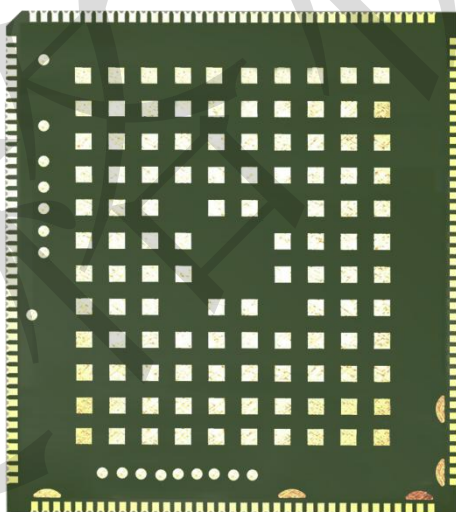


# SLM758 模块规格说明\_V1.01



受控文件名称	<b>SLM758 模块规格说明</b>
受控版本号	<b>V1.01</b>
发布机构	深圳市美格智能技术股份有限公司
发布日期	<b>2017 年 5 月（更新）</b>

# 1. 产品概述

SLM758 系列核心板，采用的主芯片为高通骁龙 600 系类的 MSM8953，该 CPU 采用 14nm FinFET 制成，内置 64bit ARM、8 核 Cortex A-53、主频 2.0G 处理器，支持 LPDDR3 SDRAM 的 memory。

支持板卡内存为 16GB/32GB 的全球不同制式多模 LTE 智能通信模块，此模块适用于 TD-LTE/FDD-LTE/WCDMA/EVDO/TD-SCDMA/CDMA/GSM 多种网络制式的宽带智能无线通信模块。SLM758 采用 Android7.1 操作系统，可支持的接入速率：

TD-LTE: 117/30Mbps

FDD-LTE: 150Mbps/50Mbps

WCDMA 可达 DC HSPA+: 42Mbps/5.76Mbps

EVDO 可达 EVDO RevA: 3.1Mbps/1.8Mbps

TD-SCDMA 可达 HSPA: 4.2Mbps/2.2Mbps

CDMA1x: 153.6kbps/153.6kbps

GSM 可达 EDGE: 236.8kbps/236.8kbps

SLM758 在提供高速宽带数据接入的同时，可提供语音、短信、通讯簿、WiFi、BT 和 GPS 功能；产品支持双 1300W 的 3D 摄像或景深拍照，可广泛应用于执法仪、警务通、POS 收银机、物流终端、VR Camera、智能机器人、视频监控、安防、车载设备、智能平台手持终端等产品。

# 2. 特性列表

产品特性	描述
平台	Qualcomm MSM8953
CPU	Octa-core A53 (64bit) 8*2.0GHz * Octa-core A53 (64bit) 8*1.8GHz * Octa-core A53 (64bit) 8*2.2GHz
GPU	Adreno506; 650MHz
系统内存	16GB eMMC + 2GB LPDDR3 933Mhz *兼容 32GB+4GB
操作系统	Android 7.1
尺寸	41.0x45.5x3.0mm, 160pin LCC + 112pin LGA
网络频段（中国为例）	TDD-LTE: B38/39/40/41 FDD-LTE: B1/3/5/8 TD-SCDMA: B34/39 WCDMA: B1/5/8 EVDO: BC0

	CDMA: BC0 GSM: B5/3/8	
Wi-Fi	IEEE 802.11 a/b/g/n 2.4G&5G *可选择支持 11ac *可选择支持 5G 外置 FEM	
Bluetooth	BT4.1	
GNSS	GPS/Beidou/Glonass/Galileo	
数据接入	TD-LTE	Cat4 TD-LTE 117/30Mbps
	FDD-LTE	Cat4 FDD-LTE 150/50Mbps
	DC-HSPA+	42/11.2Mbps
	TD-HSPA	2.8/2.3Mbps
	EVDO Rev.A	3.1/1.8Mbps
	EDGE	Class12, 236.8kbps/236.8kbps
	GPRS	Class12, 85.6kbps/85.6kbps
SIM	DSDS 双卡双待 3.0/1.8V 支持 SIM 卡热插拔 L/W/G/T+G L/W/G/T+W L/W/G/T+1X L/EVDO/CDMA1X+G 不支持双 CDMA 卡	
Display	Matrix: FULL HD: 1920*1200 60fps;	
	LCM Size: User defined	
	Interface: 1st LCM: MIPI DSI 4-lane; 2nd LCM: MIPI DSI 4-lane	
Camera (前和后双摄像头)	Interface:可支持三组 CSI, 每一组都是 4-Lane	
	摄像头 Pixel:后置 13-24Mp/前置 up to 13Mp, 双 ISP 可同时支持双 13MP Camera	
	Video decode	4K 30fps, 1080p 60fps, H.264/H.265 MP4/ WMV9/ VC1/ DivX/ VP8/VP9
	Video encode	4K 30fps,1080p 60 fps: H.264/ H.265/ MP4/ VP8 1080P 60fps De +1080p 30fps En
输入设备	按键 (开关机键、home、音量+、音量-)	
	电容式 TP	
Reset	支持硬复位	
应用接口	接口名称	主要功能描述
	VBAT	3pin, 模块电源输入, 3.4V~4.2V, 标称值 3.8V
	SDIO *1	SD3.0; eMMC v5.1

USB2.0/3.0	支持 OTG USB_BOOT (强制 USB 引导, 用于紧急下载)
BLSP ports	8 ports(BLSP1-8), 4-bits each, multiplexed serial interface functions
UART*4	BLSP2,BLSP4-6 support UART, up to 4 Mbps
I2C	All BLSPs support I2C and SPI, These BLSPs use bits [1:0] for I2C
SPI(master only)	
GPIO	SPI is only support via BLSP
ADC*2	待客户定义
充电功能	支持 5V/2A, 支持 Qcharger 3.0
马达	支持
GPIO	50 个 GPIO,不含 BLSP 复用 GPIO
VCOIN	实时时钟后备电池
射频 PIN	多模 LTE 主天线 多模 LTE 分集天线 GPS 天线 2.4G WiFi-天线 5G WiFi-天线
Audio	1 路主 MIC 1 路降噪 MIC 1 路免提喇叭 (内置 0.8W D 类功放) 1 路听筒 1 路立体声耳机

### 3.其他制式版本

网络频段 (亚欧版本) SLM758-E	TDD-LTE: B38/40/41 FDD-LTE: B1/3/5/7/8/20 WCDMA: B1/B5/B8 GSM: B5/3/8
网络频段 (美洲版本) SLM758-A	FDD-LTE: B2/3/4/5/7/12/13/17/28 WCDMA: B1/2/5
网络频段 (日本版本) SLM758-J	FDD-LTE: B1/3/8/11/18/19/21/28 WCDMA: B1/9/19

## 4.SLM758 接口

### SLM758 模块 272pin 定义:

PIN#	SLM758 Pin name	Pad characteristics	Functional description
1	GND	GND	GND
2	FLASH_LED1+	AO	FLASH LED anode(1A)
3	GND	GND	GND
4	PMI8952_MPP1	AO-Z,AI,DO	Configurable MPP,PWM,ADC
5	LCD_BL_LED_K1	AI	LCD Backlight cathode1(20mA)
6	LCD_BL_LED_K2	AI	LCD Backlight cathode2(20mA)
7	LCD_BL_LED_A	PO	LCD Backlight anode
8	PMI_HAP_OUT_N	AO	Haptics driver output negative
9	PMI_HAP_OUT_P	AO	Haptics driver output positive
10	GND	GND	GND
11	UART2_MSM_TX	B-PD:nppukp	Configurable I/O,UART2 TX
12	UART2_MSM_RX	B-PD:nppukp	Configurable I/O,UART2 RX
13	GPIO6_I2C2_SDA	B-PD:nppukp	Configurable I/O, I2C SDA
14	GPIO7_I2C2_SCL	B-PD:nppukp	Configurable I/O, I2C SCL
15	GPIO12_UART4_TX	B-PD:nppukp	Configurable I/O,UART4 TX
16	GPIO13_UART4_RX	B-PD:nppukp	Configurable I/O,UART4 RX
17	GPIO14_SENSOR_I2C4_SDA	B-PD:nppukp	Configurable I/O,SENSOR I2C SDA
18	GPIO15_SENSOR_I2C4_SCL	B-PD:nppukp	Configurable I/O, SENSOR I2C SCL
19	GPIO42_ACCL_INT1	B-PD:nppukp	Configurable I/O,ACC INT
20	GPIO43_ALSP_INT_N	B-PD:nppukp	Configurable I/O,ALSP INT
21	GPIO44_MAG_INT	B-PD:nppukp	Configurable I/O,MAG INT
22	GPIO45_GYRO_INT	B-PD:nppukp	Configurable I/O,GYRO INT
23	GND	GND	GND
24	GPIO85_KEY1_VOL+	B-PD:nppukp	Configurable I/O,KEY VOL+
25	GPIO86_KEY2_SNAPSHOT	B-PD:nppukp	Configurable I/O,KEY VOL- or SNAPSHOT
26	GPIO87_KEY3_FOCUS	B-PD:nppukp	Configurable I/O,KEY HOME or FOCUS
27	GPIO88_KEY4_HOME	B-PD:nppukp	Configurable I/O,KEY HOME
28	GND	GND	GND
29	VREG_L11_2P95	PO	PMIC output 2.95V for SD-card power

30	VREG_L12_PX2_2P95	PO	PMIC output 2.95V for SDC2 signal
31	GPIO133_SDCARD_DET_N	B-PD:nppukp	Configurable I/O,SD card detection
32	SDC2_SDCARD_D0	BH-NP:pdpukp	Secure digital controller 2 data bit 0
33	SDC2_SDCARD_D1	BH-NP:pdpukp	Secure digital controller 2 data bit 1
34	SDC2_SDCARD_D2	BH-NP:pdpukp	Secure digital controller 2 data bit 2
35	SDC2_SDCARD_D3	BH-NP:pdpukp	Secure digital controller 2 data bit 3
36	SDC2_SDCARD_CMD	BH-NP:pdpukp	Secure digital controller 2 command
37	SDC2_SDCARD_CLK	BH-NP:pdpukp	Secure digital controller 2 clock
38	GND	GND	GND
39	GND	GND	GND
40	MIPI_CSI2_CLK_P	AI	MIPI camera serial interface 2 clock+
41	MIPI_CSI2_CLK_N	AI	MIPI camera serial interface 2 clock-
42	MIPI_CSI2_LANE0_P	AI	MIPI camera serial interface 2 lane0+
43	MIPI_CSI2_LANE0_N	AI	MIPI camera serial interface 2 lane0-
44	MIPI_CSI2_LANE1_P	AI	MIPI camera serial interface 2 lane1+
45	MIPI_CSI2_LANE1_N	AI	MIPI camera serial interface 2 lane1-
46	MIPI_CSI2_LANE3_P	AI	MIPI camera serial interface 2 lane3+
47	MIPI_CSI2_LANE3_N	AI	MIPI camera serial interface 2 lane3-
48	MIPI_CSI2_LANE2_P	AI	MIPI camera serial interface 2 lane2+
49	MIPI_CSI2_LANE2_N	AI	MIPI camera serial interface 2 lane2-
50	GND	GND	GND
51	MIPI_CSI0_CLK_P	AI	MIPI camera serial interface 0 clock+
52	MIPI_CSI0_CLK_N	AI	MIPI camera serial interface 0 clock-
53	MIPI_CSI0_LANE1_P	AI	MIPI camera serial interface 0 lane1+
54	MIPI_CSI0_LANE1_N	AI	MIPI camera serial interface 0 lane1-
55	MIPI_CSI0_LANE2_P	AI	MIPI camera serial interface 0 lane2+
56	MIPI_CSI0_LANE2_N	AI	MIPI camera serial interface 0 lane2-
57	MIPI_CSI0_LANE3_P	AI	MIPI camera serial interface 0 lane3+
58	MIPI_CSI0_LANE3_N	AI	MIPI camera serial interface 0 lane3-
59	MIPI_CSI0_LANE0_P	AI	MIPI camera serial interface 0 lane0+
60	MIPI_CSI0_LANE0_N	AI	MIPI camera serial interface 0 lane0-
61	GND	GND	GND
62	MIPI_DSI0_LANE0_N	AO	MIPI display serial interface 0 lane0-
63	MIPI_DSI0_LANE0_P	AO	MIPI display serial interface 0 lane0+
64	MIPI_DSI0_CLK_P	AO	MIPI display serial interface 0 clock+
65	MIPI_DSI0_CLK_N	AO	MIPI display serial interface 0 clock-

66	MIPI_DSI0_LANE1_N	AO	MIPI display serial interface 0 lane1-
67	MIPI_DSI0_LANE1_P	AO	MIPI display serial interface 0 lane1+
68	GND	GND	GND
69	5G_ANT	AI	RF signal for 5G WIFI
70	GND	GND	GND
71	MIPI_DSI0_LANE2_N	AO	MIPI display serial interface 0 lane2-
72	MIPI_DSI0_LANE2_P	AO	MIPI display serial interface 0 lane2+
73	MIPI_DSI0_LANE3_N	AO	MIPI display serial interface 0 lane3-
74	MIPI_DSI0_LANE3_P	AO	MIPI display serial interface 0 lane3+
75	GPIO61_LCD_RST_N	B-PD:nppukp	Configurable I/O,primary LCD RESET
76	GPIO24_LCD_TE0	B-PD:nppukp	Configurable I/O,primary LCD TE
77	GPIO25_LCD_TE1	B-PD:nppukp	Configurable I/O, secondary LCD TE
78	GND	GND	GND
79	WIFI/BT_ANT	AI	RF signal for WIFI/BT
80	GND	GND	GND
81	GND	GND	GND
82	GPS_ANT	AI	RF signal for GPS
83	GND	GND	GND
84	GPIO26_CAM_MCLK0	B-PD:nppukp	Configurable I/O,main CAM MCLK
85	GPIO40_MCAM_RST_N	B-PD:nppukp	Configurable I/O,main CAM RESET
86	GPIO39_MCAM_PWD_N	B-PD:nppukp	Configurable I/O,main CAM PWDN
87	GPIO27_CAM_MCLK1	B-PD:nppukp	Configurable I/O,front CAM MCLK
88	GPIO129_SCAM_RST_N	B-PD:nppukp	Configurable I/O,front CAM RESET
89	GPIO130_SCAM_PWD_N	B-PD:nppukp	Configurable I/O,front CAM PWDN
90	CAM_I2C_SCL0	B-PD:nppukp	Configurable I/O,Dedicated camera I2C0 SCL
91	CAM_I2C_SDA0	B-PD:nppukp	Configurable I/O,Dedicated camera I2C0 SDA
92	GND	GND	GND
93	DIV_ANT	AI	RF signal for diversity ANT
94	GND	GND	GND
95	CAM_I2C_SCL1	B-PD:nppukp	Configurable I/O,Dedicated camera I2C1 SCL
96	CAM_I2C_SDA1	B-PD:nppukp	Configurable I/O,Dedicated camera I2C1 SDA
97	GPIO65_TP_INT_N	B-PD:nppukp	Configurable I/O,TP INT
98	GPIO64_TP_RST_N	B-PD:nppukp	Configurable I/O,TP RESET
99	GPIO11_TP_I2C3_SCL	B-PD:nppukp	Configurable I/O,TP I2C SCL
100	GPIO10_TP_I2C3_SDA	B-PD:nppukp	Configurable I/O,TP I2C SDA
101	GPIO58_UIM2_DET	B-PD:nppukp	Configurable I/O,UIM2 removal detection

102	UIM2_RESET	B-PD:nppukp	Configurable I/O,UIM2 reset
103	UIM2_CLK	B-PD:nppukp	Configurable I/O,UIM2 clock
104	UIM2_DATA	B-PD:nppukp	Configurable I/O,UIM2 data
105	VREG_L15_UIM2	PO	PMIC output for UIM2
106	GPIO54_UIM1_DET	B-PD:nppukp	Configurable I/O,UIM1 removal detection
107	UIM1_RESET	B-PD:nppukp	Configurable I/O,UIM1 reset
108	UIM1_CLK	B-PD:nppukp	Configurable I/O,UIM1 clock
109	UIM1_DATA	B-PD:nppukp	Configurable I/O,UIM1 data
110	VREG_L14_UIM1	PO	PMIC output for UIM1
111	GND	GND	GND
112	PM8953_MPP2	AO-Z,DI,DO	Configurable MPP,PWM,ADC
113	VCOIN	AI,AO	Coin-cell battery or backup battery
114	LINEOUT_M	AO	Audio lineout minus for audio PA
115	LINEOUT_P	AO	Audio lineout plus for audio PA
116	GND	GND	GND
117	MAIN_ANT	AI	RF signal for main ANT
118	GND	GND	GND
119	GND	GND	GND
120	MIC_BIAS2	AO	Microphone bias #2 for earphone mic
121	MIC_BIAS1	AO	Microphone bias #1
122	MIC_IN1_P	AI	Microphone 1 input plus
123	MIC_IN1_M	AI	Microphone 1 input minus
124	GND_MIC	GND	Microphone bias filter ground
125	CDC_HS_DET	AI	MBHC mechanical insertion/removal-detection
126	CDC_HPH_L	AO	Headphone output, left channel
127	CDC_HPH_REF	AI	Headphone ground reference
128	CDC_HPH_R	AO	Headphone output, right channel
129	CDC_EAR_M	AO	Earpiece output, minus
130	CDC_EAR_P	AO	Earpiece output, plus
131	MIC_IN3_P	AI	Microphone input 3
132	MIC_IN2_P	AI	Microphone input 2
133	SPKR_DRV_M	AO	Class-D speaker driver output, minus
134	SPKR_DRV_P	AO	Class-D speaker driver output, plus
135	GND	GND	GND
136	VREG_L22_2P8	PO	PMIC output 2.8V for camera AVDD
137	VREG_L17_2P85	PO	PMIC output 2.8V for LCD,CAM,TP



138	VREG_L10_2P8_SENSOR	PO	PMIC output 2.8V for sensor
139	VREG_L6_1P8	PO	PMIC output 1.8V for LCD,CAM,TP,sensor
140	VREG_L5_1P8	PO	PMIC output 1.8V for digital I/Os
141	PM_RESIN_N1	DI	KEY RESET or VOL-
142	KYPD_PWR_N1	DI	KEY POWER ON/OFF
143	USB_ID	AI	USB ID
144	GND	GND	GND
145	USB_HS_D_M	AI,AO	USB data minus
146	USB_HS_D_P	AI,AO	USB data plus
147	GND	GND	GND
148	BAT_CON_ID	AI	Battery ID input to ADC
149	BAT_THERM	AI	Battery temperature input to ADC
150	GND	GND	GND
151	VBAT	PI,PO	Battery,3.5V-4.2V,default 3.8V
152	VBAT	PI,PO	Battery,3.5V-4.2V,default 3.8V
153	VBAT	PI,PO	Battery,3.5V-4.2V,default 3.8V
154	GND	GND	GND
155	GND	GND	GND
156	GND	GND	GND
157	VBUS	PI,PO	USB Voltage
158	VBUS	PI,PO	USB Voltage
159	VBUS	PI,PO	USB Voltage
160	GND	GND	GND
161	GND	GND	GND
162	HAPTICS_CDC_LOUT3	AI	HAPTICS PWM in for motor
163	Reserved		Reserved
164	GPIO98_I2C8_SDA	B-PD:nppukp	Configurable I/O, I2C SDA
165	GPIO99_I2C8_SCL	B-PD:nppukp	Configurable I/O, I2C SCL
166	GPIO33	B-PD:nppukp	Configurable I/O
167	GPIO35	B-PD:nppukp	Configurable I/O
168	GPIO36	B-PD:nppukp	Configurable I/O
169	GPIO134	B-PD:nppukp	Configurable I/O
170	GND	GND	GND
171	MIPI_CSI1_LANE2_P	AI	MIPI camera serial interface 1 lane2+
172	MIPI_CSI1_LANE2_N	AI	MIPI camera serial interface 1 lane2-
173	USB3_SS_RX_M	AI	USB super-speed receive – minus

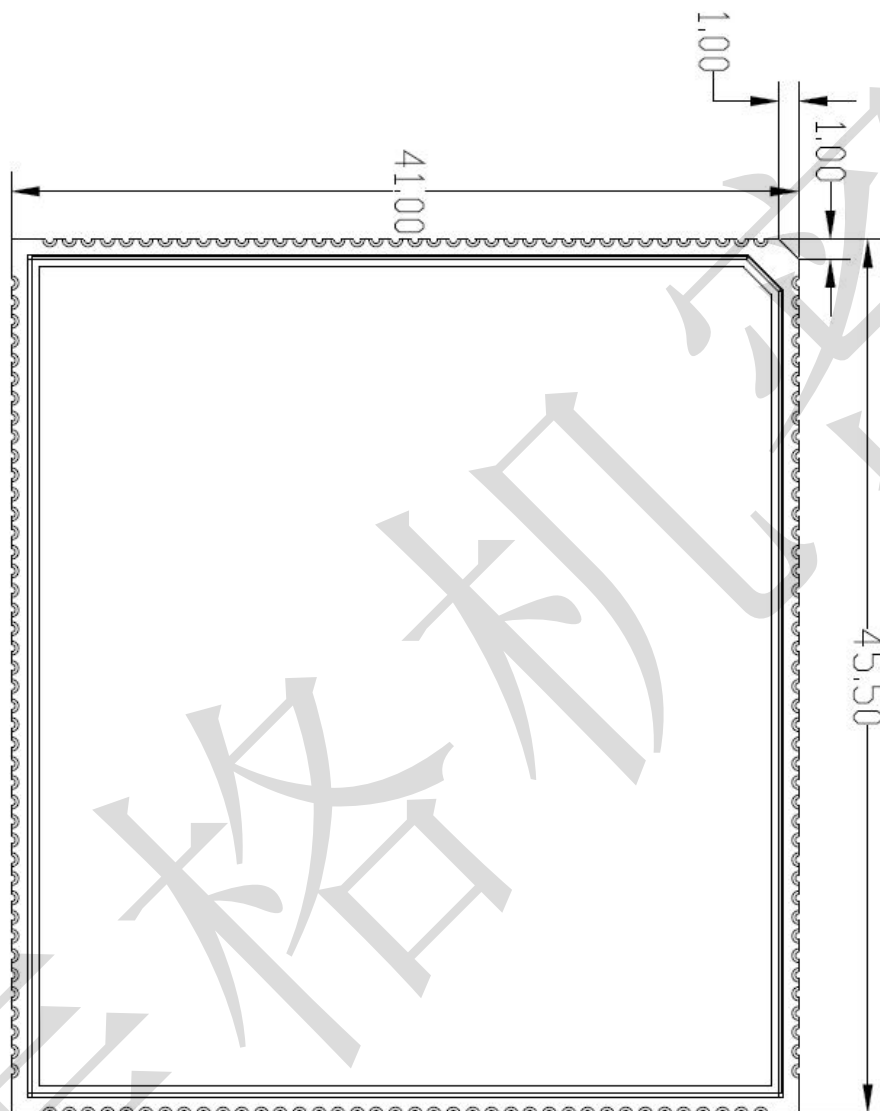
174	USB3_SS_RX_P	AI	USB super-speed receive – plus
175	GND	GND	GND
176	GPIO20_UART6_TX	B-PD:nppukp	Configurable I/O,UART6 TX
177	GPIO21_UART6_RX	B-PD:nppukp	Configurable I/O,UART6 RX
178	LCD_VSP	PO	LAB regulated output for display's positive bias
179	DIS_SCTRL	DI	SWIRE interface for LCD and AMOLED displays
180	GND	GND	GND
181	GND	GND	GND
182	CHG_LED	AO	Current sink for charging indication
183	LCD_VSN	PO	IBB regulated output for thenegative bias
184	GPIO22_I2C6_SDA	B-PD:nppukp	Configurable I/O, I2C SDA
185	GPIO23_I2C6_SCL	B-PD:nppukp	Configurable I/O, I2C SCL
186	USB3_SS_TX_P	AO	USB super-speed transmit – plus
187	USB3_SS_TX_M	AO	USB super-speed transmit – minus
188	GPIO139_USB_SS_SEL	B-PD:nppukp	Configurable I/O,USB Type C switch control
189	MIPI_CSI1_LANE1_P	AI	MIPI camera serial interface 1 lane2+
190	MIPI_CSI1_LANE1_N	AI	MIPI camera serial interface 1 lane2-
191	MIPI_CSI1_LANE3_P	AI	MIPI camera serial interface 1 lane3+
192	MIPI_CSI1_LANE3_N	AI	MIPI camera serial interface 1 lane3-
193	MIPI_CSI1_LANE0_P	AI	MIPI camera serial interface 1 lane0+
194	MIPI_CSI1_LANE0_N	AI	MIPI camera serial interface 1 lane0-
195	GPIO94	B-PD:nppukp	Configurable I/O
196	GPIO95	B-PD:nppukp	Configurable I/O
197	GPIO96	B-PD:nppukp	Configurable I/O
198	GPIO97	B-PD:nppukp	Configurable I/O
199	VREG_L2_1P1	PO	PMIC output 1.1V for main camera DVDD
200	VREG_L23_1P175	PO	PMIC output 1.175V for front camera DVDD
201	USB_CC1	AI;AO	USB type C connector configuration channel1
202	USB_CC2	AI;AO	USB type C connector configuration channel2
203	CBL_PWR_N1	DI	Cable power-on;
204	GPIO89	B-PD:nppukp	Configurable I/O
205	GPIO90	B-PD:nppukp	Configurable I/O
206	FORCE_USB_BOOT	DI	pullup with VREG_L5 to forced USB boot
207	MIPI_CSI1_CLK_N	AI	MIPI camera serial interface 1 clock-
208	MIPI_CSI1_CLK_P	AI	MIPI camera serial interface 1 clock-
209	GPIO62	B-PD:nppukp	Configurable I/O

210	GND	GND	GND
211	GND	GND	GND
212	GPIO66	B-PD:nppukp	Configurable I/O
213	GND	GND	GND
214	GND	GND	GND
215	GND	GND	GND
216	GND	GND	GND
217	VREG_L13_3P075	PO	PMIC output 3.075V for audio codec
218	GND	GND	GND
219	VREG_S4_2P05	PO	PMIC output 2.05V for audio codec
220	GND	GND	GND
221	GPIO46_PRESSURE_INT	B-PD:nppukp	Configurable I/O, Pressure INT
222	GND	GND	GND
223	GND	GND	GND
224	GND	GND	GND
225	MIPI_DSI1_LANE0_P	AO	MIPI display serial interface 1 lane0+
226	MIPI_DSI1_LANE0_N	AO	MIPI display serial interface 1 lane0-
227	WCD_RF_PA_ON	B-PD:nppukp	WCD9326_RF_PA_ON
228	GPIO50	B-PD:nppukp	Configurable I/O, WCD_ELDO_EN
229	WCD_MSM_MCLK	B-PD:nppukp	WCD9326_MSM_MCLK
230	WCD_RST_N	B-PD:nppukp	WCD9326_RST_N
231	GPIO9	B-PD:nppukp	Configurable I/O,
232	GPIO8	B-PD:nppukp	Configurable I/O,
233	GPIO63	B-PD:nppukp	Configurable I/O,
234	GPIO59	B-PD:nppukp	Configurable I/O,
235	GPIO47	B-PD:nppukp	Configurable I/O,
236	SLIMBUS_DATA1	B-PD:nppukp	WCD9326 SLIMBUS DATA1
237	SLIMBUS_DATA0	B-PD:nppukp	WCD9326 SLIMBUS DATA0
238	SLIMBUS_CLK	B-PD:nppukp	WCD9326 SLIMBUS CLK
239	MIPI_DSI1_LANE1_P	AO	MIPI display serial interface 1 lane1+
240	MIPI_DSI1_LANE1_N	AO	MIPI display serial interface 1 lane1-
241	MIPI_DSI1_CLK_P	AO	MIPI display serial interface 1 clock+
242	MIPI_DSI1_CLK_N	AO	MIPI display serial interface 1 clock-
243	MIPI_DSI1_LANE2_P	AO	MIPI display serial interface 1 lane2+
244	MIPI_DSI1_LANE2_N	AO	MIPI display serial interface 1 lane2-
245	MIPI_DSI1_LANE3_P	AO	MIPI display serial interface 1 lane3+

246	MIPI_DSI1_LANE3_N	AO	MIPI display serial interface 1 lane3-
247	WCD_INTR2	B-PD:nppukp	WCD9326 INT2
248	WCD_INTR1	B-PD:nppukp	WCD9326 INT1
249	GPIO128	B-PD:nppukp	Configurable I/O,
250	GPIO41	B-PD:nppukp	Configurable I/O,
251	GPIO38	B-PD:nppukp	Configurable I/O,
252	GND	GND	GND
253	GPIO19_NFC_I2C5_SCL	B-PD:nppukp	Configurable I/O,NFC I2C SCL
254	GPIO18_NFC_I2C5_SDA	B-PD:nppukp	Configurable I/O, NFC I2C SDA
255	GPIO17_UART5_RX	B-PD:nppukp	Configurable I/O,UART5RX
256	GPIO16_UART5_TX	B-PD:nppukp	Configurable I/O,UART5 TX
257	GND	GND	GND
258	GPIO3_SPI1_CLK	B-PD:nppukp	Configurable I/O, SPI CLK
259	GPIO2_SPI1_CS	B-PD:nppukp	Configurable I/O, SPI CS
260	GPIO1_SPI_MISO	B-PD:nppukp	Configurable I/O, SPI MISO
261	GPIO0_SPI_MOSI	B-PD:nppukp	Configurable I/O, SPI MOSI
262	GPIO132_DCAM_PWD_N	B-PD:nppukp	Configurable I/O, Depth camera pwn
263	GPIO131_DCAM_RST_N	B-PD:nppukp	Configurable I/O,Depth camera reset
264	GPIO28_CAM_MCLK2	B-PD:nppukp	Configurable I/O,Depth camera MCLK
265	GPIO140_FP_RST_N	B-PD:nppukp	Configurable I/O, fingerprint RESET
266	GPIO138_FP_SPI_MISO	B-PD:nppukp	Configurable I/O, fingerprint SPI MISO
267	GPIO137_FP_SPI_MOSI	B-PD:nppukp	Configurable I/O, fingerprint SPI MOSI
268	GPIO136_FP_SPI_CS	B-PD:nppukp	Configurable I/O, fingerprint SPI CS
269	GPIO135_FP_SPI_CLK	B-PD:nppukp	Configurable I/O, fingerprint SPI CLK
270	GPIO48_FP_INT_N	B-PD:nppukp	Configurable I/O, fingerprint INT
271	GPIO141	B-PD:nppukp	Configurable I/O,
272	GND	GND	GND

## 5. 模块 2D 结构图

TOP:





# 6.PIN 脚定义

