



InforTab INFINITE

User Manual

GENERAL DESCRIPTION

InforTab Infinite is a fully integrated Store Management Solution comprised of electronic shelf labels, advanced digital signage, inventory and environment management sensors, and asset tracking. They were designed to enrich shoppers' shopping journeys as well as to assist store operators in their job.

InforTab

InforTab shows product and price information, transferred from a server via a gateway. The display on InforTab can be easily designed and configured by using the RAINUS InforTab software. Displays can include special information such as stock status, special discounts, barcodes, graphics, and other relevant data. All InforTabs have batteries, small "coin cells". InforTabs consume battery power only when they update information during communication with the server. When they are not communicating with the server, InforTabs are normally in sleep mode and consume much less power, even though they are showing information on their displays.



<Appearance may vary depending on model>

Gateway

The gateway relays information from the server to InforTabs and collects battery status, fault notifications and network activity data.

Server

The ESL server connects the ESL system with the back-office system and communicates with gateways. There are two types of server: local and central. Local servers are located in a store and control its gateways, while central servers are normally located in data centers and control gateways for all stores.

Specification

This section details specification of each InforTab INFINITE by size.

Product Specification

Dimensions (mm)	IE154 : 37.7 x 47.2 x 11.7
	IE213 : 67.8 x 33.9 x 11.7
	IE266 : 80.4 x 41.0 x 11.7
	IE290 : 87.6 x 41.4 x 11.9
	IE290F : 88.14 x 41.72 x 13
	IE420 : 97.3 x 91.6 x 12.7
	IE750 : 182.3 x 125.6 x 14.65
	IE310 : 89.2 x 50.5 x 11.7
	IE579WF : 162.83 x 65.83 x 14
	S154 : 36.5 x 46.55 x 10.95
	S213 : 68.33 x 33.89 x 10.95
	S266 : 80.82 x 41.03 x 10.95
	R290F: 89.0 x 42.9 x 13.1
	R310 : 90 x 50 x 13
	R420S : 39.8 x 47.3 x 13.6
	R579W : 57 x 90 x 7
	S970 : 225 x 190 x 13.5
Weight	IE154 : 20.2g
	IE213 : 31.7g
	IE266 : 37.5g
	IE290 : 39.5g
	IE290F : 36.8g
	IE420 : 93.7g
	IE750 : 230g
	IE310 : 75g
	IE579WF : 115.2g
	S154 : 20.8g
	S213 : 28.8g
	S266 : 120g
	R290F : 78g
	R310 : 35g
	R420S : 22g

Bezel Color	S579W : 50g
	S970 : 300g
	White, Black
Display technology	Full graphic E-ink display
Active display area (mm)	IE154 : 27.5 x 27.5
	IE213 : 48.6 x 23.7
	IE266 : 60.1 x 30.7
	IE290 : 66.9 x 29.1
	IE290F : 66.9 x 29.1
	IE420 : 84.8 x 63.6
	IE750 : 163.2 x 97.9
	IE310 : 68.4 x 38.8
	IE579WF : 139.0 x 47.7
	S154 : 27.5 x 27.5
	S213 : 48.6 x 23.7
	S266 : 60.1 x 30.7
	R290F : 66.9 x 29.1
	R310 : 65 x 33
	R420S : 27.5 x 27.5
	S579W: 50 x 70
	S970 : 202 x 151
	IE154 : 152 x 152
	IE213 : 250 x 122
	IE266 : 296 x 152
Resolution (pixels)	IE290 : 296 x 128
	IE290F : 296 x 128
	IE420 : 400 x 300
	IE750 : 800 x 480
	IE310 : 296 x 168
	IE579WF : 648 x 480
	S154 : 152 x 152
	S213 : 250 x 122
	S266 : 296 x 152
	R290F : 296 x 128
	R310 : 296 x 128
	R420S : 152 x 152

	S579W: 800 × 480	
	S970 : 1200 × 825	
Pixel density	IE154 : 140 dpi	
	IE213 : 130 dpi	
	IE266 : 125 dpi	
	IE290 : 112 dpi	
	IE290F : 112 dpi	
	IE420 : 120 dpi	
	IE750 : 124 dpi	
	IE310 : 110 dpi	
	IE579WF : 144 dpi	
	S154 : 140 dpi	
	S213 : 130 dpi	
	S266 : 125 dpi	
	R290F : 112 dpi	
	R310 : 113 dpi	
	R420S : 140 dpi	
	S579W : 200 dpi	
	S970 : 150 dpi	
Viewing angle	Nearly 180°	
Usable pages	Up to 7 pages	
Operating Temperature	-20°C ~ 55 °C	
Encryption	RAINUS protocol + compress	
Water resistance	IP67	
NFC	Yes, operating frequency 13.56MHz (Passive Tag)	
LED	Max 7 Color	
ESL operating frequency	KR, US, EU	2405 ~ 2480 MHz
	JP	2405 ~ 2495 MHz Only devices sold in Japan support 2485-2495mhz.
Wireless firmware update	Yes	

InforTab – Ready Preparation

■ Connect InforTap UI

- 1 Plug in Gateway with power cable, and connect to PC by LAN cable. If all of these connected properly, Red, Green, and Blue lights will go on.
- 2 Run internet browser in PC, and write Gateway fixed IP (192.168.220.236) on address bar.
- 3 If connected properly, InforTab UI screen will appear.
- 4 Change Password in Menu 'Account Setting'. Initial ID is 'admin' and password is '1234'.

InforTab-Ready Preparation

1-3 InforTab Assign

InforTab and specific product work together showing the product information. This system is operated by 'Assign' process.

■ Assign confirmatory

InforTab-Ready's 4 InforTabs are already assigned.

Assigned InforTap in Gateway can be verified by

'Status > Tag' in UI.

■ InforTap Mac Address check

InforTab Mac address is displayed as barcode when you press '>' or '<' buttons of remote

controller in front of tag.

Delete 2 digits and leave 4 digits from the back in order to search Mac address in UI.

For further more explanation, if Mac address is '78E980FFFE004C4B', can be searched by '004C'.

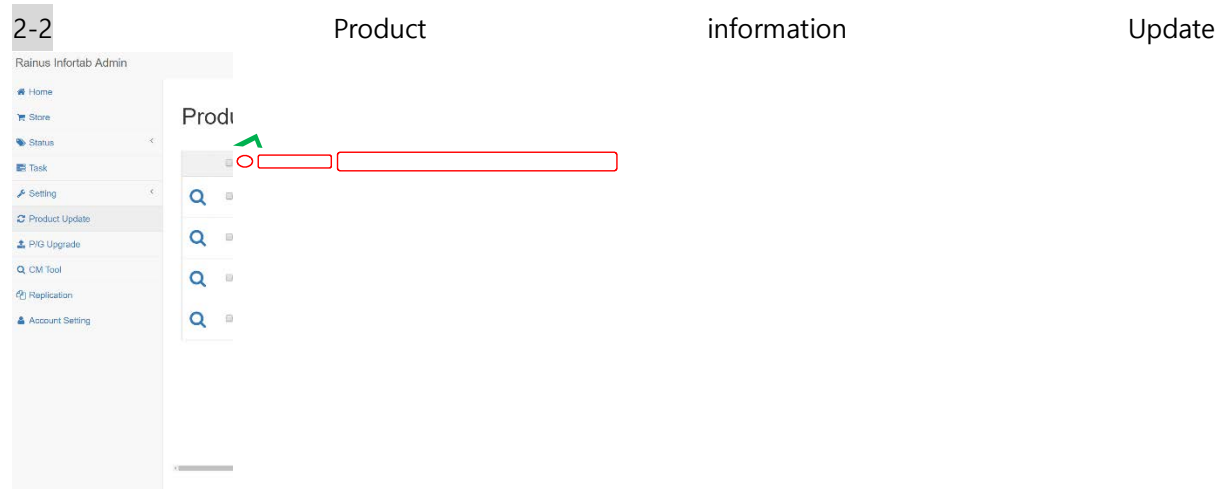
InfoTab Update

2-1 Confirm InfoTab Layout

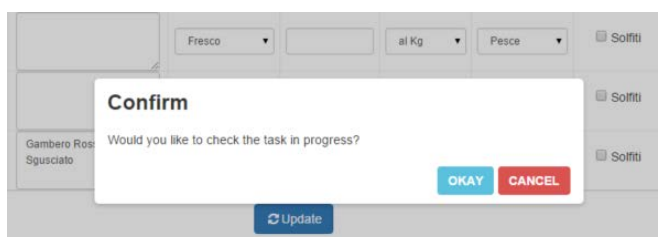
InforTap Layout can be found at 'Product Update' menu.

Layout is location of information and design which shows in tag display. It can be adjusted in 'Layout Designer'.

We provide 'Layout Designer Manual' in addition which guides how to use 'Layout Designer'.



- 1 Choose proper Layout and put appropriate InforTab information.
- 2 Check the square box in the right side and click 'Update' in the bottom side of page.



- 3 Press 'Okay' to confirm the procedure.



2-3 Confirm InfoTab Update Result

After the update, the page automatically moves to 'Task' menu in UI and it is available to check update status in real time.

Task Id	Store Code	Operation	Progress(%)	Start Time	End Time	Detail
1442561953	'store-1'	UPDATE	100%	2015-09-18 16:39:13	In progress	
	None	LAYOUT	100%	2015-09-18 16:36:30	2015-09-18 16:39:13	
	None	LAYOUT	100%	2015-09-18 16:35:41	2015-09-18 16:36:30	
	None	LAYOUT	100%	2015-09-18 16:10:10	2015-09-18 16:10:46	
	None	LAYOUT	100%	2015-09-18 16:09:35	2015-09-18 16:09:45	
	None	LAYOUT	100%	2015-09-18 16:08:38	2015-09-18 16:08:57	
1442558472	'store-1'	UPDATE	100%	2015-09-18 15:41:12	2015-09-18 15:41:37	
	'store-1'	ASSIGN	100%	2015-09-18 15:41:12	2015-09-18 15:41:12	

InforTab update generally completes in 5 minutes, but time it can be delayed by network circumstance.

To make InforTab update on purpose, Remote Controller.



After flicker light, update process will be operated when press the 'R' button of remote controller.

InforTab De-Assign, Re-Assign

3-1 InforTab De-Assign

'De-Assign' is process that to de-assign InforTab and product from Gateway. De-assigned InforTab cannot be updated unless re-assign it back.

Rainius InforTab Admin										
Home	Store	Status	Customer	Task	Setting	Product Update	Unit Controller	Ctrl Tool	Replication	Account Settings
Tag Status										
		Tag ID	Store Code	Gateway ID	Operation	Result	Delivery	Temperature	MS201	%
1	U	7B0F080FF00A07032	store-1	localhost:8080	UPDATA	ok	32	25	-40	
2	U	7B0F080FF00A07032	store-1	localhost:8080	UPDATA	ok	30	25	-46	
3	U	7B0F080FF00A07032	store-1	localhost:8080	UPDATA	ok	32	25	-47	
4	U	7B0F080FF00A07032	store-1	localhost:8080	UPDATA	ok	30	25	-45	
5	U	7B0F080FF00A07032	store-1	localhost:8080	UPDATA	ok	32	25	-47	
6	U	7B0F080FF00A07032	store-1	localhost:8080	UPDATA	ok	30	25	-40	

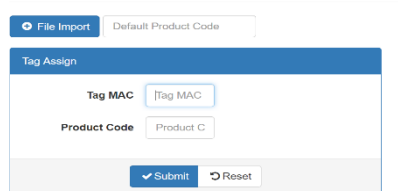
For de-assign, select 'Status > Tag' menu in UI and press 'De-assign'.



3-2 InforTab Re-Assign

If need to update back, 'Re-Assign' work is required. Choose 'Status > Tag' Menu in UI and click 'Assign'.

Tag Assign



The screenshot shows a web interface for 'Tag Assign'. At the top, there is a navigation bar with a 'File Import' button and a 'Default Product Code' dropdown. Below this is a 'Tag Assign' form. The form has two input fields: 'Tag MAC' and 'Product Code'. The 'Tag MAC' field contains the text '[Tag MAC]' and the 'Product Code' field contains the text 'Product C'. At the bottom of the form, there are two buttons: 'Submit' and 'Reset'.

After click 'Assign' button, write down the InforTab Mac address and product code. Then press the 'Save' to make procedure complete.

Appendix

4-1 Wireless Network Circumstance

InforTab system uses two channels of wireless 2.4GHz, so that it can effect updating speed of InforTab according to wireless network environment.

■ Wireless Channel

According to wireless circumstance, InforTab system may not be operated properly by influence with other wireless instruments. In this case, changing channel is required.

In order to change channel, click 'Gateway Config' menu in UI and press 'Setting' Icon in right side of the page.

Gateway Config

Gateway Config Update

Gateway MAC	70:2C:1F:03:1A:21	
Store Code	store-1	
GW Index	0	must be a unique value in a store
IP Address	localhost.8080	Gateway IPv4 address
Netmask	255.255.255.0	
Default GW	192.168.220.1	Default GW IPv4 address
DNS IP	203.248.252.2	
ESL Server IP	localhost	ESL Server IPv4 address
ESL Server Port	80	
Data Channel	13	IEEE 802.15.4 channel(11~26)
Event Channel	14	channel(11~26), should use one value for all gateway in a store
Radio Power	100	Radio power in percentage(1~100)
OP Mode	norm	Use "Normal Operation"
Channel Mask	12	Calculated by system on data channel change
Radio Baud	250	Gateway Ethernet MAC
GMP Version	2.1.0	Gateway Main Processor Version
GRM Version	4	Gateway Radio Module F/W Version
Note	Note something	

Date channel, Event channel are composited with 11~26 channels..

Begin with 11 channel and go up until finding a proper one.

Press 'Save' button to confirm the channel.

FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with RF exposure requirement.