Certificates of Volatility

Hewlett-Packard Certificate of Volatility					
Model:	Pai	rt Number:		Address:	
HP Color LaserJet Enterp	rise En	terprise		HP Inc.	
M65x series	J77	Z98A=M652N		11311 Chinden Blvd.	
	177	Z99A=M652DN		Boise, Idaho 83714, USA	
		A04A=M653DN			
		A05A=M653X			
	J8/	406A=M653DH			
			atile Memory		
			se contents are lost when pow		
			unction, and steps to clear the		
Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function: Operation system a		
DDR3 - DRAM	1GB		print/scan buffer	When the printer is powered off the memory is erased.	
BBNG BNGW	100	☐ Yes ⊠ No		ale memory is crased.	
Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:	
Type (CDAM DDAM etc):	Size:	☐ Yes ☐ No User Modifiable:	Function:	. Stone to along manager	
Type (SRAM, DRAM, etc):	Size.	Yes No	Function.	Steps to clear memory:	
		1			
		Non-\	/olatile Memory		
			whose contents are retained v		
Yes No If Yes plea			unction, and steps to clear the		
Type (Flash, EEPROM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:	
IOD EEPROM	32KB	☐ Yes ⊠ No	Store customer setting data backup/restore	for There are no steps to clear this data.	
Type (Flash, EEPROM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:	
SPI Flash	0.20.	oos. mounicis.		Stope to slear memory.	
	4MB	Yes No	Contains the boot code and	There are no steps to clear this	
			factory product configuration		
			data required for the device		
			function. User modifications are limited to downloading	·	
			digitally signed HP firmware		
			images.		
Type (Flash, EEPROM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:	
		☐ Yes ☐ No		-	
			ass Storage		
Does the device contain m			isk Drive, Tape Backup)? function, and steps to clear the	e memory helow	
Type (HDD, Tape, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:	
HDD	320GB	⊠ Yes □ No	OS and user data	Firmware update	
		<u> </u>		· · ·	
Type (HDD, Tape, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:	
EMMC	9CB		OS and usor data	Firmware undate	

U	SB		
Does the item accept USB input and if so, for what purpose ☐ Yes ☐ No If Yes please describe below	(i.e Print Jobs, device firmware updates, scan upload)?		
Print jobs, HP digitally signed firmware upgrades, 3rd party a	application loading. USB ports can be disabled.		
Can any data other than scan upload be sent to the USB de			
	,		
Diagnostic service logs can be uploaded. Print files can be	printed via a USB thumb drive.		
	RFID		
Does the item use RF or RFID for receive or transmit of any Bluetooth) ☐ Yes ☒ No If Yes please describe below	data including remote diagnostics. (e.g. Cellular phone,		
Purpose:			
Frequency:	Bandwidth:		
Modulation:	Effective Radiate Power (ERP):		
Specifications:			
	ssion Capabilities		
Does the device employ any other methods of non-wired acc	cess to transmit or receive any data whatsoever (e.g. anything		
	el connections)? X Yes No If Yes please describe below:		
Purpose: WiFi Direct Print			
Frequency: 2.4 GHz	Bandwidth: 2401 - 2495 MHz; depending on selected		
	channel in 2.4GHz band.		
	5180 - 5825 MHz; depending on selected channel in 5GHz		
Modulation:	band. Effective Radiate Power (ERP):		
Specifications: 802.11 b/g/n	Ellective Radiate Power (ERP).		
Specifications, 602.11 b/g/ff			
Other Transmis	ssion Capabilities		
	cess to transmit or receive any data whatsoever (e.g. anything		
other than standard hard wired TCP/IP, direct USB, or parall	el connections)? X Yes No If Yes please describe below:		
Purpose: Device Beaconing, Secure Print Apps			
Frequency: 2.4 GHz	Bandwidth: 2400-2483.5 MHz; depending on selected		
	channel.		
Modulation:	Effective Radiate Power (ERP):		
Specifications: BTLE4.0 compliant			
Other Ca	apabilities		
Does the device employ any other method of communication			
whatsoever? Yes No If Yes please describe below:			
Purpose:			
Specifications:			

	Н	lewlett-Packar	d Certificate of Volatilit	зу					
Model:	Pa	rt Number:		Address:					
HP Color LaserJet Enterp	rise En	terprise		HP Inc.					
M68x series	M68x series J8A17A=M682Z			11311 Chinden Blvd.					
J8A11A=M681F				Boise, Idaho 83714, USA					
J8A13A=M681Z									
		A17A=M682Z							
	101	A17A-W002Z							
		Val	otilo Moreowy						
Doos the device contain ve	latila mam		atile Memory se contents are lost when pov	vor is removed\2					
			unction, and steps to clear the						
Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function: Operation system						
			print/scan buffer	When the printer is powered off					
DDR3 - DRAM	2GB- Ent			the memory is erased.					
	2.5GB - Flow								
	11011	☐ Yes ⊠ No							
Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:					
		☐ Yes ☐ No							
Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:					
, , , , , , , , , , , , , , , , , , , ,		☐ Yes ☐ No							
			olatile Memory						
			whose contents are retained						
Type (Flash, EEPROM, etc):	ase descrit Size:	User Modifiable:	unction, and steps to clear the Function:	Steps to clear memory:					
IOD EEPROM 32KI		☐ Yes ☒ No	Store customer setting data						
			backup/restore	data.					
Type (Flash, EEPROM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:					
SPI Flash	4MB	⊠ Yes □No	Contains the boot code and	There are no steps to clear this					
	41010		factory product configuration						
			data required for the device						
			function. User modifications						
			are limited to downloading						
			digitally signed HP firmware						
Time (Flack FEDDOM etc.)	Cinn	User Modifiable:	images. Function:	Ct tl					
Type (Flash, EEPROM, etc):	Size:	Yes No	Function:	Steps to clear memory:					
	1	1	l						
		Ma	ass Storage						
Does the device contain m	ass storage	e memory (Hard D	isk Drive, Tape Backup)?						
			function, and steps to clear th						
Type (HDD, Tape, etc): HDD	Size: 320GB	User Modifiable:	Function: OS and user data	Steps to clear memory: Firmware update					
		, — —	1	,					
			USB						
Does the item accept USB	input and i	f so, for what purp		mware updates, scan upload)?					
	ase describ	oe below	•						
			arty application loading. USB	ports can be disabled.					
Can any data other than so			B device)?						
☐ Yes ☐ No If Yes pleas			he printed via a LISR thumb	drive					
Diagnostic service logs car	i ne abioac	ieu. Fiintilles Cal	i pe billifen sia a nod filmin	Diagnostic service logs can be uploaded. Print files can be printed via a USB thumb drive.					

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RF/I	RFID
Does the item use RF or RFID for receive or transmit of any	data including remote diagnostics. (e.g. Cellular phone,
Bluetooth) Yes No If Yes please describe below	
Purpose:	
Frequency:	Bandwidth:
Modulation:	Effective Radiate Power (ERP):
Specifications:	
	sion Capabilities
	ess to transmit or receive any data whatsoever (e.g. anything
	el connections)? X Yes No If Yes please describe below:
Purpose: WiFi Direct Print	
Frequency: 2.4 GHz, 5GHz	Bandwidth: 2401 - 2495 MHz; depending on selected
	channel in 2.4GHz band.
	5180 - 5825 MHz; depending on selected channel in 5GHz
	band.
Modulation:	Effective Radiate Power (ERP):
Specifications: 802.11 b/g/n	
O	
	sion Capabilities
	ess to transmit or receive any data whatsoever (e.g. anything el connections)? Yes No If Yes please describe below:
Purpose: Device Beaconing, Secure Print Apps	•
Frequency: 2.4 GHz	Bandwidth: 2400-2483.5 MHz; depending on selected
	channel.
Modulation:	Effective Radiate Power (ERP):
Specifications: BTLE4.0 compliant	
	apabilities
Does the device employ any other method of communication	
whatsoever? Yes No If Yes please describe below	•
Purpose:	
Specifications:	

	Hewlett-Packard Certificate of Volatility				
Model: HP Color LaserJet Managed E65150dn HP Color LaserJet Managed E65160dn	Part 3G	Number: Y03A = E65150dn Y04A = E65160dn	Ac HF 11	ddress: P Inc. 311 Chinden Blvd. ise, Idaho 83714, USA	
			atile Memory		
Does the device contain volate	tile memory (Memory whose con	tents are lost when power is removed; n, and steps to clear the memory below)?	
Type (SRAM, DRAM, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:	
DDR3 - DRAM	1GB	☐ Yes ⊠ No	Store customer setting data for backup/restore.	When the printer is powered off the memory is erased.	
Does the device contain non-	volatile mem	Non-V	/olatile Memory contents are retained when power is	removed\2	
	e describe the	e type, size, functior	n, and steps to clear the memory below	W	
Type (Flash, EEPROM,	Size:	User Modifiable:	Function:	Steps to clear memory:	
etc.): IOD EEPROM	32KB	☐ Yes ⊠ No	Backup device for critical system counters and product configuration information.	There are no steps to clear this data.	
Type (Flash, EEPROM, etc.): SPI Flash	Size: 4MB	User Modifiable: ☐ Yes ☑ No	Function: Contains the boot code and factory product configuration data required for the device to function. User modifications are limited to downloading digitally signed HP firmware images.	Steps to clear memory: There are no steps to clear this data	
Type (Flash, EEPROM, etc.): EEPROM (LAN)	Size: 1KB	User Modifiable: ☐ Yes ☒ No	Function: Stores some LAN data/settings	Steps to clear memory: There are no steps to clear this data.	
Type (Flash, EEPROM, etc.): TPM	Size: 16Kb (8x 2048 bit keys)	User Modifiable: ☐ Yes ☑ No	Function: Industry standard secure crypto- processor used for secure access and securing sensitive data.	Steps to clear memory: To clear the customer storage root key, CSRK, disable the TPM in the pre-boot menu.	
Type (Flash, EEPROM, etc.): SPI Flash (2 devices)	Size: 4MB per device	User Modifiable: ☐ Yes ☐ No	Function: Contains Encrypted Sensor Data.	Steps to clear memory: Data is encrypted, so there are no steps to clear this data.	
		Ma	ass Storage		
Does the device contain mass	s storage me				
			n, and steps to clear the memory belo	Steps to clear memory:	
Type (HDD, Tape, etc.): EMMC	Size: 8GB	User Modifiable: ☑ Yes ☐ No	Function: Stores customer data, OS, applications digitally signed firmware images, persistent data, and temporary data used for processing and system functions	There are several ways to erase this: 1. Secure Storage Erase - Erases temporary files and job data by overwriting information one or three times 2. Secure Disk Erase - Industry standard ATA Secure Erase. Overwrites all data on the hard drive. 3. Secure File Erase - Erases files when jobs finish processing by overwriting them one or three times.	
			LICD		
	e describe be	elow	e. Print Jobs, device firmware update:	, ,	
Print jobs, HP digitally signed Can any data other than scar			oplication loading. USB ports can be c	disabled.	
☐ Yes ☐ No If Yes please © Diagnostic service logs can b	describe belo	W			

		RF/R	FID	
	or RFID for receive or transmit of splease describe below	of any data incl	uding remote dia	agnostics? (e.g. Cellular phone, Bluetooth)
Purpose:	•			
Frequency:			Bandwidth:	
Modulation:			Effective Radiat	e Power (ERP):
Specifications:				
	Other	Transmiss	ion Capabilit	ies
Does the device em	ploy any other methods of no	n-wired acce	ess to transmit of	or receive any data whatsoever (e.g. anything
				☐ Yes ☒ No If Yes please describe below:
Purpose:	·		,	
Frequency:			Bandwidth:	
Modulation:			Effective Radia	ate Power (ERP):
Specifications:		1		
•				
		Other Cap	aghilitiag	
D (1 1 :				
			such as a Mod	dem to transmit or receive any data
	es 🗵 No If Yes please des	cribe below:		
Purpose:				
Specifications:				
			nformation	
Name:	Title:	Email:	obell1@hp.com	Business Unit: IPG
Casey Campbell	Hardware Technical	casey.cam	ppen renp.com	
	Marketing Engineer			
Signature:	·			Date Prepared: 03/22/2019

Hewlett-Packard Certificate of Volatility					
Model: HP Color LaserJet Managed MFP E67650dh HP Color LaserJet Managed MFP E67660z	3GY32A = E67660z			Address: HP Inc. 11311 Chinden Blvd. Boise, Idaho 83714, USA	
		Vol	atile Memory		
Does the device contain volat	ile memory (tents are lost when power is remove	ved)?	
			n, and steps to clear the memory b		
Type (SRAM, DRAM, etc.): DDR3 - DRAM	Size: 2GB- Non- Flow 2.5GB - Flow	User Modifiable: ☐ Yes ☒ No	Function: Used for temporary storage during the process of jobs, and for applications that are running on the OS. (Note: Total memory on formatter consists of 1.25GB.)	Steps to clear memory: When the printer is powered off the memory is erased.	
			olatile Memory		
			contents are retained when power n, and steps to clear the memory be		
Type (Flash, EEPROM,	Size:	User Modifiable:	Function:	Steps to clear memory:	
etc.): IOD EEPROM	32KB	☐ Yes ⊠ No	Backup device for critical system counters and product configuration information.	There are no steps to clear this data.	
Type (Flash, EEPROM, etc.): SPI Flash	Size: 4MB	User Modifiable: ☐ Yes ☒ No	Function: Contains the boot code and factory product configuration data required for the device to function User modifications are limited to downloading digitally signed HP firmware images.		
Type (Flash, EEPROM, etc.): EEPROM (LAN)	Size: 1KB	User Modifiable: ☐ Yes ☐ No	Function: Stores some LAN data/settings	Steps to clear memory: There are no steps to clear this data.	
Type (Flash, EEPROM, etc.): TPM	Size: 16Kb (8x 2048 bit keys)	User Modifiable: ☐ Yes ⊠ No	Function: Industry standard secure crypto- processor used for secure acces and securing sensitive data.	pre-boot menu.	
Type (Flash, EEPROM, etc.): SPI Flash (2 devices)	Size: 4MB per device	User Modifiable: ☐ Yes ☑ No	Function: Contains Encrypted Sensor Data	Steps to clear memory: Data is encrypted, so there are no steps to clear this data.	
		N A a	non Storago		
Does the device contain mass	s storage mo		ass Storage		
Yes No If Yes pleas Type (HDD, Tape, etc.):	e describe th Size:	e type, size, functio User Modifiable:	n, and steps to clear the memory be Function:	Steps to clear memory:	
HDD	500GB	⊠ Yes □ No	Stores customer data, OS, applications digitally signed firmware images, persistent data, and temporary data used for processing and system functions	There are several ways to erase this: 1. Secure Storage Erase - Erases temporary files and job data by overwriting information one or three times 2. Secure Disk Erase - Industry standard ATA Secure Erase. Overwrites all data on the hard drive. 3. Secure File Erase - Erases files when jobs finish processing by overwriting them one or three times.	
			LICD		
			USB e. Print Jobs, device firmware upda	ates, scan upload)?	
Yes No If Yes please describe below Print jobs, HP digitally signed firmware upgrades, 3rd party application loading, USB ports can be disabled.					

	scan upload be sent to the USB	device?	
Diagnostic service logs ca	an be uploaded. Print files can	be printed via a USB thumb of	drive.
		5.5.65.15	
		RF/RFID	
		any data including remote dia	ignostics? (e.g. Cellular phone, Bluetooth)
	lease describe below		
Purpose:		Bandwidth:	
Frequency: Modulation:		Effective Radiate	o Dower (EDD):
Specifications:		Effective Radiate	e Power (ERP):
Specifications.			
	Other T	ransmission Capabilit	ies
Does the device emplo			or receive any data whatsoever (e.g. anything
other than standard ha	rd-wired TCP/IP, direct USB	or parallel connections)?	☐ Yes ☐ No If Yes please describe below:
Purpose:		, paramer commonwers,	
Frequency:		Bandwidth:	
Trequency.		Banawati.	
Modulation:		Effective Radia	ate Power (ERP):
Specifications:		<u> </u>	
,			
	(Other Capabilities	
Does the device emplo			lem to transmit or receive any data
	No If Yes please descr		ion to transmit or receive any data
Purpose:	Z No II res piedes dessi	100 001011.	
Specifications:			
opcomoations.			
		Author Information	
Name:	Title:	Email:	Business Unit: IPG
Casey Campbell	Hardware Technical	casey.campbell1@hp.com	
	Marketing Engineer		
Signature:	•	•	Date Prepared: 03/22/2019