Certificate of Volatility

Hewlett-Packard Certificate of Volatility		
Model: M607, M608, M609	Part Number: K0Q14A, 15A,17A,18A,19A	Address: HP Inc. 11311 Chinden Blvd. Boise, Idaho 83714, USA

Volatile Memory

Does the device contain volatile memory (Memory whose contents are lost when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
DDR3-DRAM	512	☐ Yes ☒ No	Used for temporary storage during the processing of jobs and for applications running on the OS.	When the printer is powered OFF , the memory is erased.
Type (SRAM, DRAM, etc):	Size:	User Modifiable: ☐ Yes ☒ No	Function:	Steps to clear memory:
Type (SRAM, DRAM, etc):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Steps to clear memory:

Non-Volatile Memory

Does the device contain non-volatile memory (Memory whose contents are retained when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (Flash, EEPROM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
IOD EEPROM	32KB	☐ Yes ☒ No	Store customer setting data for backup/restore	There are no steps to clear this data.
Type (Flash, EEPROM, etc):	Size:	User Modifiable:	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.
SPI Flash	4MB	☒ Yes ☐ No		
Type (Flash, EEPROM, etc):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Steps to clear memory:

Mass Storage

Does the device contain mass storage memory (Hard Disk Drive, Tape Backup)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (HDD, Tape, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
EMMC	4GB All Skews	☒ Yes ☐ No	OS and User Data	firmware update

Type (HDD, Tape, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
HDD	320 GB Accessory Only	☒ Yes ☐ No	OS and User Data	firmware update

USB

Does the item accept USB input and if so, for what purpose (i.e Print Jobs, device firmware updates, 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.

Can any data other than scan upload be sent to the USB device)?
☒ Yes ☐ No If Yes please describe below

Diagnostic service logs can be uploaded. Print files can be printed via a USB thumb drive.

RF/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: Wireless Information string	
Frequency:	Bandwidth:
Modulation:	Effective Radiate Power (ERP):
Specifications:	

Other Transmission Capabilities	
Does the device employ any other methods of non-wired access to transmit or receive any data whatsoever (e.g. anything other than standard hard wired TCP/IP, direct USB, or parallel connections)? ☒ Yes ☐ No If Yes please describe below:	
Purpose: WiFi Direct Print	
Frequency: 2.4GHz, 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	

Other Transmission Capabilities	
Does the device employ any other methods of non-wired access to transmit or receive any data whatsoever (e.g. anything other than standard hard wired TCP/IP, direct USB, or parallel connections)? ☒ Yes ☐ No If Yes please describe below:	
Purpose: Device Beaconing Secure Print Apps	
Frequency: 2.4GHz	Bandwidth: 2400-2483.5 MHz; depending on selected channel.
Modulation:	Effective Radiate Power (ERP):
Specifications: BTLE4.0 compliant	

Other Capabilities
Does the device employ any other method of communications such as a Modem to transmit or receive any data whatsoever? ☐ Yes ☒ No If Yes please describe below:
Purpose: Device Beaconing Secure Print Apps
Specifications

Hewlett-Packard Certificate of Volatility

Model:	Part Number:	Address:
M631, M632, M633	J8J63A, 64A,65A,J8J70A,71A,72A	HP Inc. 11311 Chinden Blvd. Boise, Idaho 83714, USA

Volatile Memory

Does the device contain volatile memory (Memory whose contents are lost when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (SRAM, DRAM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
DDR3-DRAM	2GB -- Enterprise (1.5GB Fmtr + .5GB SCB) 2.5GB -- WorkFlow	☐ Yes ☒ No	Used for temporary storage during the processing of jobs and for applications running on the OS.	When the printer is powered OFF , the memory is erased.
Type (SRAM, DRAM, etc):	Size:	User Modifiable: ☐ Yes ☒ No	Function:	
Type (SRAM, DRAM, etc):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Steps to clear memory:

Non-Volatile Memory

Does the device contain non-volatile memory (Memory whose contents are retained when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (Flash, EEPROM, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
IOD EEPROM	32KB	☐ Yes ☒ No	Store customer setting data for backup/restore	There are no steps to clear this data.
Type (Flash, EEPROM, etc):	Size:	User Modifiable:	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.
SPI Flash	4MB	☒ Yes ☐ No		
Type (Flash, EEPROM, etc):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Steps to clear memory:

Mass Storage

Does the device contain mass storage memory (Hard Disk Drive, Tape Backup)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (HDD, Tape, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
EMMC	16GB dn Model Only	☒ Yes ☐ No	OS and User Data	firmware update

Type (HDD, Tape, etc):	Size:	User Modifiable:	Function:	Steps to clear memory:
HDD	320 GB all other models 500GB Gov skew only	☒ Yes ☐ No	OS and User Data	firmware update

USB
Does the item accept USB input and if so, for what purpose (i.e Print Jobs, device firmware updates, 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.
Can any data other than scan upload be sent to the USB device)? ☒ Yes ☐ No If Yes please describe below
Diagnostic service logs can be uploaded. Print files can be printed via a USB thumb drive.

RF/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: Wireless Information string	
Frequency:	Bandwidth:
Modulation:	Effective Radiate Power (ERP):
Specifications:	

Other Transmission Capabilities	
Does the device employ any other methods of non-wired access to transmit or receive any data whatsoever (e.g. anything other than standard hard wired TCP/IP, direct USB, or parallel connections)? ☒ Yes ☐ No If Yes please describe below:	
Purpose: WiFi Direct Print	
Frequency: 2.4GHz, 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	

Other Transmission Capabilities	
Does the device employ any other methods of non-wired access to transmit or receive any data whatsoever (e.g. anything other than standard hard wired TCP/IP, direct USB, or parallel connections)? ☒ Yes ☐ No If Yes please describe below:	
Purpose: Device Beaconing Secure Print Apps	
Frequency: 2.4GHz	Bandwidth: 2400-2483.5 MHz; depending on selected channel.
Modulation:	Effective Radiate Power (ERP):
Specifications: BTLE4.0 compliant	

Other Capabilities
Does the device employ any other method of communications such as a Modem to transmit or receive any data whatsoever? ☐ Yes ☒ No If Yes please describe below:
Purpose: Device Beaconing Secure Print Apps
Specifications

Hewlett-Packard Certificate of Volatility

Model:	Part Number:	Address:
HP LaserJet Managed E60155dn HP LaserJet Managed E60165dn HP LaserJet Managed E60165x HP LaserJet Managed E60175dn HP LaserJet Managed E60175x	3GY09A = E60155dn 3GY09A = E60165dn 3GY09A = E60165x 3GY09A = E60175dn 3GY09A = E60175x	HP Inc. 11311 Chinden Blvd. Boise, Idaho 83714, USA

Volatile Memory

Does the device contain volatile memory (Memory whose contents are lost when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (SRAM, DRAM, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
DDR3 - DRAM	512MB	☐ Yes ☒ No	Store customer setting data for backup/restore.	When the printer is powered off the memory is erased.

Non-Volatile Memory

Does the device contain non-volatile memory (Memory whose contents are retained when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (Flash, EEPROM, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
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.

Mass Storage

Does the device contain mass storage memory (Hard Disk Drive, Tape Backup)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (HDD, Tape, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
EMMC	8GB	☒ 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.

USB

Does the item accept USB input and if so, for what purpose (i.e. Print Jobs, device firmware updates, 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.

Can any data other than scan upload be sent to the USB device? ☒ Yes ☐ No If Yes please describe below
Diagnostic service logs can be uploaded. Print files can be printed via a USB thumb drive.

RF/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:	

Other Transmission Capabilities	
Does the device employ any other methods of non-wired access to transmit or receive any data whatsoever (e.g. anything other than standard hard-wired TCP/IP, direct USB, or parallel connections)? ☐ Yes ☒ No If Yes please describe below:	
Purpose:	
Frequency:	Bandwidth:
Modulation:	Effective Radiate Power (ERP):
Specifications:	

Other Capabilities
Does the device employ any other method of communications such as a Modem to transmit or receive any data whatsoever? ☐ Yes ☒ No If Yes please describe below:
Purpose:
Specifications:

Author Information			
Name: Casey Campbell	Title: Hardware Technical Marketing Engineer	Email: casey.campbell1@hp.com	Business Unit: IPG
Signature:			Date Prepared: 03/22/2019

Hewlett-Packard Certificate of Volatility

Model:	Part Number:	Address:
HP LaserJet Managed MFP E62655dn HP LaserJet Managed MFP E62665hs HP LaserJet Managed Flow MFP E62665h HP LaserJet Managed Flow MFP E62665z HP LaserJet Managed Flow MFP E62675z	3GY14A = E62655dn 3GY15A = E62665hs 3GY16A = E62665h 3GY17A = E62665z 3GY18A = E62675z	HP Inc. 11311 Chinden Blvd. Boise, Idaho 83714, USA

Volatile Memory

Does the device contain volatile memory (Memory whose contents are lost when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (SRAM, DRAM, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
DRAM	2GB- Non-Flow 2.5GB - Flow	☐ Yes ☒ No	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.)	When the printer is powered off the memory is erased.

Non-Volatile Memory

Does the device contain non-volatile memory (Memory whose contents are retained when power is removed)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (Flash, EEPROM, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
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: Stores some LAN data/settings 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.

Mass Storage

Does the device contain mass storage memory (Hard Disk Drive, Tape Backup)?
☒ Yes ☐ No If Yes please describe the type, size, function, and steps to clear the memory below

Type (HDD, Tape, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
HDD	500GB (All bundles except E62655 dn)	☒ 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.
Type (HDD, Tape, etc.):	Size:	User Modifiable:	Function:	Steps to clear memory:
eMMC	16GB (E62655 dn Only)	☒ 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.

USB
Does the item accept USB input and if so, for what purpose (i.e. Print Jobs, device firmware updates, 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.
Can any data other than scan upload be sent to the USB device? ☒ Yes ☐ No If Yes please describe below
Diagnostic service logs can be uploaded. Print files can be printed via a USB thumb drive.

RF/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:	

Other Transmission Capabilities	
Does the device employ any other methods of non-wired access to transmit or receive any data whatsoever (e.g. anything other than standard hard wired TCP/IP, direct USB, or parallel connections)? ☐ Yes ☒ No If Yes please describe below:	
Purpose:	
Frequency:	Bandwidth:
Modulation:	Effective Radiate Power (ERP):
Specifications:	

Other Capabilities
Does the device employ any other method of communications such as a Modem to transmit or receive any data whatsoever? ☐ Yes ☒ No If Yes please describe below:
Purpose: Fax
Specifications:

Author Information			
Name: Casey Campbell	Title: Hardware Technical Marketing Engineer	Email: casey.campbell1@hp.com	Business Unit: IPG
Signature:			Date Prepared: 03/22/2018