EPD Manager Solution
Q1 Test Report

ARK-1123H A2+WISE-3240+EPD-053

Initiated by	Shane GH	Approved by	Luke Chang

Revision History：

Date	Revision	Description	Creator
2021/07/12	V1.0	EPD-053 to have testing add configeration with wise-3240	Shane GH

Test Results Definition：

Criteria	Definition
PASS	Test result pass and function work perfectly.
Fail	Test fail or can not meet the spec requirement.
Limitation	There are no plans to fix this erratum.
N/A	Spec not support or driver not ready.
Check Next Version	HW modified circuit and solution 3erified, and check the function result has pass. Need to check next version.

Test Results Summary：

Num.	Test Item	Result	Remark
1.	**ePaper Manager Function**		
1.01	Browser Compatibility	**Check Next Version**	
1.02	EPaper Manager function test	**Check Next Version**	
2.	**WISE-3240**		
2.01	Firmware upgrade	**PASS**	
2.02	Config WISE-3240	**PASS**	
3.	**EPD Tags**		
3.01	EPD-053	**PASS**	
4.	**Stability**		
4.01	Stability stress Test	**PASS**	
4.02	Performance Test	**PASS**	

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System Configuration：

Item.	Version	File Name	Description.
OS	Ubunto 18.04	EPD_ARK1123HA2_U1804_1503	
ePaper Manager	v1503	Image build-in	
EPD Portal	1.7.3	ePaper Manager build-in	Upgrade by patch
EPD Hub	v1.1.1	ePaper Manager build-in	
WISE-3240	3240S00OIV0111	3240S00OIV0111.bin	
WISE-1840	1840S00TMX1004	1840-v1.0.4.0-6ee3c5a90baf8cb0cfe9d6c566bfe359.zip	
EPD-053R3	E053RS00TMV1006	EPD053R-v1.0.6.0-934bcc52aa3ea4097f79143cd921bd3f.zip	

Test Equiptment：

Item.	Description.
ARK-1123H A2	
WISE-3240	
EPD-053	

1. ePaper Manager Function

1.01 Browser Compatibility

1.01.01.01 Test Purpose：

To ensure EPaper Manager is compatibility with popular browser.

1.01.01.02 Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

1.01.01.03 Testing Configuration:

1. Test environment: Room temperature

1.01.01.04 Test Procedure:

1. Insert battery to power up device.
2. Press the button and check the responding function.

1.01.01.05 Test Result:

Item	Sub Item	Criteria	Result	Remark
Chrome	Login	Functions work properly as designed	PASS	
	Change Password		PASS	
	Overview chart		PASS	
	EPD controller Preview and Transmit		PASS	
	Template design		PASS	
Firefox	Login	Functions work properly as designed	PASS	
	Change Password		PASS	
	Overview chart		Check Next Version	
	EPD controller Preview and Transmit		PASS	
	Template design		PASS	

1.02 EPaper Manager function test

1.02.01 General Function

1.02.01.01 Test Purpose：

This test ensures that the general functions provided in EPD are working as designed.

1.02.01.02 Test Tool or Equipment:
1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

1.02.01.03 Testing Configuration:
1. Test environment: Room temperature

1.02.01.04 Test Procedure:
1. Test all the available web GUI functions.

1.02.01.05 Test Result:

Item	Sub Item	Funcitons	Result	Remark
Language Switch	English/繁體/简体	All UI pages can switch languages normally	**Check Next Version**	
Service Monitoring	Portal/Hub Service Monitoring	1. EPD Portal/Hub service monitoring can work normally 2. Collect Server Logs from Service Monitoring (download Logs) 3. EPD Portal/Hub Status Check (Start/Stop Monitor)	**PASS**	
Event Notifications	Devices Event Pop Up Information	Device events can be popped up immediately	**PASS**	
User Profile	User/Role	1. User/Rrole information 2. Change Password/Sign Out function	**PASS**	

1.02.02   Overview Page
1.02.02.01 Test Purpose：

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.02.02 Test Tool or Equipment:
4. ARK-1123H A2 as EPaper Manager server
5. WISE-3240 as EPD Router
6. EPD-053R as EPD device

1.02.02.03 Testing Configuration:

    1. Test environment: Room temperature

1.02.02.04 Test Procedure:

    2. Test all the available web GUI functions.

1.02.02.05 Test Result:

Item	Sub Item	Funcitons	Result	Remark
Overview	Device Overview	Web shows the tag status, and the charts and links are correct.	**PASS**	
	Effective Scheduled Task	List coming schedules for device and group Can enable / disable / delete schedule	**PASS**	

1.02.03 EPD Controller

1.02.03.01 Test Purpose：

    This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.03.02 Test Tool or Equipment:

    1.   ARK-1123H A2 as EPaper Manager server

    2.   WISE-3240 as EPD Router

    3.   EPD-053R as EPD device

1.02.03.03 Testing Configuration:

    1. Test environment: Room temperature

1.02.03.04 Test Procedure:

    1. Test all the available web GUI functions in the EPD Controller category.

1.02.03.05 Test Result:

Item	Sub Item	Funcitons	Result	Remark
EPD Controller	Account	Change account and check privilege	**Check Next Version**	
		Switch and search Device group	**PASS**	
	Group	Default Group (Devices QTY check) System-Server Configuration **Configuration 1:** Default Group Auto-Join(ON)	**PASS**	

		Default Group Auto-Leave(OFF) *One Server with single router **Configuration 2:** Default Group Auto-Join(ON) Default Group Auto-Leave(ON) *One Server with single router		
		Roaming Function	**PASS**	
Status		Filter the device status	**PASS**	
Mode		Switch to Group mode, and can list / edit group schedules.	**PASS**	
Search		Search for device by keyword	**PASS**	
Columns		Display selected columns	**PASS**	
Bind / Unbind Item		Single/ Batch Bind Item, Select and Preview Template Batch template file format: JSON, CVS,XLSX	**PASS**	
Preview		Preview template	**PASS**	
Refresh		Single/Batch Send refresh command to EPD device	**PASS**	
Transmit		Single/Batch Transmit template to EPD device (Transmit parameter: Binding data, page, refresh)	**PASS**	
LED Blinking (Batch)		LED Batch Blinking	**PASS**	
Reset Tags		Reset tag status	**PASS**	
Schedule		Add, Edit , delete schedule	**PASS**	

1.02.04   Item Data

1.02.04.01 Test Purpose：

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.04.02 Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

1.02.04.03 Testing Configuration:

1. Test environment: Room temperature

1.02.04.04 **Test Procedure:**

1. Test all the available web GUI functions in the Item Data Category.

1.02.04.05 **Test Result:**

Item	Sub Item	Funcitons	Result	Remark
Item Data	Group	Can add, delete group	**PASS**	
	Upload new items/ Export item data	1.Can import item data from json, xls, xlsx, csv file. 2.Export the item data of the selected group	**PASS**	
	Add Items to current items	Can append items from json, xls, xlsx, csv file	**PASS**	
	Search	Can search keywords in content	**PASS**	
	Columns	Can show selected columns	**PASS**	
	Help	Show help hint	**PASS**	
	Fields sorting function	Data sorting by fields	**PASS**	
	Pages control	Show rows in 1page Go to x page	**PASS**	

1.02.05 Device List

1.02.05.01 **Test Purpose：**

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.05.02 **Test Tool or Equipment:**

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

1.02.05.03 **Testing Configuration:**

1. Test environment: Room temperature

1.02.05.04 **Test Procedure:**

1. Test all the available web GUI functions in the Device List category.

1.02.05.05 **Test Result:**

Item	Sub Item	Funcitons	Result	Remark
Device List	Account	Change account and check privilege	**Check Next Version**	
	Group	Search Device group	**PASS**	

Status	Filter the device status	**PASS**	
Mode	Switch to Group mode. Show all groups, and the number of devices in each group	**PASS**	
Add Device	Can add device from registerd list	**PASS**	
Edit mode	Enter Edit mode can delete device	**PASS**	
Delete	Enter Edit mode can delete device	**PASS**	
View detail Tag info	Shows the tag detail info	**Check Next Version**	
View detail Router info	Shows the Router info (incluse IP)	**PASS**	
Router child Device info	Display the numbers of child devices for each routers and list child all devices information	**PASS**	

1.02.06   Template

1.02.06.01 Test Purpose：

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.06.02 Test Tool or Equipment:

1.   ARK-1123H A2 as EPaper Manager server
2.   WISE-3240 as EPD Router
3.   EPD-053R as EPD device

1.02.06.03 Testing Configuration:

1.   Test environment: Room temperature

1.02.06.04 Test Procedure:

1.   Test all the available web GUI functions in the Template category.

1.02.06.05 Test Result:

Item	Sub Item	Funcitons	Result	Remark
GUI functions	Add	1.Import from Json 2.Copy from current one 3.Create a new one 4. Template not save reminder	**Check Next Version**	
	Import/Export All Template	Import/Export All Template (JSON)	**PASS**	
	Delete	Delete template	**PASS**	
	Save	Save template	**PASS**	
	Label	Item function check	**PASS**	
	Text	Item function check	**PASS**	
	Image	Supported image format	**PASS**	

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	Show condition		
Shape	Item function check	**PASS**	
Barcode	Value Barcode type Sample Show condition	**PASS**	
QRcode	Value Sample Show Condition	**PASS**	
Canvas property	Item function check	**PASS**	

1.02.07   White list setting

1.02.07.01 Test Purpose：

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.07.02 Test Tool or Equipment:

1.   ARK-1123H A2 as EPaper Manager server
2.   WISE-3240 as EPD Router
3.   EPD-053R as EPD device

1.02.07.03 Testing Configuration:

1. Test environment: Room temperature

1.02.07.04 Test Procedure:

1.   Test all the available web GUI functions in the White list setting category.

1.02.07.05 Test Result:

Item	Sub Item	Funcitons	Result	Remark
White List Setting	Upload new Tags	Can upload tag list from local file	**PASS**	
	Delete Tags	Can delete tags in the list	**PASS**	
	Change Router	Select Router for edit	**PASS**	
	Check tag status	Tag information update	**PASS**	
	Save	Save the config	**PASS**	
	White List Enable/Disable	1. One-key Ebable/Disable White List Function Test 2. White List Function Setting Status Check	**Check Next Version**	

1.02.08　OTA

1.02.08.01　Test Purpose：

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.08.02　Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

1.02.08.03　Testing Configuration:

1. Test environment: Room temperature

1.02.08.04　Test Procedure:

1. Test all the available web GUI functions in the OTA category.

1.02.08.05　Test Result:

Item	Sub Item	Funcitons	Result	Remark
OTA	Upgrade	Upgrade firmware through gateway	**PASS**	
	Package	Upload package to FTP site	**PASS**	
	Storage	FTP site(Domain) setting	**PASS**	
	EPD-053 OTA	3 pcs firmware update over the air	**PASS**	
	WISE-1840 OTA	WISE-1840 firmware update over the air (from FW X1004 can keep router "tx-level-r" previous setting value)	**PASS**	.

1.02.09　Setting

1.02.09.01　Test Purpose：

This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.09.02　Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

1.02.09.03　Testing Configuration:

1. Test environment: Room temperature

1.02.09.04 **Test Procedure:**

    2. Test all the available web GUI functions.

1.02.09.05 **Test Result:**

Item	Sub Item	Funcitons	Result	Remark
Setting	Role	Can view role priviledge	**PASS**	
	Account	Can add admin, device admin account	**PASS**	
	Device Group	Add, Edit , Delete device group	**PASS**	
	System	Can enable/disable Email Service, Active License, and Clear Data	**PASS**	
	Event	Can view, search, and export event log	**PASS**	

1.02.10   Document

1.02.10.01 **Test Purpose：**

    This test ensures that the functions provided in EPD server Web interfaces are working as designed.

1.02.10.02 **Test Tool or Equipment:**

    1. ARK-1123H A2 as ePaper Manager server

    2. WISE-3240 as EPD Router

    3. EPD-053R as EPD device

1.02.10.03 **Testing Configuration:**

    1. Test environment: Room temperature

1.02.10.04 **Test Procedure:**

    1. Test all the available web GUI functions.

1.02.10.05 **Test Result:**

Item	Sub Item	Funcitons	Result	Remark
Document	User Manual	Link to user manual	**PASS**	
	RESTful API	Shows API usage document	**PASS**	
		Job ID (Task ID) for job progress tracking	**PASS**	

2. WISE-3240

2.01　　Firmware upgrade

2.01.01.01 Test Purpose：

To verify the firmware can be upgrade via web interface

2.01.01.02 Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

2.01.01.03 Testing Configuration:

1. Test environment: Room temperature

2.01.01.04 Test Procedure:

1. Use "System" > "Backup/Flash Firmware" > "Generate archive" to create setting backup file
2. Use "System" > "Backup/Flash Firmware" > "Flash Image" to upgrade firmware
3. Reset to default
4. Restore settings archive settings

2.01.01.05 Test Result:

Item	Criteria	Result	Remark
Upgrade	Firmware can be upgraded, and settings are not changed (click "Keep Settings"). 1. Web login password 2. EPD Router setting(WISE-3240) 3. EPD Connection Setting(WISE-3240) Not click "Keep Settings" all setting will reset to default.	PASS	
Reset to default	All setting are reset to default	PASS	
Backup / Restore	All setting can be restored from backup file.	PASS	
Reset	Restore the keyin data to the originally stored data	PASS	

2.02   Config WISE-3240

2.02.01.01 Test Purpose：

Verify the settings in ePaper Manager.

2.02.01.02 Test Tool or Equipment:

1.   ARK-1123H A2 as EPaper Manager server
2.   WISE-3240 as EPD Router
3.   EPD-053R as EPD device

2.02.01.03 Testing Configuration:

1. Test environment: Room temperature

2.02.01.04 Test Procedure:

1.   Check the hostname / port / Device Name in ePaper Manager.
2.   Modify the settings.

2.02.01.05 Test Result:

Item	Criteria	Result	Remark
Configuration	Can config Host name / EPD Router Setting	**PASS**	
	After reset, the data is keeped without change	**PASS**	
	Reset to default, the setting is back to default	**PASS**	

3. EPD Tags

3.01   EPD-053

3.01.01.01 Test Purpose：

To verify the button function is working correctly.

3.01.01.02 Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

3.01.01.03 Testing Configuration:

1. Test environment: Room temperature

3.01.01.04 Test Procedure:

1. Use "Generate archive" to create setting backup file
2. Connect Web UI and upgrade firmware
3. Reset to default
4. Restore settings

3.01.01.05 Test Result:

Item	Criteria	Result	Remark
Button	1.Reset tag to default Press button 10 seconds ● LED flash after hold 5 sec ● Turn on LED after hold 5 sec ● Turn off LED after release ● Reset to default and reboot 2.Press button once to display next page template 3.If device is losing connection Press button once leave sleep mode and try to connect network	**PASS**	
LED	Blinking command from EPD Manager transmit/refresh	**PASS**	
Transmit Image Options	Refresh After Transmit Off./On Test	**PASS**	

4. Stability

4.01   Stability stress Test

4.01.01.01 Test Purpose：

To verify the button function is working correctly.

4.01.01.02 Test Tool or Equipment:

1.   ARK-1123H A2 as EPaper Manager server
2.   WISE-3240 as EPD Router
3.   EPD-053R as EPD device

4.01.01.03 Testing Configuration:

1. Test environment: Room temperature

4.01.01.04 Test Procedure:

1.   Connect tags to ePaper Manager
2.   Group schedule to transmit templates to tag. Repeat 24 times.

4.01.01.05 Test Result:

Item	Criteria		Result	Remark
EPD-053	50 tags OTA update		**PASS**	
EPD Server	Server can handle 25 browser connected in.		**PASS**	
	Server can lock actions if tag is doing a task (checking by open 2 browser and transmit a template at a same time)		**PASS**	
System Agent stability	G3 to S5 then power on	After G3 then power on wise agent status check (5 times)	**PASS**	Boot to OS 後多久 all tag (50)pcs online
	Normal shutdown and power on	Normal shutdown and power on wise agent status check (5 times)	**PASS**	Boot to OS 後多久 all tag(50)pcs online
	Normal reboot	Reboot system wise agent status check (5 times)	**PASS**	
	Portal/Hub Service Reset	After reset EPD Portal/Hub service all device can be connected normally	**PASS**	A. **Portal reset** B. **Hub reset**

4.02   Performance Test

4.02.01.01 Test Purpose：

To verify the button function is working correctly.

4.02.01.02 Test Tool or Equipment:

1. ARK-1123H A2 as EPaper Manager server
2. WISE-3240 as EPD Router
3. EPD-053R as EPD device

4.02.01.03 Testing Configuration:

1. Test environment: Room temperature

4.02.01.04 Test Procedure:

1. Verify the device join time and update image performance

4.02.01.05 Test Result:

Item	Criteria	Result	Remark
EPD-053	50 tags join time	**PASS**	
	50 tags tramsmit	**PASS**	