TFE03 Board Specification Briefing

Front View

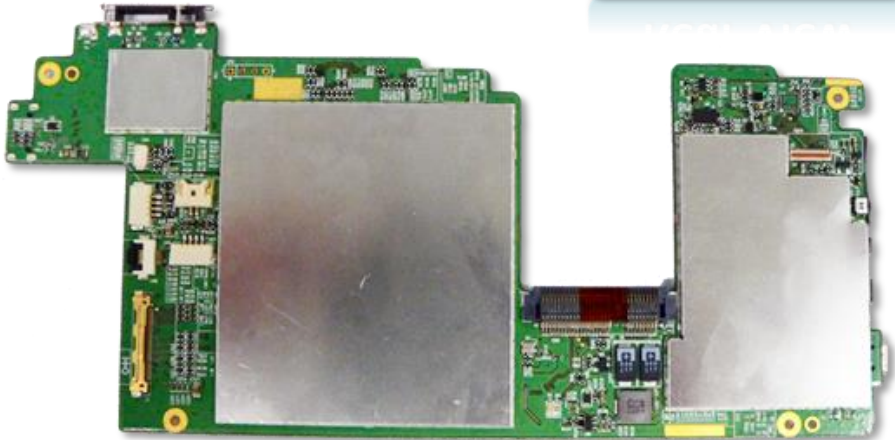**Rear View**

ARM Cortex™-A8 Motherboard

- Freescale i.MX53 1.0 GHz high performance processor
- Supports Accelerometer, eCompass and Ambient Light
- 2 Parallel Camera connectors
- LVDs, I2C, Mini USB(OTG) I/O interface
- WiFi 802.11b/g/n and Bluetooth support
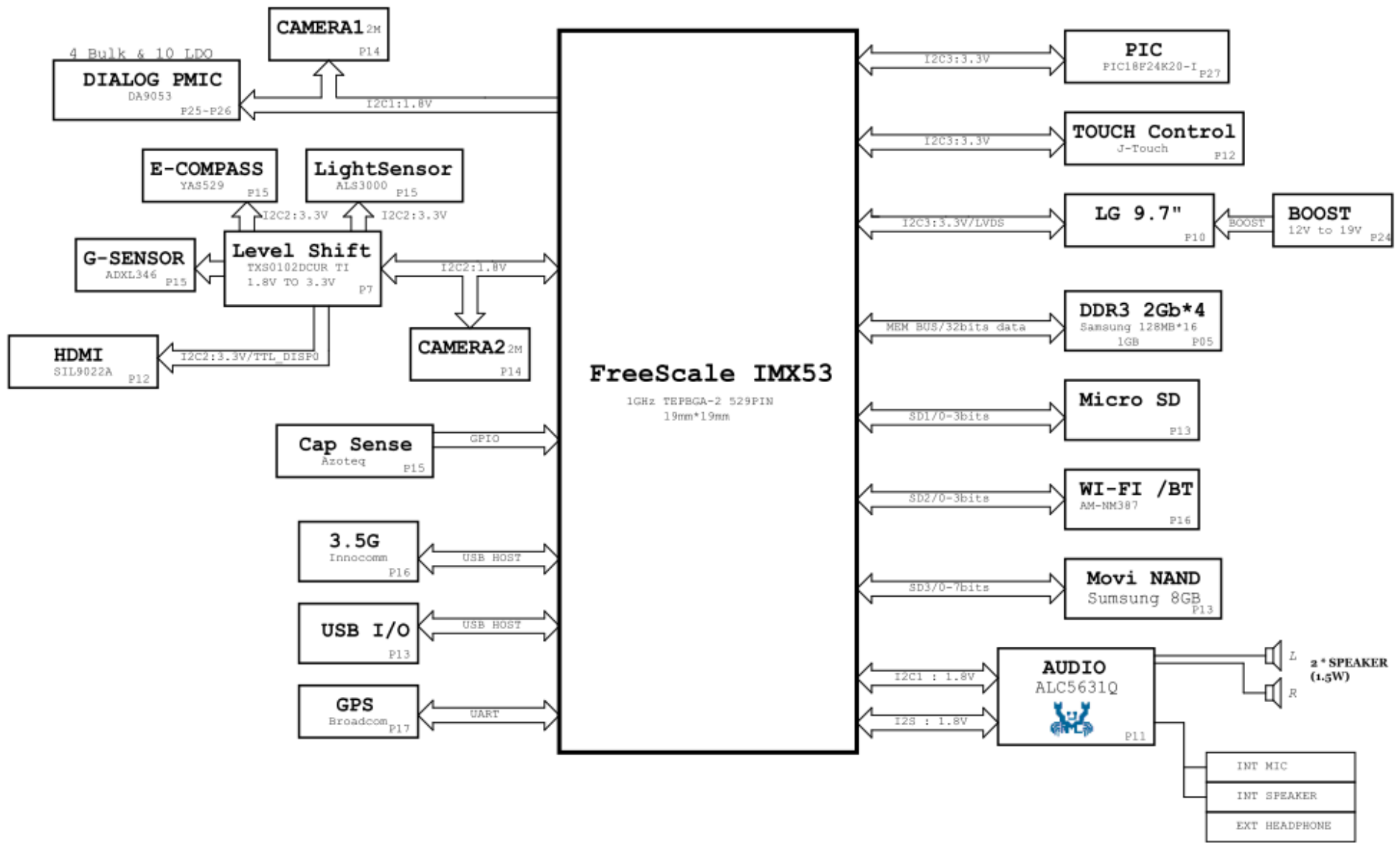- Supports Android, Linux, Java, Greenhill's

TFE03 Board Specification

Category	Subcategory	Specification
Processor		FSL i.MX535 1.0Ghz
DRAM	DDR3	1GB DDR3 Samsung
External Memory	eMMC	4GB / 8GB eMMC MoviNAND
	SD Card Socket	1 x micro SD card slot
Video	HDMI	1 x micro HDMI
	LVDS Connector	1 x LVDS
	Camera	2 x Paraller Camera connector
	Touch	1 x I2C connector for TPM
Audio	Audio Codec	Realtek ALC5631Q
	Stereo input	1 x 3.5mm earphone Jack (daughter board)
	MIC input	N/A
	Microphones	1 x Microphone (wired)
	Speakers	2 x Stereo Speakers
	Volume Control	1 x Volume up/down button (daughter board)
Sensors	Accelerometer	ADI ADXL345
	eCompass	Yamaha YAS529
	Ambient Light	LSC AL3000A (daughter board)
Connectivity	USB OTG	1 x Mini USB Type A/B
	Ethernet	N/A
	Serial Debug	1 x Serial Debug 4 pin connector
	WiFi/Bluetooth	1 x SDIO connector for an external module
	Mini-Card	1 x Full size USB interface
	GPS	Broadcom BCM4751
	SIM	1 x SIM card slot
Power	Power Mgt	PMIC Dialog PMU DA9053
	Battery charging	Battery charger
	DC-in	1 x DC-in Jack (wired)
	Power Supply	Output: 12V / 1.5A
Others		1 x Reset button, 1 x GPS antenna is on TFE03 mainboard

Front View

186.85 mm

Power Button Board

PIC

2 Mega-pixel Camera Connector

SIM Card Slot

HDMI Port

Micro SD Slot

86.10 mm

Mini USB OTG

DC-in

Battery Pack

Wi-Fi Module

Rear View

Microphone

CART (For Software Debug)

Volume Up/Down

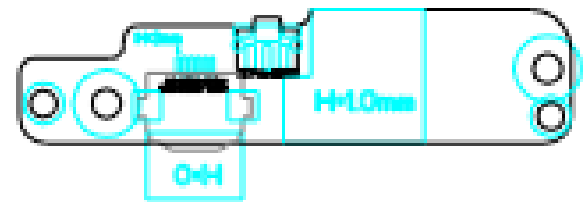2 Mega-pixel Camera Connector
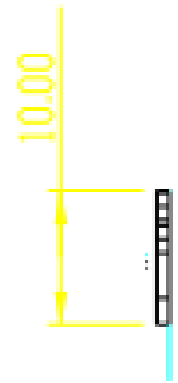
Headphone

Touch Panel

LVDS

Speaker

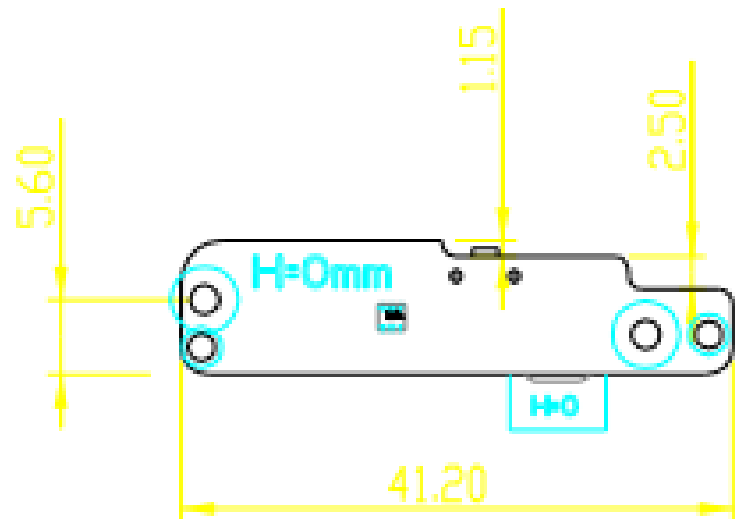Mini PCIe
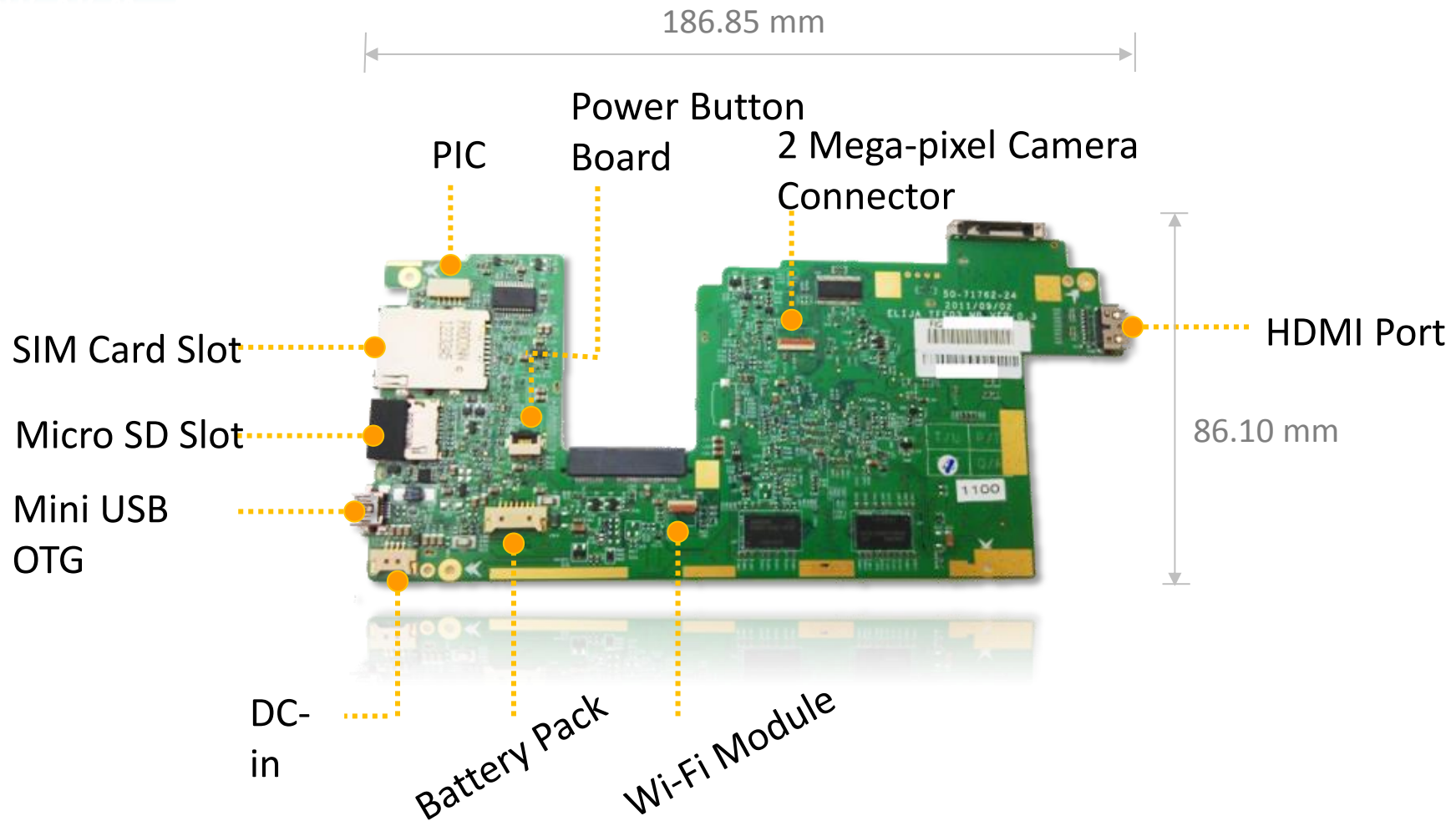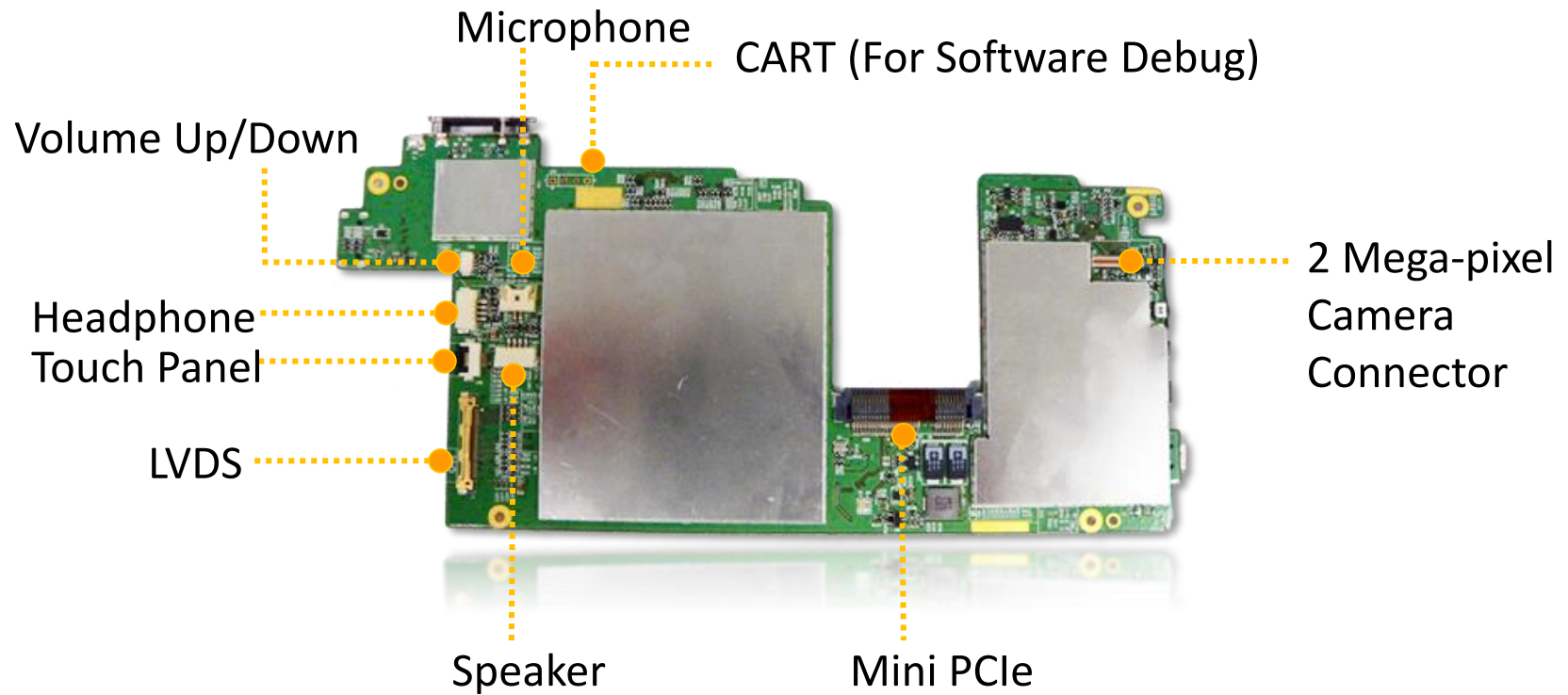
TFE03 Power Button Board Dimensions

Bottom Side

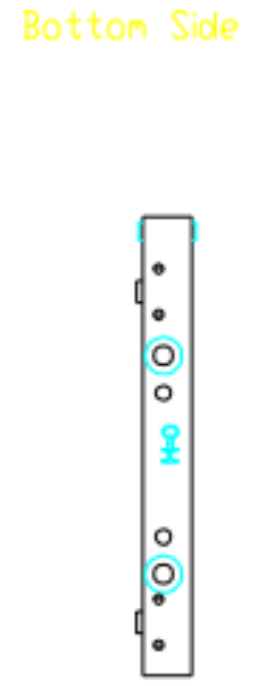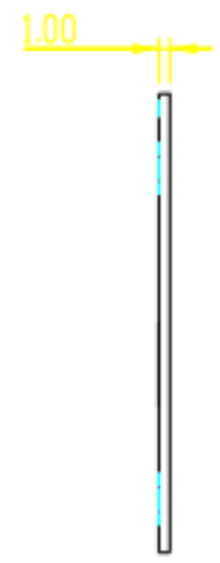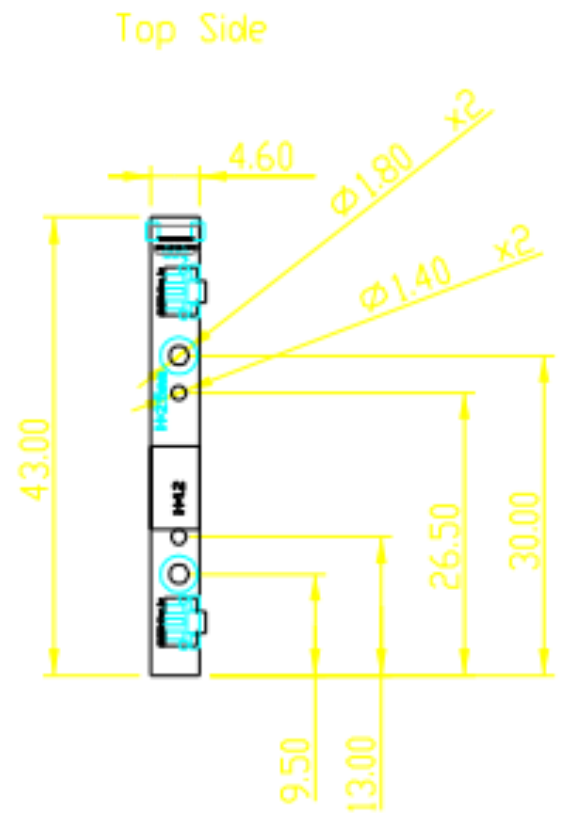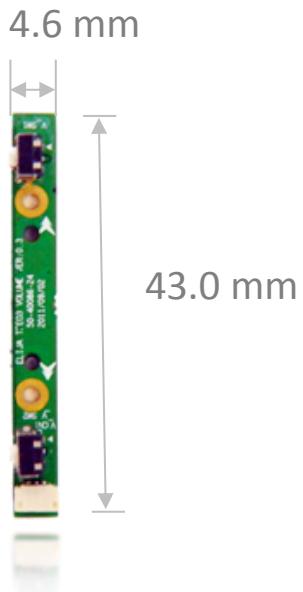41.2 mm

10.0 mm

Top Side

Mobile *Division*

Top Side

Bottom Side

4.6 mm

43.0 mm

4.60

Φ1.80 x2

Φ1.40 x2

43.00

26.50

30.00

9.50

13.00

1.00

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22.2 mm

16.1 mm

Top Side

Bottom Side

16.10

22.20

H+3mm

HÞO

Ø2.00

Ø2.20×2

1.00

16.10
11.20
6.70

0.00

22.20

H+1.5mm

HÞO

3.50

0.00
2.20

17.10

TFE03 Board Function Pin Definition
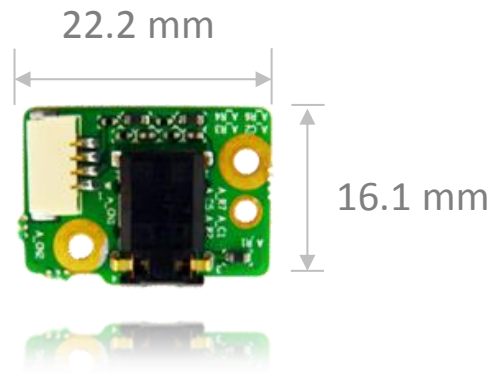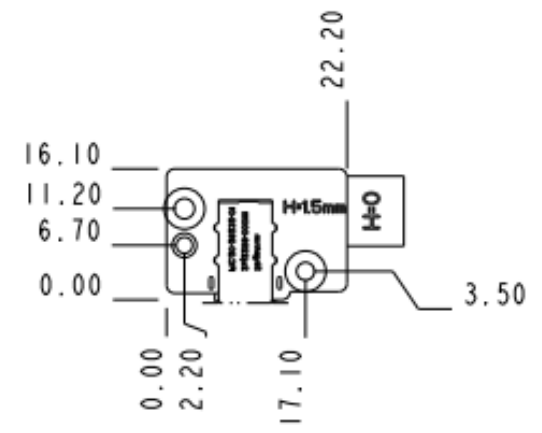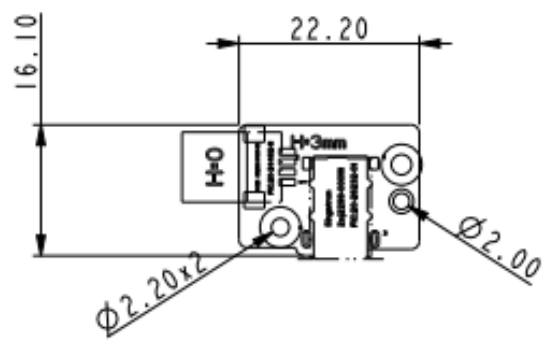
Volume board Earphone Jack board, Speaker, Touch, Back Camera and Front Camera

CN4

Pin	Define	Function
1	Volume_UP	**Volume Button Board**
2	Volume_Down	
3	GND	

CN6

Pin	Define	Function
1	HPDET	**Earphone Jack Board**
2	A_HPOUT_R	
3	A_HPOUT_L	
4	A_GND	

CN7

Pin	Define	Function
1	SPKOUTL_N	**Speaker Connector**
2	SPKOUTL_P	
3	SPKOUTR_N	
4	SPKOUTR_P	

CN8

Pin	Define	Function
1	3VDDM	**Touch Connector**
2	I2C3_SDA	
3	I2C3_SCL	
4	Touch_RST#	
5	INT	
6	GND	

CN10

Pin	Define	Function
1	GND	**Back Camera**
2	CAM1_RESET#	
3	CAM1_EN	
4	GNS	
5	CAM1_PIXCLK	
6	GND	
7	CAM1_SCLK	
8	GND	
9	I2C1_SCL	
10	I2C1_SDA	
11	CAM1_DATA17	
12	CAM1_DATA16	
13	CAM1_HSYNC	
14	CAM1_VSYNC	
15	CAM1_DATA10	
16	CAM1_DATA11	
17	CAM1_DATA15	
18	CAM1_DATA14	
19	CAM1_DATA13	
20	CAM1_DATA12	
21	GND	
22	CAM1_AVDD	
23	CAM1_IOVDD	
24	CAM1_IOVDD	
25	GND	

CN12

Pin	Define	Function
1	GND	**Front Camear**
2	CAM2_RESET#	
3	CAM2_EN	
4	GND	
5	CAM2_PIXCLK	
6	GND	
7	CAM2_SCLK	
8	GND	
9	I2C2_SCL	
10	I2C2_SDA	
11	CAM2_DATA17	
12	CAM2_DATA16	
13	CAM2_HSYNC	
14	CAM2_VSYNC	
15	CAM2_DATA10	
16	CAM2_DATA11	
17	CAM2_DATA15	
18	CAM2_DATA14	
19	CAM2_DATA13	
20	CAM2_DATA12	
21	GND	
22	CAM2_AVDD	
23	CAM2_IOVDD	
24	CAM2_IOVDD	
25	GND	

Wi-Fi, Battery, Power button board, DC-in, Microphone and LVDS

CN16

Pin	Define	Function
1	GND	
2	3.3V	
3	3.3V	
4	NA	
5	NA	
6	SD2_DAT3	
7	SD2_CLK	
8	SD2_DAT2	
9	SD2_DAT1	Wifi Connector
10	SD2_DAT0	
11	SD2_CMD	
12	GND	
13	SLEEP_CLK	
14	3.3V	
15	PDn	
16	1.8V	
17	GND	

CN18

Pin	Define	Function
1	GND	
2	GND	
3	DET	
4	SMCLK	Battery Connector
5	SMDAT	
6	VBAT	
7	VBAT	

CN19

Pin	Define	Function
1	I2C2_3V3_SDA	
2	I2C2_3V3_SCL	
3	ALS_INT	Power button Board
4	GND	
5	POWSW	
6	3VDDM	

DC-IN1

Pin	Define	Function
1	DCIN	
2	DCIN	DC-in Conenctor
3	GND	
4	GND	

MIC1

Pin	Define	Function
1	MIC1_N	Microphone
2	MIC1_P	

J1

Pin	Define	Function
1	NC	
2	LCD_19V6-	
3	LCD_19V5-	
4	LCD_19V4-	
5	LCD_19V3-	
6	LCD_19V2-	
7	LCD_19V1-	
8	NC	
9	LCD_19V+	
10	LCD_19V+	
11	NC	
12	GND	
13	LVDS_TX0-	
14	LVDS_TX0+	
15	GND	
16	LVDS_TX1+	
17	LVDS_TX1-	
18	GND	LVDS connector
19	LVDS_TX2+	
20	LVDS_TX2-	
21	GND	
22	LVDS_CLK+	
23	LVDS_CLK-	
24	I2C3_SDA	
25	I2C3_SCL	
26	GSP	
27	VLCD_3V3	
28	VLCD_3V3	
29	VLCD_3V3	
30	GND	

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9.7" Stylish tablet

A highly desirable tablet which brings the whole new digital world to your fingertips by wild connectivity .

Key Specification

Operating System	• Android™
CPU	• Freescale™ i.MX53 processor, 1.0GHz
	• ARM Cortex™-A8 core architecture
Storage	• 8GB e.MMC NAND Flash
System Memory	• DDR3, up to 1GB
Display	• 9.7-inch, IPS panel
	• 1024x768 resolution
	• Capacitive multi-touch screen
Interface	• Mini USB, mini HDMI, micro-SD slot, volume control, earphone jack
Wireles	• Wi-Fi 802.11b/g/n
	• Bluetooth® 3.0+HS
Camera	• 2.0MP dual cameras (Front and rear facing)
Power Supply	• 7.4V / 25.9Wh Li-Polymer battery
Dimensions	• 244.8 x 191.7 x 12.5 mm (WxDxH)
Weight	• Approx. 700g
Others	• Sensors: G-sensor, E-compass
	• GPS receiver

freescale semiconductor

Touch   WiFi   Dual Camera   Mini HDMI   Card Slot