
Samsung Print Drivers for Windows OS

White Paper

Printing Solutions Business,
Samsung Electronics Co., Ltd.

Version 1.1

July, 2016

SAMSUNG ELECTRONICS RESERVES THE RIGHT TO CHANGE PRODUCTS, INFORMATION AND SPECIFICATIONS WITHOUT NOTICE.

Products and Specifications discussed herein are for reference purposes only. All information discussed herein is provided as an "AS IS" basis, without warranty of any kind.

This document and all information discussed herein remain the sole and exclusive property of Samsung Electronics Co., Ltd.. No license of any patent, copyright maskwork, trademark or any other intellectual property right is granted by one party to the other party under this document, by implication, estoppels or otherwise.

Samsung Products are not intended for use in life support, critical care medical safety equipment or similar applications where products failure could result in loss of life or personal or physical harm or any military or defense application, or any governmental procurement to which special terms or provisions may apply.

For updates or additional information about Samsung products, contact your nearest Samsung office.

All brand names trademarks are registered trademarks belong to their respective owners.

©2013 Samsung Electronics Co., Ltd. All rights reserved.

Table of Contents

<i>Executive Summary</i>	4
<i>Samsung Model Print Drivers</i>	5
.....	5
<i>Samsung Universal Print Driver (UPD)</i>	6
Samsung Universal Print Driver Types	7
A Solution For Multiple-Printer Environments	7
Competitive Comparison	9
Supported Environments	9
Client Operating Systems	9
Server Operating Systems	10
Microsoft Windows Terminal Servers	10
Microsoft Windows Cluster Servers	10
Citrix	10
Supported Printers	10
<i>Samsung Generic Print Driver</i>	14
Generic Print Driver Types	14
Supported Printers	14
Supported Environments	15
Client Operating Systems	15
Server Operating Systems	15
Microsoft Windows Terminal Servers	15
Microsoft Windows Cluster Servers	15
Citrix	15
Supported Features	16
Job Handling	16

Page Handling 16

Device Related Features 16

Device Support..... 16

Samsung Print Driver Type Comparison (1) 17

Samsung Print Driver Type Comparison (2)..... 18

Legal and additional information..... 19

 About Samsung Electronics Co., Ltd. 19

 For more information 19

Executive Summary

Samsung Electronics has been releasing various printers and providing 3 types of print drivers to the users for Windows OS environment. “Model Print Drivers”, “Generic Print Drivers” and “Universal Print Driver (UPD)” are the 3 major types of drivers that are currently being released by Samsung.

- Model Print Drivers
 - This is one driver for each printer device and designed to be device specific. This type of driver does not assure the ability to use other devices. Samsung has released Windows V3 drivers for PCL6, PS3 and SPL⁽¹⁾ printer languages. Also, a native V4 (XPS) print driver for Windows 8 and upper OS is available for the recent models⁽²⁾. Drivers are available on each device’s deployment CD and also on the Samsung web site.
- Universal Print Driver (UPD)
 - This is one driver for all Samsung printers which support either PCL6, PS3, XPS or SPL¹ printer languages. It supports all features which Samsung printers support. This driver gives users instant access to not only Samsung print devices, but also a range of other vendor’s PDL based devices⁽³⁾ without necessity of downloading separate drivers. Drivers are available only on the Samsung web site.
- Generic Print Driver
 - This is one driver for all Samsung printers which support PCL5 and PCL6 models. One driver for one PDL and for all printers. This driver only supports basic generic features and is suitable for business enterprise environments rather than those who have a personal printing environment. Drivers are not available on the Samsung web site currently, thus please contact your local authorized dealer or distributor of Samsung for this driver.

⁽¹⁾ Samsung Printer Language

⁽²⁾ Please check Samsung web site for the supported models.

⁽³⁾ Samsung does not guarantee the quality of other vendor’s printer devices and Samsung models that are not supported.

Samsung Model Print Drivers

The Samsung “Model Print Drivers” are single drivers for each printer model and designed as device dependent. User is required to install the print driver for each matched device. Supported features and environments vary for each model. Refer to the models that you are using on the Samsung web site.



Figure 1 : Printing with Model Drivers (1)

Users need to install multiple print drivers on their PC/Server if they want to print to these printers. In the case that the user has only one printer or normally uses only one printer, , this print driver type is suitable.



Figure 2 : Printing with Model Drivers (2)

Samsung Universal Print Driver (UPD)

Businesses today need a more efficient way to manage, install and connect. The majority of businesses use multiple printers for various daily tasks, and each printer requires installation of driver software provided by the manufacturer. This process takes up valuable time and resources.

Downloading multiple print drivers is inconvenient and time consuming. With the Samsung Universal Print Driver (UPD), businesses can reduce the number of print drivers, and find network printers easily.

The Samsung Universal Print Driver (UPD) is a single driver solution that eliminates the need to install multiple drivers. When installed, it supports other printer brands in addition to Samsung brands, providing easy access to multiple printers from one location. Multiple printers are accessed using a search feature, and status information for each printer is also available.

UPD first released in 2009. It has been upgraded to give the users more useful features and to be more compatible with users' IT environments. "Samsung Universal Print Driver 3" (UPD3) was released in 2015.

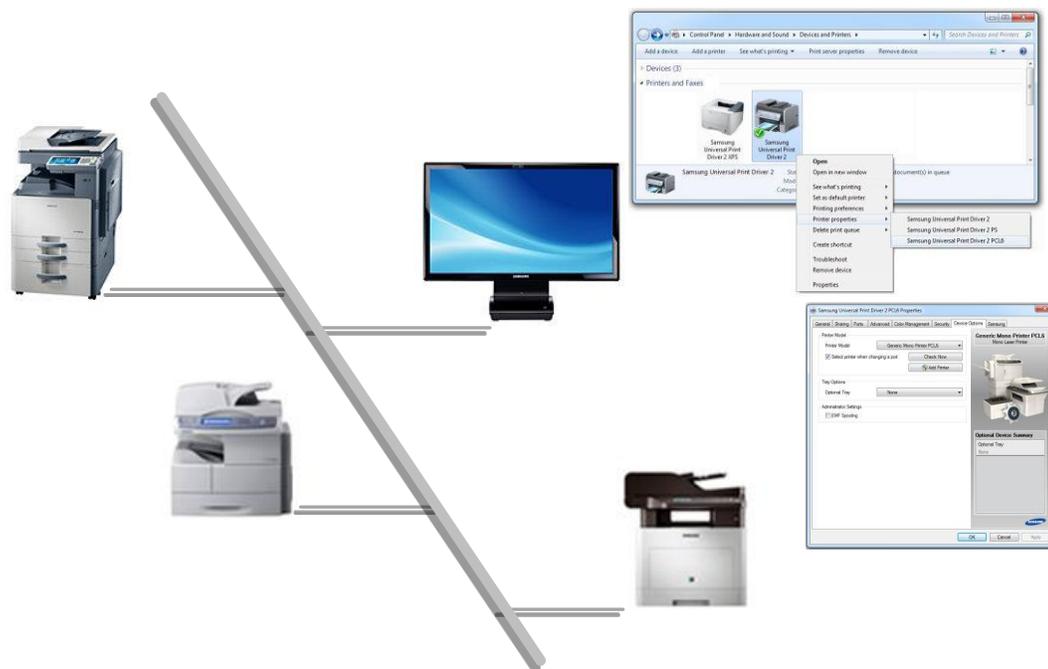


Figure 3: Printing with UPD

Samsung Universal Print Driver Types

There are 3 types of Samsung Universal Print Driver, depending on PDL type.

Driver Type	Description
Samsung Universal Print Driver 3	Supporting SPL or PCL6 supported models * Recommended for all users (from home users to IT administrators)
Samsung Universal Print Driver 3 PS	Supporting PS supported models * Recommended for users who want to get PostScript output
Samsung Universal Print Driver 3 XPS	Supporting SPL, PCL6 or XPS supported models * Recommended for users who want to get the output from the XPS print path * XPS printer driver can be installed only on Windows Vista OS or higher

- All types are Microsoft certified.

A Solution For Multiple-Printer Environments

The Samsung Universal Print Driver 3 is installed on multiple computers at one time and serves as a single source for all printers and drivers on a network. The intuitive interface enables users to search for printers on a large network and manage them.

- [Reduce the number of print drivers](#)
 - The Samsung Universal Print Driver 3 supports multiple drivers, regardless of make or model. Users can manage multiple printer models without having to install separate drivers for each printer.
- [Save time and IT resources](#)
 - The Samsung Universal Print Driver 3 delivers business value by saving organizations time and IT resources. The Samsung Universal Print Driver 3 feature Easy Deployment Manager (EDM), a fleet management system that allows administrators to install the Samsung Universal Print Driver 3 to multiple client computers and develop installation packages for distribution, consisting of driver configuration files, applications or both.
- [Make status information readily available](#)
 - The Samsung Universal Print Driver 3 includes smart interfaces and features that simplify the process of viewing printer status information. A detailed list of printers includes small icons, making printer status easy to identify. Users can select printers by name, address and location.
 - Users are able to search and access all local and network printers without extra installation. The 'Search' button provides the current status and properties of all printers on the network, enabling businesses to manage all printers effectively through one interface.
- [Find network printers quickly](#)

- The Samsung Universal Print Driver 3 offers three methods for searching for network printers:
 1. Automatic Search
 2. Search by IP address
 3. Search by IP range

In most cases, business users can find all printers on the network with the 'Automatic Search' feature. However, with the addition of the IP address and IP range search features, the Samsung Universal Print Driver 3 adds versatility to the printer search.

- [Find network printers with same user experience for all Samsung printer software](#)
 - The Samsung Universal Print Driver 3 uses a common device search user interface for searching, giving users the same user experience for all Samsung printer software. Users are able to search and access all local and network printers easily without extra effort.
- [Compatibility in various Windows platforms and environments](#)
 - Basically, the Samsung Universal Print Driver 3 is released as an installation package. Because it has a Microsoft standard INF file, the installation package allows you to install or uninstall the print driver without any dependencies on custom setup program or any manual processes.
 - The Samsung Universal Print Driver 3 will be published version available from the Samsung's web site officially.
 - If you want to install the driver using Add Printer Wizard manually, you can extract the driver page by installation package. With the extracted driver package from installation package, you can install it manually.
 - During Installation, the print driver files are put in the Microsoft standard print driver repository folders and all files are removed in uninstallation.
 - The Samsung Universal Print Driver 3 is compatible with Microsoft standard TCP/IP port monitor protocol (using SNMP) and bi-direction communication.
 - **The Samsung Universal Print Driver 3 is compatible with Microsoft Windows automation common practices for installing, upgrading and removing driver on the server and client devices. (PowerShell, prnmngr.vbs, WMI, printui.dll)**
 - The Samsung Universal Print Driver 3 installation and uninstallation process does not affect overall system performance and other printer manufacturer print drivers.

Competitive Comparison

The Samsung Universal Print Driver 3 has distinct advantages to the competition.

Features		Samsung Universal Print Driver 3	Xerox Mobile Express Driver 5.152	HP Universal Printing 5.4
Various print languages	PCL6	Yes	Yes – static only	Yes
	Adobe Postscript	Yes	Yes	Yes
	GDI (host-based)	Yes	No	No
	XPS	Yes	No	No
Device discovery	Broadcast	Yes	Yes – limited to searching for IP address within the subnet	Yes
	IP address	Yes	Yes	Yes
	IP range	Yes	No	No
High usability and convenience	Manual Printer Selection	Yes	No	No
	Real-time printer, job and supplies status	Yes – if Printer Status feature is turned on	Yes – job status is not supported	Yes
	Familiar user interface with traditional mode	Yes	Yes	Yes
	Localization (number of languages)	24	25	35
Configuration and remote deployment	Pre-configuration and packaging	Yes ¹	Yes – but print driver must be installed prior to pre-configuring	Yes
	Driver Policy Deployment	Yes ¹	No	No
	Deployment through Active Directory	Yes ¹	No	No
Other vendor support	Color printer	Yes	Yes	Yes
	Duplex printer	Yes	Yes	Yes

¹ By “Easy Deployment Manager” software.

Supported Environments

The Samsung Universal Print Drivers supports the following environments:

Client Operating Systems

OS Name	Architecture	Edition
Microsoft Windows XP	32 bits 64 bits	Home Edition Professional
Microsoft Windows Vista	32 bits 64 bits	Business Enterprise Home Basic Home Premium Ultimate
Microsoft Windows 7	32 bits 64 bits	Starter Home Premium Professional Enterprise Ultimate
Microsoft Windows 8/8.1	32 bits 64 bits	Pro Enterprise

Microsoft Windows 10	32 bits 64 bits	Home Pro Enterprise
-----------------------------	--------------------	---------------------------

Server Operating Systems

OS Name	Architecture	Edition
Microsoft Windows 2003	32 bits 64 bits	Datacenter Enterprise Standard Edition
Microsoft Windows 2008	32 bits 64 bits	Datacenter Enterprise Standard Edition
Microsoft Windows 2008 R2	64 bits	Datacenter Enterprise Standard Edition
Microsoft Windows 2012(R2)	64 bits	Foundation Essentials Standard Datacenter

Microsoft Windows Terminal Servers

- Windows Server 2003 SP, 2008, 2008 R2 and Server 2012 (R2)

Microsoft Windows Cluster Servers

- Windows Server 2003 SP2, 2008, 2008 R2 and Server 2012 (R2)

Citrix

- Citrix XenApp 6.5 – Microsoft Windows Server 2008 R2
- Citrix XenApp 6.0 – Microsoft Windows Server 2008 R2
- Citrix XenApp 5.0 – Microsoft Windows Server 2003, 2008

Supported Printers

The Samsung Universal Print Driver supports the following printer models. Newer devices (models) will be added accordingly. Visit <http://www.samsung.com/printer/usefulsoftware> for the latest version of the Samsung Universal Print Driver.

Device (Model)		Driver		
Series	Model Name	UPD3	UPD3 PS	UPD3 XPS
Color Models				
C	140x/145x Series	O	O	O
	1810/1860 Series	O	O	O
	2620/2670 Series	O	O	O
	3010/3060 Series	O	O	O
	410/420/43x Series	O	X	O
	460/470/48x Series	O	O	O
	268x Series	O	O	O
CF-	5100P			
	530 Series			
	555P	O	X	X
	5800P/6800			

CLP-	300/310/320 Series	O	X	X
	350 Series	O	O	O
	360 Series	O	X	O
	410 Series	O	O	O
	500/510 Series	O	X	X
	550 Series	O	O	X
	600 Series	O	X	X
	610/620 Series	O	X	X
	650/660/670 Series	O	O	X
	680 Series	O	O	O
	770 Series	O	O	X
	775 Series	O	O	O
CLX-	216x/3160/3170/3180 Series	O	X	X
	3300/4190/6260 Series	O	O	O
	6200/6220/6240/6250 Series	O	O	X
	8380/8385X/8540/8540X Series	O	O	X
	8640 8650 Series	O	O	O
	9250 9350 Series	O	O	X
	9252 9352/92x1 93x1/981x/982x Series	O	O	O
Monochrome Models				
M	262x /267x Series	O	X	O
	262xND 282x/287x 283x/288x Series	O	X	O
	382x Series	O	X	O
	332x 382xND 382xDW 402x/337x 387x 407x Series	O	O	O
	453x/458x Series	O	O	O
	4370 5370/5270 Series	O	O	O
	2020/2070 Series	O	X	O
	301x/306x Series	O	X	O
	403x/408x Series	O	O	O
K	2200 Series	O	X	O
	2200ND Series	O	X	O
	3250 Series	O	O	O
	4350/401 Series	O	O	O
	7600/703 Series	O	O	O
MFP-	560/65x/750 Series	O	X	X
	830 Series	O	X	X
ML-	1000/1200/1430/1440 Series	O	X	X
	1450 Series	O	X	X
	1510_700/1520/1610/1630/1630W/ 1660/1670/1710/1740 Series	O	X	X
	1750 Series	O	X	X
	1860/1865W/191x 252x/200/2010 Series	O	X	X
	2150 Series	O	O	X

	2160 Series	O	X	O
	2240/2245 Series	O	X	X
	2250 Series	O	O	X
	2510/2525W/2540 Series	O	X	X
	2550/2550S/2570/2580/2850/2853/2855 Series	O	O	X
	2950 Series	O	X	O
	3050 Series	O	O	X
	3300 Series	O	X	X
	331x Series	O	X	O
	3470/3475/3560 Series	O	O	X
	371x/375x Series	O	O	O
	4050/4055 Series	O	O	X
	4300/4500/5080 Series	O	X	X
	451x 501x Series	O	O	O
	4550/4555 Series	O	O	X
	551x 651x Series	O	X	O
	6040/6070/6080 Series	O	O	X
	8850 8950/8x00 Series	O	O	X
Msys	5150_5200	O	X	X
SCX-	3200 Series	O	X	X
	3400 Series	O	X	O
	4100/4200 Series	O	X	X
	4214F	O	X	X
	4300/4500/4500W/4600/4623/4623FW Series	O	X	X
	4650 4x21S Series	O	X	O
	470x/472x Series	O	X	X
	4725 Series	O	O	X
	483x 5x3x Series	O	O	O
	4x16 Series	O	X	X
	4x20 Series	O	O	X
	4x24/4x25/4x26 Series	O	X	X
	4x28/5635/5835_5953/5835_5935X Series	O	O	X
	5x15 Series	O	X	X
	5x30 Series	O	O	X
	6545/6545X/6x55/6x55X/681x Series	O	O	X
	6x20/6x22/6x45 Series	O	O	X
	8030 8040 Series	O	O	X
	8123 8128/8230 8240/881x/882x Series	O	O	O
SF-	5100P 530 Series 555P 5800P/6800P	O	X	X

	760 Series	O	X	O
X	3220 Series	O	O	O
	4300/401 Series	O	O	O
	7600/703 Series	O	O	O

Samsung Generic Print Driver

The Samsung Generic Print Driver gives the user generic features commonly used for all Samsung printers. One driver for one PDL exists for all printer models. This is one driver for all Samsung devices and built on UNIDRV component from Microsoft. It is designed for higher Windows OS compatibility so that the user can experience simple and light behavior during normal printing procedure on Windows OS.

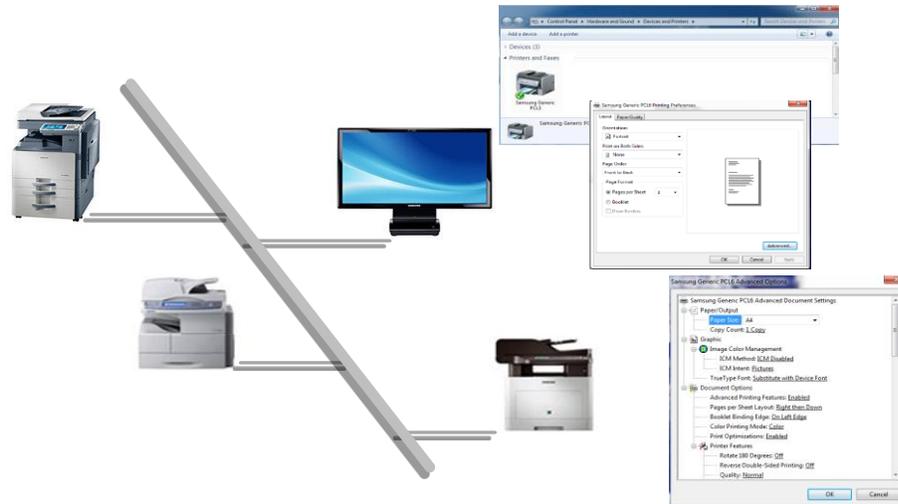


Figure 4: Printing with Generic Print Driver

Generic Print Driver Types

There are 3 types of Generic Print Driver, depending on PDL type.

Driver Type	Description
Samsung Generic Driver PCL5	Supporting PCL5 supported models * Recommended for users who want to get PCL5 output
Samsung Generic Driver PCL6	Supporting PCL6 supported models * Recommended for users who want to get PCL6 output
Samsung Generic Driver PS	Supporting PS supported models * Recommended for users who want to get PS output

Supported Printers

The Samsung Generic Print Drivers cover all the Samsung printer models which support PCL5, PCL6 or PS.

Supported Environments

The Samsung Generic Print Drivers support the following environments:

Client Operating Systems

OS Name	Architecture	Edition
Microsoft Windows XP	32 bits 64 bits	Home Edition Professional
Microsoft Windows Vista	32 bits 64 bits	Business Enterprise Home Basic Home Premium Ultimate
Microsoft Windows 7	32 bits 64 bits	Starter Home Premium Professional Enterprise Ultimate
Microsoft Windows 8/8.1	32 bits 64 bits	Pro Enterprise
Microsoft Windows 10	32 bits 64 bits	Home Pro Enterprise

Server Operating Systems

OS Name	Architecture	Edition
Microsoft Windows 2003	32 bits 64 bits	Datacenter Enterprise Standard Edition
Microsoft Windows 2008	32 bits 64 bits	Datacenter Enterprise Standard Edition
Microsoft Windows 2008 R2	64 bits	Datacenter Enterprise Standard Edition
Microsoft Windows 2012(R2)	64 bits	Foundation Essentials Standard Datacenter

Microsoft Windows Terminal Servers

- Windows Server 2003 SP, 2008, 2008 R2 and Server 2012 (R2)

Microsoft Windows Cluster Servers

- Windows Server 2003 SP2, 2008, 2008 R2 and Server 2012 (R2)

Citrix

- Citrix XenApp 6.5 – Microsoft Windows Server 2008 R2
- Citrix XenApp 6.0 – Microsoft Windows Server 2008 R2
- Citrix XenApp 5.0 – Microsoft Windows Server 2003, 2008

Supported Features

The Samsung Generic Print Drivers support the following general printer and print driver features, in the categories of Job Handling, Page Handling, Device Related Features and Device Support. See details in the following tables for each category.

Job Handling

	Feature Name
1	EMF Spooling
2	Enable Job Encryption (by Administrator)
3	Admin Job Accounting
4	Print Mode
5	Job Encryption
6	Job Accounting

Page Handling

	Feature Name
1	Print as Grayscale Only
2	Fit to Page
3	Rotate 180 degrees
4	Reverse Double-Sided Printing
5	Scaling
6	Skip Blank Pages
7	Information Page
8	True Type font download

Device Related Features

	Feature Name
1	Staple
2	Staple Position
3	Hole Punch
4	Punch Position
5	Sort Options
6	Booklet Finishing
7	Front /Back/Front and Back Cover Option
8	Front /Back/Front and Back Cover Source
9	Front /Back/Front and Back Cover Type
10	Separator
11	Separator Source
12	Output Mode
13	Output Bin

Device Support

	Device Name
1	Tray2/3/4/5
2	Finisher
3	Optional Hole Punch
4	Mass Storage
5	RAM Disk
6	Duplex Unit
7	4-bin Mailbox
8	Optional Inner Output Bin

Samsung Print Driver Type Comparison (1)

Capabilities and Attributes		Model Print Driver	Universal Print Driver	Generic Print Driver
Supported Models		Depends on Model Specification	See UPD section	All Samsung Models which support PCL5 , PCL6 or PS
Supported PDLs¹	GDI(SPL ²)	O	O	X
	PCL5	X	X	O
	PCL6	O	O	O
	PS3	O ³	O	O
	XPS	O	O	X
Driver Types		1 PDL per model	1 PDL per driver for all supported Samsung models	1 PDL per driver for all Samsung models
Localization		24 languages ⁴	24 languages ⁴	5 languages ⁵
Installation and Uninstaller	Add a Wizard	O	O	O
	Installer software support	O	O	X
	Uninstaller software support	O	O	X
Device Configuration	Automatic configuration ⁶	O	O	X
	Manual Configuration	O	O	O
	Bidirectional Communication	O	O	X
Configuration and remote deployment	Pre-Configuration and packaging	O	O	X
	Driver Policy Deployment	O	O	X
	Deployment through Active Directory	O	O	X
Device Discovery	Broadcast	O	O	X
	IP Address	O	O	X
	IP Range	O	O	X
	Manual	O	O	O

¹ Supported PDLs: Up to the printer model that the user uses, please refer to each printer model's supported PDLs.

² SPL: Samsung Printer Language

³ PS3: Since 2013, Samsung no longer supports model print driver for PS3. UPD PS drivers will be supported for each model.

⁴ 24 languages:

English/French/German/Italian/Spanish/Portuguese/Dutch/Swedish/Norwegian/Finnish/Polish/Czech/Hungarian/Russian/Greek/Turkish/Portugese(Brazilian)/Arabic/Hebrew/Korean/Traditional Chinese/Simplified Chinese

⁵ 5 languages: English/French/German/Italian/Spanish

⁶ Automatic Configuration: Configures all installable options automatically if user selects.

Samsung Print Driver Type Comparison (2)

Capabilities and Attributes		Model Print Driver	Universal Print Driver	Generic Print Driver
WHQL Certified		O	O	O
Supported Features		All(Up to models)	All(Up to PDLs)	General Features
Default Color Mode		Up to Models	Up to Models	Color
Other Vendor Support¹		X	O	O
Driver Utilities Support	Easy Deployment Manager	O	O	X
	Easy Color Manager	O(Up to models)	O	X
Help Support		O	O	X
GUI		Samsung Printer User Interface	Samsung Printer User Interface	Microsoft Common Print UI (Tree View Style)
Driver Core	PS3	PSCRIPT(MS)	PSCRIPT(MS)	PSCRIPT(MS)
	Except PS3	Samsung Driver Core	Samsung Driver Core	UNIDRV (MS)
Available	Enclosed CD/DVD	O	X	X
	Web Site ²	O	O	X ³

¹ Samsung does not guarantee the print quality or feature compatibility.

² Visit <http://www.samsung.com/printer/usefulsoftware>

³ Please contact your local authorized dealer or distributor of Samsung for your printer.

Legal and additional information

About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. is a global leader in semiconductor, telecommunication, digital media and digital convergence technologies with 2011 consolidated sales of US\$143.1 billion. Employing approximately 222,000 people in 205 offices across 71 countries, the company operates two separate organizations to coordinate its nine independent business units: Digital Media & Communications, comprising Visual Display, Mobile Communications, Telecommunication Systems, Digital Appliances, IT Solutions, and Digital Imaging; and Device Solutions, consisting of Memory, System LSI and LCD. Recognized for its industry-leading performance across a range of economic, environmental and social criteria, Samsung Electronics was named the world's most sustainable technology company in the 2011 Dow Jones Sustainability Index. For more information, please visit <http://www.samsung.com>

For more information

To learn more about the Samsung Universal Print Driver 3 and Samsung printing solutions, see your Samsung representative or visit <http://www.samsung.com>