Apex Series

Apex 2 | Apex 3 | Apex 4 ■ ■ ■

datamax·o'neil

right by our customers.

Contents ▪ ▪ ▪

The Datamax-O'Neil Apex Series

With the addition of the Apex Series, Datamax-O'Neil broadens its line of portable printers to include a family of small, lightweight, easy to use printers that are budget friendly. The Apex series was designed with the end user's requirements in mind and the tight budgets facing businesses today. Mobile workers want a portable printer that is easy to use, prints quickly and can be relied on to keep up with them during their long, demanding shift. Businesses want to increase the efficiency, reduce errors but not break their budgets to outfit their mobile workers with the printers they need. The Apex Series fulfills both needs without compromising.

The affordable Apex family of 2", 3" and 4" printers represents a value line of printers with the options essential for retail, mobile POS, hospitality, field service, law enforcement, utilities and transportation applications. The Apex series includes Bluetooth and Serial (Apex 2/Apex 3) or USB (Apex 4) as standard communication methods and are packaged with the accessories and consumables needed to begin operating the printer straight from the box. Options include 802.11b/g (in place of Bluetooth) and/or 3-Track Magnetic Card reader.

Recognizing that not all applications require heavyweight, over the top features and ultra rugged drop-it-off-a-building and/or run-it-over-with-a-truck portable printers, the Apex series printer line is "just enough" to get the job done without slowing down or giving up accuracy. The Apex's fast print speed, ample memory and fast processing power keeps pace with printers costing almost twice as much. The lightweight, compact design allows the printers to be worn comfortably with a belt loop or shoulder strap through a complete shift. The durable housing and rubber over mold will endure the bumps and knocks of the typical workday. User friendly, the Apex printers have a simple drop–in paper system allowing users to quickly replace paper rolls and a high capacity battery that lasts through a 12 hour shift, users can go through a busy day knowing that the Apex printers will keep up with them.

The Apex series family broadens Datamax-O'Neil's current line of portable printers with a solution for light and fast receipt printing at an affordable price. When the application calls for an ultra rugged printer that can withstand the most punishing environments, the microFlash™ family is the solution. Designed to handle the most daunting and complicated receipts and labels under the harshest of environments, the microFlash printer family is the obvious choice. No printer thrives in the demanding mobile workplace better, longer or more reliably the microFlash family of printers.

When the application requires labels, hang tags or shelf tags and complicated symbologies or graphics, the OC™ printer family is the logical choice. The ergonomically designed OC printer family can weather rough environments and offers a wider array of options for receipt and label printing. Offering a deep paper well and hardier print mechanism; it can hold a larger paper roll and accept a wide range of media from standard receipt paper to labels to thick shelf tags.

About Datamax-O'Neil

Datamax-O'Neil is the global provider who works passionately with customers to listen, understand and then deliver a value-driven printing solution that minimizes risk and maximizes efficiency, safety, and quality. Our solutions improve our partner's business through our deep market knowledge and consultative approach.

Datamax-O'Neil designs, manufactures and markets one of the industry's most complete line of stationary and portable label and receipt printing solution products. These printing solutions enable manufacturing and supply markets to capture the benefits of automated product identification and automated legal and financial transactions. The company's products address a wide variety of applications, including those in the industrial, healthcare, retail, automotive and ticketing market sectors. Datamax-O'Neil is headquartered in Orlando, Florida, and maintains key facilities in California, Illinois, and France, as well as sales and technical support offices around the world.

Datamax-O'Neil is the barcode and mobile printing business group of Dover Corporation's Product Identification Group (PIDG). The PIDG is a world class platform entity with products and services covering all of the leading marking and labeling technologies and applications. In addition to Datamax-O'Neil, PIDG is comprised of Markem-Imaje, a global marking and coding solutions leader.

Selling Points

Lightweight, Compact, Solid

Small and lightweight, the Apex printers can easily be worn on a belt loop or shoulder strap throughout a 12 hour shift without obstructing movements or weighing your workers down. The solidly built printers have over-molding that protects the Apex series from the knocks and bumps encountered during the day. Simplified LED lights indicate communication, charging and power status. Product testing with an IEC accredited lab for operating temperature, storage temperature, humidity, shock and vibration give the user the peace of mind that durability and quality were not compromised for a smaller and lighter design.

Affordability

The Apex family offers "just enough" to get the job done with the light weight, small size, ease of use and the support for you business that can only come from Datamax-O'Neil. Packed with the communication options and the essentials needed for light and fast receipt printing, the Apex series blends the need for an economical portable printer with the quality and reliability required for today's mobile worker.

Key Options & Features

The Apex series of printers contain the options and features required to keep pace with printers costing twice as much. Bluetooth and USB (Apex 4) or Serial (Apex 2/ Apex 3) are standard communication options on the Apex printers. Options include 802.11b/g wireless communication (in lieu of Bluetooth) and a 3 Track Magnetic Card Reader. All features are supported by a powerful Arm-7, 32-Bit architecture RISC processor. Resident firmware and fonts are stored in the printer memory, leaving a full 4MB of Flash and full 1MB/2MB RAM (Apex 2 &3/ Apex 4) for you to store graphics, logos, additional fonts and barcodes.

Trouble-Free & Easy to Use

Losing battery power is unacceptable during a shift. The Apex series uses a high-capacity Lithium-Ion battery that can last through a 12 hour shift. An automatic "sleep" mode goes into effect to save on battery power when the printer is idle for a set period of time. The Apex series also has a fast 180 minute recharge time and can be charged either through the AC Adaptor that is included with the printer or using the optional In-Vehicle Cigarette Lighter Adapter. Changing the paper roll on a portable printer shouldn't be a time consuming and frustrating task. With the Apex series, changing the paper is a quick and easy procedure. A simple drop-in media loading system allows for quick and hassle free paper loading that won't take valuable time from a jam-packed day.

Reliability & Support

In these challenging economic times, you can't afford to invest resources on printers that fail or a company that is unresponsive to your needs post sale. The Apex series has a one year warranty that includes the printhead when used with approved media grades and the quality and reliability associated with the Datamax-O'Neil name. In addition to the rugged and reliable portable printers, Datamax-O'Neil offers a wide range of printer supplies specific to your printing needs that ensure that everything in the system works well. Our knowledgeable and dedicated customer service and support team are ready to respond quickly and effectively to your questions. At Datamax-O'Neil customer satisfaction is our number one priority… you can feel confident that Datamax-O'Neil is doing right by you.

The Datamax-O'Neil Apex 2 is designed especially for those transaction applications where small size, fast printing and dependability while staying in budget are vital. The 7-Arm, 32-bit processor keeps pace with printers that cost almost twice as much without compromising on features and functions. Delivering the key features and the communication methods needed, the Apex 2 has the flexibility to meet the unique, industry-specific receipt printing and ease-of-use required to keep up with the mobile worker's long and demanding shift.

With Bluetooth as a standard communication method and optional 802.11b/g (in lieu of Bluetooth), the Apex 2 produces a receipt of 2.25 inches wide that presents your logo or text on a crisp, clean receipt whether the user needs wireless local area networking (WLAN) or wireless personal area networking (WPAN). An optional 3-track magnetic card reader allow for easy credit card payments. Generous Flash and SRAM memory that are under direct user control allows the user to store logos, fonts, graphics and barcodes for fast adaptability to changing business requirements.

Mobile Point-of-Sale
Print receipts and take payments with the Apex 2's integrated 3-track magnetic strip card reader.

Retail
The Apex 2 is ideal for mobile point-of-sale and line/queue-busting where it can print receipts and process payments with its integrated magnetic strip card reader.

Hospitality
Eliminate long lines and improve your customer service with mobile check-in and check-out. Quickly take payment and issue receipt on the spot; perfect for order-taking tableside.

Transportation
The Apex 2 is small and light enough to fit onto the dashboard of a taxi allowing drivers to print a quick receipt for their customers. With the optional Magnetic card reader, drivers can process credit card payments.

Direct Store Delivery/ Route Accounting
Prevent driver delays and improve efficiency and customer service with the Apex 2's mobile receipt printing and transaction processing capabilities.

Traditional Applications
While not offering the ultra-rugged performance of the microFlash line of printers or the capability of label or hang tag printing of the OC family of printers, the Apex 2 is ideal for applications where small, light weight, fast and easy to use printers are needed.

Front View

LED Indicators

Magnetic Card Reader
(Optional)

Paper Door
Release Button

Side Views

On/Off Button

Paper Feed Button

Back View

Belt Loop Adapter

Battery Door

Battery Door Latch

Serial Port

AC Adapter Port

Internal View

Paper Compartment

Metal Tear Bar

Platen Roller

Physical	
Dimensions	5.4" H x 4.1" W x 2.4" D 135 x 103 x 60 mm
Weight (w/battery)	14.7 oz (0.417kg)
Weight	
(w/battery and paper roll)	18.7 oz (0.530kg)
User Environment	
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Charging Temperature	41°F to 104°F (5°C to 40°C)
Relative Humidity	10% RH to 85 % RH non-condensing
ESD Protection	8KV air gap, 4kV contact
Communications	
Serial	Standard RS232
Bluetooth	Standard (V2.0)
802.11	Option 802.11b/g
Print Technology	
Printhead	Direct Thermal, 203 dots per inch (8 dots per second)
Print Width	1.89" (48mm)
Print Mechanism Speed	2 inches per second (51mm per second)
Media Specifications	
Type	Direct Thermal receipt paper: Standard, premium, heavy duty, long life, image protect, hi-temp, all weather
Capacity	1.50" (38.1mm) maximum roll O.D.
Width	2.24" (57mm)
Media Thickness	0.002" to 0.004" (0.05mm to 0.10mm)

Battery	
Type	Lithium Ion
Capacity	7.4 V, 2200 mAh
Endurance	Prints approx. 2,640 - 6" long receipts on a single battery charge
On Printer Charging	External Charge Port
Recharge Time	180 minutes
Memory	
Flash	4MB
RAM	1MB
Fonts	
ASCII International, PC Line Draw, and Various Resident Fonts. Available Resident Fonts Include: Simplified & Traditional, Chinese, Hebrew, Arabic, Polish, Greek, Cyrillic	
Warranty*	
Printer	1 year (including platen roller and installed options)
Printhead	1 year or 1,000,000 inches whichever comes first
Options	
802.11b/g	✓
Magnetic Card Reader	✓
Chargers/Serial Cables	✓
User Interfaces	
Charger Indicator	External
Wireless Connection Indicator	External
Media Error Indicator	External
Agency Approvals	
Contact sales representative for the most current approval list	
Packaging	
The Apex 2 comes complete with (1) battery, (1) roll of media, (1) belt strap and (1) AC adaptor.	

* when used with approved supplies

Datamax-O'Neil Apex 2 vs. Zebra EM220

- The Apex 2 offers Bluetooth communication as standard whereas Bluetooth is an option on the EM220. In lieu of Bluetooth, optional 802.11 is available. The EM220 does not offer 802.11.
- With its larger media capacity, the Apex 2 can print 30% more than the EM220.
- The Apex 2 offers a 1 year warranty on the printhead. That is double what Zebra offers.

Summary:

The Apex 2 has more communication options and is designed to fit a larger paper roll. The larger paper rolls allows for more receipts to be printed between paper roll replacements. The Apex 2 offers Datamax-O'Neil's legendary reliability. It's one year warranty includes the printhead and our technical and support team are also on hand to help you with any questions you may have.

Apex 2

*Zebra EM220 is an OEM of the Bixolon SPP-R200

Physical		
Dimensions	5.4" H x 4.1" W x 2.4" D (135 x 103 x 60 mm)	5.0" H x 3.13" W x 1.72" D (127 x 79.5 x 43.7 mm)
Weight (with battery & paper roll)	18.7 oz (530g)	10.4 oz (294g)
Drop Specification	4 ft (1.2 m)	4 ft (1.2 m)
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	14º to 122º (-10º to50º C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	14º to 122º (-10º to50º C)
Charging Temperature	32° to 122°F (0° to 50°C)	(n/a)
Relative Humidity	up to 85% non-condensing	20- 70% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	RS232 Standard	USB 2.0 (Standard)
IrDA	(n/a)	(n/a)
802.11.11 b/g	Optional	(n/a)
Bluetooth (version 2.0)	Standard	Optional
Print Technology		
Printhead	Direct Thermal, 203 dpi (8 dots per mm)	Direct thermal, 203 dpi (8 dots per mm),
Print Width	1.89" (48mm)	2.28" (58mm)
Print Mechanism Speed	2" (51mm) per second	3.15" (80mm) per second
Media Specifications		
Type Direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Direct thermal receipt paper
Capacity	636 in (16.1m) [1.50" (38.1mm) maximum roll diameter]	480 in (12.2 m) [1.57" (40 mm) max roll diameter]
Core I.D.	0.4" (10.16mm)	0.69" (17.5 mm)
Width	2.24" (57mm)	2.28" (58mm)
Battery		
Type	Lithium Ion	Lithium Ion
Capacity	7.2V, 2200mAh	7.4V, 1200 mAh
Life	300 cycles rechargeable	Not published
On printer charging	Yes	Yes
Recharge time	3 hours	2.5 hours
User Interface		
Charge Indicator	Standard	Standard
Wireless Connection Indicator	Standard	Standard
Media Error indicator	Standard	Standard
Audio indicator	(n/a)	(n/a)
LCD	(n/a)	(n/a)
Memory		
Flash/RAM	4MB Flash/ 1MB RAM	2 MB Flash/ 8 MB RAM
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	Alphanumeric: 95, International: 32
Warranty		
Printer/ Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 6 months
Options		
Bluetooth (version 2.0)	✓	✓
Magnetic Card Reader	✓	✓
802.11 b/g	✓	Not available
Chargers, serial cables	✓	✓

Datamax-O'Neil Apex 2 vs. Zebra MZ220

- The Apex 2 offers a wider range of communication options. Bluetooth is a standard communication and 802.11 is available as an option in lieu of Bluetooth. Bluetooth is an option and 802.11 is not available on the MZ220. The Apex 2 offers an optional integrated magnetic card reader. Magnetic card reader is not available on the MZ220
- The Apex 2 battery is a 2200mAh Li-Ion Battery compared to the MZ220's 1500mAh. The higher battery capacity means more receipts per battery charge.
- Print speed of the Apex 2 and the MZ220 are comparable when you incorporate the communication time for total time to print of a receipt.
- Certified by an IEC certified lab for temperature, humidity, shock, vibration and multiple drops to steel, the Apex 2 is a sturdier printer. The MZ packaging warns: "Fragile" and "Keep Dry"

Summary:

The Apex 2 offers a broader range of options for mobile printing application than the MZ220. The Apex 2 offers optional card reader, wider receipt paper, and a longer battery life. With its sturdier design and Datamax-O'Neil's legendary reliability, trouble-free performance and satisfied customers are assured.

Apex 2

Zebra MZ220

Physical		
Dimensions	5.4" H x 4.1" W x 2.4" D (135 x 103 x 60 mm)	3.2" W x 5.3" H x 2.3" D (81.3 x 134.6 x 58.4 mm)
Weight (with battery & paper roll)	18.7 oz (530g)	11.2 oz (320g)
Drop Specification	4 ft (1.2 m)	4 ft (1.2 m)
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	14° to 122° (-10° to50° C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	-4° to140°F (-20° to 60°C)
Charging Temperature	32° to 122°F (0° to 50°C)	-32° to 104°F (-0° to 40°C)
Relative Humidity	up to 85% non-condensing	10-90% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	RS232 Standard	USB 2.0 (Standard)
IrDA	(n/a)	Standard
802.11 b/g	Optional	Optional
Bluetooth (version 2.0)	Standard	Optional
Print Technology		
Printhead	Direct Thermal, 203 dpi (8 dots per mm)	Direct Thermal, 203 dpi (8 dots per mm)
Print Width	1.89" (48mm)	1.9" (48 mm)
Print Mechanism Speed	2" (51mm) per second	3" (76 mm) per second
Media Specifications		
Type Direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Direct thermal receipt paper or UV coated media
Capacity	636 in (16.1m) [1.50" (38.1mm) maximum roll diameter]	960 in (24m) [1.88" (47.8 mm) maximum roll diameter]
Core I.D.	0.4" (10.16mm)	0.4" to 0.75" (10 to19 mm)
Width	2.24" (57mm)	2.0" (50.8mm)
Battery		
Type	Lithium Ion	Lithium Ion
Capacity	7.2V, 2200mAh	7.2 V, 1500 mAh
Life	300 cycles rechargeable	250 cycles rechargeable
On printer charging	Yes	Yes
Recharge time	3 hours	3 hours
User Interface		
Charge Indicator	Standard	Standard
Wireless Connection Indicator	Standard	Standard
Media Error indicator	Standard	Not published
Audio indicator	(n/a)	Not published
LCD	(n/a)	(n/a)
Memory		
Flash/RAM	4MB Flash/ 1MB RAM	4 MB Flash/ 8 MB RAM
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	1 scalable, 25 bit bitmapped
Warranty		
Printer/ Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 6 months
Options		
Bluetooth (version 2.0)	✓	✓
Magnetic Card Reader	✓	Not available
802.11 b/g	✓	✓
Chargers, serial cables	✓	✓

Datamax-O'Neil Apex 2 vs. Intermec PB21

- The Apex 2 is smaller and lighter weight than the Intermec PB21.
- The Apex 2 comes standard with Bluetooth where as Bluetooth is an option with the Intermec PB21.
- The Apex 2 has a wider print width so the receipt is better presented.
- The Intermec PB21 offers a 90 day warranty on the printhead. The Apex 2 offers a one year warranty on its printhead.
- The Apex 2 is easy to use. With its 3 easily seen LED lights, you can get a quickly visual of battery and communication status. With the Intermec PB2, the LCD screen must be read for user information.

Summary:
The Apex 2 is more comfortable and lighter to carry during a normal shift. The Apex 2 comes standard with all that you will need to get the printer ready; battery, Bluetooth communication, RS232, belt loop and sample roll of paper. Easy to see LED lights let you get a quick status on the printer rather than stopping to read the LCD screen. With Datamax-O'Neil's legendary reliability and a warranty that includes the printhead, you can be assured that the printer will keep up the user during a long shift.

Datamax-O'Neil Apex 2

Intermec PB21

Physical		
Dimensions	5.4" H x 4.1" W x 2.4" D (135 x 103 x 60 mm)	6.9" H x 4" W x 2.8" D (175.3 x 101.6 x 71.1 mm)
Weight (with battery & paper roll)	18.7 oz (530g)	23.9oz (678 g) w/ battery only
Drop Specification	4 ft (1.2 m)	6.5Ft (2m)
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	5° to 122°F (-15° to 50°C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	22° to 158°F (-30° to 70°C)
Charging Temperature	32° to 122°F (0° to 50°C)	32° to 113°F (-0° to 45°C)
Relative Humidity	up to 85% non-condensing	10-90% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	RS232 Standard	RS232 & USB 2.0 (Standard)
IrDA	Not available	Not available
802.11 b/g	Optional	Optional
Bluetooth (version 2.0)	Standard	Optional
Remote Management	(n/a)	Yes
Print Technology		
Printhead	Direct Thermal, 203 dpi (8 dots per mm)	Direct Thermal, 203 dpi (8 dots/mm)
Print Width	1.89" (48mm)	1.8" (48mm)
Print Mechanism Speed	2" (51mm) per second	4" (101mm) per second
Media Specifications		
Type Direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Direct Thermal Receipt, top coated and uncoated paper in continuous roll stock
Capacity	636 in (16.1m) [1.50" (38.1mm) maximum roll diameter]	2.25" (57mm) maximum roll diameter
Core I.D.	0.4" (10.16mm)	0.75" (19mm)
Width	2.24" (57mm)	2.25" (58mm)
Battery		
Type	Lithium Ion	Lithium Ion
Capacity	7.2V, 2200mAh	7.2V, 2250mAh
Life	300 cycles rechargeable	Not published
On printer charging	Yes	Yes
Recharge time	3 hours	3 hours (in printer); 4 hours (4-Bay charger)
User Interface		
Charge Indicator	Standard	(n/a)
Wireless Connection Indicator	Standard	(n/a)
Media Error indicator	Standard	Standard
Audio indicator	(n/a)	Standard
LCD	(n/a)	Standard
Memory		
Flash/RAM	4MB Flash/ 1MB RAM	64MB Flash/ 16MB
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	English and Latin
Warranty		
Printer/ Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 90 days
Options		
Bluetooth (version 2.0)	✓	✓
Magnetic Card Reader	✓	✓
Smart Card Reader	Not available	✓
802.11 b/g	✓	✓
Chargers, serial cables	✓	✓

A reliable printer like the Apex 2 deserves the most reliable printer supplies. When you choose Datamax-O'Neil, you receive our proven commitment to quality. Quality that results in performance and compatibility – guaranteed! Our seven grades of paper are specifically designed for your Apex 2 printer. They are designed to support most thermal applications and can dramatically extend the life of its thermal print head.

1. **Standard** – General purpose material grade offering clean, crisp dark images
2. **Premium** – Higher sensitivity that is ideal for barcode applications and printouts
3. **Heavy-Duty** – thicker grade for durability
4. **Long Life** – Image life is guaranteed to last 25 years (achievability)
5. **Image Protect** – Top coated paper grade to withstand abrasion
6. **Hi-Temp** – Paper grade is specifically designed to withstand high temperatures
7. **All Weather** – Film based grade that is water resistant with maximum strength and durability for any outdoor environment.

datamax•o'neil CERTIFIED SUPPLIES — Direct Thermal Receipt Paper

Part Number	Description	Media Width	OD	Core Size	Length (ft.)	Rolls/Carton
740851-101	Standard	2.25"	1.50"	0.4"	53	100
740851-102	Premium	2.25"	1.50"	0.4"	50	100
740851-103	Heavy Duty	2.25"	1.50"	0.4"	36	100
740851-104	Long Life	2.25"	1.50"	0.4"	53	100
740851-105	**Image Protect**	2.25"	1.50"	0.4"	36	100
740851-106	**Hi Temp**	2.25"	1.50"	0.4"	36	100
TBD	**All Weather**	**Available as a custom product**				

Datamax-O'Neil printers are counted on to print everything from customer receipts to full-blown schematics in environments where it can get clogged with dirt and/or dust. To ensure optimum printer performance and print quality, we recommend a regular cleaning schedule using our cleaning cards for the Apex 2 (#770183-200). Datamax-O'Neil cleaning products will:

• Remove dirt and other contaminates that can cause jams and led to printer component damage.
• Extend the life of the thermal printhead and rollers
• Keep your printed image looking clean and crisp
• Cleans printhead, paper guides and paper path

Regular cleaning with Datamax-O'Neil Certified Supplies can significantly extend printhead life and extend the life of your printer.

For more information, visit our website at www.datamax-oneil.com/supplies.

The Datamax-O'Neil Apex 3 offers a solution to demands for an affordable, light weight and compact three-inch receipt printer without compromising on quality and reliability. The Apex 3 prints a receipt of up to 3.14" wide and has the key features and functions required to meet the expanding requirements associated with retail, hospitality, law enforcement, car rental and field service applications.

The Apex 3 preserves Datamax-O'Neil's renowned reliability standards and commitment to providing the mobile worker what is needed to get the job done during a long and busy shift. Recognizing the importance of Bluetooth communication as a necessity in today's mobile world, the Apex 3 comes standard with Bluetooth V2.0 communication for wireless personal area networking (WPAN). 802.11b/g for wireless local area connection (WLAN) is available as an option in place of Bluetooth. An optional 3-track magnetic card reader allow for easy credit card payments. A powerful Arm-7, 32-bit processor allows for fast printing, high quality receipts and ample Flash and SRAM memory that is under direct user control allows the user to store logos, fonts, graphics and barcodes for fast adaptability to changing business requirements.

Lightweight and small enough to carry through a complete shift, the Apex 3 can be worn on a belt strap or optional belt strap without feeling cumbersome. Easy to use with its simple paper loading system and high capacity battery that lasts through a 12 hour shift, the Apex 3 will keep up with the mobile worker during a busy shift while keeping your costs at bay.

Mobile Point-of-Sale/Retail
The Apex 3 is ideal for mobile point-of-sale and line/queue-busting where it can print receipts and process payments with its integrated magnetic strip card reader.

Hospitality
Eliminate long lines and improve your customer service with mobile check-in and check-out. Quickly take payment and issue receipt on the spot; perfect for order-taking tableside.

Transportation
Create and issue boarding passes as well as passenger check-in anywhere it's needed. Take payment and issue receipts during in-flight meal service and shopping.

Law Enforcement
Create and issue tickets on the spot. With the Apex 3's optional integrated 3-track magnetic strip card reader, motorists can even quickly pay fines at the time of issue.

Field Sales and Service
Prevent driver delays and improve efficiency and customer service with the Apex 3's mobile receipt printing and transaction processing capabilities.

Traditional Applications
While not offering the ultra-rugged performance of the microFlash line of printers or the capability of printing label, hang tags, complicated symbologies or graphics of the OC family of printers, the Apex 3 is ideal for applications where small, light weight, fast and easy to use printers are needed.

Benefits in Using the Apex 3
The Apex 3 prints a traditional 3-inch receipt that is typically in most Point of Sale receipts. The Apex 3's wider receipt, in comparison to the Apex 2's 2-inch receipt, allows for a better organized receipt presentation and will allow more room for company logos when compared to smaller 2" printers.

Front View
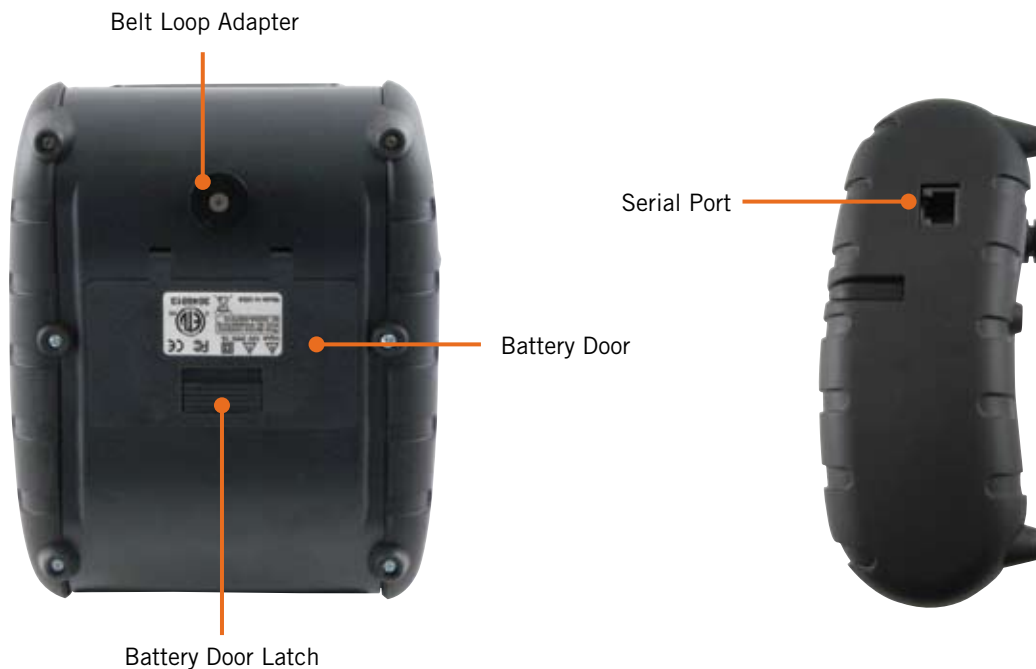
LED Indicators

Magnetic Card Reader
(Optional)

Paper Door Pull Lever

Side Views

On/Off Button

Paper Feed Button

AC Adapter Port

Back View

Belt Loop Adapter

Battery Door

Battery Door Latch

Serial Port

Internal View

Paper Compartment

Platen Roller

Tear Bar

Physical	
Dimensions	6.1" H x 5.0" W x 2.3" D 156 x 127 x 58 mm
Weight (w/battery)	18.5 oz (0.524kg)
Weight	
(w/battery and paper roll)	26.5 oz (0.751kg)
User Environment	
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Charging Temperature	41°F to 104°F (5°C to 40°C)
Relative Humidity	10% RH to 85% RH non-condensing
ESD Protection	8KV air gap, 4kV contact
Communications	
Serial	Standard RS232
Bluetooth	Standard (V2.0)
802.11	Option 802.11b/g
Print Technology	
Printhead	Direct Thermal, 203 dots per inch (8 dots per second
Print Width	2.83" (72mm)
Print Mechanism Speed	2 inches per second (51mm per second)
Media Specifications	
Type	Direct Thermal receipt paper: Standard, premium, heavy duty, long life, image protect, hi-temp, all weather
Capacity	1.37" (34.9mm) maximum roll O.D.
Width	3.14" (80mm)
Media Thickness	0.002" to 0.004" (0.05mm to 0.10mm)

Battery	
Type	Lithium Ion
Capacity	7.4 V, 2200 mAh
Endurance	Prints approx. 1,580 - 6" long receipts on a single battery charge
On Printer Charging	External Charge Port
Recharge Time	180 minutes
Memory	
Flash	4MB
RAM	1MB

Fonts
ASCII International, PC Line Draw, and Various Resident Fonts. Available Resident Fonts Include: Simplified & Traditional, Chinese, Hebrew, Arabic, Polish, Greek, Cyrillic

Warranty*	
Printer	1 year (including platen roller and installed options)
Printhead	1 year or 1,000,000 inches whichever comes first

Options	
802.11b/g	✓
Magnetic Card Reader	✓
Chargers/Serial Cables	✓

User Interfaces	
Charger Indicator	External
Wireless Connection Indicator	External
Media Error Indicator	External

Agency Approvals
Contact sales representative for the most current approval list

Packaging
The Apex 3 comes complete with (1) battery, (1) roll of media, (1) belt strap and (1) AC adaptor.

* when used with approved supplies

Datamax-O'Neil Apex 3 vs. Zebra MZ320

- The Apex 3 has more options. It includes Bluetooth as standard and has a larger range of communications options. Bluetooth is an option on the MZ320 and 802.11 is not available. A magnetic card reader is not available for MZ320. The Apex 3 has an optional 3-track magnetic card reader integrated into the printer.
- The Apex 3 battery is a 2200mAh Li-Ion Battery compared to the MZ320's 1500mAh. The higher battery capacity means more receipts per battery charge. Battery replacement is also less time consuming on the Apex 3 than on the Zebra MZ320. Simply open the battery compartment and replace the battery. On the MZ320, the battery compartment needs to be unlocked and the battery disconnected from the printer before placing a new battery in the printer.
- Certified by an IEC certified lab for temperature, humidity, shock, vibration and multiple drops to steel, the Apex 3 is a sturdier printer. The MZ packaging warns: "Fragile" and "Keep Dry"

Summary:

The Apex 3 is more comfortable and lighter to carry during a normal shift. The Apex3 comes standard with all that you will need to get the printer ready; battery, Bluetooth communication, RS232, belt loop and sample roll of paper. Easy to see LED lights let you get a quick status on the printer rather than stopping to read the LCD screen. With Datamax-O'Neil's legendary reliability and a warranty that includes the printhead, you can be assured that the printer will keep up the user during a long shift.

Datamax-O'Neil Apex 3

Zebra MZ320

Physical		
Dimensions	6.1" H x 5.0" W x 2.3" D (156 x 127 x 58 mm)	5.3" H x 4.1" W x 2.3" D (134.6 x 104.1 x 58.4 mm)
Weight (with battery only)	18.5 oz (524g)	12 oz (340g)
Drop Specification	4 ft (1.2 m)	4 ft (1.2 m)
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	14° to 122° (-10° to50° C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	-4° to140°F (-20° to 60°C)
Charging Temperature	32° to 122°F (0° to 50°C)	-32° to 104°F (-0° to 40°C)
Relative Humidity	up to 85% non-condensing	10-90% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	RS232 Standard (460.8 kbps)	USB 2.0
IrDA	(n/a)	Standard
802.11 b/g	Optional	Optional
Bluetooth (version 2.0)	Standard	Optional
Print Technology		
Printhead	Direct thermal, 203 dpi (8 dots per mm)	Direct thermal, 203 dpi (8 dots per mm)
Print Width	2.83" (72 mm)	2.9" (74 mm) max print width
Print Mechanism Speed	2" (51mm) per second	Up to 3" (76.2mm) per second
Media Specifications		
Type direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Direct thermal receipt paper or UV coated media
Capacity	516 in (13.1m) [1.37" (34.9mm) maximum roll diameter]	960 in (24m) [1.88" (47.8 mm) maximum roll diameter]
Core I.D.	0.4" (10.16mm)	0.4" to 0.75" (10 to19 mm)
Width	3.14" (80mm)	3.0" (76.2mm)
Battery		
Type	Lithium - Ion	Lithium Ion
Capacity	7.2V, 2200 mAh	7.2 V, 1500 mAh
Life	300 Cycles	250 Cycles
On printer charging	Yes	Yes
Recharge time	3 hours	3 hours
User Interface		
Charge Indicator	Standard	Standard
Wireless Connection Indicator	Standard	Standard
Media Error indicator	Standard	Standard
Audio indicator	Not available	Not available
LCD	Not available	Not available
Memory		
Flash	4 MB Flash/ 1 MB RAM	4 MB Flash/ 8 MB RAM
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	25 bitmapped, 1 scalable
Warranty		
Printer/ Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 6 months
Options		
Bluetooth (version 2.0)	✓ (Standard with printer)	✓
Magnetic Card Reader	✓	Not available
802.11 b/g	✓	✓
Chargers, serial cables	✓	✓

Datamax-O'Neil Apex 3 vs. Intermec PB31

- The Apex 3 is smaller and lighter weight that the PB31 making it easier to wear on a belt loop or shoulder strap.
- The Apex 3 comes standard with Bluetooth where as Bluetooth is an option with the Intermec PB31.
- The Intermec PB31 offers a 90 day warranty on the printhead. The Apex 3 one year warranty includes the printhead.
- The Apex 3 is easy to use. With its 3 easily seen LED lights, you can get a quickly visual of battery and communication status. With the Intermec PB31, the LCD screen must be read for user information.

Summary:

The Apex 3 is more comfortable and lighter to carry during a normal shift. The Apex 3 comes standard with all that you will need to get the printer ready; battery, Bluetooth communication, RS232, belt loop and sample roll of paper. Easy to see LED lights let you get a quick status on the printer rather than stopping to read the LCD screen. With Datamax-O'Neil's legendary reliability and a warranty that includes the printhead, you can be assured that the printer will keep up the user during a long shift.

Datamax-O'Neil Apex 3

Intermec PB31

Physical		
Dimensions	6.1" H x 5.0" W x 2.3" D (156 x 127 x 58 mm)	7.2" H x 5.0" W x 3.2" D (182.9 x 127 x 81.3 mm)
Weight (with battery only)	18.5 oz (524g)	29.2oz (828g)
Drop Specification	4 ft (1.2 m)	5 ft (1.5 m)
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	5° to 122°F (-15° to 50°C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	22° to 158°F (-30° to 70°C)
Charging Temperature	32° to 122°F (0° to 50°C)	32° to 113°F (-0° to 45°C)
Relative Humidity	up to 85% non-condensing	10-90% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	RS232 Standard (460.8 kbps)	USB 2.0
IrDA	(n/a)	Standard
802.11 b/g	Optional	Optional
Bluetooth (version 2.0)	Standard	Optional
Print Technology		
Printhead	Direct thermal, 203 dpi (8 dots per mm)	Direct Thermal, 203 dpi (8 dots/mm)
Print Width	2.83" (72 mm)	2.8" (72mm) max print width
Print Mechanism Speed	2" (51mm) per second	4" (101mm) per second
Media Specifications		
Type Direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Direct Thermal Receipt, top coated and uncoated paper in continuous roll stock
Capacity	516 in (13.1m) [1.37" (34.9mm) maximum roll diameter]	[2.6" (67.31mm) maximum roll diameter]
ID Core	0.4" (10.16mm)	0.75" (19mm) I.D
Width	3.14" (80mm)	3.3" (83.8mm)
Battery		
Type	Lithium - Ion	Lithium Ion
Capacity	7.2V, 2200 mAh	7.2V, 2250mAh
Life	300 Cycles	(n/a)
On printer charging	Yes	Yes
Recharge time	3 hours	3 hours (in printer); 4 hours (4-Bay charger)
User Interface		
Charge Indicator	Standard	(n/a)
Wireless Connection Indicator	Standard	(n/a)
Media Error indicator	Standard	Standard
Audio indicator	Not available	Standard
LCD	Not available	Standard
Memory		
Flash	4 MB Flash/ 1 MB RAM	4 MB Flash/ 8 MB RAM
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	English and Latin
Warranty		
Printer/ Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 90 days
Options		
Bluetooth (version 2.0)	✓ (Standard with printer)	✓
Magnetic Card Reader	✓	✓
Smart Card Reader	Not available	✓
802.11 b/g	✓	✓
Chargers, serial cables	✓	✓

A reliable printer like the Apex 3 deserves the most reliable printer supplies. When you choose Datamax-O'Neil, you receive our proven commitment to quality. Quality that results in performance and compatibility – guaranteed! Our seven grades of paper are specifically designed for your Apex 3 printer. They are designed to support most thermal applications and can dramatically extend the life of its thermal print head.

1. **Standard** – General purpose material grade offering clean, crisp dark images
2. **Premium** – Higher sensitivity that is ideal for barcode applications and printouts
3. **Heavy-Duty** – thicker grade for durability
4. **Long Life** – Image life is guaranteed to last 25 years (achievability)
5. **Image Protect** – Top coated paper grade to withstand abrasion
6. **Hi-Temp** – Paper grade is specifically designed to withstand high temperatures
7. **All Weather** – Film based grade that is water resistant with maximum strength and durability for any outdoor environment.

datamax·o'neil CERTIFIED SUPPLIES Direct Thermal Receipt Paper

Part Number	Description	Media Width	OD	Core Size	Length (ft.)	Rolls/Carton
740852-101	Standard	3.125"	1.375"	0.4"	43	50
740852-102	Premium	3.125"	1.375"	0.4"	40	50
740852-103	Heavy Duty	3.125"	1.375"	0.4"	29	50
740852-104	Long Life	3.125"	1.375"	0.4"	42	50
740852-105	**Image Protect**	3.125"	1.375"	0.4"	29	50
740852-106	**Hi Temp**	3.125"	1.375"	0.4"	29	50
TBD	**All Weather**	**Available as a custom product**				

Datamax-O'Neil printers are counted on to print everything from customer receipts to full-blown schematics in environments where it can get clogged with dirt and/or dust. To ensure optimum printer performance and print quality, we recommend a regular cleaning schedule using our cleaning cards for the Apex 3 (#770184-200). Datamax-O'Neil cleaning products will:

• Remove dirt and other contaminates that can cause jams and led to printer component damage.
• Extend the life of the thermal printhead and rollers
• Keep your printed image looking clean and crisp
• Cleans printhead, paper guides and paper path

Regular cleaning with Datamax-O'Neil Certified Supplies can significantly extend printhead life and extend the life of your printer.

For more information, visit our website at www.datamax-oneil.com/supplies.

The Datamax-O'Neil Apex 4 is a light weight and compact 4" printer that prints a crisp, clean receipt, proof of delivery, ticket or invoice of up to 4.37" at an affordable price to keep within today's tight budgets. The Apex 4 is an alternative to the heavyweight products that may be "over the top" for your needs without compromising on quality and durability. Tough enough to handle the jolts and hits expected during a long and busy shift, the Apex 4 is also light enough to wear comfortably throughout the work day. With simple to use features and a long lasting high capacity lithium-Ion battery, the Apex 4 has all the features and functions needed to handle the expanding requirements for retail, hospitality, car rental, law enforcement and field service and sales applications.

The Apex 4 comes standard with USB and Bluetooth V2.0 wireless communication. 802.11b.g for wireless local area connection (WLAN) is available as an option in place of Bluetooth. An optional 3-track magnetic card reader allows for easy credit card payments. A powerful Arm-7, 32-bit processor allows for fast printing, high quality receipts and ample Flash and SRAM memory that is under direct user control allows the user to store logos, fonts, graphics and barcodes for fast adaptability to changing business requirements.

The Apex 4 comes packaged complete with the accessories and consumables needed to start printing right out of the box; battery, Universal, AC, Adaptor, roll of paper and shoulder strap. With all the "extras" you need and the legendary Datamax-O'Neil reliability and commitment to customer service, the Apex 4 is the logical and economical choice for a lightweight, compact 4" receipt printer to get the job done.

Mobile Point-of-Sale/Retail
The Apex 4 is ideal for mobile point-of-sale and line/queue-busting where it can print receipts and process payments with its integrated magnetic strip card reader.

Direct Store Delivery/Route Accounting
Quickly and easily capture sales and payments while providing crisp and clean receipts at the time of purchase or delivery.

Field Sales and Service
Prevent driver delays and improve efficiency and customer service with the Apex 4's mobile receipt/invoice printing and transaction processing capabilities.

Traditional Applications
While not offering the ultra-rugged performance of the microFlash line of printers or the capability of printing label, hang tags, complicated symbologies or graphics of the OC family of printers, the Apex 4 is ideal for applications where compact, light weight, fast and easy to use printers are needed.

Benefits in Using the Apex 4
With its wide 4" receipt, the Apex 4 printer is best suited for applications where a large amount of information is going to be printed. Typically, the Apex is appealing when the user wants to print invoices or present and organize the information in the most organized manner. The 80 column output of the Apex 4 is capable of printing out full invoices that are much more readable than on a 3" printer. Using the Apex 4, company logos and graphics are displayed more prominently allowing the brand name or company image on the receipt to become a focal point. A 4" receipt also allows printing of upcoming events or specials and/or coupons on the receipt without condensing or diluting the message to fit a smaller format portable printer.

Apex 4 Printer Tour ▪ ▪ ▪

Front View

LED Indicators

Magnetic Card Reader
(Optional)

Paper Door
Release Button

Side Views

On/Off Button

Paper Feed Button

AC Adapter Port

Back View

Belt Loop Adapter

Battery Door

Battery Door Latch

Serial Port

Internal View

Paper Compartment

Platen Roller   Tear Bar

Physical	
Dimensions	7.5" H x 6.5" W x 2.5" D 191 x 166 x 63mm
Weight (w/battery)	26.5 oz (0.751kg)
Weight	
(w/battery and paper roll)	36.1 oz (1.023kg)
User Environment	
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Charging Temperature	41°F to 104°F (5°C to 40°C)
Relative Humidity	10% RH to 85% RH non-condensing
ESD Protection	8KV air gap, 4kV contact
Communications	
USB	Standard USB 2.0
Bluetooth	Standard (V2.0)
802.11	Option 802.11b/g
Print Technology	
Printhead	Direct Thermal, 203 dots per inch (8 dots per second)
Print Width	4.10" (104mm)
Print Mechanism Speed	3 inches per second (76mm per second)
Media Specifications	
Type	Direct Thermal receipt paper: Standard, premium, heavy duty, long life, image protect, hi-temp, all weather
Capacity	2.00" (50.8mm) maximum roll O.D.
Width	4.37" (111mm)
Media Thickness	0.002" to 0.004" (0.05mm to 0.10mm)

Battery	
Type	Lithium Ion
Capacity	7.4 V, 2200 mAh
Endurance	Prints approx. 986 - 6" long receipts on a single battery charge
On Printer Charging	External Charge Port
Recharge Time	180 minutes
Memory	
Flash	4MB
RAM	2MB
Fonts	
ASCII International, PC Line Draw, and Various Resident Fonts. Available Resident Fonts Include: Simplified & Traditional, Chinese, Hebrew, Arabic, Polish, Greek, Cyrillic	
Warranty*	
Printer	1 year (including platen roller and installed options)
Printhead	1 year or 1,000,000 inches whichever comes first
Options	
802.11b/g	✓
Magnetic Card Reader	✓
Chargers/Serial Cables	✓
User Interfaces	
Charger Indicator	External
Wireless Connection Indicator	External
Media Error Indicator	External
Agency Approvals	
Contact sales representative for the most current approval list	
Packaging	
The Apex 4 comes complete with (1) battery, (1) roll of media, (1) shoulder strap and (1) AC adaptor.	

* when used with approved supplies

Datamax-O'Neil Apex 4 vs. Citizen PD24

- The Apex 4 has more options. It includes Bluetooth 2.0 as standard and has a larger range of communications options. Bluetooth 1.2 is an option on the PD24 and 802.11 b/g is not available. A magnetic card reader is not available for PD24 while the Apex 4 has an optional 3-track magnetic card reader integrated into the printer.
- The Apex 4 has a 3ips print speed versus the Citizen PD24 which has a 2ips print speed.
- The Apex 4 has a large memory capacity.
- Battery re-charging is faster on the Apex 4 at 3 hours versus almost five hours for the PD24.
- The Apex 4 is a sturdier printer. Certified by an IEC certified lab for temperature, humidity, shock, vibration and multiple drops to steel.

Summary:

The Apex 4 comes standard with all that you will need to start printing; battery, Bluetooth communication, USB, belt loop and sample roll of paper. Optional 802.11 b/g and magnetic cad reader allow for use in any application. Its ample memory allows the user to store extra fonts, logos, and graphics to easily adapt to changing business requirements. With Datamax-O'Neil's legendary reliability and its durable design, the user can be assured of trouble free printing and a printer that will keep up during a long shift.

Datamax-O'Neil
Apex 4

Citizen PD24

Physical		
Dimensions	7.5" H x 6.5" W x 2.5" D (191 x 166 x 63mm)	5.7" W x 5.51" D x 2.5" H (147 x 140 x 63mm)
Weight (with battery only)	26.5 oz (751g)	1.18 lbs (540g)
Drop Specification	4 ft (1.2 m)	Not published
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	(-10° to 50°C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	(-25° to 60°C)
Charging Temperature	32° to 122°F (0° to 50°C)	(n/a)
Relative Humidity	up to 85% non-condensing	30% to 90% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	USB 2.0	RS232C / USB
IrDA	Not available	Available
802.11 b/g	Optional	Not available
Bluetooth	Standard (version 2.0)	Optional (version 1.2)
Print Technology		
Printhead	Direct Thermal, 203 dpi (8 dots per mm)	Direct Thermal, 203 dpi (8 dots per mm)
Print Width	4.10" (104mm)	4.1" (104mm)
Print Mechanism Speed	3" (76 mm) per second	2" (51mm) per second
Media Specifications		
Type Direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Direct thermal receipt paper
Capacity	1,680 in (43m) [2.00" (50.8 mm) maximum roll diameter]	25,000 lines [(1.97" (50mm) maximum roll diameter]
ID Core	0.4" (10.16 mm)	0.32-0.33 in (8.0 to 8.5 mm)
Width	4.37" (111 mm)	4.38" (112 mm)
Battery		
Type	Lithium Ion	Lithium-Ion
Capacity	7.2V, 2200mAh	7.2V, 2000 mAh
Life	300 cycles rechargeable	Not published
On printer charging	Yes	Yes
Recharge time	3 hours	4.5 hours
User Interface		
Charge Indicator	Standard	Standard
Wireless Connection Indicator	Standard	Standard
Media Error indicator	Standard	Standard
Audio indicator	(n/a)	(n/a)
LCD	(n/a)	(n/a)
Memory		
Flash/ RAM	4 MB Flash/ 2 MB RAM	64 kb buffer
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	Standard: Times New Roman, Sans Serif, Courier, Prestige, Script
Warranty		
Printer/Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 1 year
Options		
Bluetooth	✓ Version 2.0 (Standard with printer)	✓ Version 1.2
Magnetic Card Reader	✓	Not available
802.11 b/g	✓	Not available
Chargers, serial cables	✓	✓

Datamax-O'Neil Apex 4 vs. Intermec PB42

- The Apex 4 is smaller and lighter weight that the PB42 making it easier to wear on a belt loop or shoulder strap.
- The Apex 4 comes standard with Bluetooth where as Bluetooth is an option with the Intermec PB42.
- The Intermec PB42 offers a 90 day warranty on the printhead. The Apex 4 one year warranty includes the printhead.
- The Apex 4 is easy to use. With its 3 easily seen LED lights, you can get a quickly visual of battery and communication status. With the Intermec PB42, the LCD screen must be read for user information.

Summary:
The Apex 4 is more comfortable and lighter to carry during a normal shift. The Apex 4 comes standard with all that you will need to get started printing: battery, Bluetooth communication, USB, shoulder strap and sample roll of paper. Easy to see LED lights let you get a quick status on the printer rather than stopping to read the LCD screen. With Datamax-O'Neil's legendary reliability and a warranty that includes the printhead, you can be assured that the printer will keep up the user during a long shift.

Datamax-O'Neil Apex 4

Intermec PB42

Physical		
Dimensions	7.5" H x 6.5" W x 2.5" D (191 x 166 x 63mm)	7.1" H x 6.62" W x 3.1" D (180.3 x 168.2 x 78.7 mm)
Weight (with battery & paper)	36.1 oz (1.023kg)	48 oz (1.36 kg)
Drop Specification	4 ft (1.2 m)	4 ft (1.2 m)
User Environment		
Operating Temperature	14° to 122°F (-10° to 50°C)	-4° to122°F (-20° to 50°C)
Storage Temperature	-4° to 140°F (-20° to 60°C)	-22° to158°F (-30° to70°C)
Charging Temperature	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)
Relative Humidity	up to 85% non-condensing	10-90% non-condensing
ESD Protection	8 kV Air, 4 kV contact	(n/a)
Communications		
Serial	USB 2.0	USB 2.0 / RS232
IrDA	Not available	Not available
802.11 b/g	Optional	Optional
Bluetooth (version 2.0)	Standard	Standard
Print Technology		
Printhead	Direct Thermal, 203 dpi (8 dots per mm)	Direct Thermal, 203 dpi (8 dots per mm)
Print Width	4.10" (104mm)	4.1" (104mm)
Print Mechanism Speed	3" (76 mm) per second	2" (51mm) per second
Media Specifications		
Type Direct thermal receipt paper	Direct thermal receipt paper: Standard, Premium, heavy duty, long life, image protect, hi-temp, all weather	Receipt Paper
Capacity	1,680 in (43m) [2.00" (50.8 mm) maximum roll diameter]	[2.65" (67mm) roll diameter]
ID Core	0.4" (10.16 mm)	0.75" (19mm)
Width	4.37" (111 mm)	4.38" (112 mm)
Battery		
Type	Lithium Ion	Lithium Ion
Capacity	7.2V, 2200mAh	7.2V, 2400mAh (per battery, 2 batteries required)
Life	300 cycles rechargeable	Not published
On printer charging	Yes	Yes
Recharge time	3 hours	4 hours
User Interface		
Charge Indicator	Standard	Standard
Wireless Connection Indicator	Standard	Standard
Media Error indicator	Standard	Standard
Audio indicator	Not available	Yes
LCD	Not available	Not available
Memory		
Flash/ RAM	4 MB Flash/ 2 MB RAM	4 MB Flash/ 16MB RAM
Fonts		
	Resident bitmapped fonts from 12 to 24 cpi	40, 80 and 132 column, normal, bold
Warranty		
Printer/Printhead	1 year/ 1 year or 1million inches (whichever comes first)	1 year/ 3 months
Options		
Bluetooth (version 2.0)	✓ (Standard with printer)	Standard with printer (Optional BT for 100m)
Magnetic Card Reader	✓	Not available
802.11 b/g	✓	✓
Chargers, serial cables	✓	✓

A reliable printer like the Apex 4 deserves the most reliable printer supplies. When you choose Datamax-O'Neil, you receive our proven commitment to quality. Quality that results in performance and compatibility – guaranteed! Our seven grades of paper are specifically designed for your Apex 4 printer. They are designed to support most thermal applications and can dramatically extend the life of its thermal print head.

1. **Standard** – General purpose material grade offering clean, crisp dark images
2. **Premium** – Higher sensitivity that is ideal for barcode applications and printouts
3. **Heavy-Duty** – thicker grade for durability
4. **Long-Life** – Image life is guaranteed to last 25 years (achievability)
5. **Image Protect** – Top coated paper grade to withstand abrasion
6. **Hi-Temp** – Paper grade is specifically designed to withstand high temperatures
7. **All Weather** – Film based grade that is water resistant with maximum strength and durability for any outdoor environment.

datamax·o'neil
CERTIFIED SUPPLIES **Direct Thermal Receipt Paper**

Part Number	Description	Media Width	OD	Core Size	Length (ft.)	Rolls/Carton
740853-101	Standard	4.375"	2"	0.4"	104	50
740853-102	Premium	4.375"	2"	0.4"	97	50
740853-103	Heavy Duty	4.375"	2"	0.4"	71	50
740853-104	Long Life	4.375"	2"	0.4"	103	50
740853-105	**Image Protect**	4.375"	2"	0.4"	72	50
740853-106	**Hi Temp**	4.375"	2"	0.4"	72	50
TBD	**All Weather**	**Available as a custom product**				

Datamax-O'Neil printers are counted on to print everything from customer receipts to full-blown schematics in environments where it can get clogged with dirt and/or dust. To ensure optimum printer performance and print quality, we recommend a regular cleaning schedule using our cleaning cards for the Apex 4 (#770185-200). Datamax-O'Neil cleaning products will:

• Remove dirt and other contaminates that can cause jams and led to printer component damage.

• Extend the life of the thermal printhead and rollers

• Keep your printed image looking clean and crisp

• Cleans printhead, paper guides and paper path

Regular cleaning with Datamax-O'Neil Certified Supplies can significantly extend printhead life and extend the life of your printer.

For more information, visit our website at www.datamax-oneil.com/supplies.

Cassini Printer Configuration

Datamax-O'Neil offers the Cassini Configuration Utility to effortlessly configure your printer. Designed specifically for the Apex Series printers and the Andes 3 printer, the Cassini software program allows for configuring your printer through serial communication with your laptop or desktop computer. The Cassini software is organized into four menu tool bars that allow you to navigate through the software easily to setup the printer settings, supervisory commands, logos, Bluetooth and WLAN communication.

Cassini is compatible with Windows and communicates through Serial connection.
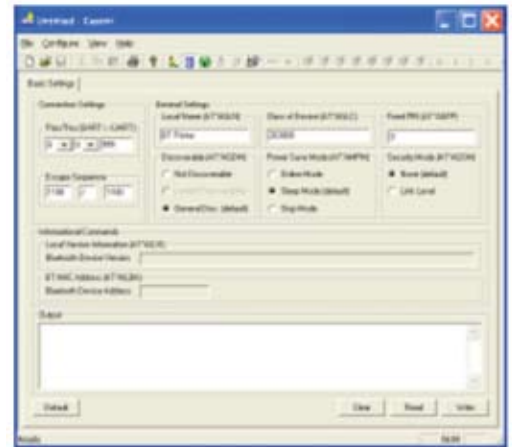
Form Fiesta

Form Fiesta is software utility for application developers that is included with the Apex 3 printers and Andes 3 printer. The easy to install Windows based utility allows users to design the layout of receipts and forms without the expense of using pre-printed forms. User friendly and easy to use, Form Fiesta provides a variety of design functions to prepare a visually pleasing and informative receipt or form that includes text, barcodes and tables. The intuitive tool bar lets the user choose from a variety of text options to change the style, size and position of the text. To ensure your receipt or form is machine readable, Form Fiesta offers a selection of linear barcodes types that can be inserted quickly and easily in any position.

As the form is created, the code is automatically generated. Once the design is completed, the receipt or form is saved like any other document; variable data can be embedded and the final code cut into the application. The total size of the code is only one-tenth of that required by a typical graphic based program ensuring fast printing – every time.

Sample Form Fiesta Receipt

Software Development Kits

Datamax-O'Neil offers Windows PrinterCE and Windows PrintCE.NETCF SDKs from Field Software for the Apex family of printer. For a limited time, Datamax-O'Neil is proving licenses for these valuable toolkits for the Apex printer family free of charge. These easy to use toolkits allow software developers to add powerful printing functionality to Windows Mobile Pocket PC and Windows CE applications without device contexts, bit-blitting and other complexities. PrinterCE SDK works with eVB and EVC (C/C++ and MFC) applications. PrinterCE.NetCF SDK works with C#, VB.Net and other .NETCF languages and supports VS2008, VS2005, VS2003, Compact Framework 3.X, 2.X, 1.X.

What is the Apex series?

The Apex printers are a series of light weight, small sized and affordable family of portable receipt printers. There are three models in the Apex family – Apex 2, Apex 3 and Apex 4 printers. The Apex portable printers deliver ease of use, fast printing and an economical price that meets today's tight budgets without sacrificing on quality and performance. What vertical markets are Apex printers typically found?

Apex printers have been very successful in mobile point of sale, hospitality, field service, law enforcement, utility and retail, but can be found in any application where portable, compact and light weight printers are required.

In what applications would the Apex series be most advantageous?

The Apex family of printers is ideal for invoicing, credit card receipts, route accounting and direct store delivery, ticketing and remote point of sale applications …and any application where an uncomplicated, quick and high quality receipt is needed.

What is the difference between the Apex printers?

The differences among the Apex printers are the size, standard communications and accessories that come with the printers. Please see chart below:

Printer	Receipt Width	Standard Communications	Memory	Accessories
Apex 2	2" (57mm)	RS232 & Bluetooth	4MB Flash/1MB SRAM	Universal AC Adaptor, Battery, Sample Media Roll, Belt Loop
Apex 3	3" (80mm)	RS232 & Bluetooth	4MB Flash/1MB SRAM	Universal AC Adaptor, Battery, Sample Media Roll, Belt Loop
Apex 4	4" (112mm)	USB & Bluetooth	4MB Flash/2MB SRAM	Universal AC Adaptor, Battery, Sample Media Roll, Shoulder Strap

How are the Apex printers different from the microFlash and OC printers?

The Apex, microFlash and OC printers offer different options depending on the project. The table below defines different customer needs and which printer should be considered:

Customer Need	Apex	OC	microFlash
Straight forward simple receipts	●	●	●
Complicated symbologies or graphics		●	●
Labels, Hang Tags, Shelf Tags		●	●
Light Weight		●	●
Ultra-Light weight	●		
Easy to Use	●	●	●
Ultra-Rugged			●
Economical	●		
Advanced Security Features (for 802.11 environment)		●	●
Linerless Label Printing			●
Fast Charging	●		

Will the Apex series print labels? What media size do they accommodate?
The Apex series is recommended for receipt printing. For label printing, we recommend the Datamax-O'Neil LP3 or OC3 portable label printer. Datamax-O'Neil offers the widest variety of receipt media for portable printing applications. Please check www.datamax-oneil.com/do/com/en-us/home/supplies/portable-printer-supplies for more details on our media supplies.

What is the warranty on the Apex family of printers?
The Apex series come with a one year warranty that includes the printer and printhead when used with approved media grades. Datamax-O'Neil also has the most attractively priced Comprehensive Extended Warranty programs of any manufacturer. For more information, please contact your sales manager.

What are the connectivity options for the Apex printer family?
The Apex printers come standard with Bluetooth and RS232 (Apex 2 & 3) and USB (Apex 4). An integrated wireless LAN 802.11b/g module is available in place of Bluetooth.

Will the Apex printer work with any manufactures' mobile terminal?
Yes, the Apex family of printers will connect to any manufacturers' mobile terminal that has serial, wireless LAN and/or Bluetooth capabilities.

What wireless security standards are supported by the Apex family of printers?
Datamax-O'Neil's Apex family of printers offer a range of security and encryption protocols that are compatible with today's state-of-the-art security protocols. Apex printers currently include the following security and encryption protocols:

	WPA	WPA2
Modes	PSK/Enterprise	
Security/ Encryption	TKIP/RC4	CCMP/AES
Authentication	LEAP	

What advantages does the Apex printer family have over comparable printer available in the marketplace?
The Apex family of printers was designed with the mobile worker in mind. In these tough economic times, the Apex printers give you the features and functions you need to get the job done. The Apex printers offer light weight, small size, fast printing, easy to use printer with the supported memory and processing power to keep pace with machines costing twice as much. With Datamax-O'Neil's legendary reliability and commitment to customer service, you can be assured that quality was not compromised for a smaller, lightweight design.

Can the Apex printer family accommodate international applications?
Yes. The Apex has the following international fonts available: Traditional and Simplified Chinese, Hebrew, Arabic, Polish, Greek and Cyrillic.

Battery life is a mission-critical feature in mobile printers. How does the Apex family meet this critical requirement?
The Apex series uses a high capacity, Lithium-Ion battery that offers maximum power capacity for a 12 hour shift. It has an automatic "sleep" mode which saves power and a fast, 180 minute recharging time.

What kind of options and accessories are available for the Apex family of printers?
Datamax-O'Neil is known for having the industry's most extensive selection of portable printing accessories. There are many options and accessories available for the Apex series including:

- 2-Bay battery Charger
- Cigarette Lighter Adapter
- Cleaning Cards/Cleaning Cables
- RJ 11 coiled cables (Right or Straight Angle)
- Magnetic Card Reader

- Shoulder Straps or Belt Loops
- IP54 Carrying cases
- Media
- Magnetic Card Reader
- Replacement Battery

Preventive Maintenance

Datamax-O'Neil recommends regularly scheduled maintenance to keep your printer operating reliably with uninterrupted service. To be safe, Datamax-O'Neil recommends cleaning your printer between every roll change using the Apex cleaning cards as instructed in the user's guide. For more information on cleaning cards, please visit www.datamax-oneil.com/supplies.

Limited Warranty Policy

The Apex printers are warranted against defects in workmanship and materials for a period of 12 months from data of shipment. All peripherals and accessories are warranted against defects in workmanship and materials for a period of 3 months from date of shipment.

The above warranty does not extend to any product that is modified or altered, is not maintained to Datamax-O'Neil's maintenance recommendation, is operated in a manner other than that specified by Datamax-O'Neil, has its serial number removed or altered or is treated with abuse, negligence or other improper treatment (including, without limitation, use outside the recommended environment).

Warranty Service Procedures

During the warranty period, if a component is proved to be defective by a Datamax-O'Neil Authorized Service Center, Datamax-O'Neil will repair it, with no charge for parts or labor, when returned to Datamax-O'Neil Authorized Service Center with dated proof of purchase. Datamax-O'Neil shall make the final determination as to the existence and cause of any alleged defect. This warranty does not apply to cosmetic defects (such as scratches to the printer case), batteries, or to any component which has been misused, defaced, altered, or modified, or which has been serviced or repaired by anyone other than a Datamax-O'Neil Authorized Service Center. Unauthorized return of product will not be accepted.

Buyer must obtain an RMA before the product may be returned. An RMA number must be assigned by Datamax-O'Neil to each part number returned. The following information must be provided when calling for an RMA number: customer name, purchase order number, serial number and the nature of the problem. Buyer will be responsible for the return shipping charges for repairs. Labor, insurance, shipping and handling charges are non-refundable.

Repair Services

For repairs of product, including repairs covered by warranty, the repair services provided are warranted against defects in workmanship and materials on the repaired component of the product for a period of ninety (90) days from the shipment date of the repaired product, or until the end of the original warranty period, whichever is longer. Datamax-O'Neil shall not be liable for any damages sustained by Buyer/Returnee arising from delay in the replacement or repair of products under the above warranty. If the repair is made out of the warranty period or the repair is not covered under warranty, a flat labor rate fee plus cost of parts will be applied. Spare parts (i.e. parts, components, or subassemblies sold by Datamax-O'Neil for use in the service and maintenance of products) are warranted against defects in workmanship and materials for a period of ninety (90) days from the date of shipment.

Warranty Options

Standard Warranty
Datamax-O'Neil offers a one year standard warranty on Apex printers. Coverage includes the case, electronics, even that printhead plus all components except for the batteries and accessories. Repairs and replacements are usually completed within 3 – 5 working days.

Extended and comprehensive warranty programs allow you to capitalize on your printer investment and eliminate unforeseen costs. In the near future Datamax-O'Neil is unveiling a range of new and unique warranty programs to ensure that your business critical printing applications continue trouble-free and without interruption. Our new warranty programs will offer cost-effective plans so you have the peace of mind that your printing application will remain operational and productive.

Ordering - Printers

Apex 2 Receipt Printer Models

Part Number	Item Description
78728S1-3	Apex 2, RS232 and Bluetooth
78728S1R-3	Apex 2, RS232, Bluetooth and Magnetic Card Reader
78728S1-2	Apex 2, RS232 and 802.11b/g
78728S1R-2	Apex 2, RS232, 802.11b/g and Magnetic Card Reader

All Apex 2 models include belt loop (756998-2), battery (7A100014), Universal AC Adapter (157261) and sample paper roll.

Apex 3 Receipt Printer Models

Part Number	Item Description
78828S1-3	Apex 3, RS232 and Bluetooth
78828S1R-3	Apex 3, RS232, Bluetooth and Magnetic Card Reader
78828S1-2	Apex 3, RS232 and 802.11b/g
78828S1R-2	Apex 3, RS232, 802.11b/g and Magnetic Card Reader

All Apex 3 models include belt loop (756998-2), battery (7A100014), Universal AC Adapter (157261) and sample paper roll.

Apex 4 Receipt Printer Models

Part Number	Item Description
78928U1-3	Apex 4, USB and Bluetooth
78928U1R-3	Apex 4, USB, Bluetooth and Magnetic Card Reader
78928U1-2	Apex 4, USB and 802.11b/g
78928U1R-2	Apex 4, USB, 802.11b/g and Magnetic Card Reader

All Apex 4 models include shoulder strap (757351), battery (7A100014), Universal AC Adapter (157261) and sample paper roll.

Apex Consumables
For a list of compatible media, please refer to page 10 (Apex 2), page 17 (Apex 3) and page 25 (Apex 4)

Chargers		Recommended	Optional
---	---	:---::	:---:
157261	Replacement Universal AC Adapter (US, UK, EURO & Australian)		●
151133	10.6V to 30V In-Vehicle Charger	●	
767400-1	Battery Charger 2-ay , Lithium-Ion (120VAC)		●
767400-2	Battery Charger 2-ay , Lithium-Ion (120VAC)		●
767400-4	Battery Charger 2-ay , Lithium-Ion (120VAC)		●
Comm. Cables		**Recommended**	**Optional**
5892RJD9-1	Coiled Cable Straight RJ Plug	●	
5892RJD9	Coiled Cable Right Angled RJ Plug		●
5892RJOPEN	Coiled Cable Unterminated – Straight RJ Plug		●
5892USB	USB Cable 2.0, Type A/Type B Gold Plated (Apex 4)	●	
Accessories			
757160	Magnetic Card Reader Cleaning Cards (5 per order)	●	
7A100014	Battery (Lithium Ion; 7.4V, 2200 mAH)		●
7AWINCE	Windows PrinterCE SDK from Field Software		●
7ACENETCF	Windows PrinterCE.Net CF SDK from Field Software		●
756998-1	Belt Loop System for Apex 3		●
756998-2	Belt Loop System for Apex 2 and Apex 4		●
757351	Shoulder Strap for all Apex printers		●
756983	IP54 Certified Environmental Case for Apex 2		●
756985	IP54 Certified Environmental Case for Apex 3		●
756984	IP54 Certified Environmental Case for Apex 4		●

Notes ■ ■ ■

right by our customers

around the world.

North America

Corporate Headquarters - Florida
4501 Parkway Commerce Blvd.
Orlando, FL 32808
Tel: 800-816-9649
Fax: 407-578-8377

California
8 Mason
Irvine, CA 92618
Tel: 949-458-0500
Fax: 949-458-0708

Datamax-O'Neil Printer Supplies
7656 E. 700th Avenue
Robinson, IL 62454
Tel : 618-546-5418
Fax : 618-546-1518

Asia Pacific

Singapore
9 Toh Guan Road East
#04-01 Alliance Building
Singapore 608604
Tel: +65-65052250
Fax: +65-67698135

China
Room 1016, FL 10 Tianjian Bldg.
6th Huixinnanli
Chaoyang District, Beijing
Tel: +86 10 6496 9313
Fax: +86 10 6494 8937

Thailand
2nd Floor, RN Building
961 Rama 3 Rd
Bangpongpang, Yannawa
Bangkok 10120
Tel: +662 6897321
Fax: +662 6897337

Latin America

Argentina
Av. Franklin D. Roosevelt 4989
Suite 303
Buenos Aires (C1431BZC)
Tel: +54 (11) 5555 6519
Fax: +54 (11) 4521 8022

Brazil
Rua Emilio de Menezes, 27 Cj 81
Santa Cecillia/Sao Paulo SP
Brasil CEP 01231-020
Tel: +55 11-3825-0690
Fax: +55 11-3666-1744

Mexico
Av. Central No. 186-B
Col. Nueva Industrial Vellejo
C.P 07700, Mexico DF
Tel: +52 55 11 68 61 46
Fax: +52 55 11 68 61 02

Europe, Middle East, Africa

France
9 Rue Gaspard Monge
26500 Bourg-lès-Valence
Tel: +33 (0) 4 75 75 63 00
Fax: +33 (0) 4 75 82 98 39

www.datamax-oneil.com

datamax·o'neil

right by our customers.