

## Comparison of TSL® Mobile RAIN® RFID UHF Readers

	Wearable Standard Duty					Heavy Duty		
	1153	1128	2128P	2128L	3138	1166	3166	
Read Range	Up to 2 m (6.5 ft)	Up to 5.5 m (18 ft)	Up to 9 m (29.5 ft)	Up to 15 m (49 ft)*  *Orientation dependent	Up to 9 m (29.5 ft)	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 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)	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 Supports Classic, BLE & IAP2	Bluetooth 4.2 Supports Classic, BLE & IAP2	Bluetooth 5.1'  "v5.1 compatible, v4.2 compliant Supports Classic, BLE & IAP2	Bluetooth 2.1	Bluetooth 5.1*  "v5.1 compatible, v4.2 compliant Supports Classic, BLE & iAP2	Bluetooth® version
Apple Mfi certified	Yes	Yes	Yes	Yes	Yes (pending)	Yes	Yes	Apple Mfi certified
Optional 2D barcode imager	Yes	Yes	Yes	No	Yes	Yes	Yes	Optional 2D barcode imager
Internal Storage	Up to 32 GB*  'via Micro SD card (not supplied)	Up to 32 GB*  *via Micro SD card (not supplied)	Up to 32 GB*  *via Micro SD card (not supplied)	16 GB*  *For units manufactured in August 2020 onwards. Units manufactured before this date will be 8 GB.	Up to 256 GB*  *via Micro SD card (not supplied)	16 GB*  "For units manufactured in August 2020 onwards. Units manufactured before this date will be 4 or 8 GB.	32 GB	Internal Storage
No. of tags that can be stored on an SD card (Batch Data Mode)	Up to 500 million tags*  *via Micro SD card (not supplied)	Up to 500 million tags*  *via Micro SD card (not supplied)	Up to 500 million tags*  "via Micro SD card (not supplied)	Up to 250 million tags*  *For units manufactured in August 2020 onwards.	Up to 4 billion tags*  *via Micro SD card (not supplied)	Up to 250 million tags*  *For units manufactured in August 2020 onwards.	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	Hardware based tag de-duplication	Hardware based tag de-duplication	Hardware based tag de-duplication  10X more compared to 2nd-gen (21xx) readers - 500,000 compared to 50,000	Software Based	Hardware based tag de-duplication  10X more compared to 2nd-gen (21xx) readers - 500,000 compared to 50,000	Tag de-duplication (removes duplication of tag reads)
On-board accelerometer	No	No	Yes	Yes	Yes	No	No	On-board accelerometer
Drop Spec	1.2 m*  'Multiple drops to concrete: 4 ft./ 1.2 m ambient, 3ft / 0.9m across the operating temperature range.	1.2 m*  'Multiple drops to concrete: 4 ft./ 1.2 m ambient, 3 ft / 0.9 m across the operating temperature range.	1.2 m*  'Multiple drops to concrete: 4 ft./ 1.2 m ambient, 3ft / 0.9m across the operating temperature range.	1.2 m*  'Multiple drops to concrete: 4 ft./ 1.2 m ambient, 3ft / 0.9m across the operating temperature range.	1.2 m*  'Multiple drops to concrete: 4 ft./ 1.2 m amblent, 3ft / 0.9m across the operating temperature range.	1.8 m° 'Multiple drops to concrete: 1.8 m ambient.	1.8 m* 'Multiple drops to concrete: 1.8 m amblent.	Drop Spec
Mounting Options for Smartphone or Hand-Held Terminal	Wearable (back of hand)	Slide-on Mounts	ePop-Loq® Mounts	ePop-Loq® Mounts	ePop-Loq® Mounts  New, Faster ePop-Loq mode to accommodate higher tag throughput	Pop-Loq® Mounts	ePop-Loq® Mounts  New, Faster ePop-Loq mode to accommodate higher tag throughput	Mounting Options for Smartphone or Hand-Held Terminal
Reader Model	1153	1128	2128P	2128L	3138	1166	3166	Reader Model
Docking Options		Dacking Cradle's	Decking Cradle	Dasking Cradle	Packing Cradia	Packing Cradle	Posting Cradia	Docking Options
		Docking Cradle* Order 1128-CRD-02-KIT *Slide-on Mounts must be removed from the 1128 in order to use the Docking Cradle	Docking Cradle Order 2128-CRD-03-KIT	Docking Cradle Order 2128-CRD-02-KIT	Docking Cradle (for use with 8-way Power Pins option) Order 3138-CRD-01-KIT	Docking Cradle Order 1166-CRD-01-KIT	Docking Cradle Order <u>1166-CRD-01-KIT</u>	
Battery	'L' Battery	'XL' Battery Power Handle (order: 2102-PH-Y)	'XL' Power Handle (order: 2102-PH-Y)	Power Handle included  Built-in (non-removable)	Power Handle included  Removable. Choice of USB-C connector, or 8-way Power Pins for use with docking cradle.	High Capacity Battery	High Capacity Battery	Battery
Minimum operating time <sup>1</sup>	Light use <sup>2</sup> : 10 hrs Moderate use <sup>3</sup> : 6.5 hrs Heavy use <sup>4</sup> : 2.5 hrs	6 hrs Light use <sup>2</sup> 16 hrs 3.5 hrs Moderate use <sup>3</sup> 9 hrs 1.5 hrs Heavy use <sup>4</sup> 4.5 hrs	8.5 hrs Light use <sup>2</sup> 22.5 hrs 5 hrs Moderate use <sup>3</sup> 13 hrs 2.5 hrs Heavy use <sup>4</sup> 7.5 hrs	Light use <sup>2</sup> : 22.5 hrs Moderate use <sup>3</sup> : 15.5 hrs Heavy use <sup>4</sup> : 7 hrs	ТВС	Light use <sup>2</sup> : <b>25 hrs</b> Moderate use <sup>3</sup> : <b>16.5 hrs</b> Heavy use <sup>4</sup> : <b>8 hrs</b>	Light use <sup>2</sup> : 33.5 hrs Moderate use <sup>3</sup> : 21.5 hrs 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	2.3 million	TBC	2.6 million	4.5 million	Tag Reads per single battery charge
Charge Time	2 hrs	2.5 hrs	2.5 hrs 5 hrs	5 hrs	TBC	2.5 hrs	2.5 hrs	Charge Time
Country Certifications	ETSI/Europe Thailand FCC/USA Ukraine Brazil China Colombia Ecuador El Salvador Guam Guatemala India Northern Mariana Islands Puerto Rico	ETSI/Europe Hong Kong FCC/USA India Australia Japan Malaysia Brazil Northern Canada Mariana Islands Chile Peru China Puerto Rico Colombia Singapore Ecuador South Korea El Salvador Taiwan Guam Thailand Guatemala Vietnam	ETSI/Europe Peru FCC/USA Puerto Rico Australia Bangladesh Brazil Canada Colombia Ecuador Guam Guatemala India Northern Mariana Islands	ETSI/Europe FCC/USA Bangladesh Brazil Ecuador Colombia Guam Guatemala India Northern Mariana Islands Puerto Rico	ETSI Lower Band ETSI Upper Band FCC (USA, Canada, Ecuador, Guam, Guatemala, Northern Mariana Islands, Puerto Rico) Australia New Zealand For other regions, please contact enquiries@tsl.com	ETSI/Europe Guatemala FCC/USA Indonesia Algeria Iraq Bangladesh Japan Brazil Kazakhstan Brunei Malaysia Canada New Zealand China Northern Colombia Mariana Islands Ecuador Pakistan Egypt Puerto Rico El Salvador Thailand	ETSI Lower Band ETSI Upper Band FCC (USA, Canada, Ecuador, Guam, Guatemala, Northern Mariana Islands, Puerto Rico) For other regions, please contact enquiries@tsl.com	Country Certifications
Keyboard Support (in HID Mode)	US HID Keyboard Support	US HID Keyboard Support	International HID Keyboard Support	International HID Keyboard Support* 'Enquire when ordering	International HID Keyboard Support	US HID Keyboard Support	International HID Keyboard Support	Keyboard Support (in HID Mode)
	1153 Wearable	1128	2128P <b>St</b> andar	2128L rd Duty	3138	1166 Heav	3166 <b>y Duty</b>	