

오픈소스로 여는 뉴노멀

2020 공개SW 페스티벌



과학기술정보통신부
Ministry of Science and ICT



정보통신산업진흥원
National IT Industry Promotion Agency

LG전자 Open Source Compliance 시스템



LG전자
김소임

▶ Open Source Compliance System 필요성

Open Source를 포함한 Software를 배포할 때



▶ Open Source Compliance System 필요성

Open Source를 포함한 Software를 배포할 때



▶ Open Source Compliance System 필요성

Open Source를 포함한 Software를 배포할 때



- ① Open Source License 확인



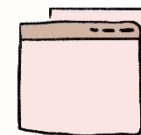
- ② Open Source License Text 파일 생성 & 포함



- ③ 공개할 Source Code 취합



- ④ 공개할 Source Code를 배포



FOSSLight

Open Source Compliance Process를 효율적으로 수행하는 시스템

오픈 소스
공개 예정

김소임 | Logout

00, Please save your work in

Dashboard
Statistics
License List
OSS List
Project List
3rd Party List
BAT List
Binary DB
Vulnerability
Self-Check List
Compliance Status
Model(S/W) OSC Status
3rd Party Status
External Link

Project List

ID

Model Name

Status

Created Date

Division

Additional Information

Project Name

Distribution Type

License Name

Creator

Comment

OSS Name

Binary Name

3rd party

Reviewer

Search

Reject

ID	Project Name (Version)	Status	Identification	Packaging	Distribution	Download	Distribution Type	Vulnerability	Division	Creator	Created Date
1468	open api binAndroid (ver yrdy)	P	Progress Android				Android Model (ex. Ar		CTO SW센터	김소임	2020-10-06
1467	tetest (ver test)	P	Progress 3rd SRC BIN BOM				General Model		CTO SW센터	김소임	2020-10-06
1466	hi test (ver 23)	R	Request 3rd SRC BIN BOM				General Model		CTO SW센터	유현태	2020-10-06
1465	open api binAndroid	P	Progress Android				Android Model (ex. Ar		CTO SW센터	유현태	2020-10-05
1464	verify test ver1.0	P	Confirm 3rd SRC BIN BOM	Confirm	Start		General Model		CTO SW센터	시스템관리자	2020-10-05
1463	create Project test 333	P	Start				General Model		CTO SW센터	유현태	2020-09-22
1462	create project test 222	P	Start				General Model		CTO SW센터	유현태	2020-09-22
1461	create Project test	P	Start				General Model		CTO SW센터	시스템관리자	2020-09-21
1460	tetsetset2	P	Progress 3rd SRC BIN BOM				Software only release		CTO SW센터	김소임	2020-09-17
1459	Sample TEST 2 (ver 0916)	R	Review 3rd SRC BIN BOM BAT				Software only release		CTO SW센터	김소임	2020-09-16
1458	Sample TEST (ver 20.09)	P	Progress 3rd SRC BIN BOM				Software only release		CTO SW센터	김소임	2020-09-16
1457	test-0aaaaa	P	Progress Android				Android Model (ex. Ar		CTO SW센터	최해성	2020-09-15
1456	testst (ver stetestst)	P	Confirm 3rd SRC BIN BOM	Progress			General Model		CTO SW센터	김소임	2020-09-15
1455	testttestset	P	Progress Android				Android Model (ex. Ar		CTO SW센터	김소임	2020-09-14
1454	spdx-d	R	Confirm 3rd SRC BIN BOM	Confirm	N/A		Transfer in-house		CTO SW센터	김경애	2020-09-14

Reject

Page 1 of 61 15

▶ FOSSLight 주요 기능

Project

프로젝트 별 OSC Process
수행 및 Status 관리

License / OSS

Open Source License /
Open Source
정보 조회 및 관리

Vulnerability

Open Source 보안 취약점
조회 및 프로젝트별
모니터링 제공

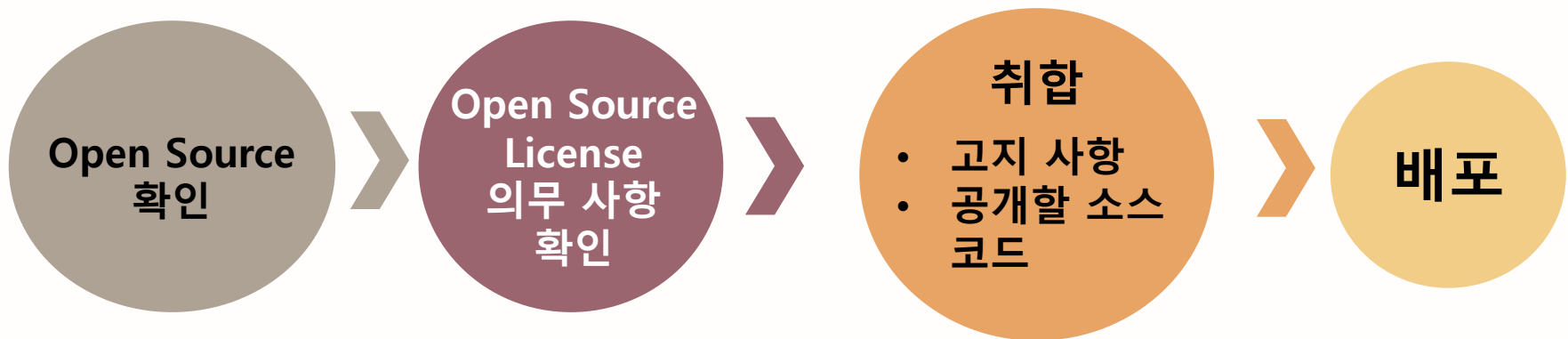
3rd Party Project

3rd Party로부터 입수된
Software별
Open Source 관리

Self-Check

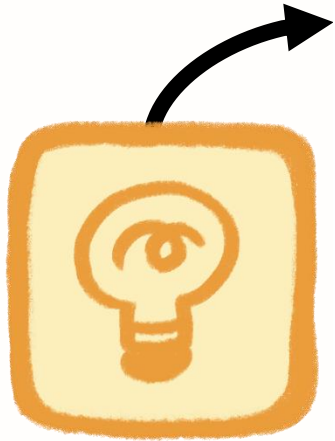
검토할 Open Source에 대한
License, 보안 취약점 등
사전 확인 기능

▶ FOSSLight Open Source Compliance Process



▶ FOSSLight Open Source Compliance Process

1. Project 생성



* Project Name
Simple Application ⓘ
Created
김소임 CTO SW센터 (2020-10-27)

Basic Information

Show Comment History

Comment Edit ▼

Project Name	Simple Application																		
Project Version	1.0																		
Permission	View : ☒ EveryOne ☐ Creator & Watcher Edit : Creator & Watcher only																		
Operating System	Application (Android) ▼																		
Distribution Type	Software only release (ex. Android application) ▼																		
Distribution Site	☒ opensource.lge.com ☐ opensource.signaturekitchensuite.com ☐ N/A																		
OSS Notice Due Date	2020-11-04																		
Model Information	Upload Drag & Drop Files					Download													
	<table> <thead> <tr> <th></th> <th>Category</th> <th>Model Name</th> <th>Release Date</th> <th>Last Modified</th> <th>Updated Date</th> <th>Delete</th> </tr> </thead> <tbody> <tr> <td colspan="7">+</td> </tr> </tbody> </table>							Category	Model Name	Release Date	Last Modified	Updated Date	Delete	+					
	Category	Model Name	Release Date	Last Modified	Updated Date	Delete													
+																			

Delete All

▶ FOSSLight Open Source Compliance Process

1. Project 생성

Project List

ID

Model Name

Status

Created Date

Division

Additional Information

Project Name

Distribution Type

License Name

Creator

Comment

OSS Name

Binary Name

3rd party

Reviewer

☐ Progress ☐ Request ☐ Review ☐ Complete ☐ Delay

Search

USER GUIDE

Reject

1

	ID	Project Name (Version)	Status	Identification	Packaging	Distribution	Download	Distribution Type	Vulnerability
☐	1473	Simple Application (ver 1.0)	P	Start				Software only release	

Open Source와 License를 확인

▶ FOSSLight Open Source Compliance Process

2. Open Source, Open Source License 확인

Project Name

Simple Application (1.0) B

Created

김소임 CTO SW센터 (2020-10-24)

3rd party

SRC

BIN

BOM

BAT(Optional)

Request Review

Upload Analysis Result

Project Search

Not Applicable

General Model

Upload

Drag & Drop Files

Loaded List

ID	project Name	project Version
----	--------------	-----------------

Hide

Check OSS Name

+

🗑

Page 1 of 1

200

ID	Source Name or Path	OSS Name	OSS Version	License	Download Location	Homepage	Copyright Text	Vulnerability
	~ X	~ X	~ X	~ X	~ X	~ X	~ X	>= X
1	src/components/Spinner/img/s	react-native-spinner-button	1.0.3	MIT	https://github.com	https://github.com	Copyright (c) 2018 Rupal	
2	src/main.cpp	apache-netlog	1.9	GPL-2.0,GPL-3.0	https://github.com	https://github.com	Copyright (c) Jens Låås, 20	
3	src/lib	readline	6.2	GPL-3.0	http://pkgs.fedoraproject.org	https://cnswww.c		⚠
4	fonts	Miso Font		Miso Font License	https://github.com	https://github.com	-	

자동으로
Open Source
정보를
불러옵니다

▶ FOSSLight Open Source Compliance Process

2. Open Source, Open Source License 확인

Project Name
Simple Application (1.0) B

Created
김소임 CTO SW센터 (2020-10-24)

3rd party
SRC
BIN
BOM
BAT(Optional)
Request Review

Show Comment History
Comment Edit

Auto Analysis
Export
Reset
Merge And Save

ID	Referen	OSS Name	OSS Version	License	Download Locatic	Homepage	Copyright Text	Vulnera bility	Obligation	Restrictior	admin check
									Notify	Source	
		~ X	~ X	~ X	~ X	~ X	~ X	>= X			
4	SRC	Miso Font		Miso Font License	https://github.com	https://github.com	-			R	☐
2	SRC	apache-netlog	1.9	GPL-3.0,GPL-2.0	https://github.com	https://github.com	Copyright (c) Jens Låås, 2010				☐
1	SRC	react-native-spinne	1.0.3	MIT	https://github.com	https://github.com	Copyright (c) 2018 Rupal				☐
3	SRC	readline	6.2	GPL-3.0	http://pkgs.fedoraproject.org	https://cnsware.com					☐

Open Source의 보안취약 정보 확인

▶ FOSSLight Open Source Compliance Process

2. Open Source, Open Source License 확인

Project Name

Simple Application (1.0) B

Created

김소임 CTO SW센터 (2020-10-24)

3rd party

SRC

BIN

BOM

BAT(Optional)

Request Review

Show Comment History

Comment Edit

Auto Analysis

Export

Reset

Merge And Save

ID	Referenc	OSS Name	OSS Version	License	Download Locatic	Homepage	Copyright Text	Vulnera bility	Obligation			admin check
									Notify	Source	Restriction	
		~ X	~ X	~ X	~ X	~ X	~ X	>= X				
4	SRC	Miso Font		Miso Font License	https://github.com	https://github.com	-				R	☐
2	SRC	apache-netlog	1.9	GPL-3.0,GPL-2.0	https://github.com	https://github.com	Copyright (c) Jens Låås, 2010					☐
1	SRC	react-native-spinne	1.0.3	MIT	https://github.com	https://github.com	Copyright (c) 2018 Rupal					☐
3	SRC	readline	6.2	GPL-3.0	http://pkgs.fedoraproject.org	https://cns.wiki						☐

Open Source의 배포시 의무사항과 제약 사항을 확인

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

Project List

ID

Model Name

Status

Created Date

Division

Additional Information

Project Name

Distribution Type

License Name

Creator

Comment

OSS Name

Binary Name

3rd party

Reviewer

Search

USER GUIDE

Reject

2

Start

	ID	Project Name (Version)	Status	Identification	Packaging	Distribution	Download	Distribution Type	Vulnerability
	1473	Simple Application (ver 1.0)	P	Confirm 3rd SRC BIN BOM	Start			Software only release (e	

- 공개할 Source code 취합
- 고지문 파일 생성

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

* Project Name

Simple Application B I

Created

김소임 CTO SW센터 (2020-10-24)

USER GUIDE

Packaging

Notice

☐ Approve without verification

Upload OSS Package

Package File 1

☒ Upload

Drag & Drop Files

☐ URL

☐ Project Search

* The maximum file size for uploading is 4GB.

Verify OSS Package * Enter the path info of source code for each OSS and click the Verify button

* Open Source List to disclose source code

ID	Referen	OSS Name	OSS Version	Download Loc	Homepage	License	Path of source code in the OSS Package	File Count
1	SRC	apache-netlog	1.9	https://github.c	URL	GPL-3.0,GPL-2.0	src/main.cpp	
3	SRC	readline	6.2	http://pkgs.fed	URL	GPL-3.0	src/lib	

<< < > >>

Page 1 of 1

>> >>

View 1 - 2 of 2

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

Project Name

Simple Application B I

Created

김소임 CTO SW센터 (2020-10-24)

Packaging

Notice

☐ Approve without verification

Request Review

Show Comment History

Comment Edit ▼

Upload OSS Package

Package File 1

source_to_release.gz

2020-10-24 20:29:07 ✕

+ Add

Verify OSS Package

* Enter the path info of source code for each OSS and click the Verify button

Export Path

Upload Path

Save

Verify

* Open Source List to disclose source code

ID	Referen	OSS Name	OSS Version	Download Loc	Homepage	License	Path of source code in the OSS Package	File Count
1	SRC	apache-netlog	1.9	https://github.	URL	GPL-3.0,GPL-2.0	libnl-3.5.0/include/	184
3	SRC	readline	6.2	http://pkgs.fed	URL	GPL-3.0	src/lib path not found.	

Page 1 of 1

View 1 - 2 of 2

README

File List

Banned List

Export Path

Upload Path

Save

Verify

Source Code 포함 여부

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

Project Name

Simple Application B I

Created

김소임 CTO SW센터 (2020-10-24)

Packaging

Notice

☐ Approve without verification

Request Review

Show Comment History

Comment Edit ▼

Upload OSS Package

Package File 1

source_to_release.gz

2020-10-24 20:29:07 ✕

+ Add

Verify OSS Package

* Enter the path info of source code for each OSS and click the Verify button

Export Path

Upload Path

Save

Verify

* Open Source List to disclose source code

ID	Referen	OSS Name	OSS Version	Download Loc	Homepage	License	Path of source code in the OSS Package	File Count
1	SRC	apache-netlog	1.9	https://github.	URL	GPL-3.0,GPL-2.0	libnl-3.5.0/include/	184
3	SRC	readline	6.2	http://pkgs.fed	URL	GPL-3.0	src/lib path not found.	

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Page 1 of 1

View 1 - 2 of 2

README

File List

Banned List

Export Path

Upload Path

Save

Verify

README 파일

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

Project Name

Simple Application B I

Created

김소임 CTO SW센터 (2020-10-24)

Packaging

Notice

☐ Approve without verification

Request Review

Show Comment History

Comment Edit ▼

Upload OSS Package

Package File 1

source_to_release.gz

2020-10-24 20:29:07 ✕

+ Add

Verify OSS Package

* Enter the path info of source code for each OSS and click the Verify button

Export Path

Upload Path

Save

Verify

* Open Source List to disclose source code

ID	Referen	OSS Name	OSS Version	Download Loc	Homepage	License	Path of source code in the OSS Package	File Count
1	SRC	apache-netlog	1.9	https://github.	URL	GPL-3.0,GPL-2.0	libnl-3.5.0/include/	184
3	SRC	readline	6.2	http://pkgs.fed	URL	GPL-3.0	src/lib path not found.	

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Page 1 of 1

View 1 - 2 of 2

README

File List

Banned List

Export Path

Upload Path

Save

Verify

파일 목록

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

Project Name

Simple Application B I

Created

김소임 CTO SW센터 (2020-10-24)

Packaging

Notice

☐ Approve without verification

Request Review

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Comment Edit ▼

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Package File 1

source_to_release.gz

2020-10-24 20:29:07 ✕

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* Open Source List to disclose source code

ID	Referen	OSS Name	OSS Version	Download Loc	Homepage	License	Path of source code in the OSS Package	File Count
1	SRC	apache-netlog	1.9	https://github.	URL	GPL-3.0,GPL-2.0	libnl-3.5.0/include/	184
3	SRC	readline	6.2	http://pkgs.fed	URL	GPL-3.0	src/lib path not found.	

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Page 1 of 1

View 1 - 2 of 2

README

File List

Banned List

Export Path

Upload Path

Save

Verify

Proprietary, Commercial 같은 문구를
포함한 파일 목록 검출

▶ FOSSLight Open Source Compliance Process

3. 공개할 Source code 취합 및 고지문 생성

OSS Notice File Format ☒ Notice HTML ☐ Notice Text ☐ Simple HTML ☐ Simple Text ☐ SPDX(SpreadSheet) ☐ SPDX(RDF) ☐ SPDX(TAG)

Open Source Software Notice

OSSNotice-1476_Simple Application_1.0_201027.html

This product from LG Electronics, Inc. contains the open source software detailed below. Please refer to the indicated open source licenses (as are included following this notice) for the terms and conditions of their use.

Open Source	License	Copyright
apache-netlog 1.9	GPL-2.0 GPL-3.0	Copyright (c) Jens L���s, 2010
readline 6.2	GPL-3.0	

The source code for the above may be obtained free of charge from LG Electronics, Inc. at <http://54.65.10.209>. LG Electronics, Inc. will also provide CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to oss@lge.com. This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

Please be informed that LG Electronics, Inc. product may contain open source software listed in the tables below.

Open Source	License	Copyright
react-native-spinner-button 1.0.3	MIT	Copyright (c) 2018 Rupal

GPL-2.0

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

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51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

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When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

SPDX, HTML,
TEXT 다양한
포맷

▶ FOSSLight Open Source Compliance Process

4. 공개할 Source Code, 고지문 배포

Project List ✕

ID

Model Name

Status

Created Date

Division

Additional Information

Project Name

Distribution Type

License Name

Creator

Comment

OSS Name

Binary Name

3rd party

Reviewer

Search

Progress

Request

Review

Complete

Delay

USER GUIDE

Reject

3

ID	Project Name (Version)	Status	Identification	Packaging	Distribution	Download	Distribution Type	Vulnerability
1473	Simple Application (ver 1.0)	P	Confirm 3rd SRC BIN BOM	Confirm	Start	Download icons	Software only release	Warning icon

공개할 Source code과
고지문 파일을 배포

▶ FOSSLight Open Source Compliance Process

4. 공개할 Source Code, 고지문 배포

Project Name
Simple Application
Created
김소임 CTO SW센터 (2020-10-27)

Distribution

Show Comment History
Comment Edit

Description
Simple Application 1.0

Master Category
Mobile > Mobile Phone

Software / Model
Software

Distribution Site
☒ opensource.lge.com
☐ opensource.signaturekitchensuite.com

OSS Notice
[OSSNotice-1476 Simple Application 1.0 201027.html](#)

OSS Package
[Simple Application 1.0.zip](#)

Upload
Drag & Drop Files

Download

Model Information

	Category	Model	Release Date	Last Modified	Updated Date	Delete
1	Mobile > Mobile Phone	SIMPLE APPLICATION	20201219			delete
+						

Delete All

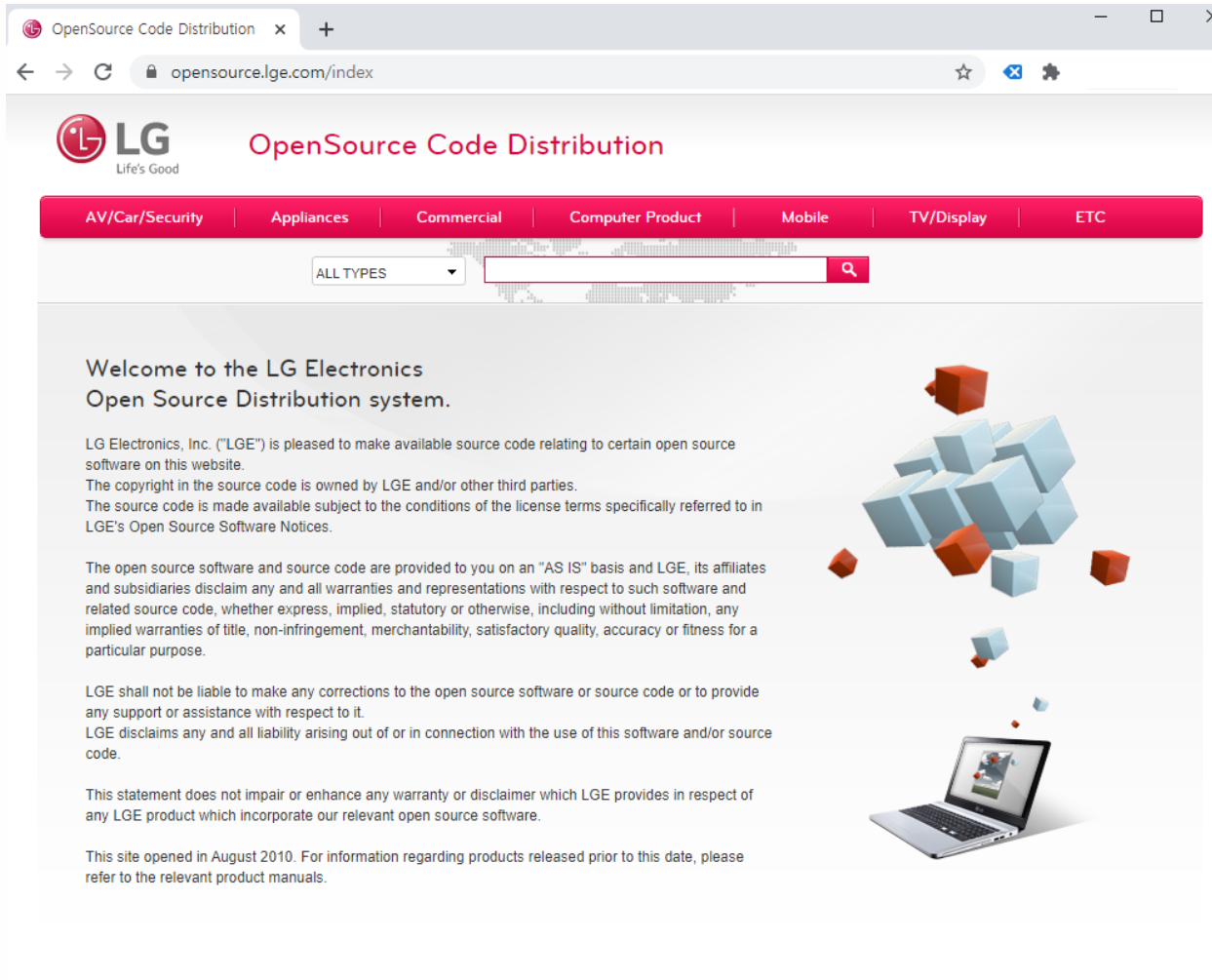
Model to be deleted

	Category	Model	Release Date	Last Modified	Updated Date	Add

Save & Check

▶ FOSSLight Open Source Compliance Process

4. 공개할 Source Code, 고지문 배포



▶ FOSSLight Open Source Compliance Process

4. 공개할 Source Code, 고지문 배포


OpenSource Code Distribution

AV/Security | Appliances | Commercial | Computer Product | Mobile | TV/Display | ETC

ALL TYPES

 Mobile

ALL Mobile
[Mobile Phone](#)
Modem
Tablet

Mobile > Mobile Phone

Model List

LGA225	LGA230/LGA225 Opensource			
LGA230	LGA230/LGA225 Opensource			
LGA235	LGA235 Opensource			
LGA250	LGA250 Opensource			
LGA255	LGA255 Opensource			
LGA258	LGA258 Opensource			
LGA270	LGA270(A1N)_FP_V10a		N/A	
LGA270E	LGA270(A1N)_FP_V10a		N/A	
LGA271	LGA270(A1N)_FP_V10a		N/A	
LGA275	A1N_LGA275_Feature_Phone		N/A	
LGA275M	A1N_LGA275_Feature_Phone		N/A	

<< 1 2 >>

Software List

POLARIS OFFICE	Polaris Office			
POLARIS WEB CONTROLLER	Polaris Web Controller			
QVOICE ENGINE	Qvoice Engine			
SAMPLE_APP_1	Sample Android Application 2.0			
SDM855	younsung88.lee_Test Project			
SIMPLE APPLICATION	Simple Application 1.0			

▶ FOSSLight Open Source Compliance Process

Project List ×

ID

Model Name

Status

Created Date

Division

Additional Information

Project Name

Distribution Type

License Name

Creator

Comment

OSS Name

Binary Name

3rd party

Reviewer

Search

USER GUIDE

Reject

☐	ID	Project Name (Version)	Status	Identification	Packaging	Distribution	Download	Distribution Type	Vulnerability
☐	1473	Simple Application (ver 1.0)		Confirm 3rd SRC BIN BOM	Confirm	Done		Software only release	



▶ FOSSLight 장점



Open Source/ License

Open Source와 Open
Source License에 대한 정보
제공

Rest API 제공

다른 Tool과 연동 지원

Vulnerability

Open Source 보안 취약점
자동 알림 기능

OSS 자동 분석

Download location에 따라
Open Source License 분석

다양한 포맷의 고지문

SPDX, HTML, TEXT 다양한
포맷 지원

통계 정보

Project, 3rd Party, Open
Source, License 등 다양한
통계 모니터링 화면 제공



FOSSLight