

# 1600 series



## Pocket-sized Scanner

Designed for healthcare, field sales and service environments, the CipherLab 1600 series brings high flexibility to the workers in the workplace. The *Bluetooth*<sup>®</sup> communication and pocket-sized form factor with extreme lightweight unleash workers and allow them to go where the work is and get more done, in more places.



# 1600 series

Pocket-sized Scanner



## Simple. Powerful. Portable.

Smaller and lighter than a mobile phone, the 1600 series can be easily fit in your pocket and carried around for required tasks wherever it takes. The 1600 series is built to meet the needs in healthcare, field sales and field service with strong mobility requirement. Optional *Bluetooth*® connectivity allows instant data acquisition to a *Bluetooth*® compatible PDA, laptop, PC or any other *Bluetooth*®-enabled devices. With a choice of linear imager, laser or 2D imager, your business needs will be met in a wide range of applications.



### Maximum Mobility and Durability in Pocket-size

The 1600 series liberates and mobilizes healthcare and field workers with its ultra-portable, light-weight form factor combined with optional *Bluetooth*® connectivity. Mobile salespeople or field service technicians could combine the 1600 series with a PDA or Smartphone to collect and transmit data via WWAN, ensuring the back-end system is always up-to-date. Furthermore, the pocket-sized IP42 certified device passed the 1.5 m drop test which allows workers to roam freely about their workspaces without worries.



### Versatile Symbology Support

With optional linear imager, laser and 2D imager, the 1600 series can sufficiently retrieve 1D barcode data up to 3 mil resolution. Additionally, the 1600 series ensures hospitals, pharmacies, clinics and laboratories are ready to meet the growing adoption of 2D barcodes on the product packaging. CipherLab 1600 series is also ideal for scanning patient identification bracelets and medication labels. It frees healthcare professionals from paperwork, allowing them to provide higher-quality care to patients.



## Smart Solution with Immediate Payoffs

### Simplifying and streamlining with CipherLab 1600 series scanners

Hong Kong's historic Tung Wah Hospital adopts CipherLab 1600 series scanners to more efficiently deal with fixed assets.



After expanding to nearly 700 beds, it was clear to Tung Wah Hospital administration that they needed an efficient way to inventory fixed assets. With the decision to deploy CipherLab 1600 series *Bluetooth*® scanners paired with laptops and PCs, the hospital has seen an enormous reduction in labor and cost associated with asset management.

## Optimum Storage Capacity and Reliable Data Transmission

The 1600 series can hold over 240,000 scans\* in batch mode when used as a memory scanner, allowing workers to complete the maximum number of tasks without interruption. Besides, the scanners also have buffer memory up to 10 KB for up to 600 scans\* ensuring no data is lost if a worker is out of *Bluetooth*® working range. Once the worker is back in range, information is automatically uploaded to the back-end system.

\*The calculation is based on EAN13 barcode

## Long Lasting Performance, Optimal Productivity

The 1600 series helps employees optimize productivity by providing long working hours for all-day data collection on either replaceable AAA batteries, or rechargeable Li-ion batteries. The less the time is wasted on frequent recharging, the more the human resource can be released to serve more patients.

## Instant Pairing via *Bluetooth*®

Paired with the CipherLab 3610 *Bluetooth*® transponder, the 1600 series allows real-time data transmission to laptop, computer, or tablet. Having an extended *Bluetooth*® working range of up to 20 meters gives users more flexibility, caregivers, for example, can scan patients' wristbands without pushing around a medical cart.

## Time Stamp – Keeping Track for Data Analysis

Time Stamp is an excellent tracking function that associates all of the barcode reads with the exact date and time. Its accurate time keeping makes efficient data analysis effortless. You can now evaluate the time that a worker is needed to finish a round of data collection. (For 1662 / 1663 / 1664)



## Higher Flexibility with Extensive Software Support

### ScanMaster – Custom Configure Scanners at No Additional Cost

The ScanMaster software offers a comprehensive solution to configure scanners, edit format and symbol types, and much more. It's easy to use and set up through the standard Windows® interface. All generated settings can be saved and printed out as barcodes to share with other users, so other users can scan to configure their scanners.

### CipherConnect – Work Smarter Utilizing PDAs and Smartphones

CipherConnect is a COM-to-key software utility designed for CipherLab cordless scanners to work as an input device for smart devices – enabling intensive data collection via *Bluetooth*® Serial Port Connection. Now it is available for Android, Blackberry, and Windows® Mobile via *Bluetooth*® SPP (Slave).\*



\*Apple's iPhone, and iPod Touch (2nd Generation) support *Bluetooth*® HID profiles when running iOS 4 and above, where CipherConnect isn't needed to pair with CipherLab cordless scanners.



# 1600 series

## Pocket-sized Scanner



	1660	1661	1662	1663	1664		
RF Communication	Module		Bluetooth® Class 3 (2.4 GHz) Version 2.0				
	Coverage		10 m / 33 ft. line of sight				
	Standard profile		SPP, HID				
Performance	Category		Bluetooth® linear imager scanner	Bluetooth® laser scanner	Bluetooth® linear imager scanner	Bluetooth® 2D imager scanner	
	Optical sensor		2500 pixels	Laser	2500 pixels	752 x 480 pixels	
	Light source		Red LED 625 nm	Visible laser diode at 650 nm	625 ± 5 nm Red LEDs (2x)		
	Resolution		3 mil	4 mil	3 mil	3 mil - 1D barcode / 5 mil - 2D barcode	
	Depth of field (depends on barcode resolution)		3.5 to 38 cm / 1.4 to 15 in.	2 to 42 cm / 0.8 to 16.5 in.	2.4 to 38 cm / 0.9 to 15 in.	Code 39 3 mil: 6.9 to 10.7 cm / 2.7 to 4.2 in. Code 39 5 mil: 3.6 to 18.5 cm / 1.4 to 7.3 in. UPCA 13 mil: 4.0 to 30.5 cm / 1.6 to 12 in. PDF417 5 mil: 7.1 to 11.4 cm / 2.8 to 4.5 in. PDF417 6.67 mil: 4.8 to 17.5 cm / 1.9 to 6.9 in.	
	Scanning angle		Pitch ± 70°, Skew ± 70°	Pitch ± 65°, Skew ± 50°	Pitch ± 70°, Skew ± 70°	Pitch ± 60°, Skew ± 60°	
	PCS		Minimum 30%				
	Scan rate		100 scans / second		200 scans / second	60 scans / second	
	Barcodes supported		Codabar, Code 39, Code 93, Code 128, GS1 DataBar (RSS), Industrial 2 of 5, Interleave 2 of 5, ISBT-128, Italian and French Pharmacodes, Matrix 2 of 5, MSI, Plessey, Telepen, UPC-A, UPC-E, EAN-8, EAN-13, GS1-128 (EAN-128)	Codabar, Code 32, Code 39, Trioptic Code 39, Code 93, Code 128, Industrial 2 of 5, Interleaved 2 of 5, ISBT-128, Italian Pharmacodes, MSI Plessey, Bookland EAN, GS1-DataBar, GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded, UPC-A, UPC-E, UPC-E1, EAN-8, EAN-13	Codabar, Code 39, Code 93, Code 128, GS1 DataBar(RSS), Industrial 2 of 5, Italian and French Pharmacodes, Interleave 2 of 5, Matrix 2 of 5, MSI, Plessey, Telepen, UPC/EAN/GS1-128, and more	1D: All major codes <sup>1</sup> 2D: PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode Postal Codes: UK PostNet, US Planet, UK Postal, Australian Postal, Japan Postal Dutch Postal (KIX)	
	Programmable features		Data editing, interface selection, symbology configuration				
	Language support		US and UK English, French, Italian, Belgian, Norwegian, Swedish, Spanish, Portuguese, German, Swiss German, Japanese, Turkish, Hungarian, and Danish				
	Physical	Weight (including battery)		50 g / 1.76 oz.	69 g / 2.43 oz.	100 g / 3.53 oz.	106 g / 3.7 oz.
		Size LxWxH		9.5 x 3.5 x 2 cm / 3.7 x 1.4 x 0.8 in.		11.3 x 4.5 x 3.0 cm / 4.4 x 1.8 x 1.2 in.	
Color		Grey		Black			
Button		Power and scan keys					
Memory		256 K	512 K	4 MB			
Electrical	Working hours		30 hours based on 1 scan / 5 seconds	40 hours based on 1 scan / 5 seconds	35 hours based on 1 scan / 5 seconds	40 hours based on 1 scan / 5 seconds	24 hours based on 1 scan / 5 seconds
	Power Supply		Two AAA batteries		Li-ion 3.7V, 850 mAh		
	Power consumption Standby / Operating		15 mA / 245 mA @ 3 V	17 mA / 190 mA @ 3.7 V	20 mA / 100 mA @ 3.7 V	20 mA / 224 mA @ 3.7 V	20 mA / 250 mA @ 3.7 V
User Environment	Temperature		Operating : 0 °C to 50°C / 32°F to 122°F, Storage : -20°C to 60°C / -4°F to 140°F (w/o battery)				
	Humidity (non-condensing)		Operating : 10% to 90% / Storage: 5% to 95%				
	Impact resistance		--	0.9 m / 3.0 ft. multiple drops onto concrete	1.5 m / 4.9 ft. multiple drops onto concrete		
	Ingress protection		--		IP42		
	Electrostatic discharge		± 8 kV contact / ± 15 kV air				
EMC regulation		BSMI, CE, C-tick, FCC, NCC, IC, TELEC, SRMC, KC		BSMI, CE, C-tick, FCC, NCC, IC, TELEC, SRMC		BSMI, CE, FCC, NCC, TELEC	BSMI, CE, C-tick, FCC, NCC, IC, TELEC, SRMC
Configuration		Setup option includes Windows®-based ScanMaster software					
Accessories		3610 Bluetooth® transponder, protective cover		3610 Bluetooth® transponder, Micro USB cable, battery charger, protective cover			
Warranty		1 year					

1. All of the barcodes that 1664 2D scanner can read except French Pharmacode, Plessey, and Telepen.

ACCESSORIES				Antimicrobial Protection Series	
	3610 Bluetooth® Transponder	Battery Charger	Protective Cover		



**HEADQUARTERS**  
CipherLab Co., Ltd.  
12F, 333 Dunhua S. Rd., Sec.2  
Taipei, Taiwan 10669  
Tel +886 2 8647 1166  
Fax +886 2 8732 3300  
[www.cipherlab.com](http://www.cipherlab.com)

**CipherLab Electronics Trading (Shanghai) Co., Ltd.**  
J Room, 4F, No.728 West Yan'an Rd.  
Changning District, Shanghai  
China 200050  
Tel +86 21 3368 0288  
Fax +86 21 3368 0286

**CipherLab USA Inc.**  
2552 Summit Ave.  
Plano, Texas USA 75074  
Tel +1 469 241 9779  
Toll Free 888 300 9779  
Fax +1 469 241 0697

**CipherLab GmbH**  
Gießerallee 21  
47877 Willich  
Germany  
Tel +49 2154 89777 20  
Fax +49 2154 89777 32