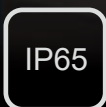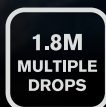# 2500 series

Precise Performance Built with Durable Toughness

With higher demands for updated scanning abilities in many industries such as retail, warehousing and light industry, CipherLab has attentively designed the durable 2500 series handheld scanner as your solution. CipherLab's 2500 series provides superior scanning abilities that allow users to consistently capture data faster. Along with business-rugged durable designs, its high performance is combined with the ability to easily connect to computer interfaces. Users can enjoy fast workflow without any worries. All of these features make the 2500 series an obvious choice for efficient operations in applications such as receiving, point of sale, shipping, inventory checking and work in process.

LINEAR IMAGER | 2D IMAGER | **3MIL** BARCODE | **1.8M** MULTIPLE DROPS | IP65 | CORDED | *Bluetooth*®

2500 *series*

Business-Rugged Handheld Scanner

Superior Performance Simplifying Industrial Applications with Reliable Durability

CipherLab's 2500 series scanner instantly updates your business data collection process with a 578 scan rate, IP65 rating, 1D/2D reader option, and automatic cable detection. It seamlessly combines its superior scanning performance with business-rugged designs. Additionally, the 2500 series scanner provides easy deployment and corded/Bluetooth® connections for users to enjoy. More than just these advantages, its enhanced ESD (electrostatic discharge) protection, built-in removable battery and other user-friendly features help take your scanning experience to new and higher levels.

Superior Scanning Capabilities Create Ease of Mind

The 2500 series 1D and 2D scanner is a device built with superior scanning capabilities that provide easy operations. It features a high-speed read rate of a snappy 578 scans per second on 1D barcodes. For small-item applications, the 2500 series has the ability to read high-density 1D barcodes up to 3-mil and 2D barcodes up to 5-mil on tiny objects. Built with a scan beam of 3mm in width from 15 cm away, the 2500 series eases its aiming for scanning and prevents the probabilities of misreads. The thin scan beam works extremely well when barcodes are placed close to each other. On top of it all, it is capable of reading low contrast images, such as barcodes that are poorly printed or printed on reflective surfaces, down to PCS (Print Contrast Signal) 15%. Another important advantage the 2500 series possess is the ability to scan barcodes shown on mobile phones as well as support extended-rage barcode capturing from 5.6 cm to 21.3 meters, offering incredible flexibility for personnel needing to scan barcodes on high shelves or close-up. With these advantages, CipherLab 2500 series users can easily collect data with all of its superior and up-to-date scanning resources.

Durable Designs with Comfortable Operation

The CipherLab 2500 scanner has been thoroughly tested for its durability. It has passed the IP testing and rated a durable IP65 that is dust protected and able to sustain water splashing. These features come in handy with harsher conditions of high humidity. The 2500 series also has a 1.8m drop resistance that offers continuous functionality without the stressful worries of accidental falls onto rough surfaces. Our 2564ER, in particular, is a scanner

with a military-grade protective cover specifically designed for demanding environments such as warehouses and manufacturing plants. Moreover, the device comes with an optional tether plate and wrist strap which enables users to attach the device to a mounting bracket or around the user's wrist. All of the 2500 series' durability is ultimately coupled with comfortable operational designs to create a productive experience for its users.

Easy Deployment Generate Faster Workflow

CipherLab's 2500 series 1D and 2D scanners are built with the intentions of fast and easy deployments for its users. It features the capabilities for users to connect their host systems by using USB, RS232 and keyboard wedge interface cables. With the appropriate interface cable connected to a computer, the 2500 series can automatically detect the cables and allow the users to easily access the information acquired.

User Friendly Features of the 2500 Series

The CipherLab's 2500 series provide flexibility for its users with its features. It comes with a built-in Bluetooth® that keeps the device connected to a computer up to a line-of-sight distance of 100 meters. The Bluetooth® scanner users can easily move around its working area while still being connected. Its built-in removable battery can easily provide up to 75 hours of continuous work and offer an ideal solution for businesses that need extended hours of operations.

Its enhanced ESD (electrostatic discharge) protection can handle up to ±10 kV(contact), ±20 kV (air) of ESD surge which protects sensitive electronic damages caused by electronic discharge events. Simply put, the CipherLab 2500 series is a durable device with superior features that will update your business to new grounds.

2500 series

Business-Rugged Handheld Scanner

Model		2500	2560	2504	2564	2504SR	2564SR
Category		Linear Imager		2D Imager (SM2)		2D Imager (SE4107)	
		Corded	Bluetooth®V4.0 Dual mode (2.1 + EDR/ BLE)	Corded	Bluetooth®V4.0 Dual mode (2.1 + EDR/ BLE)	Corded	Bluetooth®V4.0 Dual mode (2.1 + EDR/ BLE)
RF Communication of Bluetooth scanner	Coverage	-	100 m/ 328 ft. line of sight	-	100 m/ 328 ft. line of sight	-	100 m/ 328 ft. line of sight
	Standard profile		SPP, HID, GATT		SPP, HID, GATT		SPP, HID, GATT
Performance	Optical sensor	CCD Linear Sensor 2500 pixels		CMOS Image Sensor 1280 x 800 pixels		CMOS Image Sensor 1280 x 960 pixels	
	Light source	Red LED 625 nm (2X)		Warm White LEDs (2x)		Warm White LEDs (1x)	
	Resolution	3 mil		3 mil: 1D barcode / 5 mil: 2D barcode		3 mil: 1D barcode / 5 mil: 2D barcode	
	Depth of field	Code 39 3 mil: 3 to 10 cm/ 1.2 to 3.9 in. Code 39 5 mil: 2 to 14 cm/ 0.8 to 5.5 in. UPCA 13 mil: 0.5 to 38 cm/ 0.2 to 15 in. Code 39 20 mil: 1.5 to 60 cm/ 0.6 to 23.6 in.		Code 39 3 mil: 4 to 10 cm / 1.6 to 3.9 in. Code 39 5 mil: 3.5 to 17 cm / 1.4 to 6.7 in. UPCA 13 mil: 4 to 28 cm / 1.6 to 11 in. PDF417 5 mil: 3.5 to 10.5 cm / 1.4 to 4.1 in. QR Code 10 mil: 1.5 to 16.5 cm / 0.6 to 6.5 in.		Code 39 3 mil: 7 to 17 cm / 2.8 to 6.7 in. Code 39 5 mil: 6.5 to 23.5 cm / 2.6 to 9.3 in. Code128 5 mil: 7.5 to 22 cm / 3 to 8.7 in. PDF417 7 mil: 4 to 19 cm / 1.6 to 7.5 in. Data Matrix 10 mil: 7.5 to 21 cm /3 to 8.3 in. UPCA 13 mil: 5 to 49 cm/ 2 to 19.3 in. Code 39 15 mil: 3.5 to 28 cm / 1.4 to 11 in. Code 39 20 mil: 3.5 to 60 cm / 1.4 to 23.6 in.	
	Scanning angle	Pitch ± 70° Skew ± 70°		Pitch ± 70°, Skew ± 60°		Pitch ± 60°, Skew ± 60°	
	Minimum PCS	15%		25%		20%	
	Scan rate	578 scans/ second		60 scans/second		30 scans/second	
	Ambient illumination	100,000 lux					
	Hands-free scanning	Auto-sense and continuous modes		Auto-sense and presentation modes			
	Barcodes support	Codabar, Code 39, Code 93, Code 128, GS1 DataBar (RSS), Industrial 2 of 5, Interleave 2 of 5, ISBT-128, Code 32 (Italian Pharmacode), French Pharmacode, Matrix 2 of 5, MSI, Plessey, Telepen, UPC/EAN/GS1-128, Code 11 and more		1D: All of the bacodes that 2500 series 1D scanners can support 2D: PDF417, MicroPDF417, Data Matrix, QR code, Micro QR Code, Aztec, MaxiCode, Han Xin Code		1D: All of the bacodes that 2500 series 1D scanners can support 2D: PDF417, MicroPDF417, Data Matrix, QR code, Micro QR Code, Aztec, MaxiCode, Han Xin Code, 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, Danish					
Physical	Dimension L x W x H	16.1 x 6.6 x 9.6 cm / 6.3 x 2.6 x 3.8 in.					
	Weight (without cabe/ with battery)	145g / 4.9 oz.	185g / 6.5 oz.	145g / 4.9 oz.	185g / 6.5 oz.	166g / 5.9 oz.	209g / 7.0 oz.
	Color	Black, Register White					
	Switch	Tactile Switch					
	User Indicators	LEDs, beeper					
Electrical	Memory for Bluetooth scanner reserve buffer / batch mode	-	10 K / 4 MB	-	10 K / 4 MB	-	10 K / 4 MB
	Working hours for Bluetooth scanner	-	60 hours based on 1 scan / 5 seconds	-	35 hours based on 1 scan / 5 seconds	-	75 hours based on 1 scan / 5 seconds
	Voltage	-	3.7 V 3000 mAh Li-ion battery	-	3.7 V 3000 mAh Li-ion battery	-	3.7 V 3000 mAh Li-ion battery
	Power consumption[2] Standby / Operating	20 mA / 255 mA	12 mA / 250 mA Charging Time: 6 hours	55 mA / 400 mA	30 mA / 600 mA Charging time: 6 hours	16 mA / 270 mA	17 mA / 280 mA Charging time: 6 hours
User Environment	Temperature	Operating: 0 °C to 50°C / 32°F to 122°F Storage: -40°C to 70°C / -40°F to 158°F (w/o battery)					
	Humidity	Operating: 10% to 90% Storage: 5% to 95%					
	Impact resistance	1.8 m mutliple drops onto concrete, 1000 (1 m) tumbles					
	Ingress protection	IP65					
	Electrostatic discharge	±10 kV contact ±20 kV air					
	Regulatory compliance	FCC, IC,CE, RCM BSMI, KC	FCC, IC, CE, RCM BSMI, NCC, KC, SRMC	FCC, IC,CE, RCM BSMI, KC	FCC, IC, CE, RCM BSMI, NCC, KC, SRMC	FCC, IC,CE, RCM BSMI, KC	FCC, IC, CE, RCM BSMI, NCC, KC, SRMC
		REACH, WEEE, ErP, Eurpoe RoHS, Taiwan RoHS, China RoHS					
Configuration		Setup options include Windows® -based ScanMaster software					
Accessories		USB, RS232 and keyboard wedge cables, hands-free adjustable stand Communication cradle with battery charger option (Bluetooth® connection up to 7 scanners), single battery charger for Bluetooth® scanner					
Warranty		5 years		3 years		3 years (engine 1 year)	

2500 series
Business-Rugged Handheld Scanner

Model	2504SR	2564SR	2504MR	2564MR	2564ER
Category	2D Imager (SE4750 SR)		2D Imager (SE4750 MR)		2D Imager (SE4850)
	Corded	Bluetooth®V4.0 Dual mode (2.1 + EDR/ BLE)	Corded	Bluetooth®V4.0 Dual mode (2.1 + EDR/ BLE)	Bluetooth®V4.0 Dual mode (2.1 + EDR/ BLE)
RF Communication of Bluetooth scanner — Coverage	-	100 m/ 328 ft. line of sight	-	100 m/ 328 ft. line of sight	100 m/ 328 ft. line of sight
RF Communication of Bluetooth scanner — Standard profile		SPP, HID, GATT		SPP, HID, GATT	SPP, HID, GATT
Performance — Optical sensor	CMOS Image Sensor 1280 x 960 pixels		CMOS Image Sensor 1280 x 960 pixels		CMOS Image Sensor 1280 x 800 pixels
Light source	Warm White LEDs (2x)		Warm White LEDs (2x)		Hyper Red 660 nm LED
Resolution	3 mil: 1D barcode / 5 mil: 2D barcode		3 mil: 1D barcode / 5 mil: 2D barcode		3 mil: 1D barcode / 5 mil: 2D barcode
Depth of field	Code 39 3 mil: 7.5 to 13.8 cm / 3 to 5.4 in. Code 128 5 mil: 5 to 19.6 cm / 2 to 7.7 in. PDF417 5 mil: 7 to 15 cm / 2.8 to 5.9 in. PDF417 7 mil: 6 to 19.5 cm / 2.4 to 7.7 in. Data Matrix 10 mil: 3 to 22.4 cm / 1.2 to 8.8 in. UPCA 13 mil: 4 to 58.4 cm / 1.6 to 23 in. Code 128 15 mil: 5.5 to 63.4 cm / 2.2 to 25 in. Code 39 20 mil: 3.5 to 89.2 cm / 1.4 to 35.1 in.		Code 128 5 mil: 18.5 to 37.5 cm / 7.3 to 14.8 in. PDF 417 5 mil: 21 to 26.5 cm / 8.3 to 10.4 in. Data Matrix 7.5 mil: 17 to 35 cm / 6.7 to 13.8 in. Data Matrix 10 mil: 15.5 to 45.5 cm / 6.1 to 17.9 in. UPCA 13 mil: 8 to 94 cm / 3.2 to 37 in. Code 39 100 mil: 28 to 425 cm / 11 to 167.3 in. Data Matrix 160 mil: 29.5 to 384 cm / 11.6 to 151.2 in.		Code 39 10mil: 7.62 to 215.9cm/ 3.0 to 85 in. UPCA 13mil: 8.89 to 228.60 cm /3.5 to 90 in. Code 128 15 mil: 15.24 to 254 cm/ 6.0 to 100 in. Code 39 20mil: 10.16 to 436.88 cm/ 4.0 to 172 in. Code 39 40mil : 15.24 to 863.60cm/ 6.0 to 340 in. Code 39 55mil : 17.78 to 1092.20cm/ 7.0 to 430 in. Code 39(Paper) 100mil : 50.80 to 1778cm/ 20 to 700 in. Code 128(reflective) 100mil: 76.2 to 1778cm/30 to 700 in. Data Matrix 10 mil: 12.7 to 114.3 cm /5.0 to 45 in. Data Matrix 55 mil: 12.7 to 635 cm / 5.0 to 250 in. Code 128 (4in.W) 15mil: 20.32 to 254cm / 8.0 to 100 in.
Scanning angle	Pitch ± 60°, Skew ± 60°				
Minimum PCS	20%		20%		25%
Scan rate	60 scans/second		60 scans/second		30 fps (Near) 55fps(Far)
Ambient illumination	100,000 lux				
Hands-free scanning	Auto-sense and presentation modes				
Barcodes support	1D: All of the bacodes that 2500 series 1D scanners can support, but not support French Pharmacodes, Plessey and Telepen 2D: PDF417, MicroPDF417, Composite, TLC-39, Data Matrix, QR code, Micro QR code, Aztec, MaxiCode, Han Xin Code Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal Dutch Postal (KIX)		1D: All of the bacodes that 2500 series 1D scanners can support, but not support French Pharmacodes, Plessey and Telepen 2D: PDF417, MicroPDF417, Composite, TLC-39, Data Matrix, QR code, Micro QR code, Aztec, MaxiCode, Han Xin Code Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal Dutch Postal (KIX)		1D: All of the bacodes that 2500 series 1D scanners can support, but not support French Pharmacodes, Plessey and Telepen 2D: PDF417, MicroPDF417, Composite, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode, Han Xin Code 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,				
Physical — Dimension L x W x H	16.1 x 6.6 x 9.6 cm / 6.3 x 2.6 x 3.8 in.				
Weight (without cabe/ with battery)	187g / 5.9 oz..	241g / 7.0 oz.	187g / 5.9 oz.	241g / 7.0 oz	320.3g/ 11.3 oz.
Color	Black, Register White		Black, Register White		Black
Switch	Tactile Switch		Tactile Switch		
User Indicators	Vibration (adjustable) , LEDs, beeper		Vibration (adjustable) , LEDs, beeper		
Electrical — Memory (for Bluetooth scanner reserve buffer / batch mode)	-	10 K / 4 MB	-	10 K / 4 MB	10 K / 4 MB
Working hours (for Bluetooth scanner)	-	75 hours based on 1 scan / 5 seconds	-	75 hours based on 1 scan / 5 seconds	24 hours based on 1 scan / 5 seconds
Voltage	-	3.7 V 3000 mAh Li-ion battery	-	3.7 V 3000 mAh Li-ion battery	3.7 V 3000 mAh Li-ion battery
Power consumption² Standby / Operating	16 mA / 270 mA	17 mA / 280 mA Charging time: 6 hours	16 mA/ 270 mA	17 mA/ 280 mA Charging time: 6 hours	20 mA /450mA Charging time: 6 hours
User Environment — Temperature	Operating: 0 °C to 50°C / 32°F to 122°F Storage: -40°C to 70°C / -40°F to 158°F (w/o battery)				
Humidity	Operating: 10% to 90% Storage: 5% to 95%		Operating: 10% to 90% Storage: 5% to 95%		
Impact resistance	1.8 m mutliple drops onto concrete, 1000 (1 m) tumbles		1.8 m mutliple drops onto concrete, 1000 (1 m) tumbles		
Ingress protection	IP65		IP65		
Electrostatic discharge	±10 kV contact ±20 kV air		±10 kV contact ±20 kV air		
Regulatory compliance	FCC, IC, CE, RCM BSMI, KC	FCC, IC, CE, RCM BSMI, NCC, KC, SRMC	FCC, IC, CE, RCM BSMI, KC	FCC, IC, CE, RCM BSMI, NCC, KC, SRMC	FCC, IC, CE, RCM, BSMI, NCC
	REACH, WEEE, ErP, Eurpoe RoHS, Taiwan RoHS, China RoHS				
Configuration	Setup options include Windows® -based ScanMaster software				
Accessories	USB, RS232 and keyboard wedge cables, hands-free adjustable stand Communication cradle with battery charger option (Bluetooth® connection up to 7 scanners), single battery charger for Bluetooth® scanner				Communication cradle with battery charger option (Bluetooth® connection up to 7 scanners), single battery charger for Bluetooth® scanner
Warranty	3 years (engine 1 year)		3 years (engine 1 year)		3 years (engine 1 year)

1. It is based on communication cradle. 2. The data is tested with USB interface.

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Smarter

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