CROSSCALL

CORE-S5

DISASSEMBLY - ASSEMBLY GUIDE

Contents

INTRODUCTION

Crosscall was founded more than 10 years ago on a commitment: to manufacture durable mobile phones, even under the most difficult conditions of use.
It is thanks to its years of experience and the special attention of its teams to design, industrialization and quality control that Crosscall offers its users a **5-year manufacturer's warranty** and spare parts available for 10 years. on all products from the new CORE range, which is exceptional in the world of telephony.

This document is a disassembly and reassembly guide for the **Crosscall CORE-S5** smartphone.

It also explains what operations must be carried out when changing a part.

It is organized as follows:
- **Warnings and precautions to be taken before disassembling the device.**
- **Necessary equipment: List of essential tools for the disassembly/reassembly of the parts**
- **Change of parts:**
    Structured as follows for each main room:
    - Disassembly of the part.
    - Exchange of the part: concerns the preparation of the new part.
    - Reassembly of the part.

WARNINGS

Beyond the impact on the warranty (see box below), opening the device and replacing parts can have an impact on the water resistance, resistance and autonomy of your product if this is not carried out in a center approved by CROSSCALL.

Before having a repair carried out, check whether or not it is guaranteed by referring to the general after-sales service conditions on our website and read the elements below.

WARRANTY IMPACT

Any modification or change made to your device outside of an authorized CROSSCALL repair center will void the warranty. If your device needs to be repaired, we advise you to entrust it to the CROSSCALL after-sales service
(contact available on our website https://crosscall.com/sav/).

WATERPROOFING

Please note that telephones repaired outside an approved CROSSCALL center are no longer watertight.

BATTERY

The dangers of handling batteries.

To ensure your safety, CROSSCALL batteries and devices are tested according to international standards. The design of our devices also contributes to your safety: the battery is confined in a metal frame.

The battery is a part that can present risks for the person carrying out the repair if the latter does not have the required qualifications. Failure to remove the battery correctly may damage the device and cause personal injury.

A lithium battery is characterized by its **high energy density**. Before handling a battery, you should be aware of the following risks (non-exhaustive list).

The main risk is related to **poor handling** (shocks, blows, deterioration) which can pose a **significant security risk.**

Mechanical damage can lead to deformation of the cells inside the battery and cause internal shorts and **battery runaway**. The lithium battery then releases the energy it has stored in an uncontrolled manner.

Thermal runaway, with temperatures above 250°C, will lead to a strong generation of flammable gases inside the battery concerned and these gases will trigger the explosion of the battery casing. The metals then merge and burn.

The fumes given off are **toxic** and **highly corrosive**.

Contact with moisture can also cause short circuit.

Safety instructions

- Switch off the device before any intervention.
- Do not turn it back on before complete reassembly.
- Turn off the device before removing the battery. If you remove the battery while the device is on, the device may malfunction.
- Do not disassemble or puncture the battery, as this may cause an explosion or fire.
- Do not cause a short circuit.

- Do not reuse the battery if you have any doubts about its integrity following dismantling.
- Recycle the battery according to the standards in force.
- Do not throw it into fire

Please observe the waste disposal rules when disposing of the packaging, battery, device and its electronic parts. Drop them off at a collection point so that they can be properly recycled. Do not dispose of used electrical and electronic devices or batteries in an ordinary trash can. Please deposit the used lithium batteries in a place designed for this purpose.

ELECTROSTATIC DISCHARGES, WORKING ENVIRONMENT

During the disassembly / reassembly operation, it is advisable to wear an antistatic bracelet connected to the ground. If this is not possible, it is essential to wash your hands and discharge yourself of any static electricity build-up by touching a grounded metal object (ex. radiator) before proceeding with the disassembly / reassembly of the device.
Electrostatic discharge can permanently damage the electronics of the device.

Any work on the device must be carried out in a bright, clean and dust-free environment. The latter can deposit on parts related to photography and video and distort the focus. Metallic dust can also cause short circuits.

TOOL'S REQUIREMENT

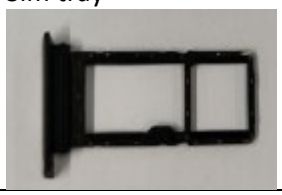
Tools require for the assembly and dis-assembly.

Item	Description	Picture	Quantity
1.	Anti-static mat		1 pc
2.	Anti-static wrist-strip		1 pc
3.	Plastic opener		1 pc
4.	Screwdriver(PH00)		1 pc
5.	Screwdriver(H1.5)		
6.	Antistatic tweezer		1pc
7.	Sim Card Release Pin		1 pc

DISASSEMBLY, ASSEMBLY AND EXCHANGE OF PARTS

Dis-assembly of the Shell A and Shell B

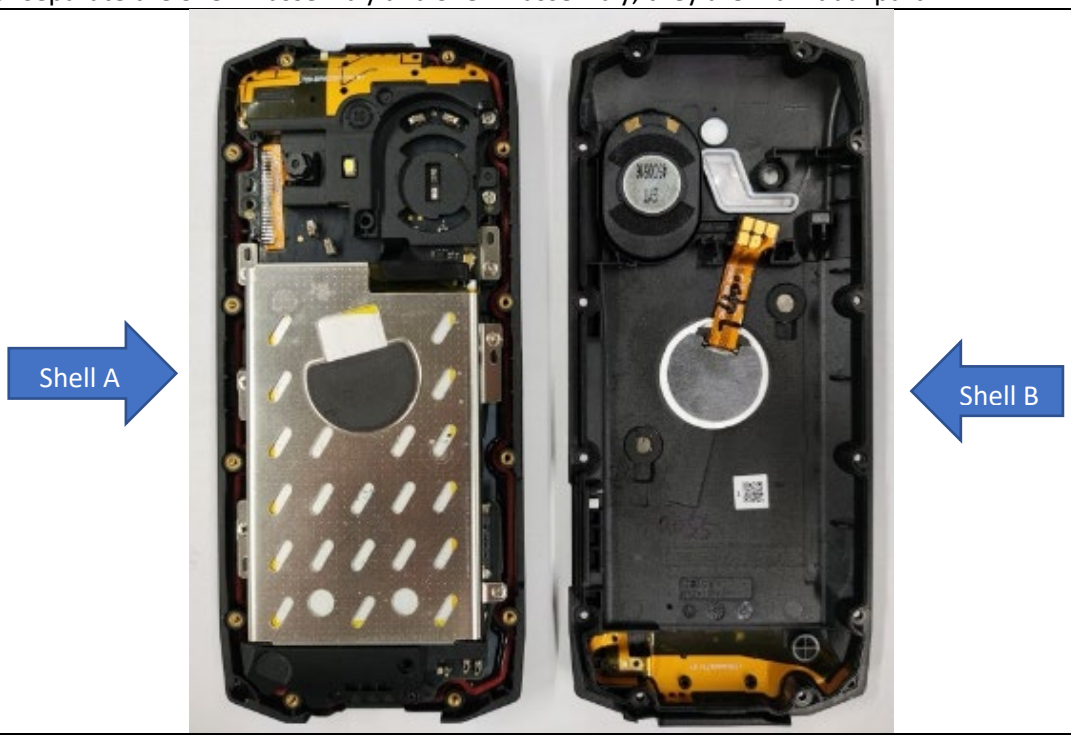
Remove the SIM tray

Step 1:	
	Remove the sim tray by insert the Sim card release pin Sim card release pin  Sim tray 

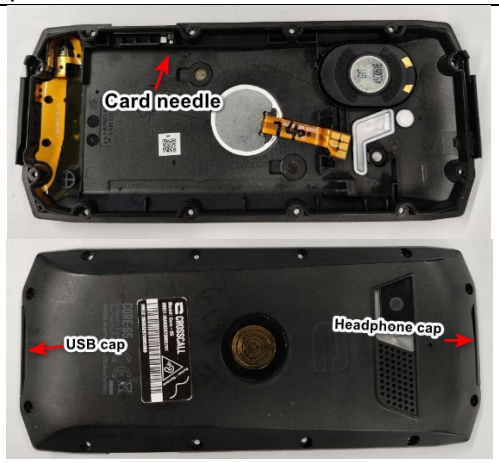
Remove the Shell A and Shell B

Step 1:	
	Unlock the 12pcs screws of M1.6×4.8F with the cross screwdrive(H1.5).
Step 2:	
 	Slowly open the B shell, find the dropped card needle, and put the card needle back into the B shell hole as shown. Card needle 

View of the Shell A and Shell B

After separate the Shell A assembly and Shell B assembly, they are individual part.


Assembly the Shell B

Step 1:	
	Check that the card needle is in place; Headphone cap is in place; The USB cap is in place

Step 2:	
	Put the shell A and shell B case buckles together, and make sure that the headphone cap and USB cap are in place
Step3:	
	Tighten 12 screws of M1.6×4.8F with the cross screwdrive(H1.5).

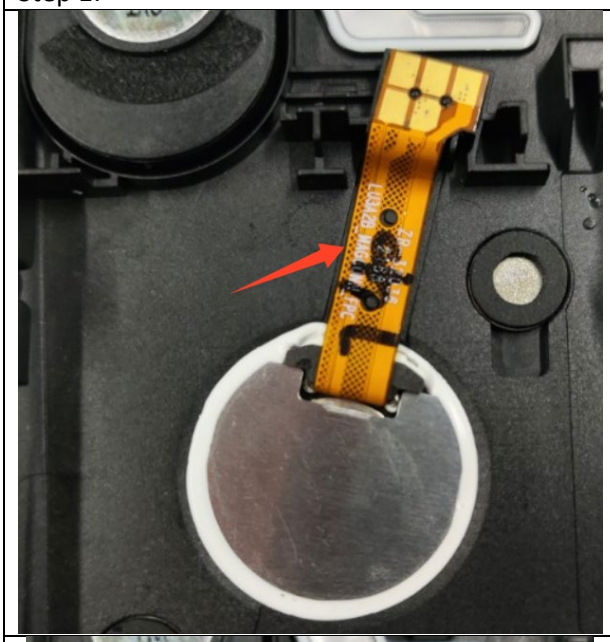
Shell B assembly component replacement

View of the Shell B assembly

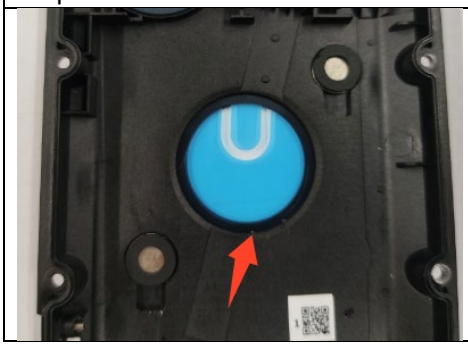
Shell B assembly Front and back view


Replacement of Magconn FPC

Dis-assembly the Magconn FPC

Step 1:	
	Unmover the magconn FPC
	Use the cutter to cut away the gray glue then Remove the magconn FPC

Assembly the Magconn FPC

Step1:	
	Clean up the glue residue in the casing and paste Magconn double-sided tape.

	Use the white glue to seal the Magconn FPC Magconn FPC Part no: 3527941

Replacement of Speaker

Disassembly the speaker

Step 1:	
	Use a plastic opener to the speaker from the notch shown in the picture

Assembly the speaker

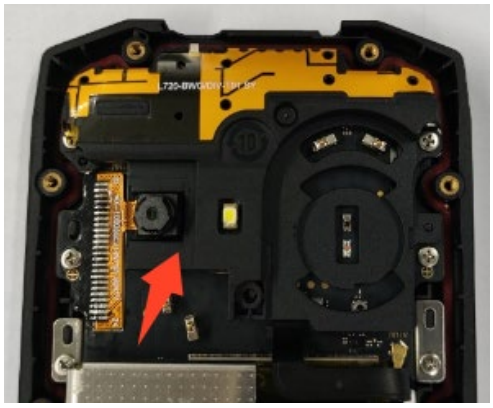
Step 1:	
	Clean up the adhesive residue and paste the double-sided tape of the speaker. 
	Peel off the double-sided adhesive release paper, put the speaker into the B shell, pay attention to the assembly in place at one time, and press the speaker firmly for 10S clock (50N) 

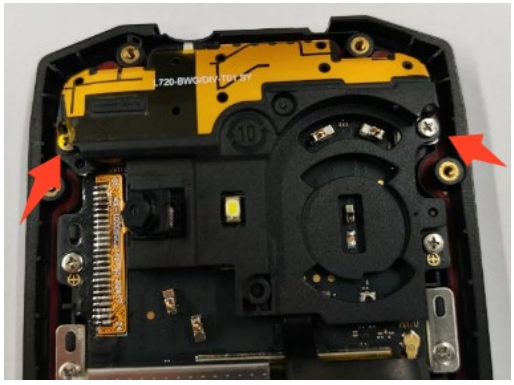
Shell A assembly component replacement

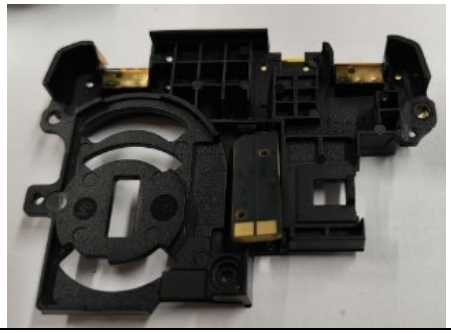
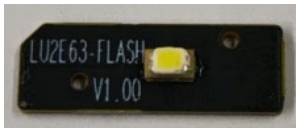
View of the Shell A assembly

Shell B assembly Front and back view

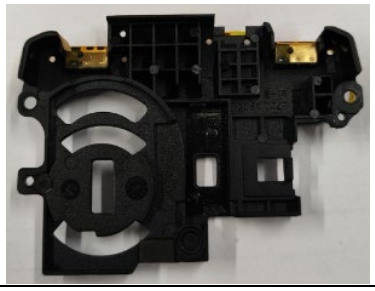

Disassembly the Bracket panel（up）

Step 1:	
	Tilt the camera from the upper Bracket panel so that the camera is detached from the Bracket panel.

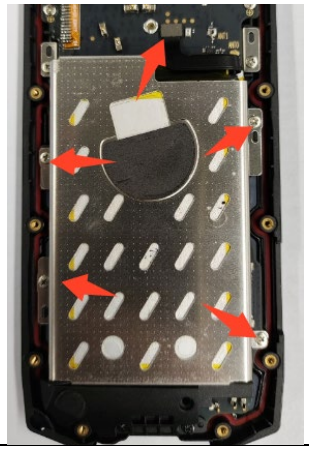
Step 2:	
	Remove the 2 ST1.7*3.5 screws and remove the upper bracket.

Step 3:	
	Remove the flash board from the upper bracket panel. 

Step 4:	

Front View  Back View 	Remove the flash board from the upper bracket panel by Tweezers.

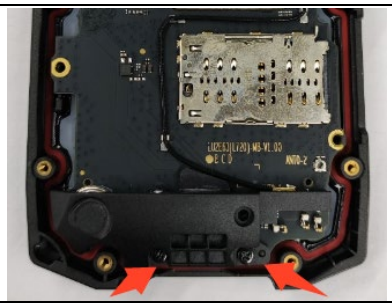
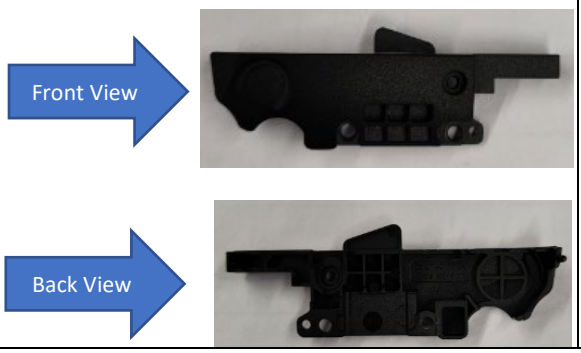
Disassembly the Battery

Step 1:	
	Remove the battery connector on the main board side, Remove the 4 ST1.7*3.5 screws, and remove the battery assembly.

Step 2:	

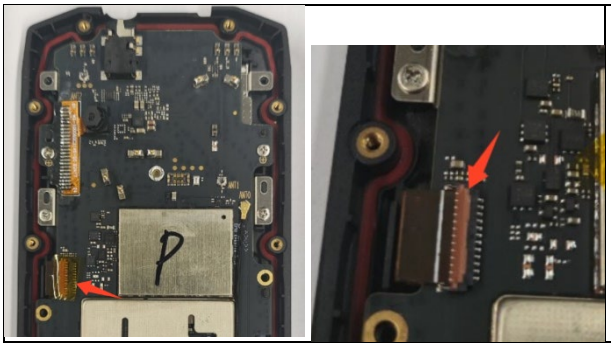
	Remove the battery then separate the battery and the battery panel.

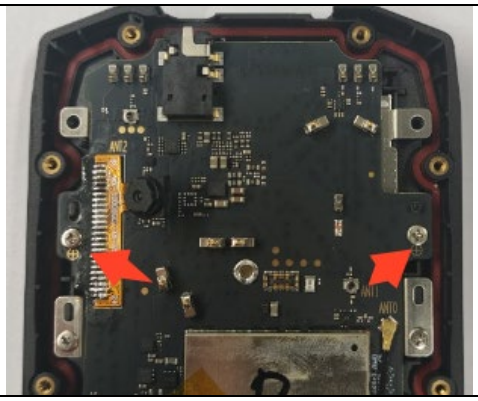
Disassembly the Bracket panel（Down）

Step 1:	
	Remove the 2 ST1.7*5 screws and remove the lower bracket
	View the Bracket panel(Down)

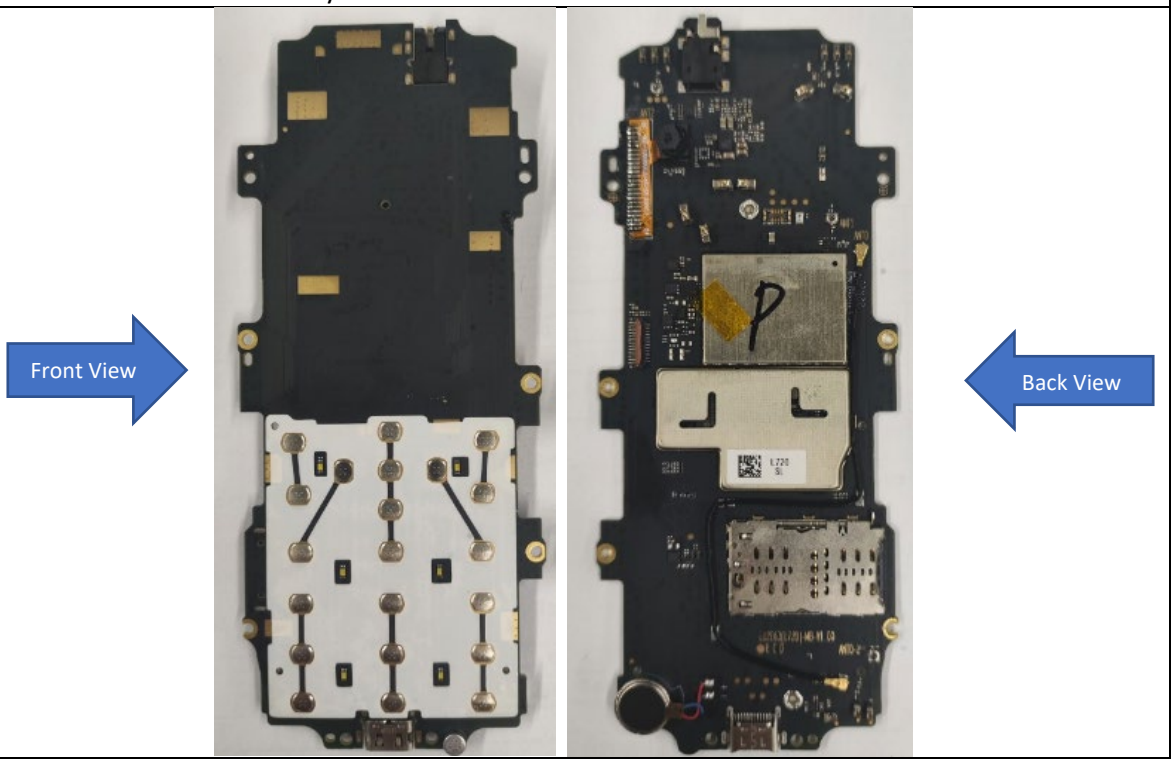
Disassembly the Main board assembly

Step 1:	

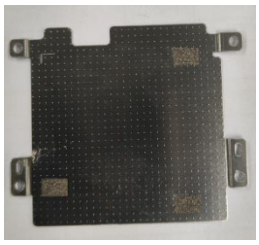
	Remove the insulating tape from the connector and open the connector.

Step 2:	
	Remove the 2 ST1.7*3.5 screws that hold the motherboard in place， then remove the motherboard

View of Main board assembly

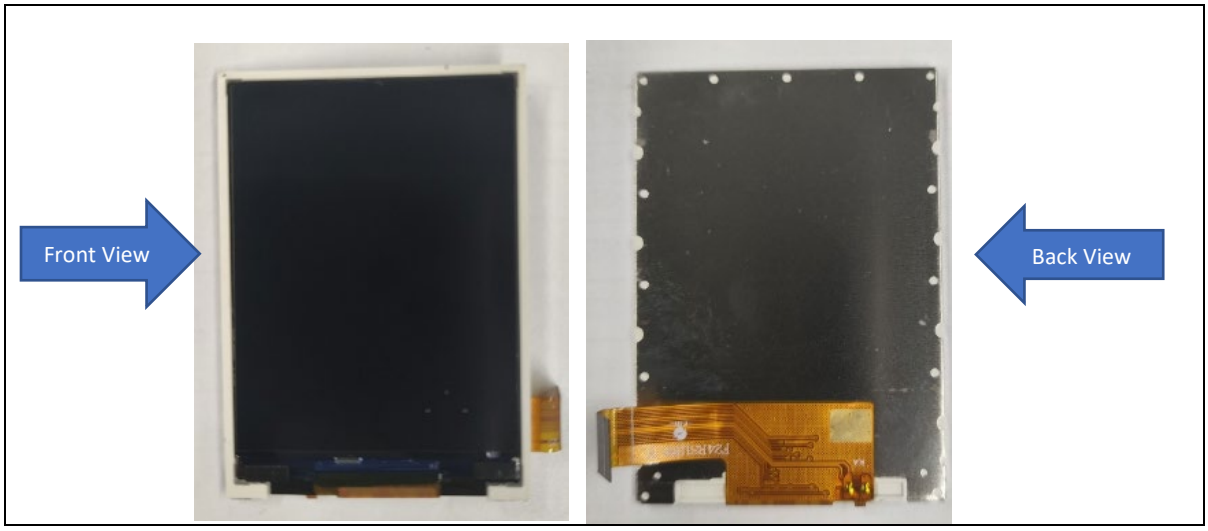
View of Main board assembly


Disassembly the LCD

Step 1:	
	Remove 2 ST1.7*3.5 screws from the LCD panel， then remove the LCD panel. 
 	Then remove the LCD. The LCD, Part no: 12574753 **Note**: Do not touch the LCD with your hands after removing it, and use a clean protective film to cover it. Then the case is placed upright so that dust does not fall into the lenses

View of LCD

View of Receiver	


Front View
Back View

INFORMATION FOR RECYCLERS

MATERIAL	Mass (mg)	Mass per component
ALUMINIUM	**4776,28**	
BATTERY	1994,49	41,76%
PCB COMPONENT	61,43	1,29%
PROTECTION	79,31	1,66%
USB-C CABLE	358,21	7,50%
ANTIMONY	**20,01**	**100,00%**
USB-C CABLE	20,01	100,00%
BARIUM	**410,72**	**100,00%**
ANTENNA PANEL	14,00	3,41%
PCB	302,18	73,57%
PCB COMPONENT	93,02	22,65%
BISMUTH	**0,36**	**100,00%**
PCB COMPONENT	0,35	98,54%
USB-C CABLE	0,01	1,46%
BORON	**22,98**	**100,00%**
CAMERA	0,32	1,39%
MAGNET	14,66	63,79%
PCB COMPONENT	0,29	1,24%
RECEIVER	0,92	4,01%
SPEAKER	4,65	20,25%
VIBRATOR	2,03	8,82%
CADMIUM	**10,00**	**100,00%**
FRONT CASING	10,00	99,95%
CARBON	**12,04**	**100,00%**
SPEAKER	0,57	4,76%
USB-C CABLE	11,40	94,71%
CHROMIUM	**1744,66**	**100,00%**
LCD	341,64	19,58%
PCB COMPONENT	21,80	1,25%
PROTECTION	912,59	52,31%
SIM PICK	109,33	6,27%
SIM TRAY	144,00	8,25%
USB-C CABLE	153,75	8,81%
USB-C CONNECTOR	35,66	2,04%
COBALT	**11602,33**	**100,00%**
BATTERY	11581,00	99,82%
COPPER	**18635,32**	**100,00%**
ANTENNA PANEL	400,40	2,15%
BATTERY	2366,18	12,70%
FRONT CASING	610,00	3,27%
PCB	7955,56	42,69%

PCB COMPONENT	1173,53	6,30%
USB-C CABLE	4978,63	26,72%
DYSPROSIUM	**1,27**	**100,00%**
VIBRATOR	1,27	100,00%
GADOLINIUM	**20,35**	**100,00%**
MAGNET	20,35	100,00%
GALLIUM	**1,88**	**100,00%**
PCB COMPONENT	1,45	77,18%
VIBRATOR	0,42	22,42%
GERMANIUM	**0,00**	**100,00%**
PCB COMPONENT	0,00	100,00%
GLASS	**12550,16**	**100,00%**
BACK CASING	2380,80	18,97%
GLASS	1414,00	11,27%
LCD	5497,38	43,80%
PCB	2677,67	21,34%
SPEAKER	212,64	1,69%
GOLD	**19,90**	**100,00%**
JACK CONNECTOR	1,99	10,02%
PCB	2,83	14,24%
PCB COMPONENT	2,39	12,02%
SIM TRAY	0,50	2,50%
SPEAKER	1,41	7,08%
USB-C CABLE	10,00	50,24%
GRAPHITE	**6252,40**	**100,00%**
BATTERY	6252,10	100,00%
INDIUM	**0,83**	**100,00%**
LCD	0,80	96,40%
PCB COMPONENT	0,03	3,60%
IRON	**18679,66**	**100,00%**
LCD	3259,18	17,45%
MAGNET	716,72	3,84%
PROTECTION	6810,33	36,46%
SCREW	1689,52	9,04%
SIM PICK	394,69	2,11%
SIM TRAY	544,09	2,91%
SPEAKER	1880,24	10,07%
USB-C CABLE	2328,11	12,46%
VIBRATOR	390,30	2,09%
LEAD	**370,25**	**100,00%**
FRONT CASING	370,00	99,93%
LITHIUM	**514,61**	**100,00%**
BATTERY	501,20	97,39%
PCB COMPONENT	13,41	2,61%

MAGNESIUM	**46,59**	**100,00%**
BATTERY	0,89	1,92%
SIM TRAY	32,86	70,53%
VIBRATOR	11,55	24,79%
MANGANESE	**538,29**	**100,00%**
LCD	150,70	28,00%
PROTECTION	165,54	30,75%
SCREW	13,00	2,42%
SIM TRAY	11,15	2,07%
USB-C CABLE	84,20	15,64%
VIBRATOR	86,11	16,00%
NEODYMIUM	**676,50**	**100,00%**
MAGNET	363,59	53,74%
RECEIVER	43,69	6,46%
SPEAKER	220,67	32,62%
VIBRATOR	48,55	7,18%
NICKEL	**1298,91**	**100,00%**
ANTENNA PANEL	27,71	2,13%
BATTERY	118,57	9,13%
CAMERA	60,00	4,62%
FRONT CASING	30,00	2,31%
LCD	166,26	12,80%
PCB	76,42	5,88%
PCB COMPONENT	294,30	22,66%
PROTECTION	148,03	11,40%
SIM PICK	50,74	3,91%
SIM TRAY	65,85	5,07%
USB-C CABLE	192,37	14,81%
VIBRATOR	27,42	2,11%
NIOBIUM	**91,07**	**100,00%**
LCD	2,32	2,55%
PROTECTION	79,31	87,09%
SIM TRAY	2,40	2,64%
USB-C CABLE	6,90	7,58%
PALLADIUM	**1,21**	**100,00%**
BATTERY	0,08	6,33%
PCB COMPONENT	1,12	92,65%
PET	**2052,99**	**100,00%**
ANTENNA PANEL	114,09	5,56%
BACK CASING	191,17	9,31%
BATTERY	457,60	22,29%
LCD	181,11	8,82%
MAGCONN	37,76	1,84%
PCB COMPONENT	265,80	12,95%

PROTECTION	65,22	3,18%
SPEAKER	41,45	2,02%
TAPE	113,00	5,50%
USB-C CABLE	379,75	18,50%
PHOSPHOROUS	**8,29**	**100,00%**
PCB	3,83	46,27%
PCB COMPONENT	0,48	5,81%
SCREW	0,27	3,28%
SIM TRAY	0,42	5,03%
USB-C CABLE	2,86	34,49%
PLATINUM	**0,07**	**100,00%**
LCD	0,06	83,53%
PCB COMPONENT	0,01	16,47%
POLYCARBONATE	**31597,94**	**100,00%**
ANTENNA PANEL	1239,10	3,92%
BACK CASING	18312,04	57,95%
FRONT CASING	10140,00	32,09%
LCD	716,80	2,27%
SIM TRAY	955,00	3,02%
POLYDIMETHYLSILOXANE	**7,73**	**100,00%**
PCB COMPONENT	0,83	10,72%
PROTECTION	6,90	89,28%
POLYETHYLENE	**5552,88**	**100,00%**
BATTERY	402,10	7,24%
TAPE	816,50	14,70%
USB-C CABLE	1550,00	27,91%
POLYPROPYLENE	**2122,12**	**100,00%**
BATTERY	1335,70	62,94%
LCD	257,53	12,14%
PROTECTION	196,97	9,28%
POLYURETHANE	**1412,90**	**100,00%**
ANTENNA PANEL	42,03	2,97%
BACK CASING	932,56	66,00%
BATTERY	350,00	24,77%
FRONT CASING	38,00	2,69%
MAGCONN	30,00	2,12%
POTASSIUM	**0,32**	**100,00%**
CAMERA	0,32	99,81%
PRASEODYMIUM	**48,76**	**100,00%**
MAGNET	31,88	65,37%
VIBRATOR	16,89	34,63%
RHODIUM	**0,90**	**100,00%**
GLASS	0,90	100,00%
SILICA	**9392,78**	**100,00%**

KEYBOARD	8270,00	88,05%
PCB COMPONENT	163,94	1,75%
USB-C CABLE	705,00	7,51%
SILICON	**4367,73**	**100,00%**
KEYBOARD	420,00	9,62%
PROTECTION	82,61	1,89%
SIM TRAY	139,22	3,19%
TAPE	1505,00	34,46%
USB-C CABLE	2031,91	46,52%
SILVER	**16,69**	**100,00%**
BATTERY	1,12	6,73%
CABLE	1,20	7,21%
PCB COMPONENT	12,97	77,71%
USB-C CABLE	1,20	7,18%
SODIUM	**262,47**	**100,00%**
BATTERY	261,70	99,71%
STEEL	**5,97**	**100,00%**
MICROPHONE	5,97	100,00%
STRONTIUM	**1,14**	**100,00%**
PCB COMPONENT	1,14	100,00%
TANTALUM	**2,12**	**100,00%**
PCB COMPONENT	2,12	100,00%
TELLURIUM	**0,00**	**100,00%**
USB-C CABLE	0,00	100,00%
TERBIUM	**0,00**	**100,00%**
PCB COMPONENT	0,00	100,00%
THALLIUM	**0,00**	**100,00%**
PCB COMPONENT	0,00	100,00%
TIN	**151,65**	**100,00%**
CABLE	4,37	2,88%
FPC	3,34	2,20%
FRONT CASING	50,00	32,97%
GLASS	12,00	7,91%
JACK CONNECTOR	5,95	3,92%
PCB COMPONENT	54,47	35,92%
SIM TRAY	17,28	11,39%
TITANIUM	**178,65**	**100,00%**
LCD	89,10	49,87%
PCB	12,78	7,15%
PCB COMPONENT	17,14	9,59%
PROTECTION	39,66	22,20%
USB-C CABLE	14,18	7,94%
TUNGSTEN	**122,84**	**100,00%**
PCB COMPONENT	4,51	3,67%

SIM TRAY	4,32	3,52%
VIBRATOR	114,00	92,81%
YTTRIUM	**0,02**	**100,00%**
PCB COMPONENT	0,02	100,00%
ZINC	**711,58**	**100,00%**
FRONT CASING	339,00	47,64%
PCB COMPONENT	232,43	32,66%
RECEIVER	33,60	4,72%
USB-C CABLE	99,81	14,03%
ZIRCONIUM	**8,71**	**100,00%**
PCB COMPONENT	8,45	97,09%
VIBRATOR	0,25	2,91%

BLOCK DIAGRAM