

# TIZEN

# Native TCT 2.4 TBT User Guide

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# 1. Installing the TBT Package

Install the TBT package by following steps:

- 1. Download binary from site :
  - http://download.tizen.org/tct/2.4/NATIVE\_TCT/2.4\_rXX/native-tct\_2.4\_rXX.zip
- 2. First uninstall tbtcoreapp from device if already installed.
- 3. Execute install.sh.
  - \$ unzip native-tct\_2.4\_rXX.zip
  - \$ cd native-tct\_2.4\_rXX/TBT
  - \$ chmod +x install.sh
  - \$ ./install.sh
- 4. After running the script, TBT will be launched.
- 5. Test case list will appear in welcome screen.
- 6. If the required feature for the respective test case is not available in the device, then a message will be shown, while executing the test cases.



Figure 1: TBT Application

#### **1.1. Application Status Report**

The status (**Pass**, **Fail**, **Not-Tested or Feature-Not-Supported**) of all the test cases are stored in an XML file. The name of the file is **tbt-report.xml**. It is generated in the **Others** folder of the **storage** directory of the system.

By default, if manufacturer doesn't change the path, it should be located in /opt/usr/media/Others/tbt-report.xml. You can get report with :

\$ sdb pull /opt/usr/media/Others/tbt-report.xml

5|Page

# 2. Testing the Device

This chapter describes the various tests that can be performed to check the device functionality.

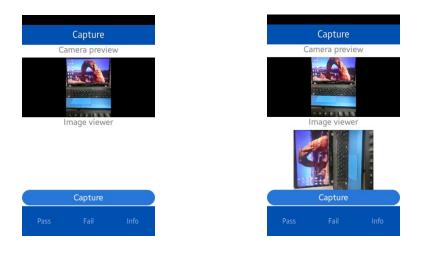
#### 2.1. Testing the Camera

This section describes the camera testing options. If the functionality works as expected and press **Pass**. Otherwise, press **Fail**.

#### 2.1.1. Testing Camera Capture

To test the camera capture functionality:

- 1. Select the **Capture** from the test case list
- 2. Press **Capture** to capture a picture.
- 3. Check the captured picture which is shown automatically.



Mobile Figure 2: Camera Preview

## 2.1.2. Testing Camera Recording

To test the camera recording functionality:

- 1. Select the **Record** Test from the test case list.
- 2. Press Record button to record the video.
- 3. Press Stop to stop the recording
- 4. Check the recorded video clip which is shown automatically.



Mobile Figure 3: Camera Record

## 2.1.3. Testing Camera Face Detection

To perform the test,

- 1. Select **Face Detection** Test from the **test case list** and the camera preview starts automatically.
- 2. If the camera can detect face and "zoom in" and "zoom out" is performed automatically then **Pass**, otherwise **Fail.**



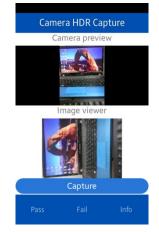
camera\_start\_face\_detection not supported

Mobile Figure 4: Face detection

## 2.1.4. Testing Camera HDR Capture

To perform the test,

- 1. Select Camera HDR Capture from the test case list.
- 2. Press button **Capture** and the captured picture is shown.
- 3. If the picture can be captured and shown, then Pass, otherwise Fail.



Mobile Figure 5: Camera HDR Capture

#### 2.2. Testing Sound

This section describes the sound testing options. If the functionality works as expected, press **Pass**. Otherwise, press **Fail**.

## 2.2.1. Testing the Sound Audio

To test the sound of the speaker:

- 1. Select Audio Test from the test case list.
- 2. Press Play.
- 3. Check the sound output to the speaker.
- 4. Press Stop to stop the music.
- 5. Press Pause to pause the music



## 2.2.2. Testing Sound Volume

To test the sound volume:

- 1. Select the **Volume** Test from the **test case list** and the sound is played automatically.
- 2. Slide the **Slider** to change the volume level.
- 3. Check the sound output to the speaker by hearing and watching the value of volume label.



Mobile Figure 7: Sound Volume Test

## 2.3. Testing GPS

To test the **GPS** functionality,

- 1. Select the GPS Test from the test case list and view the GPS information.
- 2. If the information is correct then **PASS**, otherwise **FAIL**.





#### Figure 8: GPS

Note: If the GPS information is unavailable for 6 minutes, the process fails.

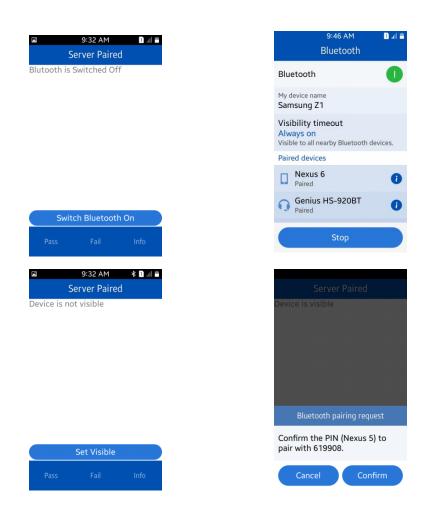
#### 2.4. Testing Bluetooth

This section describes the Bluetooth testing options. If the functionality works as expected, press **PASS**, otherwise, press **FAIL**.

#### **2.4.1.** Testing Bluetooth Server Pairing

To test Bluetooth server pairing:

- 1. Select Server Paired from the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press Set Visible and wait for the connection pop-up message.
- 4. If the message is shown properly then PASS, otherwise FAIL.

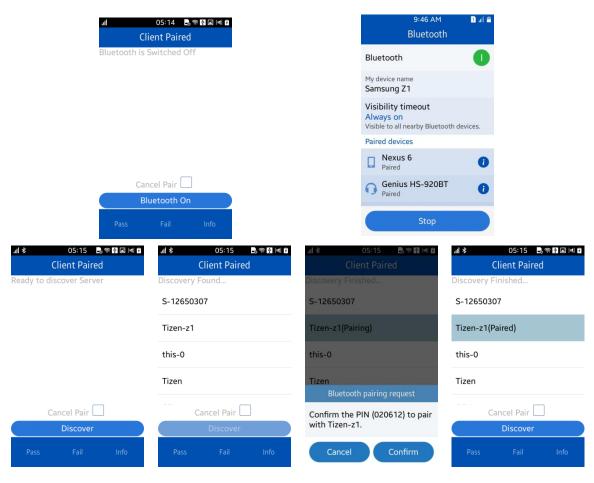


Mobile Figure 9: Server Pairing

## 2.4.2. Testing Bluetooth Client Pairing

To test Bluetooth client pairing:

- 1. Select Client Paired from the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** and a list of available devices will be appeared
- 4. Select the desired device and wait for the connection popup message. If you want to cancel connection during paring, select the **Cancel** button..



Mobile Figure 10: Client Paring

#### 2.4.3. Bluetooth Authorization Test

#### To perform the test

- 1. Select Authorization from the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press button Discover to see the list of Bluetooth devices.
- 4. Select the desired device from the list.
- 5. Press button Authorize and the desired device is Authorized.
- 6. If all the steps are performed correctly then Pass, otherwise Fail.

9:38 AM 🗈 💷	9:46 AM 🛛 🗈 🗐 💼	💷 9:38 AM 🗚 🗈 💵 🖿				
Authorization	Bluetooth	Authorization	Authorization	Authorization		
Blutooth is Switched Off	Bluetooth	Ready to discover Server	Discovery Finished Discovery Finished			
	My device name Samsung Z1		Pen.UP D	Pen.UP D		
	Visibility timeout Always on		ARC11i	ARC11i		
	Visible to all nearby Bluetooth devices.		Nexus 5(Pairing)	Nexus 5(Authorized)		
	Paired devices					
	Nexus 6 Paired		Bluetooth pairing request	S-10591189		
	Genius HS-920BT		Confirm the PIN (Nexus 5) to	S-12650304		
Switch Blueto Authorize	Paired	Discover Authorize	pair with 001594.	Discover Authorize		
Pass Fail Info	Stop	Pass Fail Info	Cancel Confirm	Pass Fail Info		



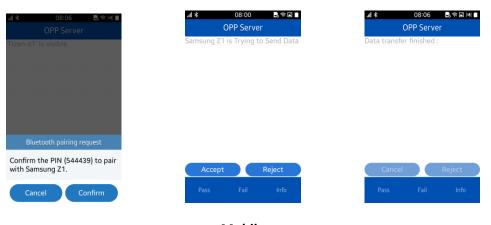
#### 2.4.4. Bluetooth OPP Server

To perform the test at first, **Turn On** the Bluetooth of the device where the object will be pushed. Then,

- 1. Select **OPP Server** from the test case list.
- **2.** Press **Switch Bluetooth On** to activate Bluetooth on the device and the Bluetooth application of the device will be opened. Turn on Bluetooth from there Select the desired device and the devices will be paired.
- 3. Press **Set Visible** and wait for the connection pop-up message.
- 4. Press "Confirm" button to accept connection from client.
- 5. When client is trying to send a file press "Accept/Reject" button to accept/reject file sending request.
- 6. Select "Pass/Fail" if proper message shown in the server side.

네 08:08 昆숙트 전 네 II OPP Server	9:46 AM 🔹 🖬 💼 Bluetooth
Bluetooth is Switched Off	Bluetooth
	My device name Samsung Z1
	Visibility timeout Always on Visible to all nearby Bluetooth devices.
	Paired devices
	Nexus 6 Paired
Bluetooth On Cancel	Genius HS-920BT
Pass Fail Info	Stop

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#### Mobile Figure 12: OPP Server 2.4.5. Bluetooth OPP Client

To perform the test at first, **Turn On** the Bluetooth of the device where the object will be pushed. Then,

- 1. Select Bluetooth **OPP Client** from the test case list.
- 2. Press **Switch Bluetooth On** to activate Bluetooth on the device and the Bluetooth application of the device will be opened. Turn on Bluetooth from there Select the desired device and the devices will be paired.
- 3. Press button **Discover** to see the list of Bluetooth devices.
- 4. Select the desired device from the list.
- 5. Press button Send File.
- 6. If you want to cancel file sending after pressing "Send File" just press "Cancel Transfer" button, check the message to verify pass/fail.
- 7. Check if any image file is pushed in the other device.
- 8. If any image file is pushed then Pass otherwise Fail.
- 9. Also turn on the Visibility of Bluetooth.

al 05:08 🕏 क 🖬 û OPP Client	9:46 AM Bluetooth	D al 🛎
luetooth is Switched Off	Bluetooth	0
	My device name Samsung Z1	
	Visibility timeout Always on Visible to all nearby Bluetooth o	levices.
	Paired devices	
	Nexus 6 Paired	0
Cancel Transfer Bluetooth On Send File	Genius HS-920BT Paired	0
Pass Fail Info	Stop	

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ull 孝 05:08 🛤 🖗 🖬 🗖 OPP Client	.⊪i ≉ 05:09 🖪 ⊜ 🖬 🖬 🖬 OPP Client	.⊪l≱ 05:09 🗟 ବ 🖬 🖬 🖬 OPP Client
Discovery Found	Discovery Finished	File Send Successful
22:B7:31:68:B4:16	22:B7:31:68:B4:16	22:B7:31:68:B4:16
Tizen	Tizen	Tizen
Tizen-z1	Tizen-z1(Pairing)	Tizen-z1(Paired)
S-12650304	S-12650304 Bluetooth pairing request	S-12650304
Cancel Transfer		Cancel Transfer
Discover Send File	Confirm the PIN (739345) to pair with Tizen-z1.	Discover Send File
Pass Fail Info	Cancel Confirm	Pass Fail Info

#### Mobile Figure 13: OPP Client 2.4.6. Bluetooth Client Socket Test

To perform the test

- 1. Select **Client Socket** from the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** to see the list of Bluetooth devices.
- 4. Select the desired device from the list.
- 5. Press button Send File.
- 6. Check if any file is pushed in the other device.
- 7. If any file is pushed then Pass otherwise Fail.

세 4:05 AM 많 좋요 법 에 효 Client Socket Bluetooth is Switched Off	<mark>.⊪l ≵ 3:54 AM 않 좋</mark> 屆 ⊯ <b>●</b> Client Socket Ready to discover Server	11:04 AM * 1 ul      Client Socket Discovery Found	교 ★ 4:37 AM 43 교 점 ☆ 제 會 Client Socket Discovery Finished
bidetoethis switched off	Ready to discover server	Romana PC	GT-19060
		Mizan_SRBD	Samsung Z1(Pairing)
		Tizen	S-12650307
		Nexus 6	S-12650302 Bluetooth pairing request
		S-12650307	Confirm the PIN (421931) to pair
Bluetooth On Send Data	Discover Send Data	Discover Send Data	with Samsung Z1.
Pass Fail Info	Pass Fail Info	Pass Fail Info	Cancel Confirm

Mobile Figure 14: Client Socket

#### 2.4.7. Bluetooth Server Socket Test

To perform the test

- 1. Select Server Socket from the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press **Set Visible** and wait for the connection pop-up message.
- 4. If the message is shown properly then **Pass** otherwise **Fail.**

al	4:05 AM 🗟 🕿 🖬 🖬 Server Socket		11:04 AM Server Sock	* 🛯 all 🖿 et	all ≱ 2:39 PM 🛃	s ¶ <b>I</b> III III	ull≉ Si	4:03 AM E	) 
Bluetoot	th is Switched Off	Device	es is visible		Samsung Z1' is visible		Data: Hello 1	this is TBT	
					Allow application permissi	ion			
					Allow Samsung Z1 to connect?				
		_			Don't ask again				
	Bluetooth On		Set Visible					Set Visible	
Pass	Fail Info	Pa	ss Fail	Info	Cancel Accep	ot	Pass	Fail	Info

Mobile Figure 15: Server Socket

## **2.4.8.** Bluetooth Profiles Test

To perform the test

- 1. Select **Bluetooth Profile** form the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** to see the list of Bluetooth Audio devices.
- 4. Select an audio profile enabled device like, Bluetooth Headset from the list for pairing.
- 5. After successful pairing, connected profiles will be shown.

Bluetooth Profiles	9:46 AM 🗈 al 🛢 Bluetooth	Screen captured. Bluetooth Profiles	Bluetooth Profiles		
Blutooth is Switched Off	Bluetooth	Discovery Found	Discovery Finished		
	My device name Samsung Z1	S-10591189 Galaxy Mega	this-0		
	Visibility timeout Always on Visible to all nearby Bluetooth devices.	Galaxy Mega S-12650304	GT-19060		
	Paired devices	SRBD (Galaxy Note3)	this-0 Bluetooth pairing request		
Bluetooth On	Genius HS-920BT	S-12650286 Discover	Confirm the PIN (Nexus 6) to pair with 202931.		
Pass Fail Info	Stop	Pass Fail Info	Cancel Confirm		

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#### Mobile Figure 16: Profiles Test

#### 2.4.9. Bluetooth Audio Connect

To perform the test

- 1. Select Audio Connect from the test case list
- 2. If Bluetooth is off, turn on manually.
- 3. Press button Discover to see the list of Bluetooth Audio devices.
- 4. Select the desired device from the list.
- 5. Press button **Connect Audio.**
- 6. Now you can hear the key pressing sound in Headset.
- 7. If all the steps are performed correctly then Pass, otherwise Fail.

ul \$ 11:11 AM B இ ∎ II ■ Handsfree Ready to discover Server	⊿l ३ 11:12 AM ট্রিক্ ট্রে ॥ ∎ Handsfree Discovery Finished	al ★ 11:11 AM S ← I I ■ Handsfree Discovery Found
	Genius HS	Genius HS(Paired)
Discover Connect Audio	Discover Connect Audio	Discover Connect Audio
Pass Fail Info	Pass Fail Info	Pass Fail Info

Mobile Figure 17: Audio Connect

#### **2.4.10.** Bluetooth Handsfree

To perform the test

- 1. Select Handsfree from the test case list
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** to see the list of Bluetooth Audio devices.
- 4. Select the desired device from the list.
- 5. Press button Connect Audio.
- 6. Now make a call and test if sound is heard in the audio device.

<mark>내 \$ 11:11 AM 艮종교 Ⅱ ■</mark> Handsfree Ready to discover Server	ul ≱ 11:12 AM & ⊛ S II ■ Handsfree Discovery Finished	ا ا ا ۱۱:۱۱ ۵۸ ا ا ۱۹ ۵۹ ۱۱ ۵۹ ۲۰۱۵ ۱۱ ۵۹ ۲۰۱۹ ۲۰۱۹ Handsfree Discovery Found	ال 🖪 🙃 Connected	3:06 PM	<b>목</b> 숙 년 🛔 00:06
	Genius HS	Genius HS(Paired)		alman va	
			<b>م</b> ان کې	Keypad	<b>∦</b> Bluetooth
Discover Connect Audio	Discover Connect Audio	Discover Connect Audio	+ Add call	Sector Mute	Extra vol.
Pass Fail Info	Pass Fail Info	Pass Fail Info		~	

7. If all the steps are performed correctly then Pass, otherwise Fail.

Mobile Figure 18: Handsfree

#### 2.4.11. Bluetooth HID

To perform this test:

- 1. Select HID Connect from the test case list
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** to see the list of Bluetooth HID devices.
- 4. Select the desired device from the list.
- 5. If you are trying to connect a keyboard a pop-up will appear, press the same code on the keyboard and press enter.
- 6. "HID connected" will be written on the label, just above the device list.
- 7. Then go to the default messsaging application, try to write message from the HID keyboard.
- 8. If input can be inserted using remote input device correctly then PASS otherwise FAIL.

* 11:29 HID Connect	* 11:29. # * HID Connect	■ * 11:30 🛛 ■ HID Connect	In * 11:33 № M ■ New message
Discovery Finished	Discovery Finished	HID connected	Recipients
System Administrator's Keyboar	System Administrator's Keyboar	System Administrator's Keyboar	
	Bluetooth pairing request Enter 5581 on System Administrator's Keyboard #1 to pair, then press Enter.		Hello, This is HID Test       q     w       e     r       t     y       u     i       o     p
Discover Connect HID	Discover Commet HID	Discover Connect HID	a s d f g h j k l t z x c v b n m 43
Pass Fail Info	Pass Fail Info	Pass Fail Info	?123 🏟 English

#### Mobile

#### Figure 19: HID

#### **2.4.12.** Bluetooth Health

To perform the test

- 1. Select Health from the test case list
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** to see the list of devices.
- 4. Select the desired device from the list.
- 5. Press button **Connect HDP** if not already connected.
- 6. Press button **Get Data** and data received will be shown on label then PASS otherwise FAIL.

2:28 PM Health	80	al *	2:28 РМ Health	BÓ	al *	2:29 рм Health	80	al *	2:29 РМ Health	20
ver Server						0911(Paired)				
r Coppe	++ HDP	Discover	Com	ert HDP	Discov	er Connert	HDP	Discove	Cot Dat	
Fail	Info	Pass	Fail	Info	Pass	Fail	Info	Pass	Fail	• Info
	Health ver Server	Health ver Server	Health ver Server Discovery Fount AND BP50	Health     Health       ver Server     Discovery Found       AND BP5091100076	Health     Health       ver Server     Discovery Found       AND BP5091100076     Microsoft HDP	Health     Health       Discovery Found     Paired       AND BP5091100076     AND BP5	Health         Health         Health           ver Server         Discovery Found         Paired           AND BP5091100076         AND BP50911(Paired)	Health         Health         Health           ver Server         Discovery Found         Pared           AND BP5091100076         AND BP50911(Paired)	Health     Health     Health       ver Server     Discovery Found     Paired     Data Recieved       AND BP5091100076     AND BP50911(Paired)     AND BP50911(Paired)	Health     Health     Health     Health       ver Server     Discovery Found     Paired     Data Recleved. ◆       AND BP5091100076     AND BP50911(Paired)     AND BP50911(Paired)

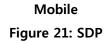
Mobile Figure 20: Health

#### 2.4.13. Bluetooth SDP

To perform this test:

- 1. Select **Bluetooth SDP** from the test case list.
- 2. If Bluetooth is off, turn on manually.
- 3. Press button **Discover** to see the list of Bluetooth devices.
- 4. Clicked on the desire device to make pair with that device.
- 5. After paring is completed press Connected Services, Bluetooth services will be shown in a list.
- 6. If Bluetooth profiles are shown then press PASS otherwise FAIL.

ul \$ 2:33 PM 🖬 🖬 Bluetooth SDP	ul ≱ 2:34 PM 🔮 🖬 Bluetooth SDP	.al ≱ 2:34 PM 🔮 🗖 Bluetooth SDP	.⊪l ¥ 2:34 PM 🔮 🖬 Bluetooth SDP
Ready to discover Server	Discovery Finished S-12650307	Paired S-12571857	Connected Service Classes: HSP Service Class
	Galaxy S52	S-12650307	HFP Service Class
	S-12571857	Foysal	A2DP Service Class
	S-12650302	Tizen14 GT-19060	AVRCP Service Class
	Galaxy Note3	Genius HS	
Discover Connected Services	Tizen15 Discover Connected Services	Discover Connected Services	Discover Connected Services
Pass Fail Info	Pass Fail Info	Pass Fail Info	Pass Fail Info



#### 2.5. Testing Bluetooth LE

This section describes the Bluetooth LE testing options. If the functionality works as expected, press PASS, otherwise, press FAIL.

#### 2.5.1. Gatt Client Test

This section act as a gatt client and shows the services, characteristics, descriptions of gatt server with corresponding uuid.

To perform the test

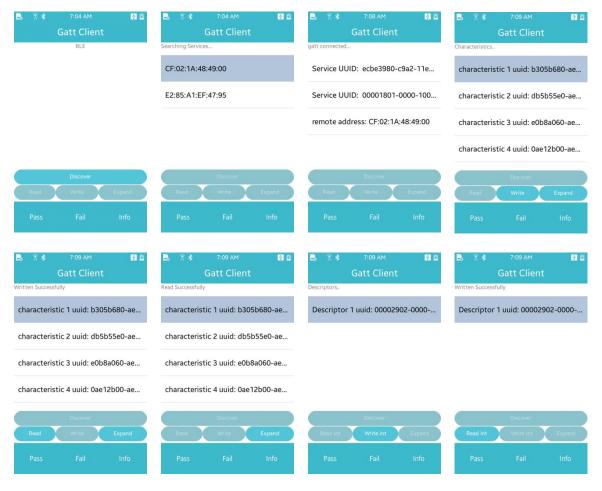
- 1. Select Gatt Client from the test case list.
- 2. Set **BLE device** in discover mode.
- 3. If Bluetooth is off, turn on manually.
- 4. Press button **Discover** and a list of available BLE devices will be appeared.
- 5. Select the desired device and gatt services will be shown with corresponding uuid in list.
- 6. Select the desired **gatt** service and corresponding characteristics will be shown with uuid in list.
- 7. Select the desired characteristic and press write button, written successfully message will be shown.
- 8. Press read button, read successfully message will be shown.
- 9. Press **expand** button, if descriptors is available for selected characteristics then descriptors will be shown with corresponding uuid in list.
- 10. Select the desired descriptor and press write int button, written successfully

message will be shown.

- 11. Press read int button, Descriptor value 25 will be shown in list.
- 12. Press write float button, written successfully message will be shown.
- 13. Press **read float** button, Descriptor float value 15200.00000 will be shown in list.

If all the steps are performed correctly then Pass, otherwise Fail.

NB: From steps 8-12 depends on availability of descriptors.



Mobile Figure 22: GATT

#### 2.6. Testing the Wi-Fi Activation

To test the Wi-Fi activation:

- 1. Select Wifi Test from the test case list.
- 2. To enable Wi-Fi, press button Wifi On.
- 3. To disable Wi-Fi, press button Wifi Off.



Figure 23: WIFI

#### 2.7. Display Test

The following requirements are mandatory for the **display** test: Minimum screen size: 240 x 320 (QVGA)

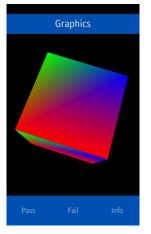
C	oisplay Info	)
Screen Widt	h: 480	
Screen Heigl	nt: 800	
Screen Bpp:	32	
Pass		
	Mobile	

Figure 24: Display Test

To test the display, check whether the screen size is larger than the minimum size of 240  $\times$  320.

## 2.8. Testing Graphics

To test the Graphics ensure that a cube is rotating properly.



Mobile Figure 25: Graphics

#### 2.9. Testing the Input Device

## Edit field:

To test the edit field, three kinds of keypad will appear. If the keys can be pressed and inputs are shown, then the test is **Pass**, otherwise **Fail**.

- Select Number Keypad from test case list for Number Keypad Test.
- Select **Phone Number Keypad** from **test case list** for Phone Number Keypad Test.
- Select IP Keypad from test case list for IPV4 Keypad Test.

INU	umber Key	pad	
Enter Num	ber:		
			$\sim$
23	4 5 6	789	0
	\$ / ^	& * (	)
@ #		, ?	<b>*</b>
@ # 2 - '	":;		

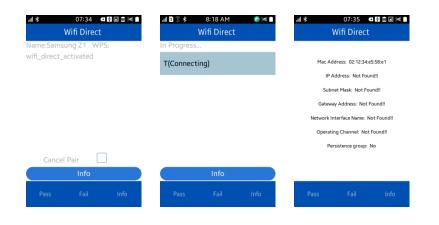
Mobile Figure 26: Input Device

#### 2.10.Testing Wi-Fi Direct

#### 2.10.1. Wi-Fi Direct

To perform the test

- 1. Select Wifi Direct from the test case list from two devices concurrently.
- 2. Discovery for new devices starts automatically and the list of discovered devices is shown.
- 3. Select the desired device from the list to connect.
- 4. If you want to cancel connection during pairing check the cancel pair checkbox.
- Press button Info to see the Mac address, IP address, Subnet mask, Gateway address, Network interface name, Operating channel and Persistent group.



Mobile Figure 27: WIFI-Direct

#### 2.11. Testing NFC

#### 2.11.1. NFC Tag

To perform the test, switch on NFC and

- 1. Select NFC Tag from the test case list and it is by default in read mode
- 2. Take the device to a NFC tag
- 3. A list will appear showing information about tag type, NDEF support, NDEF message size, maximum size of NDEF message, key, value, record

type, record etc.

- 4. Then select the tab Write and take the device to a NFC tag
- 5. Then a string of Text type will be written in the NFC tag and a success message will be shown with written message.
- 6. If all the steps are performed correctly then Pass, otherwise Fail

	:05 al 🛍		:05 🖬 🖿		16:05 al 🖿		
NFC	Тад	NFC	Тад		NFC Tag		NFC Tag
Read	Write	Read	Write	Read	Write	Read	Write
NFC	Read	NFC	Read	NFC Write		Write Complete	d Successfully
		Tag Type: NFC_MIF	ARE_ULTRA_PICC			Record 0 Type	сT
		NDEF Support: Yes				Record 0 Text:	: Time: 1417773949.85
		NDEF Msg Size: 44	Byte				
		NDEF Max Msg Siz	e: 142 Byte				
		Key: UID, Value: S	j75				
		Key: APP_DATA, Va	alue: S j75				
Pass F	ail Info	Pass F	ail Info	Pass	Fail Info	Pass	Fail Info
			Mahila				

Mobile

Figure 28: NFC Tag

#### 2.11.2. NFC P2P

To perform the test,

- 1. Take two NFC supported devices and switch on NFC in both
- 2. Select NFC P2P from the test case in two devices and click Server in one device and Client in other device
- 3. Touch the back of two devices, Server TC will output Data Received Successfully along with received data and Client TC will output Data Sent successfully.
- 4. If all the steps are performed correctly then Pass, otherwise Fail.

	1:59PM	박 많 편 석 습	al \$	1:58PN NFC P2		al \$	1:59PM NFC P2P	a 다 다 한 네 다		ni *	13:57 NFC P2P	°\$ ₩ ₩ ₽
Server NFC Write	<u>c</u>	lient	Data S	Server ient Successfully	Client	Server	NFC Read	Client		<u>Server</u> Data Received		Client
				,						Record 0 Tex		
Pass	Fail	Info	Pa	ass Fail	Info	Pass	Fail	Info		Pass	Fail	Info
		CI	ient					S	Serve	r		

#### Figure 29: NFC P2P

## 3. Testing Multimedia Features

This chapter describes the various tests that can be performed to check the multimedia features. If the functionality works as expected, press **Pass**, otherwise, press **Fail**.

#### 3.1. Testing Local Video

The local video test enables you to confirm that file formats, such as Mpeg4, H263, and H264 are playing normally. To test the video formats from the test case list select,

- H263 Video for testing video format of H263.
- MPEG4 Video for testing video format of Mpeg4
- H264 Video for testing video format of H264.
- 1. After selecting each test, press **Play** to play the video.
- 2. Press Pause to pause the video.
- 3. Press **Stop** to stop the video.

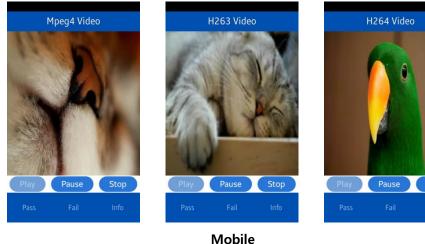


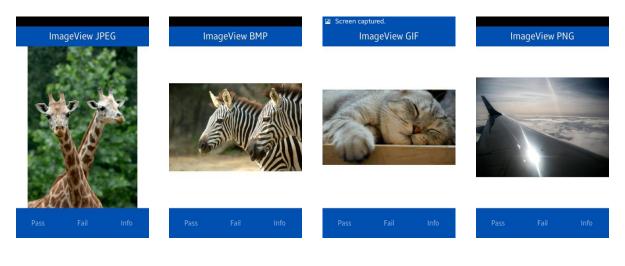
Figure 30: Local Video

## **3.2. Testing Image View**

The image view test enables you to confirm that file formats, such as .jpeg, .bmp, .gif, and .png can be viewed normally.

To perform the image view test,

- Select **ImageView PNG** from **test case list** and an .png image will be shown automatically
- Select ImageView GIF from test case list and an .gif image will be shown automatically
- Select **ImageView BMP** from **test case list** and an .bmp image will be shown automatically
- Select ImageView JPG from test case list and an .jpg image will be shown automatically



Mobile Figure 31: Image View

# 4. Testing Application Controls

This chapter describes the various tests that can be performed to check that the application control operations work normally.

## 4.1. Testing the Pick Operation

If the functionality works as expected, press Pass, otherwise, press Fail.

#### **4.1.1.** App Control Pick Test

To perform the test:

- 1. Select Operation Pick from the test case list
- 2. Press Multiple and select multiple items and press Select Multiple.
- 3. If multiple data is returned, then Pass otherwise Fail

- 4. Press **Single** and select single item and press Select Single.
- 5. If single data is returned, then **Pass**, otherwise **Fail**.

Operation Pick	Screen captured. Pick Operation	Screen captured. Operation Pick	Pick Operation	Screen captured. Operation Pick
Pick/View Data:	Caller App :	Multiple Select List:	Caller App :	Single Select List:
	Item 1	Item 1	Item 1	Item 1
	Item 2	Item 2	Item 2	
	Item 3		Item 3	
	Item 4		Item 4	
	New Item 1		New Item 1	
Single Multiple	New Item 2	Single Multiple	New Item 2	Single Multiple
Pass Fail Info	Select Multiple	Pass Fail Info	Select Single	Pass Fail Info

Mobile Figure 32: App Control Pick Test

#### 4.2. Testing the view operation

If the functionality works as expected, press Pass. Otherwise, press Fail.

#### **4.2.1.** App Control View Test

To perform the test:

- 1. Select Operation View from the test case list
- 2. Press button View UI.
- 3. If UI is shown, Click item and press Return button.
- 4. Then press button View Service.
- 5. If App launched successfully, then Pass otherwise Fail.

	Default Operation	Screen captured.
Operation View	bridat opriation	Operation View
Pick/View Data:	Caller App :	App launched successfully.
	Item 1	
	Item 2	
	Item 3	
	Item 4	
	New Item 1	
View UI View Service	New Item 2	View UI View Service
Pass Fail Info	Return	Pass Fail Info

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#### Mobile Figure 33: App Control View Test

#### 4.3. Data Control

TBT Data Control module requests different operations on the data provided by DataUIControl application. If the request is processed successfully then **Pass** otherwise **Fail** 

## 4.3.1. Insert Operation

To perform the operation

- 1. Select **Sql Insert** from the test case list
- 2. Press button Start.
- 3. If the request is sent successfully and information is shown normally then **Pass.**
- 4. If any error is shown, then Fail.

Screen ca	ptured.						
	SQL Insert					SQL Insert	
Press star	t to check				The insert	request sen	t.
					The insert	operation is	success
					Test Data I	nserted into	o row # 2
	Start		I			Start	
Pass	Fail	Info			Pass	Fail	Info
			Mol	oile			

Figure 34: SQL Insert

## **4.3.2.** Delete Operation

To perform the operation

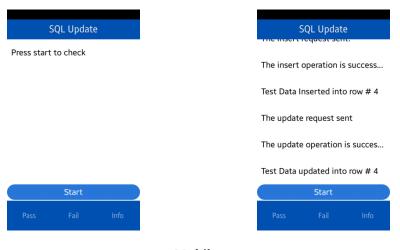
- 1. Select **Sql Delete** from the test case list
- 2. Press button Start Test.
- 3. If the request is sent successfully and information is shown normally then **Pass.**
- 4. If any error is shown, then Fail.

	SQL Delete				SQL Delete	
Press start	to check				operation is	
					nserted inte	
				The delete	request ser	nt
				The delete	operation i	s succ
				Test Data o	deleted fron	row
	Start				Start	
				Pass		

Mobile Figure 35: SQL Delete

#### 4.3.3. Update Operation

- To perform the operation
  - 1. Select Sql Update from the test case list
  - 2. Press button Start.
  - 3. If the request is sent successfully and information is shown normally then **Pass.**
  - 4. If any error is shown, then Fail.



Mobile Figure 36: SQL Update

#### **4.3.4.** Select Operation

To perform the operation

- 1. Select Sql Select from the test case list
- 2. Press button Start
- 3. If the request is sent successfully and information is shown normally then **Pass.**
- 4. If any error is shown, then Fail.

Tes The Sel Tes Start	S	QL Select	:
The i Test The : Selec Test Start	Drocs start t	o chock	
Select of Test Da	Press start t	о спеск	
Test Data			
Start			
Pass Fail Info Pass		Start	

Mobile Figure 37: SQL Select

#### 4.3.5. Cursor Operation

To perform the operation

- 1. Select **Sql Cursor** from the test case list
- 2. Press button Start.
- 3. It will show the list of row id of the selected items.
- 4. Press First to get the row id of the first selected item.
- 5. Press Last to get data t the row id of the last selected item.
- 6. Press Next and Prev to navigate between the selected items.
- 7. If all the operations are successful then Pass otherwise Fail.

SQL Curs	or	SC	L Cursor		🗈 Sci	reen captured SQL	i. Cursor				
Press start to check	The Insert re	quest sent		The	The select request sent						
		The Insert re	quest sent		Sele	cted Row I	D#6				
					Sele	Selected Row ID#7					
	The Insert re	quest sent		Sele	Selected Row ID#8						
	The select re	quest sent		Sele	Selected Row ID#9						
First Next Prev Last		First Ne	xt Prev Start	Last	Firs	First Next Prev Last Start					
Pass Fail	Info	Pass		Info	Pa			Info			
SQL Cursor	Screen captured.			SQL Cur				SQL Cursor			
The select request sent	The select request se	5.85+92 •				The select request sent					
Selected Row ID#6	Selected Row ID#9		Selec	ted Row ID#8	I	S	Selected R	ow ID#8			
First Next Prev Last Start	First Next P Start	rev Last	First	t Next Start	Prev Last		First N	Next Prev Start	Last		
Pass Fail Info	Pass Fail	Info	Pa	ss Fail	Info		Pass	Fail	Info		

Mobile Figure 38: SQL Cursor

## 4.3.6. Data Control Map

To perform the test,

- 1. Select **SQL Map** from the test case list.
- 2. Press button Start Test. If three values are shown then Pass.
- 3. If all the values are not shown, then Fail.

Screen cap	<sup>tured.</sup> SQL Map			Screen captured. SQL Map
Press start			Adding map data requested	
				Map Data add operation Success
				Map Data get operation succes
				#1 value1
				#2 value2
	Start		)	Start
Pass	Fail	Info		Pass Fail Info

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Samsung Electronics Co., Ltd. Licensed under the Apache License, Version 2.0 You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0. 32 | P a g e Mobile Figure 39: SQL Map

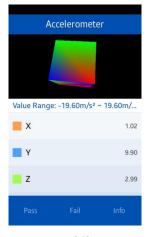
# 5. Testing Sensors

This chapter describes the various tests that can be performed to check that the device sensors work normally. If the functionality works as expected, press **Pass**. Otherwise, press **Fail**.

#### 5.1. Testing the Accelerometer

This test verifies that the acceleration sensor is working normally. To perform the test,

- 1. Select Accelerometer from the test case list
- 2. As you move the device, the triangle displayed on the screen must point down.
- 3. If it points in another direction, the accelerometer is not properly configured.



Mobile Figure 40: Accelerometer

#### 5.2. Gyroscope

To perform the test

- 1. Select Gyroscope from the test case list
- 2. If the device is stable, then the background of the cube is black.
- 3. **Move** the device to the direction of the cube movement and background color will be **blue**.

- 4. **Move** the device to the opposite direction of the cube movement and background color will be **red**.
- 5. Press button **Next** to change direction of cube movement and do the previous steps accordingly.

Gyroscope		Screen captured. Gyroscope		Screen captured. Gyroscope			Gyroscope			Gyroscope		
ALC: NO				-								
Value Range: -5	Value Range: -500.04°/s ~ 500.02°/s Value Range: -500.04°/s ~ 500.02°/s		04°/s ~ 500.02°/s	Value Range: -500.04°/s ~ 500.02°/s			Value Range: -500.04°/s ~ 500.02°/s			Value Range: -500.04°/s ~ 500.02°/s		
×	-2.32	×	12.07	×		.87	x		4.76	×		-3.54
Y	-2.00	Y	-6.17	Y	-{	.39	Y		-0.35	Y		3.36
Z	-0.90	Z	19.50	z	-13	.98	Z		0.35	Z		0.06
C	Next		Next	C	Next		C	Next		C	Next	
Pass	Fail Info	Pass	Fail Info	Pass	Fail Info		Pass	Fail	Info	Pass	Fail	Info

Mobile

Figure 41: Gyroscope

#### 5.3. Proximity

To perform the test

- 1. Select **Proximity** from the test case list and an image showing a bulb will appear
- 2. Cover the upper portion of the device with hand and an image showing a glowing bulb will appear.
- 3. If the hand is moved away, the previous image will appear again.



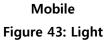
Mobile Figure 42: Proximity

#### 5.4. Light

To perform the test

- 1. Select Light from the test case list.
- 2. **Move** the device to the light source.
- 3. The color of the object slowly turns into red according to the intensity of light.





#### 5.5. Magnetometer

To perform the test

- 1. Select Magnetometer from the test case list
- 2. Move device and the value of X, Y and Z component of earth magnetic field will be change accordingly.



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#### Figure 44: Magnetometer

#### 5.6. Pressure

To perform the test

- 1. Select **Pressure** from the test case list
- 2. Current air pressure is displayed automatically if device supports pressure sensor.



Figure 45: Pressure

## 5.7. Ultra Violet

To perform the test

- 1. Select **Ultraviolet** from the test case list.
- 2. Move the device to the ultraviolet light source.
- 3. The color of the object slowly turns into violet according to the intensity of ultraviolet light.



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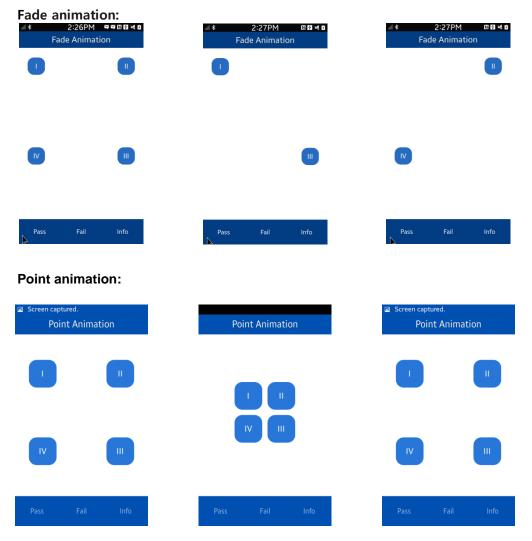
# 6. Testing Platform Resources

This chapter describes the various tests that can be performed to check the platform resources. If the functionality works as expected, press **Pass**. Otherwise, press **Fail**.

### 6.1. Testing UI Animations

To perform the UI test:

- 1. Select Fade Animation, Dimension Animation, Rectangle Animation, Point Animation and Rotation Animation respectively for the respected animations.
- 2. After selecting each test, the animation will be shown automatically.
- 3. Press Pass if all tests are successful.



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Dimension animation:		
Dimension Animation	Screen captured. Dimension Animation	Screen captured. Dimension Animation
IV	IV	IV
Pass Fail Info	Pass Fail Info	Pass Fail Info
Rectangle animation:		
Screen captured. Rectangle Animation	Rectangle Animation	Screen captured. Rectangle Animation
		1
IV		IV
Pass Fail Info	Pass Fail Info	Pass Fail Info
Rotate animation:		
	Screen captured. Rotate Animation	
	R 2	
	Pass Fail Info	
	Mobile	

Mobile Figure 47: UI Animations

### 6.2. Testing UI Components

This section describes the tests you can perform on UI components.

### **6.2.1.** Testing Image Resizing

This test enables you to resize the image as bigger and smaller.

To perform the **Resize Drawable** test:

- 1. Select Resize Drawable from the test case list.
- 2. Check that the images are resized automatically and normally.

	Screen captured. Resize Drawable			<ul> <li>Screen captured.</li> <li>Resize Drawable</li> </ul>					
		k							
Pass	Fail	Info			Pass	Fail	Info		

Mobile Figure 48: Image Resize

## 6.2.2. Testing Shapes

This test shows different shapes in the screen.

To perform the **Shape** test:

- 1. Select the Shape from the test case list
- 2. If different shapes appear automatically and correctly, then **Pass** otherwise **Fail**.

Shape	Screen captured. Shape	Shape	Shape
_			
Pass Fail Info	Pass Fail Info	Pass Fail Info	Pass Fail Info

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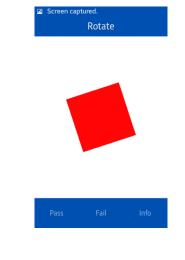
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#### Mobile Figure 49: Testing Shapes

### 6.2.3. Testing Rotation

To perform the rotation test:

- 1. Select **Rotate** from the **test case list** and check if the objects are rotating properly.
- 2. If yes then Pass otherwise Fail.



Mobile Figure 50: Testing Rotation

## 6.2.4. Testing Alpha Drawing

To perform the test

- 1. Select **Alpha Drawble** from the **test case list** and objects of different brightness is shown automatically.
- 2. If it is shown, then the test is successful.

Screen cap Alp	<sup>tured.</sup> ha Drawable		Screen captured. Alpha Drawable		ble	Screen captured. Alpha Drawable						
Pass	Fail	Info			Pass	Fail	Info			Pass	Fail	Info

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#### Mobile Figure 51: Testing Alpha drawing

### 6.2.5. Testing Fonts

To perform the test,

- 1. Select **Font** from the **test case list** and text of different font sizes and colors are shown.
- 2. If it is shown, then Pass otherwise Fail.

  Screen captured.
  Screen captured.

  Font
  Font

  Sample Text !

  Pass
  Fail

  Mobile
  Figure 52: Testing Fonts

### 6.2.6. Testing Line Drawings

To perform the test,

- 1. Select **UI (Line Drawable)** from the **test case list** and lines of different colors, size are drawn in different directions automatically.
- 2. If yes then **Pass** otherwise **Fail**.

Li	ne Drawab	le	
Pass	Fail	Info	

Mobile Figure 53: Testing Line Drawable

## 7. EFL / Event

This chapter describes the various tests that can be performed to check some EFL library functions. If the functionality works as expected, press **Pass**. Otherwise, press **Fail**.

#### 7.1. Touch Test

To perform the touch test:

- 1. Select Touch from the test case list.
- 2. Touch and drag to draw random curves on the screen.
- 3. Check that the first press is green.
- 4. Check that the touch-drag is blue.
- 5. Check that the release location is red.
- 6. If the functionality works as expected, press Pass. Otherwise, press Fail.



Figure 54: Touch Test

### 7.2. EFL Callback

To perform the test

- 1. Select EFL Callback from the test case list.
- 2. Press the Hardware Back Button and check whether the back button callback

is detected.

- 3. Press button Delete Callback and the callback will be deleted.
- 4. Press the Hardware Back Button and check, there is no back button callback is detected.
- 5. Then press button Add Callback to add a new callback
- 6. Then again press the Hardware Back Button and check whether the back button callback is detected.
- 7. You must press Pass or Fail button to exit from the test.
- 8. If all the steps are performed correctly then Pass, otherwise Fail.

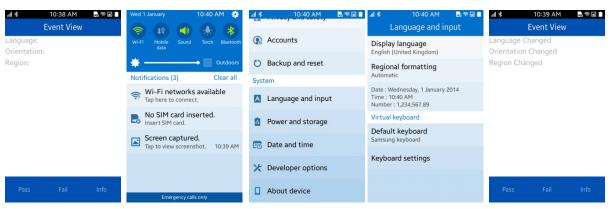
al Callback ad Waiting for			al Callback add BACK BUTT	FL Callbac		al Callback de Waiting for			Screen cap	FL Callbac	k	ul Callback a BACK BU	EFL Callbac	
D	elete Callbaci	<	De	elete Callba	ck		Add Callback		De	elete Callba	ck		Delete Callba	ck
Pass	Fail	Info	Pass	Fail	Info	Pass	Fail	Info	Pass	Fail	Info	Pass	Fail	Info
						Mol	oile							

Figure 55: EFL Callback

#### 7.3. Event View

To perform the test

- 1. Select Event View from the test case list.
- 2. Select Settings from the Notification bar.
- 3. From Settings, select Language and input and change the language.
- 4. Go back to TBT and the information about language change and region change will be shown.
- 5. Move the device and change the device orientation.
- 6. Information about change in orientation will be shown.
- 7. If all the steps are performed correctly then Pass, otherwise Fail.





#### Figure 56: Event View

#### 7.4. Shortcut

To perform this test:

- 1. Select Shortcut from the test case list.
- 2. If you want to created duplicate shortcut, check the "Allow duplicate" labeled checkbox, otherwise do not check it.
- 3. Press the "Add shortcut" button, then you will see the message "Shortcut Created".
- 4. After that go to the home screen and check; if shortcut is created the PASS, otherwise FAIL.

ا * 12:40 Shortcı	¤∎ ut		i1:42 ⊠⊯∎ ortcut		11:43 🛛 🕅 ortcut		
Allow duplicate		Allow duplic	cate	Allow dupli	cate		
Allow duplicate		🗾 Allow duplica	te	Nlow duplicate Shortcut Created			
Add short	cut	Add	shortcut	Add	shortcut		
	Info	Pass	Fail Info	Pass			

Figure 57: Shortcut

## 8. Runtime Info

### 8.1. Runtime Info

To perform the test, select Runtime Info from the test case list. There are two test steps.

Firstly,

- 1. Initial page will show Audio Jack Not Connected, connect headphone in audio jack.
- Then message will show "Audio Jack Connected with 3 wire ear jack" or "Audio Jack Connected with 4 wire ear jack" according to the type of air jack connected. If Audio jack is not supported, "Audio Jack is not supported" will be shown

If all steps are competed perfectly, then the test can be considered as success.

Image: state	Image: state stat	■
Pass Fail Info	Pass Fail Info	Pass Fail Info

Figure 58: Runtime Info

## 9. Attach Panel

#### 9.1. Attach Panel

To perform this test, take come pictures with camera so that images are available in device images flder. Select **Attach Panel** from the **test case list**. Firstly,

- 1. Press "+" button in top left corned in the initial page.
- 2. Gallery Images will be shown using attach panel, click on a image.
- 3. Clicked Image will be selected and shown in the upper area.

If all steps are competed perfectly, then the test can be considered as success.



Mobile Figure 59. Attach Panel

# 10. Testing IME

### **10.1.IME Alphabetic**

This module shows a custom Alphabetic keyboard layout and its actions.

- To Test this Module -
- Set Default keyboard to TBT keyboard: Go to Settings>Language and input > keyboard and enable TBT keyboard,
  - then Select Default keyboard as TBT Keyboard.
- 2. Open IME Alphabetic module from TBT module list
- 3. An Alphabetic keyboard will be shown and "ELM\_INPUT\_PANEL\_LANG\_AUTOMATIC" will be shown at the bottom key.
- 4. Press Alphabetic keys then corresponding alphabets will be written in entry field.
- 5. Press BACK key to remove one character at a time from entry field.
- 6. Press Prid On key, then "abcd" will be written in entry field.
- 7. Press Prid Off to remove "abcd" from entry field.
- 8. Press Spc key to make a space character in entry field.
- 9. If everything works properly as steps mentioned above then Pass otherwise Fail.

al 😤 🕸		61 61	al 😤 🕸		63 C	'ul 36		A 🌚 I
← Lan			<del>~</del>				IME Alphabet	
Display lar			Virtual keybo	ard		Language	: 0	
English (Uni	ted States)		Default k	eyboard				
Region			TBT keybo	ard				
Automatic			Keihaan					
Regional example Date : Thursday, J	uly 2, 2015		Keyboard	l settings				
Time : 8:48 PM Number : 1,234,5	67.89		Keyboards					
Keyboard			Tizen key	board	0	Pass		
Keyboard								<-BACK
			TBT keyb	oard	0			N'EACA
Speech								Prid On
Voice cont	rol		imeappli	cation	0			
					-		j Prid Off	5pc
TTS Optio	ns							
rio optio								



### **10.2.IME Numeric**

This module shows a custom Numeric keyboard layout and its actions.

To Test this Module -

- Set Default keyboard to TBT keyboard: Go to Settings>Language and input > keyboard and enable TBT keyboard, then Select Default keyboard as TBT Keyboard.
- 2. Open IME Numeric module from TBT module list
- 3. An Numeric keyboard will be shown and "ELM\_INPUT\_PANEL\_LANG\_AUTOMATIC" will be shown at the bottom key.
- 4. Press Numeric keys then corresponding numerics will be written in entry field.
- 5. Press BACK key to remove one character at a time from entry field.
- 6. Press DS key to delete character under cursor from entry field.
- 7. Press Spc key to make a space character in entry field.
- 8. If everything works properly as steps mentioned above then Pass otherwise Fail.

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					Spc
TS Options				ELM_INPUT_PANEL_LANG_AUTOM	ATIC

Figure 61: IME Alphabetic

#### 10.3.IME Events

This module Tests the effect of Language change Event to custom input method. To Test this Module -

1. Set Default keyboard to TBT keyboard:

Go to Settings > Language and input > keyboard and enable TBT keyboard, then Select Default keyboard as TBT Keyboard.

- 2. Open IME Events from TBT module list
- 3. Change Language from Settings > Language and input > Display language
- 4. Return back to IME Events module.
- 5. The text of the key will be changed as the language changed.
- 6. If everything works properly as steps mentioned above then Pass otherwise Fail.

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TTS Options					

Figure 62: IME Events

#### **10.4.IME Context Info**

This module Tests the Context Info of a custom input panel.

To Test this Module -

1. Set Default keyboard to TBT keyboard:

Go to Settings>Language and input > keyboard and enable TBT keyboard, then Select Default keyboard as TBT Keyboard.

- 2. Open IME Context Info from TBT module list
- 3. A keyboard with Pass text to all Keys will be shown
- 4. If everything works properly as steps mentioned above then Pass otherwise Fail.

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			Pass	Pass	Pass
TS Options			Pass	Pass	Pass

Figure 63: IME Context Info

# 11. Testing the Push Service

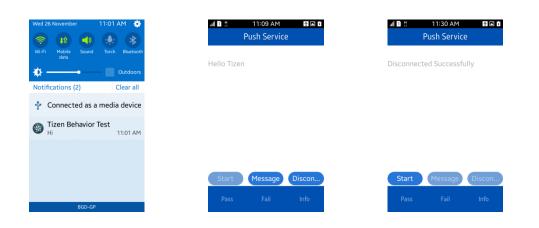
To perform the test, select **Push Service** from the **test case list**. There are two tests. Firstly,

- 1. Press Start button to start the push service and a successful response will be displayed.
- 2. Then long press the Home button and clear the application instance
- 3. After a few moments, there will a notification.
- 4. Click on the notification and the message will be shown.
- 5. Secondly, Press button Start to start the push service.
- 6. Press button Message.
- 7. After a few moments a message will be shown.
- 8. Press button Disconnect to disconnect Push Service

If all steps are competed perfectly, then the test can be considered as success.

배 집 # 11:07 AM Push Service	80	ul∎t Pi	11:00 AM ush Service	କ 🗎	JOY BOX Joy Box	Music	Gallery	Camera
Push		Get Respons Successfully		r	Phone	Contacts	Messages	Internet
					Tizen Behavior T			
Start Message	Discon	Start	Message	Discon				
Pass Fail	Info	Pass	Fail	Info			- 1	

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Mobile Figure 64: Push Service

# 12. Testing OAuth 2.0

This section describes the OAuth 2.0 testing options. If the functionality works as expected, press PASS, otherwise, press FAIL.

This section test OAuth 2.0 by logging into **gmail** account and shows it's users information

To perform the test

- 1. At first, be sure that internet connection is available.
- 2. After Entering on OAuth 2.0 module, press Clear Cache button to remove previously saved data.
- 3. Select GOOGLE\_AUTH2\_CODE, This will redirected to Google Authentication page.
- 4. Give Gmail username and password and press login. It will prompt a tbtcoreapp access page.
- 5. Press Accept then the account profile picture and name will be shown as per Gmail account.

배 <sup>36</sup> 10:52 AM 🔒 OAuth 2.0	Google	nazib.cse@gmail.com +			
GOOGLE_OAUTH2_CODE	Sign in with your Google Account	∗ tbtcoreapp চায়:			
		আশনি Google-4 কে তা আনুন			
		আপলার ইমেল ঠিকালা দেখুন			
	Email	র করুন এ টিক করার দ্বারা, আশনি এই আরিবেশ্যানটিকে এবং. Google কে তাদে গরিদেষার শর্তাবলি এবং গেপলীয়তা নীতিগুলি অনুযায়ী আশনার তথ্য ব্যবহাকে			
	Password	পরিয়েবার শন্ডাবলি ধেং গোপনীয়েতা নীডিশ্রেলি অনুযায়ী আগদার ভগা ব্যবহারে তি দিচ্চেলা আপলি মেকেলো সময় এটি এবং অল্যান্চ অগ্রকাউচেইর অনুযতিশ্রেলি ার্চল করতে পারেন্স			
	Sign in	যান্ডিল কবুন বীন্স			
Clear Cache Info	Need help?				
	Create an account				
Pass Fail	One Google Account for everything Google 🛐 M 👍 💶 Ҟ 🕨 🔯				

Figure 65: OAuth 2.0

# 13. Viewing the Hardware/Software Feature Summary

To view the hardware/software feature summary of the device:

- 1. Select HW / SW Feature Test from the test case list
- 2. Different Hardware/Software features are shown automatically.
- 3. If it works as expected, press Pass. Otherwise, press Fail.



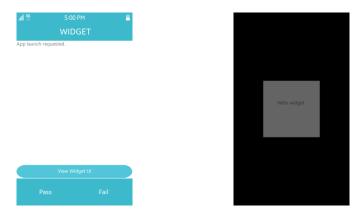
#### Mobile

Figure 66: Hardware/Software Feature Summary

# 14. Testing the Widget

To perform the test:

- 1. Select WIDGET from the test case list
- 2. Press button View Widget UI.
- 3. If Widget UI is shown, then Pass otherwise Fail.



Mobile Figure 67: Widget

# 15. Appendix

- Certain ports should be opened if company firewall is applied to Wi-Fi being used.
- Firewall should be open while using Wi-Fi access point for port numbers listed below :

5223, 110, 143, 465, 587, 993, 995, 8000, 8081, 8088, 8080, 80, 443