

type	model	parameters	Package	USE	A no.
PCB	PinephonePro-	PinephonePro-V02_20210911	PCB板	1	PCB
CPU	RK3399	Dual-core Cortex-A72 up to 1.8GHz Quad-core Cortex-A53 up to 1.4GHz	bga	1	U1000
PMIC	RK818-3	RK818-3, QFN68_7R00X7R00XOR80_T	QFN68_7R00X7R00XOR80_T	1	U9
Light Sensor	STK3311-X	The STK3311-X is an integrated ambient and infrared light to digital converter with a built-in IR LED and I2C interface. This device provides not only ambient light sensing to allow robust backlight/display brightness control but also infrared sensing to allow proximity estimation featured with interrupt function.	3.94x2.36x1.35 (mm)	1	U31
3-axis gyroscope	MPU6500	The MPU-6500 is a 6-axis MotionTracking device that combines a 3-axis gyroscope, 3-axis accelerometer, and a Digital Motion Processor™ (DMP) all in a small 3x3x0.9mm package.	QFN24_3X3	1	U32
DC/DC	SY7203DBC	30V High Current Boost LED Driver	QFN-10P	1	U25
Three-Axis Geomagnetic Sensor IC	AF8133J	VTC's AF8133J is a 3-axis magnetic sensor designed for geomagnetic field sensing applications such as e-Compass and motion sensing.	WLCSP	1	U29
Flash LED Driver	AW3641EDNR	The AW3641E is a current-regulated charge pump ideal for powering high brightness LEDs for camera flash applications. The charge pump can be set to regulate two current levels for FLASH and TORCH modes	DFN3x3-10L	1	U33
WI-FI/BT Module	AW-CM256SM	IEEE 802.11a/b/g/n/ac WI-FI with Bluetooth 5.0 Combo Stamp Module	QFN 12*12	1	U34
LTE Standard Module Series	EG25-G GB (256)	EG25-G is an LTE-FDD/LTE-TDD/UMTS/GSM wireless communication module with receive diversity. It provides data connectivity on LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA, HSUPA, UMTS, EDGE and GPRS networks. It also provides GNSS 1) and voice functionality for customers' specific applications. The following table shows the frequency bands of EG25-G module.	EG25-G	1	U36
Voltage-Level Translator	SGM4564YUQN12G/TR	This 4-bit non-inverting voltage-level translator uses two separate configurable power-supply rails. The A ports are designed to track VCCA. VCCA accepts any supply voltage from 1.2V to 5.5V. The B ports are designed to track VCCB. VCCB accepts any supply voltage from 1.65V to 5.5V. This allows for universal low-voltage bidirectional translation between any of the 1.2V, 1.5V, 1.8V, 2.5V, 3.3V, and 5V voltage nodes. VCCA should not exceed VCCB.	UTQFN-18X18-12L	1	U42
Audio CODEC	ALC5616-CGT	The ALC5616 is a high performance, low power, stereo channel I2S interface audio CODEC. The transmitted data can from analog input or digital microphone input. Also the received data can to headphone output, line output	QFN32-4X4	1	U41
Audio CODEC	ALC5640-VB	The ALC5640 is a high performance, low power, dual I2S interface audio CODEC. Dual I2S interface can connect to different devices and let the ALC5640 to be an Audio Hub. Each device can pass through the Audio Hub and then perform as input or output application. Asynchronous Sample Rate Converter (ASRC) provides independent and asynchronous connections to different processors, such as an application processor, baseband processor or wireless transceiver (BT)	QFN48	1	U43
DC/DC	SYR837PKC	High Efficiency 5.5V, 6A, 2.4MHz I 2 C Programmable, Synchronous Step Down Regulator	WCSP-20	1	U5

DC/DC	SYR838PKC	High Efficiency 5.5V, 6A, 2.4MHz I 2 C Programmable, Synchronous Step Down Regulator	WCSP-20	1	U3
Step-UpRegulator	SY8088AAC	High Efficiency 1.5MHz, 1A, Synchronous Step Down Regulator, 2.5~5.5V, SOT23-5	SOT23-5	2	U4, U6
Step-UpRegulator	SY8089AAAC	HighEfficiency2.7- 5.5Vinputvoltage, 2Acontinuous, 3Apeak .1MHzSynchronousStepDownRegulator	SOT23-5	1	U7
LDO	TCS2185B-D18V	Adjustable output 1.8V, maximum current 500mA	FBP1*1-4	5	U16, U121, U122, U123, U124
LDO	TCS2185B-D28V	Adjustable output 2.8V, maximum current 500mA	FBP1*1-4	3	U119, U120, U125
LDO	TCS2185B-D12V	Adjustable output 1.2V, maximum current 500mA	FBP1*1-4	1	U118
LDO	SGM2038-0.9XUDY4G/TR	Adjustable output 0.9V, maximum current 500mA	SON4_120X120	1	U15
K Audio Amplifier	AW8737SCSR	AW8737S is designed to enhance smart mobile phone sound quality, which is a new high efficiency, low noise ultra-low distortion, constant large volume, upgrading seventh generation class K audio amplifier. Using a new	CSP-14	1	U46
USB Type-C Controller	FUSB302MPX	The FUSB302 enables the USB Type-C detection including attach, and orientation. The FUSB302 integrates the physical layer of the USB BMC power delivery protocol to allow up to 100 W of power and role swap. The BMC PD block enables full support for alternative interfaces of the Type-C specification.	MLP14	1	U8903
Analog Switch	UM4717	4.5Ω 300MHz Bandwidth Dual SPDT Analog Switch	WLCSP-10	1	U45
SPI FLASH	SK25LP128-QKLI	128M bit Serial Flash Memory with 4KB Sectors, Dual and Quad I/O SPI & QPI, 8pin 6x5 WSON	WSON-8P-6X5	1	U8904
BTB connector	OK-14F040-04	40pin, 0.4 pitch, T=0.8mm, SOCKET	FPC-0408-40P	1	FPC4
BTB connector	YXT-BB10-30S-02	30pin, 0.4 pitch, T=0.8mm, SOCKET	BB10-30P	2	J6, J7
BTB connector	OK-14F024-04	24pin, 0.4 pitch, T=0.8mm, SOCKET	OK-14F024-04	1	LCD1
FPC connector	ZF1-AB06F10A	6PIN, pitch=0.5mm, T=1.0mm	FPC0510-6P	2	J1, CON2
Battery connector	JBATL-1904P1-01	2.7H, 2.5Pitch BATTERY	BAT-BA5924211-R-4P	1	J2
2-in-1 booth	XNT-080228012	2.28H micro simcard + t-card	TF+SIM	1	J5
The headset seat	ADJ-312-P22-36X	3.6H 6DIP	PJ-DIP-6P	1	J11
Volatility buttons	DSHP06TSGER	KE-DSHP-006-S-A	SMT-12P	1	U10
RF IV I-TYPE BOARD END CONNECTOR	ECT818000500	USS RF Receptacle (IV Generation) Connectors.		0	1
ANTENNA RF SPRING SMT TYPE	CD-SP0019-J035A	ANTENNA RF SPRING SMT TYPE, H=1.9mm, l=3.5*1.5*1.9mm	RF-3.5*1.5*1.9	6	RF2, RF3, RF4, RF5, RF6, RF7
RF IV I-TYPE BOARD END CONNECTOR	818011998	Mini RF III Switch Connector	rfcon_818011998	2	RJ1, RJ2
Diode	BAT54WS	Surface Mount Schottky Barrier Diode	SOD-323	1	D1
Diode	DSK24-K24改DS24W	Surface Mount Schottky Barrier Rectifier Reverse Voltage - 20 to 200 V Forward Current - 2.0A	SOD-123FL	1	D4
Diode	B5819WS SOD-323	SCHOTTKYBARRIERDIODE, Vrm:40V, IF:1A, IFsm:9A, IR:1mA, Cj:110pF, mark:SL, SOD-323	SOD-323	1	D5
N-MOS	WNM2021-3/TR	N- Channel, Vds=20V, Vgs=±6V, Id=0.82A, Vgs(th) =0.58V, VSD=0.7V, SOT323	SOT323	5	Q1, Q2, Q4, Q5, Q10
NPN	MMBT8050W	P-Channel, NPN, Ic=0.5A, Pc=300mW, SOT323	SOT-323	6	Q8, Q9, Q2409, Q2410, Q6501, Q6502
P-MOS	RQ3E120AT	RQ3E120AT, HSMT8_3R30X3R30X0R90	HSMT8_3R30X3R30X0R90	1	Q7
P_MOSFET	2301	P-Channel, Vds=-20V, Vgs=±8V, Id=- 2.5A, Vgs(th)=-0.63V, Vsd=- 0.8V, Mark:A1HSB, SOT23-3	SOT23-3	2	Q2407, Q2408
LED Light	SOW2016-02-5070-N-PAPB-A	E-FLASH, 150mA, CRI=70, Φv=40- 70, CCT5000~6500K, size=2.2mmX1.6mm	L2.0*W1.6*H0.53mm	1	LED1
LED	1616RGBBC20A14	0605 RGB SMD Chip LED, Color : Ultra Bright RGB Full Color	LED-0605	1	U27
32.768KHz	32.768KHz/MC-146	MC-146, 32.768KHz, 12.5pF, ±20ppm	CRY_MC146	1	Y2
24MHz	2520 24.000MHz 12PF ±10PPM ROHS	24MHz ±10ppm, 12pF, C0:5pF, SMD, 2520	CR2520	1	Y1
37.400MHZ	JGH-37.4M12-10-08A	2520 37.400MHZ 12PF ±10PPM ROHS	CR2520	1	Y3
resistance	0201WMF1004TEE	Res, 1M±1%, 1/20W(0.05W), 0201	0201	3	R2, R2430, R2431
resistance	0201WMF2004TEE	Res, 2M±1%, 1/20W, 0201	0201	2	R8906, R8908

resistance	0201WMJ0000TEE	Res, 0R±5%, 1/20W, 0201	0201	29	C363, R1, R127, R141, R150, R151, R152, R165, R166, R167, R173, R181, R182, R194, R195, R196, R197, R198, R2108, R6122, R6509, R6517, R6523, R6524, R8934, R8935, R23057, R1204, R1205
resistance	0201WMJ010JTEE	Res, 1R±5%, 1/20W, 0201	0201	2	R146, R147
resistance	0201WMJ022JTEE	Res, 2. 2R±5%, 1/20W, 0201	R0201	3	R58, R59, R60
resistance	0201WMJ0100TEE	Res, 10R±5%, 1/20W (0. 05W) , 0201	0201	1	R15
resistance	0201WMJ0220TEE	Res, 22R±5%, 1/20W (0. 05W) , 0201	0201	16	R3, R7, R29, R30, R31, R32, R33, R34, R158, R160, R172, R6501, R6502, R6503, R159, R161
resistance	0201WMJ0330TEE	Res, 33R±5%, 1/20W (0. 05W) , 0201	0201	14	R137, R203, R204, R205, R206, R207, R208, R210, R211, R212, R213, R214, R228, R230
resistance	0201WMJ0101TEE	Res, 100R±5%, 1/20W, 0201	0201	9	R4, R35, R36, R62, R64, R83, R89, R90, R68
resistance	0201WMF1330TEE	Res, 133R±1%, 0201	0201	2	R10, R11
resistance	0201WMF2400TEE	Res, 240R±1%, 1/20W (0. 05W) , 0201	0201	6	R1200, R1201, R3702, R3703, R3704, R3705
resistance	0201WMJ0331TEE	Res, 330R±5%, 1/20W, 0201	0201	3	R132, R133, R134
resistance	RC0201JR-07470RL	Res, 470R±5%, 1/20W, 0201	0201	1	R8930
resistance	0201WMF4990TEE	Res, 499R±1%, 0201	0201	2	R12, R13
resistance	0201WMJ0510TCE	Res, 51R±5%, 0201, 1/20W	0201	8	R3708, R3709, R3710, R3711, R3712, R3713, R3714, R3715
resistance	0201WMJ0102TEE	Res, 1K±5%, 1/20W, 0201	0201	7	R80, R81, R155, R219, R221, R231, R23055
resistance	0201WMJ0202TEE	Res, 2K±5%, 1/20W, 0201	0201	1	R16
resistance	0201WMJ0222TEE	Res, 2. 2K±5%, 1/20W, 0201	0201	7	R20, R21, R22, R23, R27, R28, R226
resistance	0201WMF3001TEE	Res, 3K±1%, 0201	0201	3	R220, R222, R225
resistance	RC0201FR-074K02L	Res, 4. 02k±1%, 1/20W (0. 05W) , 0201	0201	3	R17, R18, R19
resistance	0201WMF4701TEE	Res, 4. 7K±1%, 0201	0201	11	R24, R25, R6505, R6506, R6507, R6508, R6521, R38, R39, R1890, R1891
resistance	0201WMJ0103TEE	Res, 10K±5%, 1/20W (0. 05W) , 0201	0201	43	R8, R14, R50, R51, R52, R53, R54, R55, R61, R63, R65, R69, R72, R73, R93, R95, R96, R97, R98, R99, R106, R111, R113, R129, R131, R135, R140, R156, R170, R171, R199, R209, R218, R227, R229, R2434, R2437, R3700, R3706, R6525, R8901, R8932, R8933
resistance	RC0201JR-0715KL	Res, 15K±5%, 1/20W (0. 05W) , 0201	0201	2	R130, R138
resistance	0201WMJ0153TEE	Res, 15K±5%, 1/20W (0. 05W) , 0201	0201		
resistance	RC0201JR-07100KL	Res, 100K±5%, 1/20W, 0201	0201	16	R66, R78, R79, R109, R125, R139, R175, R223, R233, R2432, R2433, R2435, R2436, R6121, R8905, R8907
resistance	0201WMF3002TEE	Res, 30K±1%, 0201	R0201	1	R91
resistance	0201WMF2002TEE	Res, 20K±1%, 0201	0201	1	R8904
resistance	0201WMF3302TEE	Res, 33K±1%, 0201	0201	1	R6520
resistance	0201WMJ0473TEE	Res, 47K±5%, 1/20W, 0201	0201	6	R9, R77, R100, R101, R108, R112
resistance	0201WMJ0683TEE	Res, 68K±5%, 1/20W, 0201	0201	1	R169
resistance	0201WMF1153TEE	Res, 115K±1%, 0201	0201	1	R70
resistance	0201WMJ0124TEE	Res, 120K±5%, 1/20W, 0201	0201	2	R104, R200
resistance	RC0201FR-07200KL	Res, 200K±1%, 0201	0201	6	R67, R74, R75, R92, R105, R157
resistance	0201WMF8203TEE	Res, 820K±1%, 0201	R0201	1	R76
resistance	0402WGJ0000TCE	Res, 0R±5%, 1/10W, 0402	0402	5	C356, C359, FB2, R110, R202
resistance	RC0402FR-076R8L	Res, 6. 8R±1%, 1/16W, 0402	0402	1	R149
resistance	RC0603FR-070R22L	Res, 0. 22R±1%, 1/10W, 0603	0603	1	R168
resistance	0603WAF470KT5E	Res, 4. 7R±1%, 1/10W, 0603	0603	1	R126
resistance	RTT05R010FTP	Res, 0. 01R±1%, 0805, 1/8	0805	1	R107
thermistor	NCP15XH103F03RC	NTCThermisor, 0402, 10K±1%, 1/10W	RES0402_0. 55	1	RT1
capacitance	CC0201KRX7R8BB102	0201 1nF 25V C NP0	0201	7	C16, C23, C29, C35, C77, C192, C198
capacitance	CC0201KRX7R7BB103	0201 10nF 16V K X7R	0201	1	C428
capacitance	V153K0201X5R160NAT	0201 15nF 16V K X5R	0201	3	C7247, C7246, C7249

capacitance	CC0201KRX5R7BB104	0201 100nF 16V K X5R	0201	168	C7, C8, C9, C10, C14, C15, C18, C19, C20, C21, C22, C26, C27, C28, C33, C34, C36, C37, C41, C43, C44, C45, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C163, C165, C166, C183, C184, C187, C189, C197, C217, C233, C237, C248, C253, C257, C266, C271, C273, C306, C309, C318, C319, C321, C326, C327, C328, C334, C335, C336, C343, C346, C373, C375, C382, C383, C392, C394, C399, C401, C404, C406, C407, C413, C415, C419, C424, C427, C432, C1203, C1204, C1205, C1206, C1207, C1208, C1212, C1213, C1214, C1215, C1216, C1217, C1219, C1221, C1223, C1225, C2432, C2449, C2455, C3702, C3703, C3704, C3705, C3706, C3707, C3709, C3710, C3711, C3712, C3713, C3714, C3717, C3718, C3719, C3720, C3721, C3722, C3725, C3726, C3727, C3728, C3729, C3730, C3732, C3733, C3734, C3735, C3736, C3737, C3740, C3741, C3742, C3743, C3744, C3745, C3746, C3747, C3748, C3749, C3750, C3751, C3752, C3753, C3754, C3755, C3756, C3757, C8904, C8905, C8906, C8999, C9002, C9003, C134, C263, C310, C316
capacitance	CC0201CRNP08BN8R0	0201 8pF 25V C NP0	0201	4	C39, C40, C322, C323
capacitance	0201CG8ROC500NT	0201 8pF 25V C NP0	0201		
capacitance	V180J0201C0G500NAT	0201 18pF 50V J COG	L0201	2	C339, C340
capacitance	V220J0201C0G500NAT	0201 22pF 50V J NP0	0201	3	C371, C372, C378
capacitance	CC0201JRNPO8BN330	0201 33pF 25V J COG	0201	3	C304, C305, C307
capacitance	CC0201JRNPO8BN470	0201 47pF 25V J NP0	0201	1	C210
capacitance	CC0201JRNPO9BN101	0201 100pF 50V J NP0	0201	3	C161, C177, C181
capacitance	CC0201KRX7R9BB221	0201 220pF 50V K X7R	0201	2	C8907, C8908
capacitance	V201K0201X7R500NAT	0201 200pF 50V K X7R	0201	1	C423
capacitance	CC0201KRX7R8BB681	0201 680pF 25V K X7R	0201	4	C433, C434, C435, C436
capacitance	CC0201MRX5R5BB105	0201 1uF 6.3V M X5R	0201	27	C13, C17, C32, C42, C178, C215, C218, C231, C235, C251, C255, C294, C298, C314, C315, C320, C380, C381, C384, C385, C1202, C1211, C1222, C1224, C6140, C6143, C8911
capacitance	JDK063BBJ225MP-F	0201 2.2uF 6.3V M X5R	0201	10	C269, C370, C377, C379, C386, C387, C396, C400, C402, C405
capacitance	GRM035R60G475ME15D	0201 4.7uF 4V M X5R	0201	14	C31, C179, C216, C232, C236, C252, C256, C332, C344, C347, C393, C6142, C6145, C6146
capacitance	V104K0402X7R100NBT	0402 100nF 10V K X7R	0402	9	C174, C211, C246, C290, C296, C300, C349, C355, C397
capacitance	C1005X7R102KGTS	0402 1nF 50V K X7R	0402	1	C267
capacitance	V220J0402C0G500NBT	0402 22pF 50V J NP0	0402	2	C245, C247
capacitance	CC0402JRNPO9BN330 CL05C330JB5NNNC 0402N330J500LT C0402C0G330J500NTB	0402 33pF 50V J NP0	0402	2	C348, C354
capacitance	CL05A105K05NNNC	0402 1uF 16V K X5R	0402	11	C153, C234, C241, C249, C3701, C3716, C3724, C3739, C23047, C330, C331
capacitance	CC0402KRX5R6BB225	0402 2.2uF 10V K X5R	0402	7	C295, C299, C350, C352, C418, C420, C362
capacitance	CL05A475MQ5NRNC	0402 4.7uF 6.3V M X5R	0402	15	C222, C224, C226, C227, C229, C230, C240, C270, C272, C303, C308, C329, C391, C408, C409
capacitance	CL05A475MP5NRNC	0402 4.7uF 10V M X5R	0402	1	C421
capacitance	CC0402MRX5R5BB106	0402 10uF 6.3V M X5R	0402	19	C1, C2, C3, C4, C5, C6, C25, C30, C186, C188, C317, C374, C376, C398, C403, C414, C1200, C1201, C1210
capacitance	V106M0402X5R100NCT	0402 10uF 10V M X5R	0402	2	C2453, C417
capacitance	CL10A225KB8NNNC	0603 2.2uF 50V K X5R	0603	2	C291, C292
capacitance	CL10A475KP8NNNC	0603 4.7uF 10V K X5R	0603	12	C156, C168, C173, C194, C204, C208, C221, C225, C228, C239, C345, C289
capacitance	CL10A106MP8NNNC	0603 10uF 10V M X5R	0603	19	C154, C155, C157, C160, C162, C167, C171, C172, C180, C182, C191, C207, C258, C260, C264, C3708, C3715, C3731, C3738
capacitance	CL10A226MP8NRNC	0603 22uF 10V M X5R	0603	22	C11, C12, C24, C158, C159, C169, C170, C196, C205, C206, C209, C250, C254, C259, C262, C265, C1209, C3700, C3723, C9005, C9006, C2452
capacitance	CL21A226KPCLRNC CC0805KKX5R6BB226	0805 22uF 10V K X5R	0805	2	C2448, C2451
capacitance	CC0805MRX5R6BB476	0805 47uF 10V M X5R	0805	1	C2450
inductor	HXNR252012-R24M	0.24uH±20% DCR=0.019R Ia: 4.7A	25*20*12	2	L1, L2
inductor	NRH252012-3R3M	Indpower, 3.3uH±20%, 1A~1.5A 2510	25*20*15	2	L3, L4
inductor	DFP252010NF-2R2M	2.2uH±20% I sat (A) typ. 2.40, I sat (A) Max. 1.90	L252010	1	L5
inductor	NRH252012-1R0M	Indpower, 1.0uH±20%, 2A~3A 2510	25*20*15	4	L6, L7, L8, L9
inductor	WPN4012H1ROMTYO1	Indpower, 1.0uH±20%, DCR:0.049max, 4x4x1.2mm	4012	2	L10, L11

inductor	SPH252010H4R7MT	Indpower, 4. 7uH±20%, I=1. 5-1. 35A	L252010	1	L12
inductor	HXNR201610-4R7M	Indpower, 4. 7uH±20%, 1A, 2. 0x1. 6x1. 0mm	L201610	1	L13
Magnetic beads	BLM15HG601SN1	EMIBead, 1channel, 600ohm@100MHz, 1000ohm@1G±40%, 300mA, 0402	0402	2	FB5, FB7
Magnetic beads	FCM1005KF-601T03	600ohm±25%@100MHz, 300mA, 0402	0402		
Magnetic beads	BLM15BD601SN1D	FB, Multilayer, 600ohm@100MHz±25%, 200mA, , 0.65ohm, 0402	0402	3	FB3, FB4, FB6
eMMC (128G)	NCEMASLD-128G	FORESEE, 128G, eMMC, BGA153, 11. 5*13,	BGA153	1	U17
LPDDR4 (512*64) 366ball	MT53B512M64D4NK-053 WT:C	Micron, 4GB (512M*64), lpDDR4 FBGA366, : 18*14. 5*0. 8, MARK: D9TGF 7UC77	FBGA366	1	U3700
ESD	PESDU0511P0A	1-Line, Bi-directional, Transient Voltage Suppressor	DFN0603-2	1	ED11
ESD	ESD5E003TA	T06000000064, 20KV Air, 15KV contact compliance,	SOD962	20	ED1, ED2, ED3, ED4, ED7, ED8, ED9, ED10, ED13, ED9229, ED15, ED16, ED17, ED18, ED24, ED25, ED26, ED27, ED28, ED29
Shielding clip	LRT6508-128-20	6. 5*6. 5*0. 8 T=0. 2	SMD	9	SHIELD1, SHIELD2, SHIELD3, SHIELD4, SHIELD5, SHIELD6, SHIELD7, SHIELD8, SHIELD9
shield	pinephoneplus	62. 4*48. 4mm	SMD	1	After fittings