



With 2D Imager Antenna option



RFID-only Antenna with Slimline Grip



Trigger Handle and 2D UHF antenna



Custom Mount for Datalogic Skorpio X3



Modular design



Data Collection Performance Like No Other

The TSL® 1128 *Bluetooth*® UHF RFID reader provides new levels of RFID performance. With its R2000 core and range of interchangeable high performance antennas, the 1128 performs like no other reader giving the user the highest levels of flexibility currently available in today's market. Designed to read and write to EPC Class 1 Gen 2 (ISO18000-6C) tags, the 1128 can also be configured with class leading high performance 2D barcode data scanning to bring unparalleled data collection capabilities to any host it is connected to. The 2D imager engine incorporates fast-pulse illumination and fast sensor shutter speeds, delivering outstanding motion tolerance and class leading 1D and 2D data capture.

Platform Independent UHF RFID Reader

Use existing *Bluetooth*® wireless technology enabled host devices including Enterprise Handhelds, Consumer Phones, Touchscreen MP3 players, Tablets and PC's – the 1128 will bring high performance RFID and 2D scanning to all these devices running a wide range of Operating Systems. The 1128 *Bluetooth*® UHF RFID reader can also be tethered to a PC using a USB cable.

Extensive software support is available for a wide range of platforms including code samples, demonstration applications and source code.

As Easy As ABC....

The new 1128 *Bluetooth*® UHF RFID reader incorporates TSL's unique ASCII protocol for faster and easier application development. This sophisticated parameterised ASCII protocol provides the developer a powerful set of commands that carry out multiple actions locally within the reader. This approach enables multiple tag operations executed using simple pre-configured ASCII commands which not only speeds integration of the reader into applications but also abstracts the developer from some of the complexities of the underlying Native API and ultimately results in un-paralleled levels of performance.

A Configuration To Suit Your Application

The choice of host device is yours - from low cost touchscreen MP3 players through to fully featured Enterprise Handheld Terminals. The choice of ergonomic style includes a compact slimline grip through to a comfortable trigger handle for scan intensive RFID and 2D bar code data collection applications.

EPC data can be stored on an optional Micro SD memory card (up to 500 million transponder EPCs on a 32GB card - separate purchase from alternative supplier). This provides the ability to collect and log data even if USB or *Bluetooth*® communication channels are not available.

Features:

High Performance *Bluetooth*® Multi-modal Data Capture

UHF RFID and 2D barcode data capture in one integrated *Bluetooth*® device.

Hardware Platform Independence

Operates with wide variety of *Bluetooth*® wireless technology enabled host devices including touchscreen MP3 players, phones, tablets, Enterprise Handhelds and PC's.

OS Independence

Operates with Android, iOS, Windows 10, 8, 7, Vista, XP, Windows Mobile, Windows CE, and Windows Phone.

Batch Data Collection

Removable high capacity Micro SD data card and real time clock for extended batch data collection independent of host connection.

Flexible Configuration

Unique interchangeable high performance antennas including optional 2D scanning and trigger handle with a range of device specific mounts for holding phones and MP3 players.

High Performance Barcode Scanning

Integrated 2D imaging engine provides class leading barcode scan performance via its unique patent pending fast pulse illumination which delivers outstanding motion tolerance and class leading 1D and 2D data capture.

1128 Bluetooth

RFID Grips

Physical and Environmental Characteristics

Dimensions (LxWxH):	16.0 cm x 7.7 cm x 16.9 cm – Trigger handle. 16.0 cm x 7.7 cm x 9.7 cm – Slimline grip.
Weight:	380 g / 13.4 oz (including battery & trigger handle).
User input:	Trigger button.
User feedback:	Speaker, vibration motor, LED.
Power:	Removable, rechargeable 4.2 volt Lithium Polymer 2400 mAh battery pack, 8.9 watt hrs.
Enclosure materials:	Polycarbonate.

Performance Characteristics

RFID engine:	TSL® custom module with embedded Impinj R2000.
Communication protocols:	TSL® ASCII 2.0 parameterised command set Impinj binary.
Memory:	Optional Micro SD card (maximum 32GB capacity supported). Up to 500 million date and time stamped EPCs can be stored on a 32GB Micro SD card (separate purchase from alternative supplier).
Compatible Host devices (Bluetooth®):	Any <i>Bluetooth</i> ® Host¹ supporting the Serial Port Profile (SPP) or Human Interface Device (HID) profile (Android, iOS, Linux, Mac, Windows). See Bluetooth® Mode Comparison .
Compatible Host devices (USB):	Any USB host with FTDI VCP driver support (Windows, Linux, Mac, Android).

Environmental

Operating Temp.:	-10°C to 40°C (14°F to 104°F).
Charging Temp.:	5°C to 40°C (41°F to 104°F).
Storage Temp.:	Less than 1 month at -20°C to +45°C (-4°F to 113°F). Less than 6 months at -20°C to +35°C (-4°F to 95°F).
Humidity:	5% to 85% non-condensing.
Drop Spec:	Multiple drops to concrete: 4 ft./1.2 m ambient, 3ft / 0.9m across the operating temperature range.
Tumble:	500 0.5 metre tumbles at room temperature (1,000 cycles).
Environmental Sealing:	IP54.
Electrostatic Discharge (ESD):	± 15kVdc air discharge; ± 8kVdc contact discharge.
MIL-STD 810F:	Meets and exceeds applicable MIL-STD 810F for drop, tumble and sealing.

RFID Performance

Standards supported:	EPC Class 1 Gen 2.
Nominal read range²:	Up to 7m (23ft).
Nominal write range²:	Up to 2m (6.5ft).
Field:	150-degree forward facing (approx.) measured from front of device.

Antenna:	Detachable, Circularly Polarized with optional 2D scanner.
Frequency Range:	EU: 865-868MHz; US: 902-928MHz.
Maximum Output Power:	32dBm EIRP or maximum for regulatory region.
Antenna options:	High Performance CP. High Performance CP with 2D Imager.

Barcode Scanning

Imager:	2D imager.		
Sensor Resolution:	752 x 480 pixels.		
Field of View:	Horizontal: 40°, Vertical: 25°.		
Focal Distance:	SR: 8 in. DL: 5.3 in. HD: 2.9 in.		
Aiming LED (VLD):	655 ±10 nm Laser.		
Illumination:	625 ±5 nm LEDs (2x).		
Min. Print Contrast:	Minimum 25%.		
Symbologies Supported:	1D: All major codes 2D: PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal Dutch Postal (KIX).		
Ranges ³ :	DL Focus	Near	Far
	5 mil Code 39	1.4 in./36 mm	7.3 in./185 mm
	100% UPC	1.6 in./41 mm	12 in./305 mm
	5 mil PDF417	2.8 in./71 mm	4.5 in./114 mm

Communication

<i>Bluetooth</i> ®:	<i>Bluetooth</i> ® Version 2.1.
<i>Bluetooth</i> ® Profiles:	SPP Profile, HID Profile, Apple iAP.
<i>Bluetooth</i> ® Power:	Class 2.
<i>Bluetooth</i> ® Range⁴:	30m.
<i>Bluetooth</i> ® Pairing:	PIN, Simple Secure Pairing, NFC OOB Pairing.

Peripherals and Accessories

External interface:	MicroUSB connector for battery charging, and USB connectivity.
USB operating modes:	Tethered for real time data capture in conjunction with SmartWedge software. Download of stored scan data.
Other Accessories:	Adapter mounts are available for a variety of smartphones handheld terminals. Slimline Grip, Trigger Handle.

Regulatory

Regions	EU (CE), USA (FCC), Canada (ICES), Australia and more
FCC ID	S6J1128
IC	8948A-1128
EMC	EN 55022:2010 EN 55024:2010 EN 301 489-1 V2.2.0

PART NUMBERS

RF	EN 300 328 V2.2.0 EN 302 208 V3.2.0 EN 301 489-17 V3.2.0 47 CFR Part 15C 15.247 RSS-247 Issue 1
Electrical Safety	IEC 60950-1:2005 +A2:2013 EN 60950-1:2006 +A12:2011
Laser Safety (Imager Variants Only)	IEC 60825-1:2014, EN 60825-1:2014 IEC 62471:2006, EN 62471:2008 21 CFR 1040.10
Environmental	2011/65/EU (RoHS 2) Restriction of the use of certain Hazardous Substances in electrical and electronic equipment 2015/863 (RoHS 3) Amendment to Annex II of 2011/65/EU

RFID Reader Options

1128-EU-BT-UHF-A1 (ETSI) 1128-US-BT-UHF-A1 (FCC)	1128 <i>Bluetooth</i> ® RFID reader with UHF antenna & trigger handle, battery, battery cover, Micro USB cable, USB charger.
1128-EU-BT-UHF-IMG (ETSI) 1128-US-BT-UHF-IMG (FCC)	1128 <i>Bluetooth</i> ® UHF Reader with 2D Imager, UHF antenna, trigger handle, battery, battery cover, Micro USB cable, USB charger.

Grip handle options

1128-SLG	Slimline Grip attachment.
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Device mount options*

1128-MNT-UNI	Accessory Mount.
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*A range of customisable holders are available by special request - these include mounts for Motorola MC40, MC45, ES400, MC2100, iPhone (4th and 5th gen), iPod touch (4th and 5th gen), Samsung Galaxy Nexus and other handheld devices. Currently these are available in SLS RP materials only.