Ärendetyp: 6





Swedish Certification Body for IT Security

Certification Report - Kyocera TASKalfa 7004i, TASKalfa 6004i, TASKalfa 5004i Series with FAX System

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1 Executive Summary

The TOE is the hardware and the firmware of the following multifunction printer (MFP) models with FAX:

- KYOCERA TASKalfa 7004i, KYOCERA TASKalfa 6004i, KYOCERA TASKalfa 5004i, KYOCERA TASKalfa 7004iG, KYOCERA TASKalfa 6004iG, KYOCERA TASKalfa 5004iG,
- TA Triumph Adler 7058i, TA Triumph Adler 6058i, TA Triumph Adler 5058i,
- UTAX 7058i, UTAX 6058i , UTAX 5058i

with the following firmeware:

System Firmware: 2XF S000.002.206

FAX Firmware: 3R2_5100.003.012

and the following additional options:

• FAX Option (FAX System 12)

The TOE provides Copy function, Scan function, Print function, FAX function and Box function.

Information about the delivery method for each TOE components can be found in [ST] Table 1-1.

The evaluation has been performed by Combitech AB in Växjö and Bromma. The evaluation was completed on 2021-04-14. The evaluation was conducted in accordance with the requirements of Common Criteria (CC), version. 3.1 release 5. 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. (Repeat if more than one ITSEF is involved)

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) and the Common Methodology for evaluation assurance level EAL 2 augmented by ALC_FLR.

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 met.

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	CSEC2020013			
Name and version of the cer- tified IT product	KYOCERA TASKalfa 7004i, KYOCERA TASK- alfa 6004 i, KYOCERA TASKalfa 5004i, KYO- CERA TASKalfa 7004iG, KYOCERA TASKalfa 6004iG, KYOCERA TASKalfa 5004iG,			
	TA Triumph Adler 7058i, TA Triumph Adler 6058i, TA Triumph Adler 5058i,			
	UTAX 7058i, UTAX 6058i , UTAX 5058i with FAX			
	System Firmware: 2XF_S000.002.206			
	FAX Firmware: 3R2_5100.003.012			
Security Target Identification	TASKalfa 7004i, TASKalfa 6004i, TASKalfa 5004i Series with FAX System Security Target, 1.00, March 4, 2021			
EAL	EAL 2 + ALC_FLR.2			
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	1.24.1			
Scheme Notes Release	18.0			
Recognition Scope	CCRA, SOGIS and EA/MLA			
Certification date	2021-05-12			

3 Security Policy

- User Management Function
- Data Access Control Function
- FAX Data Flow Control Function
- SSD Encryption Function
- Audit Log Function
- Security Management Function
- Self-Test Function
- Network Protection Function

3.1 User Management Function

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 Function

A function that restricts access so that only authorized users can access to image data stored in the TOE.

3.3 FAX Data Flow Control Function

A function that controls forwarding the data received from public line to the TOE's external interface, following to the FAX forward setting.

3.4 SSD Encryption Function

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

3.5 Audit Log Function

A function that records and stores the audit logs of user operations and security-relevant events on the SSD. This function provides the audit trails of TOE use and security-relevant events. Stored audit logs can be accessed only by a device administrator. The stored audit logs will be sent by email to the destination set by the device administrator.

3.6 Security Management Function

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.

3.7 Self-Test Function

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

3.8 Network Protection Function

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). However, usage of a Print Function directly connected to a MFP is exception.

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.ACCESS

The hardware and software that are composed of TOE are located in a protected environment from security invasion such as illegal analysis and alteration.

A.NETWORK

The TOE is connected to the internal network that is protected from illegal access from the external network.

A.USER_EDUCATION

The TOE users are aware of the security policies and procedures of their organization, and are educated to follow those policies and procedures.

A.DADMIN_TRUST

The TOE's administrators are competent to manage devices properly as a device administrator and have a reliability not to use their privileged access rights for malicious purposes.

4.2 Clarification of Scope

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

T.SETTING_DATA

Malicious person may have unauthorized access to, to change, or to leak TOE setting data via the operation panel or client PCs.

T.IMAGE_DATA

Malicious person may illegally access not authorized image data via the operation panel or Client PC and leak or alter them.

T.NETWORK

Malicious person may illegally eavesdrop or alter image data or TOE setting data on the internal network.

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

P.SSD_ENCRYPTION

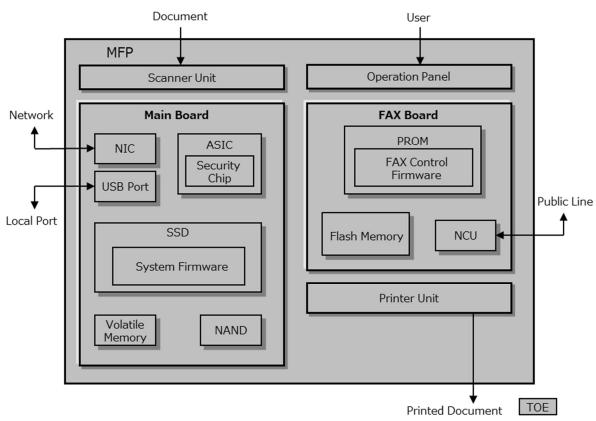
TOE must encrypt image data and TOE setting data stored on SSD.

P.FAX_CONTROL

TOE must control forwarding data received from public line and send it to external interface according with rules set by authorized roles.

P.SOFTWARE_VERIFICATION

TOE must execute Self Test that verify execution code of TSF to detect corruption of executable code.



Architectural Information

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Figure 1 Physical Configuration of TOE

The TOE consists of an Operation Panel, a Scanner Unit, a Printer Unit, a Main Board, a FAX Board, 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 installled on a SSD, which is positioned on the Main Board. The Main Board has a Network Interface (NIC) and a Local Interface (USB Port).

ASIC that is also on the Main Board includes a Security Chip, which shares installation of some of the security functions. The Security Chip realizes security arithmetic processing for SSD encryption function

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.

6 Documentation

The following documents are included in the scope of the TOE:

- Notice (KYOCERA)
- Notice (Copystar)
- Notice (TA Triumph-Adler/UTAX)
- FAX System 12 Installation Guide
- TASKalfa 7004i / TASKalfa 6004i / TASKalfa 5004i First Steps Quick Guide
- TASKalfa 5004i / TASKalfa 6004i / TASKalfa 7004i 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 7004i / TASKalfa 6004i / TASKalfa 5004i Printer Driver User Guide
- KYOCERA Net Direct Print User Guide

7 IT Product Testing

7.1 Developer Testing

The developer testing was executed on TASKalfa 7004i with the following firmware versions:

- System: 2XF_S000.002.206
- FAX: 3R2_5100.003.012

The TASKalfa 7004i TASKalfa 6004i and TASKalfa 5004i series execute on the same main board with the same CPU. They all running the same set of firmwares.

The developer tests included in the CC testing cover full coverage for the TOE interfaces and most of the security functionality

7.2 Evaluator Testing

The independent testing was performed on TASKalfa 7004i.

The TASKalfa 7004i TASKalfa 6004i and TASKalfa 5004i series execute on the same main board with the same CPU. They all running the same set of firmwares.

The evaluator performed approximately 25% of the developer tests. Some of the test cases were complemented with independent testing.

Some tools for fuzzing – PeachFuzz, port scanning – nmap, and vulnerability scanning – Nessus, were used.

The actual results of all test cases were consistent with the expected test results and all tests were judged to pass

7.3 Penetration Testing

The following types of penetration tests were performed:

- Port scan
- Vulnerability scan including web application vulnerability scan
- JPG fuzzing

All penetration testing had negative outcome, i.e. no vulnerabilities were found.

8 Evaluated Configuration

Required Non-TOE Hardware, Software and Firmware name is as follows.

- Client PCs:
 - Printer Driver : KX Driver
 - TWAIN Driver : Kyocera TWAIN Driver
 - Web Browser : Microsoft Internet Explorer 11.0
- Mail Server : IPsec(IKEv1) should be available.
- FTP Server : IPsec(IKEv1) should be available.

The following features are excluded from the evaluated configuration:

• Maintenance Interface

9 Results of the Evaluation

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:

Assurar	nce Class/Family	Component	Verdict
Development		ADV	PASS
	Security Architecture	ADV_ARC.1	PASS
	Functional Specification	ADV_FSP.2	PASS
	TOE Design	ADV_TDS.1	PASS
Guidance Documents		AGD	PASS
	Operational User Guidance	AGD_OPE.1	PASS
	Preparative Procedures	AGD_PRE.1	PASS
Life-cyc	le Support	ALC	PASS
	CM Capabilities	ALC_CMC.2	PASS
	CM Scope	ALC_CMS.2	PASS
	Delivery	ALC_DEL.1	PASS
	Flaw Remediation	ALC_FLR.2	PASS
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.2	PASS
	Extended Components Definition	ASE_ECD.1	PASS
	Security Requirements	ASE_REQ.2	PASS
	TOE Summary Specification	ASE_TSS.1	PASS
Tests		ATE	PASS
	Coverage	ATE_COV.1	PASS
	Functional Tests	ATE_FUN.1	PASS
	Independent Testing	ATE_IND.2	PASS
Vulnerability Assessment AVA			PASS
	Vulnerability Analysis	AVA_VAN.2	PASS

10 Evaluator Comments and Recommendations

None.

11 Glossary

- CC Common Criteria
- CEM Common Methodology for Information Technology Security
- EAL Evaluation Assurance Level
- FAX facsimile
- ITSEF IT Security Evaluation Facility
- IT information technology
- MFP Multi Functional Printer
- NCU Network Control Unit
- OSP organizational security policy
- SSD Solid State Drive
- ST Security target
- TOE Target of Evaluation
- TSF TOE security functionality
- USB Universal Serial Bus

12 Bibliography

ST	TASKalfa 3554ci, TASKalfa 2554ci Series with Hard Disk and FAX System, Security Target, document version 1.0, March 4, 2021
QG-1	TASKalfa 7004i, TASKalfa 6004i, TASKalfa 5004i First Steps Quick Guide, Kyocera Document Solutions Inc., document version 302XF5602001, 2020.11
IG-FAX	INSTALLATION GUIDE, FAX System 12, Kyocera Document Solutions Inc., document version 303RK5671101, 2019.8
SG-1	TASKalfa 2554ci / TASKalfa 3554ci Safety Guide, Kyocera Document Solutions Inc., document version 302XC5622001, 2020.11
OG-1	TASKalfa 5004i, TASKalfa 6004i, TASKalfa 7004i OPERATION GUIDE, Kyocera Document Solutions Inc., document version 2XFKDEN000, 2020.10
OG-FAX	FAX System 12 Operation Guide, Kyocera Document Solutions Inc., document version 2RKKDEN300, 2020.2
DE-1	Data Encryption/Overwrite, Operation Guide, Kyocera Document Solutions Inc., document version 3MS2XCKDEN1, 2020.9
PD-1	TASKalfa 7004i, TASKalfa 6004i, TASKalfa 5004i Printer Driver, User Guide, Kyocera Document Solutions Inc., document version 2XFBWKTEN750, 2020.2
CCRX-1	User Guide, Command Center RX, Kyocera Document Solutions Inc., document version CCRXKDEN23, 2020.2
NDP	KYOCERA Net Direct Print User Guide, Kyocera Document Solutions Inc., document version DirectPrintKDEN2, 2019.2
NOTICE-1	Notice (TA Triumph-Adler/UTAX), Kyocera Document Solutions Inc., document version 302XF5643001, 2020.11
NOTICE-2	Notice (Copystar), Kyocera Document Solutions Inc., document version 302XF5642001, 2020.11
NOTICE-3	Notice (KYOCERA), Kyocera Document Solutions Inc., document version 302XF5641001, 2020.11
CC	CCpart1 + CCpart2 + CCpart3
CEM	Common Methodology for Information Technology Security Evalu- ation, version 3.1 revision 5, CCMB-2017-04-004
SP-002	SP-002 Evaluation and Certification, CSEC, 2020-11-30, document version 32.0

Appendix A Scheme Versions

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

A.1 Scheme/Quality Management System

During the certification project, the following versions of the quality management system (QMS) have been applicable since the certification application was received:

QMS 1.23.2 valid from 2020-05-11

QMS 1.24 valid from 2020-11-19

QMS 1.24.1 valid from 2020-12-03

In order to ensure consistency in the outcome of the certification, the certifier has examined the changes introduced in each update of the quality management system.

The changes between consecutive versions are outlined in "Ändringslista CSEC QMS 1.24.1". The certifier concluded that, from QMS 1.23.2 to the current QMS 1.24.1, there are no changes with impact on the result of the certification.

A.2 Scheme Notes

The following Scheme interpretations have been considered during the certification.

- Scheme Note 15 Testing
- Scheme Note 18 Highlighted Requirements on the Security Target
- Scheme Note 22 Vulnerability assessment
- Scheme Note 28 Updated procedures for application, evaluation and certification