020 onwards.</small>   | Up to 500 million tags   | No. of tags that can be stored on an SD card (Batch Data Mode) |   |  |                        |
| Tag de-duplication (removes duplication of tag reads)          | Software Based   | Software Based  | Software Based  | In-reader tag de-duplication  | In-reader tag de-duplication  | Software Based   | In-reader tag de-duplication   | Tag de-duplication (removes duplication of tag reads)          |   |  |                        |
| On-board accelerometer   | No   | No  | No  | Yes   | Yes   | No   | No   | On-board accelerometer   |   |  |                        |
| Drop Spec  | 1.2 m*<br><small>*Multiple drops to concrete: 4 ft / 1.2 m ambient, 3ft / 0.9m across the operating temperature range.</small>                           | 1.2 m*<br><small>*Multiple drops to concrete: 4 ft / 1.2 m ambient, 3ft / 0.9m across the operating temperature range.</small>  | 1.2 m*<br><small>*Multiple drops to concrete: 4 ft / 1.2 m ambient, 3ft / 0.9m across the operating temperature range.</small>                      | 1.2 m*<br><small>*Multiple drops to concrete: 4 ft / 1.2 m ambient, 3ft / 0.9m across the operating temperature range.</small>                        | 1.2 m*<br><small>*Multiple drops to concrete: 4 ft / 1.2 m ambient, 3ft / 0.9m across the operating temperature range.</small>                              | 1.8 m*<br><small>*Multiple drops to concrete: 1.8 m ambient.</small>   | 1.8 m*<br><small>*Multiple drops to concrete: 1.8 m ambient.</small>   | Drop Spec  |   |  |                        |
| Mounting Options for Smartphone or Hand-Held Terminal          | Wearable (back of hand)  | Slide-on Mounts*<br>   | ePop-Loq® Mounts<br>   | ePop-Loq® Mounts<br>   | ePop-Loq® Mounts<br>   | Pop-Loq® Mounts<br>   | ePop-Loq® Mounts<br>  | Mounting Options for Smartphone or Hand-Held Terminal          |   |  |                        |
| Docking Options  |  | <br>Docking Cradle*<br>Order <a href="#">1128-CRD-02-KIT</a><br><small>*Slide-on Mounts must be removed from the 1128 in order to use the Docking Cradle</small> | <br>Docking Cradle<br>Order <a href="#">2128-CRD-03-KIT</a>      | <br>Docking Cradle<br>Order <a href="#">2128-CRD-03-KIT</a>      | <br>Docking Cradle<br>Order <a href="#">2128-CRD-02-KIT</a>            | <br>Docking Cradle<br>Order <a href="#">1166-CRD-01-KIT</a> | <br>Docking Cradle<br>Order <a href="#">1166-CRD-01-KIT</a> | Docking Options  |   |  |                        |
| Battery  | L Battery<br>   | XL Battery<br> Power Handle<br><small>(order: 2102-PH-Y)</small>   | XL Battery<br> Power Handle<br><small>(order: 2102-PH-Y)</small> | XL Battery<br> Power Handle<br><small>(order: 2102-PH-Y)</small> | Built-in Power Handle<br>  | High Capacity Battery<br>                                   | High Capacity Battery<br>                                   | Battery  |   |  |                        |
| Minimum operating time <sup>1</sup>                            | Light use <sup>2</sup> : 10 hrs<br>Moderate use <sup>3</sup> : 6.5 hrs<br>Heavy use <sup>4</sup> : 2.5 hrs   | 6 hrs Light use <sup>2</sup> 16 hrs<br>3.5 hrs Moderate use <sup>3</sup> 9 hrs<br>1.5 hrs Heavy use <sup>4</sup> 4.5 hrs  | 6.5 hrs Light use <sup>2</sup> 17 hrs<br>4.5 hrs Moderate use <sup>3</sup> 11.5 hrs<br>2 hrs Heavy use <sup>4</sup> 6 hrs                           | 8.5 hrs Light use <sup>2</sup> 22.5 hrs<br>5 hrs Moderate use <sup>3</sup> 13 hrs<br>2.5 hrs Heavy use <sup>4</sup> 7.5 hrs                           | Light use <sup>2</sup> : 22.5 hrs<br>Moderate use <sup>3</sup> : 15.5 hrs<br>Heavy use <sup>4</sup> : 7 hrs   | Light use <sup>2</sup> : 25 hrs<br>Moderate use <sup>3</sup> : 16.5 hrs<br>Heavy use <sup>4</sup> : 8 hrs  | Light use <sup>2</sup> : 33.5 hrs<br>Moderate use <sup>3</sup> : 21.5 hrs<br>Heavy use <sup>4</sup> : 12 hrs <sup>5</sup>                        | Minimum operating time <sup>1</sup>                            |   |  |                        |
| Tag Reads per single battery charge                            | 1 million  | 1 million   | 1 million 2.3 million   | 1 million 2.3 million   | 2.3 million   | 2.6 million  | 4.5 million  | Tag Reads per single battery charge                            |   |  |                        |
| Charge Time  | 2 hrs  | 2.5 hrs   | 2.5 hrs 5 hrs   | 2.5 hrs 5 hrs   | 5 hrs   | 2.5 hrs  | 2.5 hrs  | Charge Time  |   |  |                        |
| Country Certifications   | ETSI/Europe<br>FCC/USA<br>Brazil<br>China<br>Colombia<br>Ecuador<br>El Salvador<br>Guam<br>Guatemala<br>India<br>Northern Mariana Islands<br>Puerto Rico | Thailand<br>Ukraine   | ETSI/Europe<br>FCC/USA<br>Australia<br>Bangladesh<br>Canada<br>Chile<br>China<br>Colombia<br>Ecuador<br>El Salvador<br>Guam<br>Guatemala            | Hong Kong<br>India<br>Japan<br>Malaysia<br>Northern Mariana Islands<br>Puerto Rico<br>Singapore<br>South Korea<br>Taiwan<br>Thailand<br>Vietnam       | ETSI/Europe<br>FCC/USA<br>Australia<br>Bangladesh<br>Canada<br>Colombia<br>Ecuador<br>Guam<br>Guatemala<br>India<br>New Zealand<br>Northern Mariana Islands | Puerto Rico<br>Singapore   | ETSI/Europe<br>FCC/USA<br>Bangladesh<br>Brazil<br>Ecuador<br>Colombia<br>Guam<br>Guatemala<br>India<br>Northern Mariana Islands<br>Puerto Rico   | Peru<br>Puerto Rico  | ETSI/Europe<br>FCC/USA<br>Guatemala<br>Indonesia<br>Iraq<br>Japan<br>Kazakhstan<br>Malaysia<br>New Zealand<br>Northern Mariana Islands<br>Pakistan<br>Puerto Rico<br>Thailand | ETSI Lower Band<br>ETSI Upper Band<br>FCC (USA, Canada, Ecuador, Guam, Guatemala, Northern Mariana Islands, Puerto Rico)<br>For other regions, please contact <a href="mailto:enquiries@tsl.com">enquiries@tsl.com</a> | Country Certifications |
| Keyboard Support (in HID Mode)                                 | US HID Keyboard Support  | US HID Keyboard Support   | International HID Keyboard Support  | International HID Keyboard Support  | International HID Keyboard Support*   | US HID Keyboard Support  | International HID Keyboard Support   | Keyboard Support (in HID Mode)                                 |   |  |                        |

<sup>1</sup> Figures are based on new units that have been stored, charged and operated within the Environmental Specifications stated on the Reader datasheet. Units stored over 3 months must be recharged every 3 months. Number of transponders in the environment affects minimum operating time.  
<sup>2</sup> Light Use: Continuous RFID inventories for 20s of every 120s.  
<sup>3</sup> Moderate Use: Continuous RFID inventories for 10s of every 30s.  
<sup>4</sup> Heavy Use: Continuous RFID inventories for 5s of every 60s.  
<sup>5</sup> When operating in the 'Eco' battery saver mode.