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## **Swedish Certification Body for IT Security**

# Certification Report - Kyocera 7054ci HCDPP

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Authorisation: Jerry Johansson, Lead Certifier, CSEC



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#### **Executive Summary** 1

The TOE is the hardware and the firmware of the following multifunction printer (MFP) models with Hard Disk, FAX, and Data Security Kit:

Kyocera TASKalfa 7054ci, 6054ci, 5054ci, 4054ci, 7054ciG, 6054ciG, 5054ciG, and 4054ciG.

Copystar: CS 7054ci, CS 6054ci, CS 5054ci, and CS 4054ci.

Triumph Adler/UTAX 7008ci, 6008ci, 5008ci, and 4008ci.

with the following firmware:

System firmware 2XC\_S000.002.333

FAX firmware 3R2 5100.003.012

In the evaluated configuration, the optional hard disk, the optional fax board and the optional data security kit are installed and included in the scope of the TOE.

The TOE provides copying, scanning, printing, faxing and boxing.

Delivery is done by means of a courier trused by KYOCERA Document Solutions Inc. Installation and initial setup is done by a representative KYOCERA or an approved reseller.

The ST claims exact conformance to the Protection Profile (PP):

Protection Profile for Harcopy Devices v1.0, including Errata #1 (HCDPP v1.0e).

The evaluation has been performed by Combitech AB, in their premises in Växjö, Sweden, and was completed on the 2nd of February 2022.

The evaluation was conducted in accordance with the requirements of Common Criteria (CC), version 3.1 revision 5, Common Evaluation Methodology (CEM), version 3.1 revision 5, and the HCDPP v1.0e.

Combitech AB is a licensed evaluation facility for Common Criteria under the Swedish Common Criteria Evaluation and Certification Scheme. Combitech AB is also accredited by the Swedish accreditation body according to ISO/IEC 17025 for Common Criteria.

The certifier monitored the activities of the evaluator by reviewing all successive versions of the evaluation reports. The certifier determined that the evaluation results confirm the security claims in the Security Target (ST), the Common Methodology for evaluation assurance level EAL 1 augmented by ASE SPD.1, and the HCDPP v1.0e.

The technical information in this report is based on the Security Target (ST), and the Final Evaluation Report (FER) produced by Combitech AB.

The certification results only apply to the version of the product indicated in the certificate, and on the condition that all the stipulations in the Security Target are

This certificate is not an endorsement of the IT product by CSEC or any other organisation that recognises or gives effect to this certificate, and no warranty of the IT product by CSEC or any other organisation that recognises or gives effect to this certificate is either expressed or implied.

## 2 Identification

Certification Identification	
Certification ID	CSEC2021006
Name and version of the certified IT product	Kyocera: TASKalfa 7054ci, 6054ci, 5054ci, 4054ci, 7054ciG, 6054ciG, 5054ciG, and 4054ciG. Copystar: CS 7054ci, CS 6054ci, CS 5054ci, and CS 4054ci. Triumph Adler/UTAX: 7008ci, 6008ci, 5008ci, and 4008ci. all with Hard Disk, FAX, and Data Security Kit.
	System firmware 2XC_S000.002.333
	FAX firmware 3R2_5100.003.012
Security Target Identification	TASKalfa 7054ci, TASKalfa 6054ci, TASKalfa 5054ci, TASKalfa 4054ci Series with Hard Disk, FAX System and Data Security Kit Security Targe
EAL	EAL 1 + ASE_SPD.1
PP claims	Exact conformance to the Protection Profile for Harcopy Devices (HCDPP) v1.0E (i.e. v1.0 including Errata #1)
Sponsor	Kyocera Document Solutions Inc.
Developer	Kyocera Document Solutions Inc.
ITSEF	Combitech AB
Common Criteria version	3.1 release 5
CEM version	3.1 release 5
QMS version	2.1
Scheme Notes Release	18.0
Recognition Scope	CCRA, SOGIS, EA/MLA
Certification date	2022-02-16

#### 3 **Security Policy**

The TOE provides the following security services:

- User Management
- Data Access Control
- Job Authorization
- HDD Encryption
- Overwrite-Erase
- Audit Log
- Security Management
- Trusted operation
- Network Protection
- PSTN Fax-Network Separation

#### 3.1 **User Management**

A function that identifies and authenticates users so that only authorized users can use the TOE. When using the TOE from the Operation Panel and Client PCs, a user will be required to enter his/her login user name and login user password for identification and authentication. The User Management Function includes a User Account Lockout Function, which prohibits the users access for a certain period of time if the number of identification and authentication attempts consecutively result in failure, a function, which protects feedback on input of login user password when performing identification and authentication and a function, which automatically logouts in case no operation has been done for a certain period of time.

#### 3.2 **Data Access Control**

A function that restricts access to protected assets so that only authorized users can access to the protected assets inside the TOE.

The following types of Access Control Functions are available.

- Access Control Function to control access to image data
- Access Control Function to control access to job data

#### 3.3 **Job Authorization**

A function that restricts usage of the function so that only authorized persons can use basic functions of the TOE.

The following types of Job Authorization are available.

- Copy Job (Copy Function)
- Print Job (Print Function)
- Send Job (Scan to Send Function)
- FAX Send Job (FAX Function)
- FAX Reception Job (FAX Function)
- Storing Job (Box Function)

#### 3.4 **HDD Encryption**

A function that encrypts information assets stored in the HDD in order to prevent leakage of data stored in the HDD inside the TOE.

#### 3.5 **Overwrite-Erase**

A function that does not only logically delete the management information of the image data, but also entirely overwrites and erases the actual data area so that it disables re-usage of the data where image data that was created on the HDD or the Flash Memory during usage of the basic functions of the TOE.

#### 3.6 Audit Log

A function that records, and sends to the Audit Log server, the audit logs of user operations and security-relevant events on the HDD. This function provides the audit trails of TOE use and security-relevant events. Stored audit logs can only be accessed by a device administrator.

#### 3.7 **Security Management**

A function that sets security functions of the TOE. This function can be used only by authorized users. This function can be utilized from an Operation Panel and a Client PC. Operations from a Client PC use a web browser.

#### 3.8 **Trusted Operation**

A function that verifies the authenticity of the firmware when updating the firmware of TOE, and that verifies the integrity of TSF executable code and TSF data to detect unauthorized alteration of the executable code of the TOE security functions.

#### 3.9 **Network Protection**

A function that protects communication paths to prevent leaking and altering of data by eavesdropping of data in transition over the internal network connected to TOE.

This function verifies the propriety of the destination to connect to and protects targeted information assets by encryption, when using a Scan to Send Function, a Print Function, a Box Function and a BOX Function from a Client PC (web browser), or a Security Management Function from a Client PC (web browser).

#### 3.10 **PSTN Fax-Network Separation**

The TOE ensures separation between the PSTN fax line and the Internal Network.

#### 4 **Assumptions and Clarification of Scope**

#### 4.1 **Assumptions**

The Security Target [ST] makes four assumptions on the usage and the operational environment of the TOE.

## A.PHYSICAL

Physical security, commensurate with the value of the TOE and the data it stores or processes, is assumed to be provided by the environment.

#### A.NETWORK

The Operational Environment is assumed to protect the TOE from direct, public access to its LAN interface.

## A.TRUSTED ADMIN

TOE Administrators are trusted to administer the TOE according to site security policies.

## A.TRAINED\_USERS

Authorized Users are trained to use the TOE according to site security policies.

#### 4.2 Clarification of Scope

The Security Target contains five threats, which have been considered during the evaluation.

## T.UNAUTHORIZED\_ACCESS

An attacker may access (read, modify, or delete) User Document Data or change (modify or delete) User Job Data in the TOE through one of the TOE's interfaces.

## T.TSF COMPROMISE

An attacker may gain Unauthorized Access to TSF Data in the TOE through one of the TOE's interfaces.

## T.TSF FAILURE

A malfunction of the TSF may cause loss of security if the TOE is permitted to operate.

## T.UNAUTHORIZED\_UPDATE

An attacker may cause the installation of unauthorized software on the TOE.

## T.NET COMPROMISE

An attacker may access data in transit or otherwise compromise the security of the TOE by monitoring or manipulating network communication.

The Security Target contains eight Organisational Security Policies (OSPs), which have been considered during the evaluation.

## P.AUTHORIZATION

Users must be authorized before performing Document Processing and administrative functions.

P.AUDIT

Security-relevant activities must be audited and the log of such actions must be protected and transmitted to an External IT Entity.

#### P.COMMS\_PROTECTION

The TOE must be able to identify itself to other devices on the LAN.

#### P.STORAGE ENCRYPTION

If the TOE stores User Document Data or Confidential TSF Data on Field-Replaceable Nonvolatile Storage Devices, it will encrypt such data on those devices.

## P.KEY MATERIAL

Cleartext keys, submasks, random numbers, or any other values that contribute to the creation of encryption keys for Field-Replaceable Nonvolatile Storage of User Document Data or Confidential TSF Data must be protected from unauthorized access and must not be stored on that storage device.

## P.FAX\_FLOW

If the TOE provides a PSTN fax function, it will ensure separation between the PSTN fax line and the LAN.

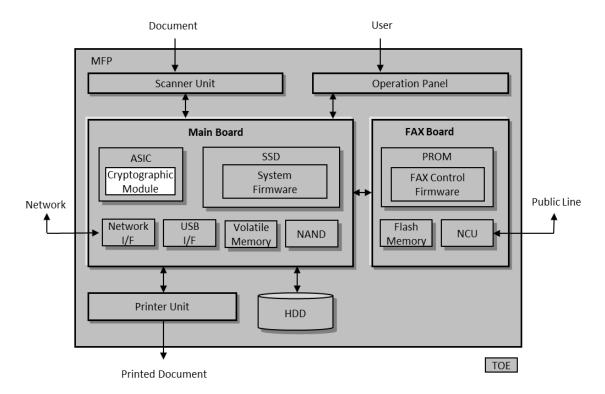
## P.IMAGE\_OVERWRITE

Upon completion or cancellation of a Document Processing job, the TOE shall overwrite residual image data from its Field-Replaceable Nonvolatile Storage Devices.

## P.PURGE DATA

The TOE shall provide a function that an authorized administrator can invoke to make all customer-supplied User Data and TSF Data permanently irretrievable from Non-volatile Storage Devices.

#### 5 **Architectural Information**



The TOE consists of an Operation Panel, a Scanner Unit, a Printer Unit, a Main Board, a FAX Board, HDD and SSD hardware, and firmwares.

The Operation Panel is the hardware that displays status and results upon receipt of input by the TOE user. The Scanner Unit and the Printer Unit are the hardware that input document into MFP and output as printed material.

A Main Board is the circuit board to control entire TOE. A system firmware is installed on an SSD, which is positioned on the Main Board. The Main Board has a Network Interface and a USB Interface.

The ASIC on the Main Board is installed with a cryptographic module to perform the HDD encryption function and Overwrite-Erase function (see below). A FIPS 140-2 certified cryptographic module, key derivation and entropy are provided by this cryptographic module in TOE environment.

A FAX control firmware that controls FAX communication is installed on the PROM, which is positioned on the FAX Board. Additionally, a FAX Board has a NCU as an interface.

#### **Documentation** 6

The following guidance documents are part of the TOE:

Notice (KYOCERA)

Notice (Copystar)

Notice (TA Triumph-Adler/UTAX)

TASKalfa 7054ci / TASKalfa 6054ci / TASKalfa 5054ci / TASKalfa 4054ci / TASKalfa 3554ci / TASKalfa 2554ci First Steps Quick Guide

TASKalfa 2554ci / TASKalfa 3554ci / TASKalfa 4054ci / TASKalfa 5054ci / TASKalfa 6054ci / TASKalfa 7054ci Operation Guide

TASKalfa 2554ci / TASKalfa 3554ci / TASKalfa 4054ci / TASKalfa 5054ci / TASKalfa 5004i / TASKalfa 6054ci / TASKalfa 6004i / TASKalfa 7054ci / TASKalfa 7004i Safety Guide

FAX System 12 Operation Guide

Data Encryption/Overwrite Operation Guide

Command Center RX User Guide

TASKalfa 7054ci / TASKalfa 6054ci / TASKalfa 5054ci / TASKalfa 4054ci / TASKalfa 3554ci / TASKalfa 2554ci Printer Driver User Guide

KYOCERA Net Direct Print User Guide

#### **IT Product Testing** 7

#### 7.1 **Evaluator Testing**

All TOE variants included the evaluation use the same firmware and execute on the same main board with the same processor. The TASKalfa 6054ci model was used for testing, representing all TOE variants.

All the test cases defined in the HCDPP were performed. The testing took place in Combitech's premises in Stockholm, between 2021-08-17 and 2021-10-29.

All tests were successful and no errors were discovered.

#### 7.2 **Penetration Testing**

The TASKalfa 6054ci model was used for penetration testing.

The evaluators performed port scans (NMAP), vulnerability scan (Nessus), and jpeg fuzz tests (Peach).

No vulnerabilities were found during the penetration testing.

## **8** Evaluated Configuration

In the evaluated configuration, the optional hard disk, the optional fax board and the optional data security kit are installed and included in the scope of the TOE.

The following features are excluded from the evaluated configuration:

- Maintenance Interface

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#### **Results of the Evaluation** 9

The evaluators applied each work unit of the Common Methodology [CEM] within the scope of the evaluation, and concluded that the TOE meets the security objectives stated in the Security Target [ST] for an attack potential of Basic.

The certifier reviewed the work of the evaluators and determined that the evaluation was conducted in accordance with the Common Criteria [CC].

The evaluators' overall verdict is PASS.

The verdicts for the assurance classes and components are summarised in the following table:

Assurance Class Name / Assurance Family Name	Short name (including component identifier for assurance families)	Verdict
Security Target Evaluation	ASE	PASS
ST Introduction	ASE_INT.1	PASS
Conformance claims	ASE_CCL.1	PASS
Security Problem Definition	ASE_SPD.1	PASS
Security objectives	ASE_OBJ.1	PASS
Extended components definition	ASE_ECD.1	PASS
Derived security requirements	ASE_REQ.1	PASS
TOE summary specification	ASE_TSS.1	PASS
Life-cycle support	ALC	PASS
Use of a CM system	ALC_CMC.1	PASS
CM Coverage	ALC_CMS.1	PASS
Development	ADV	PASS
Security-enforcing functional specification	ADV_FSP.1	PASS
Guidance documents	AGD	PASS
Operational user guidance	AGD_OPE.1	PASS
Preparative procedures	AGD_PRE.1	PASS
Tests	ATE	PASS
Independent testing	ATE_IND.1	PASS
Vulnerability Assessment	AVA	PASS
Vulnerability analysis	AVA_VAN.1	PASS

The assurance activities in the HCDPP v1.0e also have the verdict

**PASS** 

# **Evaluator Comments and Recommendations**None.

#### 11 **Glossary**

Common Methodology for Information Technology Security, **CEM** 

document describing the methodology used in Common Cri-

teria evaluations

CM Configuration Management **EAL Evaluation Assurance Level** 

**HDD** Hard Disk Drive

**IPSec** Internet Protocol Security ISO International Organization for

Standardization

IT Information Technology

**ITSEF** IT Security Evaluation Facility,

test laboratory licensed to operate within an evaluation and certifica-

tion scheme

LAN Local Area Network **MFP Multi-Function Printer NCU** Network Control Unit

**OSP** Organizational Security Policy

PP **Protection Profile** 

**SMTP** Simple Mail Transport Protocol

SSD Solid State Disk

ST Security Target, document con-

taining security requirements and specifications, used as the basis

of a TOE evaluation

TLS **Transport Layer Security** TOE Target of Evaluation

**TSF TOE Security Functionality** 

**TSFI** TSF Interface

# 12 Bibliography

ST	TASKalfa 7054ci, TASKalfa 6054ci, TASKalfa 5054ci, TASKalfa 4054ci Series with Hard Disk, FAX System and Data Security Kit Security Target, Kyocera Document Solutions Inc., 2021-10-13, document version 1.0, FMV ID 21FMV4842-10	
N1	Notice (KYOCERA), Kyocera Document Solutions Inc., Oct 2021, document version 302XC5641002	
N1	Notice (Copystar), Kyocera Document Solutions Inc., Oct 2021, document version 302XC5642002	
N3	Notice (TA Triumph-Adler/UTAX) , Kyocera Document Solutions Inc., Oct 2021, document version 302XC5643002	
IG-FAX	FAX System 12 Installation Guide, Kyocera Document Solutions Inc., document version 303RK5671101	
QG	TASKalfa 7054ci / TASKalfa 6054ci / TASKalfa 5054ci / TASKalfa 4054ci / TASKalfa 3554ci / TASKalfa 2554ci First Steps Quick Guide, Kyocera Document Solutions Inc., Nov 2020, document version 302XC5602002	
OG	TASKalfa 2554ci / TASKalfa 3554ci / TASKalfa 4054ci / TASKalfa 5054ci / TASKalfa 6054ci / TASKalfa 7054ci Operation Guide, Kyocera Document Solutions Inc., Febr 2020, document version 2XCKDEN000	
SG	TASKalfa 2554ci / TASKalfa 3554ci / TASKalfa 4054ci / TASKalfa 5054ci / TASKalfa 5004i / TASKalfa 6054ci / TASKalfa 6004i / TASKalfa 7054ci / TASKalfa 7004i Safety Guide, Kyocera Document Solutions Inc., Sept 2020, document version 302XC5622001	
OG-FAX	FAX System 12 Operation Guide, Kyocera Document Solutions Inc., Febr 2020, document version 3RKKDEN300	
DE	Data Encryption/Overwrite Operation Guide, Kyocera Document Solutions Inc., Jun 2020, document version 3MS2XCKDEN1	
CCRX	Command Center RX User Guide, Kyocera Document Solutions Inc., Febr 2020, document version CCRXKDEN23	

PD	TASKalfa 7054ci / TASKalfa 6054ci / TASKalfa 5054ci / TASKalfa 4054ci / TASKalfa 3554ci / TASKalfa 2554ci Printer Driver User Guide, Kyocera Document Solutions Inc., Febr 2020, document version 2XCCLKTEN750
HCDPP	Protection Profile for Harcopy Devices, IPA, NIAP and MFP Technical Community, 2015-09-10, document version 1.0 (including Errata #1, June 2017)
CCpart1	Common Criteria for Information Technology Security Evaluation, Part 1, version 3.1, revision 5, April 2017, CCMB-2017-04-001
CCpart2	Common Criteria for Information Technology Security Evaluation, Part 2, version 3.1, revision 5, April 2017, CCMB-2017-04-002
CCpart3	Common Criteria for Information Technology Security Evaluation, Part 3, version 3.1, revision 5, April 2017, CCMB-2017-04-003
CC	CCpart1 + CCPart2 + CCPart3
CEM	Common Methodology for Information Technology Security Evaluation, version 3.1, revision 5, April 2017, CCMB-2017-04-004

#### Appendix A **Scheme Versions**

During the certification the following versions of the Swedish Common Criteria Evaluation and Certification scheme have been used.

#### **Scheme/Quality Management System A.1**

Version	Introduced	Impact of changes
2.1	2022-01-18	None
2.0	2021-11-24	None
1.25	2021-06-17	Original version

#### **A.2 Scheme Notes**

The following Scheme Notes have been considered during the certification:

SN 15 - Testing

SN 18 - Highlighted Requirements on the ST

SN 21 - NIAP PP Certifications

SN 22 - Vulnerability Assessment

SN 23 - Evaluation Reports for NIAP PPs and cPPs

SN 28 - Updated procedures