POWERSCAN™ 9501-DPM EVO





DPM TECHNOLOGY

Direct Part Marking (DPM) is a process that allows users to imprint a bar code directly on an item instead of printing the code on a paper label. Different technologies are available to directly mark objects: laser/chemical etching, dot peening and ink jet printing. Each of these methods have specific advantages and disadvantages in terms of durability, cost and ease of reading.

The PowerScan[™] 9501-DPM Evo series of scanners are rugged handheld area imagers specifically addressed and capable of reading codes marked with DPM.

READING CAPABILITIES

The PowerScan DPM series include the latest optics and software from Datalogic to make the reading of codes with DPM easy and intuitive. The typical reading distance is from contact to 4–5 cm / 1.5 –1.9 in, depending on the DPM technology used, the code resolution, and the material and surface type. The scanner is also capable of reading standard bar codes on printed labels. High density optics allow the capture of very small, high-resolution codes in a range from near contact up to 15.0 cm / 5.9 in. The intuitive aiming system provides the highest first-pass reading rates. A soft pulsed white illumination light results in reduced flashes and is very gentle to the eyes.

FULL CONNECIVITY

The PM9501 DPM Evo series offers the display option with 4 configurable keys. This increases interaction between the host and the user allowing a two-way exchange of information for more reliable and effective communications.

The BC9180 is provided with Standard Multi- Interface: USB-KBD, USB-COM, USB-OEM, RS-232 and Ethernet connectivity: Telnet, Web Server, Data Socket, Ethernet/IP.

MOTIONIX™ MOTION-SENSING TECHNOLOGY

Datalogic's Motionix $^{\text{TM}}$ motion-sensing technology detects the natural actions of the operator to automatically switch the scanner into the desired scanning mode.

FEATURES

- Enhanced Decoding software will support any kind of Direct Part Marking (DPM) technology
- · Snappy omnidirectional reading
- Intuitive aiming system
- · Soft white light illumination
- · Available with optional display with 4-keys
- Datalogic's Motionix™ motion-sensing technology
- Ergonomic shape
- Image capture
- Datalogic's 3GL™ (3 Green Lights) technology and loud beeper for good-read feedback
- Water and Particulate Sealing Rating: IP65
- EASEOFCARE Service Plans offer a wide range of service options to protect your investment, ensuring maximum productivity and ROI

• Cordless Products

- Bluetooth® 3.0 Compliant, Class 1
- STAR Cordless System™ available in 433 MHz or 910 MHz
- Ethernet Connectivity (Standard and Industrial)

Star2.0













INDUSTRY - APPLICATION

- Manufacturing Shop Floor:
 - Work-in-Progress
 - Sub-Assembly
 - Component Tracking
 - Quality Control
 - Time and Cost Analysis
 - Line Inventory Control

POWERSCAN™ PD9531-DPM EVO

TECHNICAL SPECIFICATIONS

DECODING CAPABI	LITY	
1D / Linear Codes	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.	
2D Codes	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code	
Postal Codes	Postnet; Royal Mail Code (RM4SCC)	
Stacked Codes	EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites	
ELECTRICAL		
Current	Operating (Typical): 350 mA Standby/Idle (Typical): 120 mA	
Input Voltage	5 VDC +/- 10%	
ENVIRONMENT		
Ambient Light	0 - 100,000 lux	
Drop Resistance	Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface	
ESD Protection (Air Discharge)	20 kV	
Humidity (Non-Condensing)	0 - 95%	
Particulate and Water Sealing	IP65	
Temperature	Operating: -20 to 50 °C / -4 to 122 °F Storage/Transport: -40 to 70 °C / -40 to 158 °F	
INTERFACES		
Interfaces	RS-232 / USB / Keyboard Wedge Multi-Interface	
PHYSICAL CHARAC	TERISTICS	
Colors Available	Yellow/Black; Other colors and custom logo options are available for minimum quantity purchase.	
Dimensions	21.2 x 11.0 x 7.4 cm / 8.3 x 4.3 x 2.9 in	
Weight	330.0 g / 11.6 oz	
READING PERFORM	MANCE	
Direct Part Marking (DPM) Capability	Codes are readable when marked by laser or chemical etching or ink jet printed; Data Matrix codes are also readable when marked by dot peening	
Imager Sensor	864 x 544	
Light Source	Aiming: 630 - 680 nm VLD Illumination: White LED reading light	
Print Contrast Ratio (Minimum)	15%	
Reading Angle	Pitch: +/- 40°; Roll (Tilt): 360°; Skew (Yaw): +/- 40°	
Reading Indicators	Beeper (Adjustable Tone and Volume); Datalogic's 3GL™ (Three Green Lights) technology and loud beeper for good-read feedback: Datalogic 'Green Spot' on the Code; Dual Good Read LEDs	

READING RANGES		
Typical Depth of Field	Depth of Field ranges on bar codes printed with DPM technology may vary depending on the printing technology, the code type and the resolution of the code. Other factors include the surface material the DPM technology is used on (metal, plastic, shiny or polished, opaque, etc.). The following specs represent standard bar codes that are traditionally printed black on white on paper labels. 2 mils 2.8 to 6.3 cm / 1.1 to 2.4 in 2.5 mils 2.5 to 7.8 cm / 0.9 to 3.0 in 5 mils 4 mils Data Matrix 5 mils Data Matrix 2.6 to 5.2 cm / 0.4 to 3.5 in 10 mils Data Matrix 5 mils DPF 1.2 to 9.0 cm / 0.8 to 2.8 in 10 mils PDF 1.0 to 12.5 cm / 0.8 to 4.9 in 13 mils EAN-13 2.5 to 16.0 cm / 0.9 to 6.3 in	
SAFETY & REGULATORY		
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use. The Quick Reference Guide for this product can be referred to for a complete list of certifications.	
Environmental Compliance	Complies to China RoHS; Complies to EU RoHS; Complies to R.E.A.C.H.	
Laser Classification	Caution Laser Radiation - Do not stare into beam CDRH Class II; IEC 60825 Class 2	
LED Classification	IEC 62471 Class 1 LED	
UTILITIES		
Datalogic Aladdin™	Datalogic Aladdin configuration program is available for download at no charge.	
OPOS / JavaPOS	OPOS and JavaPOS utilities are available for download at no charge.	
Remote Host Download	Available on request	
WARRANTY		
Warranty	3-Year Factory Warranty	

ACCESSORIES

Cases/Holsters

Resolution (Maximum)



HLS-P080 Universal Holster (HLS-8000)

Mounts/Stands

1D Codes: 2.5 mil; 2D Codes: 4 mil







7-0404 Industrial Take-Up Reel

POWERSCAN™ PBT9501-DPM EVO

TECHNICAL SPECIFICATIONS

CORDLESS COMMU		
Bluetooth Wireless Technology	Piconet: Max. Readers per Radio Receiver Using Commercial Dongle: 7; Using Cradle: 4	
Profiles	HID (Human Interface Device) SPP (Serial Port Profile)	
Protocol	Bluetooth® 3.0 Compliant, Class 1	
Radio Frequency	2.40 to 2.48 GHz	
Radio Range (Open Air)	Exceeds 100 m / 328 ft Range distances are measured using the base station. Range with connection to other Bluetooth peripherals may show different results.	
Security	Data Encryption; Scanner Authentication	
DECODING CAPABI	LITY	
1D / Linear Codes	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.	
2D Codes	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code	
Postal Codes	Postnet; Royal Mail Code (RM4SCC)	
Stacked Codes	EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites	
ELECTRICAL		
Battery	Lithium-Ion 3350 mAh Charge Time: External Power: 4.5 Hours; Host Power: 10 Hours	
Reads per Charge	Continuous Reading: 60,000+	
Cradle Indicator LEDs	Battery Charging (Red); Charge Completed (Green); Power/Data (Yellow)	
Countly Common 1	Volt 10-30 VDC; Power <8W*; Max 500mA when in host/bus powered mode* *Typical input current measured under factory default configuration.	
Cradle Consumption and DC Input Supply Range	· ·	
•	*Typical input current measured under factory default	
DC Input Supply Range	*Typical input current measured under factory default configuration.	
DC Input Supply Range Operating (Typical) Input Voltage	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC	
DC Input Supply Range Operating (Typical) Input Voltage	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC	
DC Input Supply Range Operating (Typical) Input Voltage ENVIRONMENTAL	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC External Power: 10-30 VDC; POT: 5 VDC +/- 10%	
DC Input Supply Range Operating (Typical) Input Voltage ENVIRONMENTAL Ambient Light	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC External Power: 10-30 VDC; POT: 5 VDC +/- 10% 0 - 100,000 lux Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface PBT9501-DPM: Withstands 50 drops from 2.0 m / 6.6 ft	
DC Input Supply Range Operating (Typical) Input Voltage ENVIRONMENTAL Ambient Light Drop Resistance ESD Protection	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC External Power: 10-30 VDC; POT: 5 VDC +/- 10% 0 - 100,000 lux Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface PBT9501-DPM: Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface	
DC Input Supply Range Operating (Typical) Input Voltage ENVIRONMENTAL Ambient Light Drop Resistance ESD Protection (Air Discharge)	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC External Power: 10-30 VDC; POT: 5 VDC +/- 10% 0 - 100,000 lux Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface PBT9501-DPM: Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface 20 kV	
DC Input Supply Range Operating (Typical) Input Voltage ENVIRONMENTAL Ambient Light Drop Resistance ESD Protection (Air Discharge) Humidity (Non-Condensing) Particulate and Water	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC External Power: 10-30 VDC; POT: 5 VDC +/- 10% 0 - 100,000 lux Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface PBT9501-DPM: Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface 20 kV 0 - 95%	
DC Input Supply Range Operating (Typical) Input Voltage ENVIRONMENTAL Ambient Light Drop Resistance ESD Protection (Air Discharge) Humidity (Non-Condensing) Particulate and Water Sealing	*Typical input current measured under factory default configuration. 150 mA @ 10 VDC External Power: 10-30 VDC; POT: 5 VDC +/- 10% 0 - 100,000 lux Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface PBT9501-DPM: Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface 20 kV 0 - 95% IP65 Operating: -20 to 50 °C / -4 to 122 °F Battery Charging: 0 to 45 °C / -32 to 113 °F	

PHYSICAL CHARAC	TERISTICS			
Colors Available	Yellow/Black			
Dimensions	Cradle: 24.0 x 10.8 x 9.5 cm / 9.4 x 4.3 x 3.8 in PBT9501-DPM: 21.2 x 11.0 x 7.4 cm / 8.3 x 4.3 x 2.9 in			
Weight	PBT9501-DPM: 400 g / 14.1 oz			
READING PERFORM	ANCE			
Direct Part Marking (DPM) Capability	Codes are readable when marked by laser or chemical etching or ink jet printed; Data Matrix codes are also readable when marked by dot peening			
Image Capture	Graphic Formats: BMP, JPEG, TIFF; Greyscale: 256, 16, 2			
Imager Sensor	864 x 544			
Light Source	Aiming: 630 - 680 nm VLD; Illumination: White LEDs			
Print Contrast Ratio (Minimum)	15%			
Reading Angle	Pitch: +/- 40°; Roll (Tilt): 360°; Skew (Yaw): +/- 40°			
Reading Indicators	Beeper (Adjustable Tone and Volume); Datalogic's 3GL™ (Three Green Lights) technology and loud beeper for good-read feedback: Datalogic 'Green Spot' on the Code; Dual Good Read LEDs			
Resolution (Maximum)	1D Codes: 2.5 mil; 2D Codes: 4 mil			
READING RANGES				
Typical Depth of Field	Depth of Field ranges on bar codes printed with DPM technology may vary depending on the printing technology, the code type and the resolution of the code. Other factors include the surface material the DPM technology is used on (metal, plastic, shiny or polished, opaque, etc.). The following specs represent standard bar codes that are traditionally printed black on white on paper labels. 2 mils 2.8 to 6.3 cm / 1.1 to 2.4 in 2.5 mils 2.5 to 7.8 cm / 0.9 to 3.0 in 5 mils 1.2 to 9.0 cm / 0.4 to 3.5 in 4 mils Data Matrix 5 mils Data Matrix 10 mils Data Matrix 5 mils Data Matrix 5 mils PDF 1.2 to 9.0 cm / 0.8 to 4.1 in 1.2 to 9.0 cm / 0.4 to 3.5 in 1.0 mils PDF 1.0 to 12.5 cm / 0.4 to 4.9 in 1.3 mils EAN-13 2.5 to 16.0 cm / 0.9 to 6.3 in			
SAFETY & REGULAT	TORY			
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use. The Quick Reference Guide for this product can be referred to for a complete list of certifications.			
Environmental Compliance	Complies to China RoHS; Complies to EU RoHS; Complies to R.E.A.C.H.			
Laser Classification	Caution Laser Radiation - Do not stare into beam CDRH Class II; IEC 60825 Class 2			
LED Classification	IEC 62471 Class 1 LED			
UTILITIES				
Datalogic Aladdin™	Datalogic Aladdin configuration program is available for download at no charge.			
OPOS / JavaPOS	OPOS and JavaPOS utilities are available for download at no charge.			
Remote Host Download	Available on request			

ACCESSORIES

Base Stations/Chargers



BC9030-BT Base/Charger, Multi-Interface



BC9130-BT Base/Dual Charger, Multi-Interface BC9180-BT Base/Dual Charger, Multi-Interface/Ethernet (Standard, Industrial)

Cases/Holsters

Warranty



HLS-P080 Universal Holster (HLS-8000)

Mounts/Stands

3-Year Factory Warranty



HLD-P080 Desk/Wall Holder (HLD-8000)



7-0404 Industrial Take-Up Reel

POWERSCAN™ PM9501-DPM EVO

TECHNICAL SPECIFICATIONS

CORDLESS COMMUNICATIONS		
Datalogic STAR Cordless System™	Effective Radiated Power: 433 MHz: <10 mW; 910 MHz: <50 mW Point-to-Point Configuration Multi-Point Configuration: Max. Readers per Radio Receiver: 16	
Radio Frequency	433 MHz; 910 MHz	
Radio Range (Open Air)	433 MHz: 200 m / 656 ft low speed; Frequency hopping 50 m / 164 ft high speed 910 MHz: 270 m / 886 ft low speed; 170 m / 558 ft high speed Seamless Roaming; Two Way Communications	
DECODING CAPABI	LITY	
1D / Linear Codes	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.	
2D Codes	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code	
Postal Codes	Postnet; Royal Mail Code (RM4SCC)	
Stacked Codes	EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites	
ELECTRICAL		
Battery	Lithium-Ion 3350 mAh Charge Time: External Power: 4.5 Hours; Host Power: 10 Hours	
Reads per Charge	Continuous Reading: 60,000+ (typical @ 25 °C)	
Cradle Indicator LEDs	Battery Charging (Red); Charge Completed (Green); Power/Data (Yellow)	
Cradle Consumption and DC Input Supply Range	Volt 10-30 VDC; Power <8W*; Max 500mA when in host/bus powered mode* *Typical input current measured under factory default configuration.	
Operating (Typical)	150 mA @ 10 VDC	
Input Voltage	External Power: 10-30 VDC; POT: 5 VDC +/- 10%	
ENVIRONMENTAL		
Ambient Light	0 - 100,000 lux	
Drop Resistance	Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface PM9501-DPM: Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface	
ESD Protection (Air Discharge)	20 kV	
Humidity (Non-Condensing)	95%	
Particulate and Water Sealing	IP65	
Temperature	Operating: -20 to 50 °C / -4 to 122 °F Battery Charging: 0 to 45 °C / -32 to 113 °F Storage/Transport: -40 to 70 °C / -40 to 158 °	
INTERFACES		
Interfaces	Keyboard Wedge; RS-232; RS-485; USB: 0EM USB; USB COM; USB HID Keyboard; Optional Ethernet (Standard, Industrial)	

PHYSICAL CHARAC	TERISTICS		
Colors Available	Yellow/Black		
Display	PM9501-DDPM: Display Type: Graphic with White Backlight; Font Dimensions: User selectable (6 lines x 21 columns default); Screen Dimensions: 48 x 132 pixels		
Keypad	PM9501-DDPM: 4 con	figurable keys	
Dimensions		.5 cm / 9.4 x 4.3 x 3.8 in 11.0 x 7.4 cm / 8.3 x 4.3 x 2.9 in	
Weight	PM9501-DPMXX: 400. PM9501-DDPMXX: 440		
READING PERFORM	1ANCE		
Direct Part Marking (DPM) Capability	Codes are readable when marked by laser or chemical etching or ink jet printed; Data Matrix codes are also readable when marked by dot peening		
Imager Sensor	864 x 544		
Light Source	Aiming: 630 - 680 nm VLD; Illumination: White LEDs		
Print Contrast Ratio (Minimum)	15%		
Reading Angle	Pitch: +/- 40°; Roll (Til	t): 360°; Skew (Yaw): +/- 40°	
Reading Indicators	Beeper (Adjustable Tone and Volume); Datalogic's 3GL™ (Three Green Lights) technology and loud beeper for good-read feedback: Datalogic 'Green Spot' on the Code; Dual Good Read LEDs		
Resolution (Maximum)	1D Codes: 4 mil; 2D Codes: 7.5 mil		
READING RANGES			
Typical Depth of Field	DPM technology may vechnology, the code to Other factors include t technology is used on opaque, etc.). The follow	on bar codes printed with vary depending on the printing ype and the resolution of the code. the surface material the DPM (metal, plastic, shiny or polished, owing specs represent standard ditionally printed black on white on 2.8 to 6.3 cm / 1.1 to 2.4 in 2.5 to 7.8 cm / 0.9 to 3.0 in 1.2 to 9.0 cm / 0.4 to 3.5 in 2.6 to 5.2 cm / 1.0 to 2.0 in 2.2 to 7.2 cm / 0.8 to 2.8 in 2.0 to 10.5 cm / 0.8 to 4.1 in 1.2 to 9.0 cm / 0.4 to 3.5 in 1.0 to 12.5 cm / 0.4 to 4.9 in 2.5 to 16.0 cm / 0.4 to 4.9 in 2.5 to 16.0 cm / 0.9 to 6.3 in	
SAFETY & REGULA	ΓORY		
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use. The Quick Reference Guide for this product can be referred to for a complete list of certifications.		
Environmental Compliance	Complies to China Rob Complies to R.E.A.C.H	HS; Complies to EU RoHS;	
Laser Classification	Caution Laser Radiation - Do not stare into beam CDRH Class II; IEC 60825 Class 2		
LED Classification	IEC 62471 Class 1 LED)	
UTILITIES			
Datalogic Aladdin™	download at no charge		
	OPOS and JavaPOS utilities are available for download at no charge.		
OPOS / JavaPOS		miles are available for download	
Remote Host Download		inities are available for admitted	
	at no charge.	inities are available for download	



BC9030-433 / BC9030-910 Base/Charger, Multi-Interface



BC9130-433 / BC9130-910 Base/Dual Charger, Multi-Interface BC9160-433 / BC9160-910 Base/Dual Charger, Multi-Interface/RS-485 BC9180-433 / BC9180-910 Base/Dual Charger/ Ethernet (Standard, Industrial)

Cases/Holsters



HLS-P080 Universal Holster (HLS-8000)

Mounts/Stands







7-0404 Industrial Take-Up Reel





SD9030 STAR System USB Industrial Dongle (433 or 910 MHz

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