

CIPHER LAB
Smarter

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®* 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 allows employees optimal 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			Bluetooth® Class 2 (2.4 GHz) Version 2.1 +EDR		
	Coverage	10 m / 33 ft. line of sight			20 m / 66 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, UPCA, 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 ¹ 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)
	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 @3.7V	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	1600H	3610H



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

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