

Temperature Screening Kiosk

Droid820Covid-19

Teardown Report

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Product Features

Droid820Covid19 is an industrial grade access control kiosk with facial recognition & thermal imaging sensor, built-in rich interface including RS232, RS485, GPIO for external peripheral integration such as door/ gate access, RFID reader, etc. It is built from a unibody of CNC made Aluminium rugged housing, ideally for heavy-duty industrial applications. In addition to its extra excellence of IP67 protection from the smart Unibody design, the interface connection to the mother board is intelligently distributed via HDMI jack thanks to its solidness & reliability. Thus, The overall cable management internally have been simplified to maximum. All the conjunction parts of the housing have been specially protected With tooled silicon rubber protectors, the whole unit is a masterpiece of top level industrial design & electronics manufacturing.

Appearance & Surface Coating

>Unibody Of Alluminium Housing

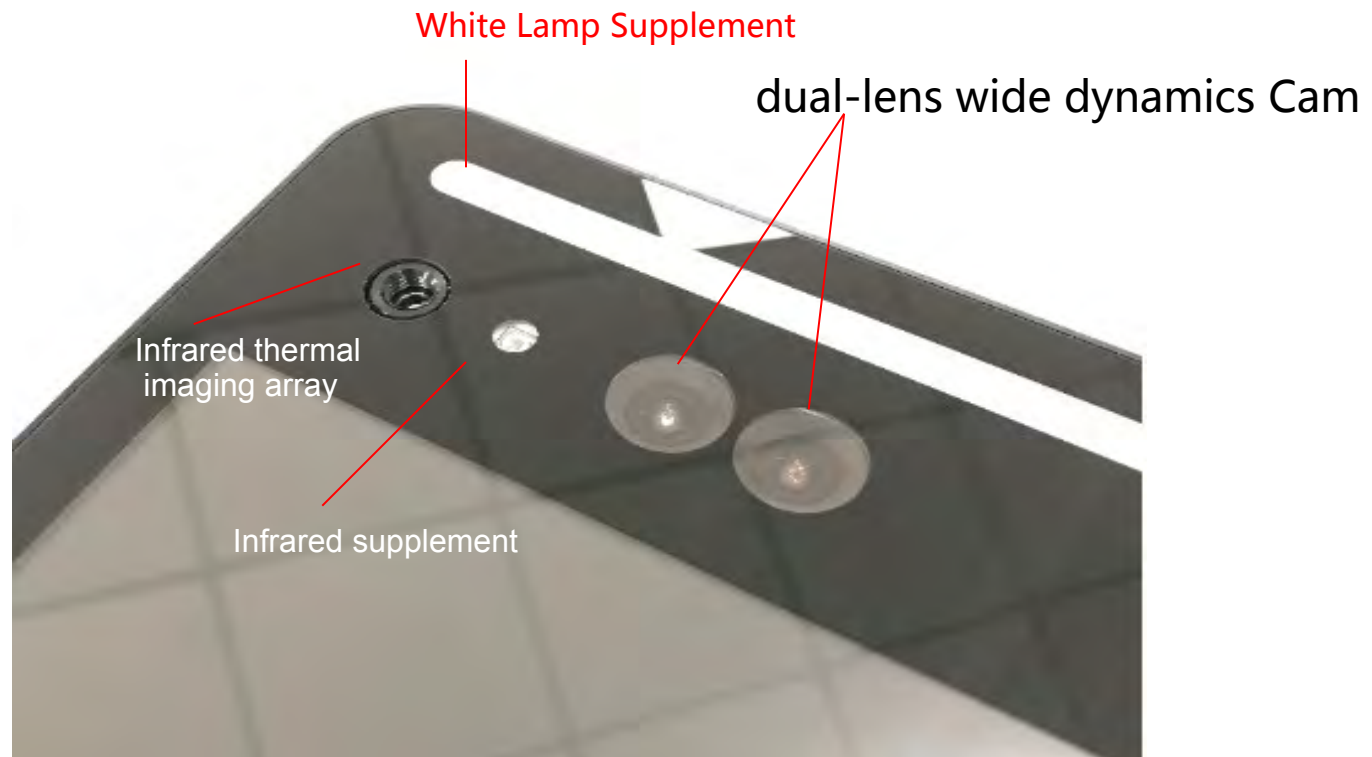
>The blue line in the middle, which adds much aesthetic value to the product, is specially made via two times of oxidation applied.



Droid820Covid-19

Camera, supplement lamp, infrared thermal imaging array

The unit employs infrared dual-lens wide dynamics hi-re camera, it supports White light supplement as well as infrared supplement, to ensure high resolution, High reliability, high compatibility, high durability in high temperature, and it supports Live objects detection. The Melexis thermal imaging array is stable with high precision Measurement with API support for further development.



Droid820Covid19 Connections

The tail connections including 12V DC in, RJ45, Wiegand, Relay, RS485, USB type A, it is all built-into the hub of HDMI interface so that it could Be easily disconnected & connected, with stable transmission of data & Power, with IP67 protection against water & dust.

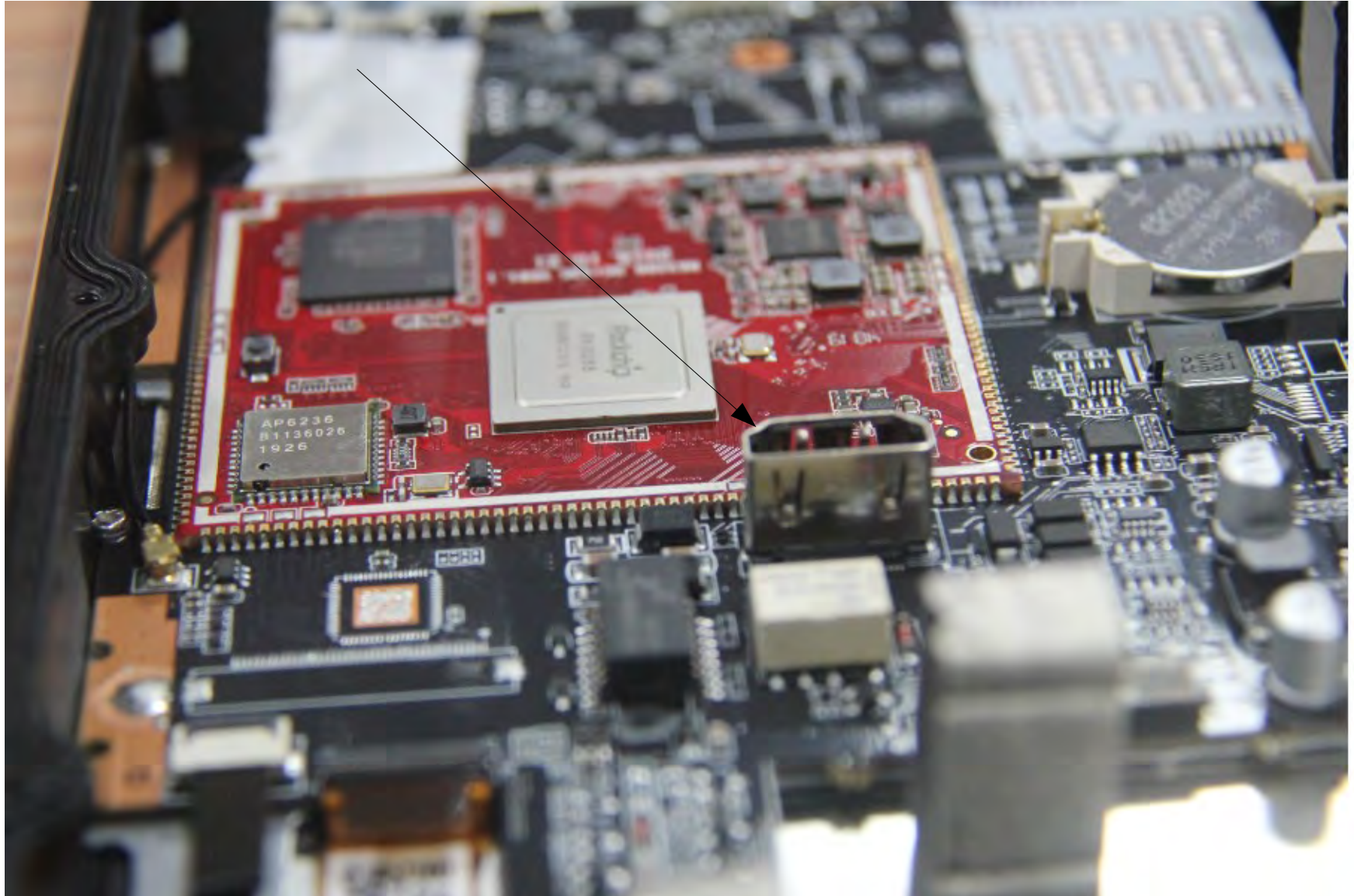


Here is the close-up of the HDMI port “Hub” to gather cables

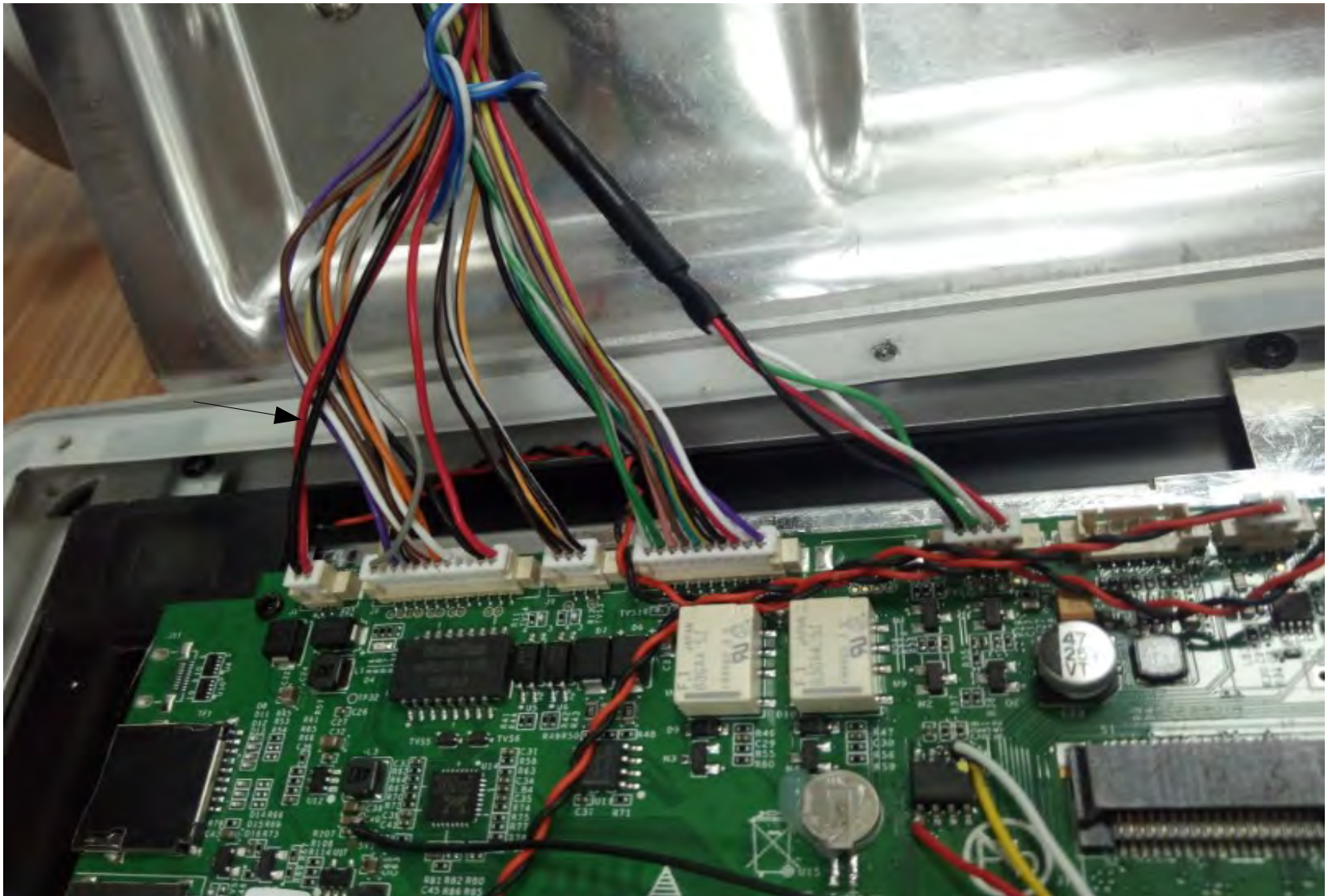


Droid820Covid-19

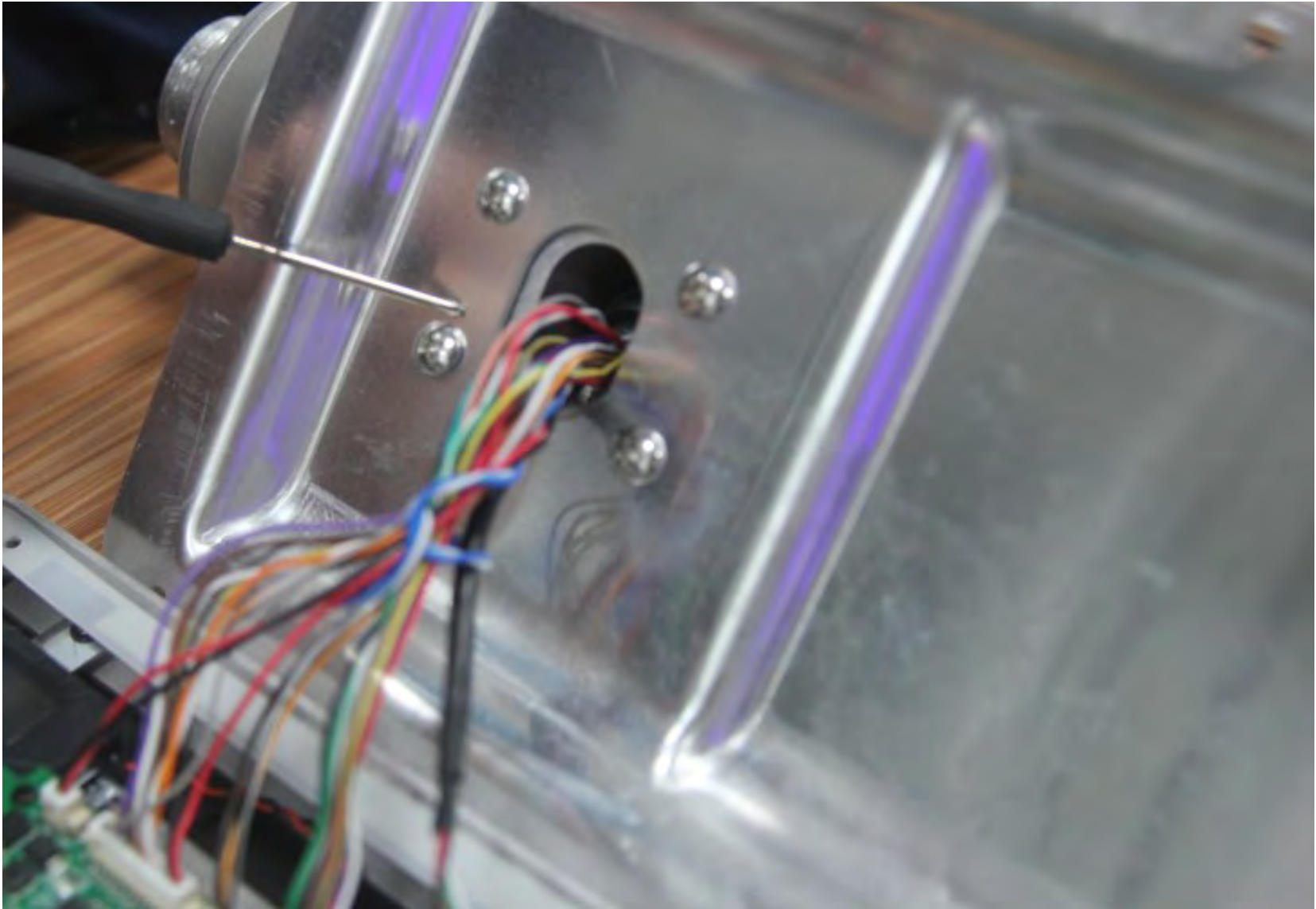
Here is the counterpart of the HDMI base port on board



To compare, this is what other companies doing with the connections.



To compare, “other companies” would bundle cables to the tail port



The Design Art On the Bottom

On the bottom, there are speakers, anti-disassembly set, IO of dust/water proof.

The blue band made of two times oxidation is extended to the bottom adding

Much design aesthetic value.



The Design Art On the Bottom



The Design Art On the Bottom

The bottom I/O door is specially designed via a separate tooling.



The Design Art On the Bottom

With a water proof protector.



The Design Art On the Bottom

Maintenance Friendly

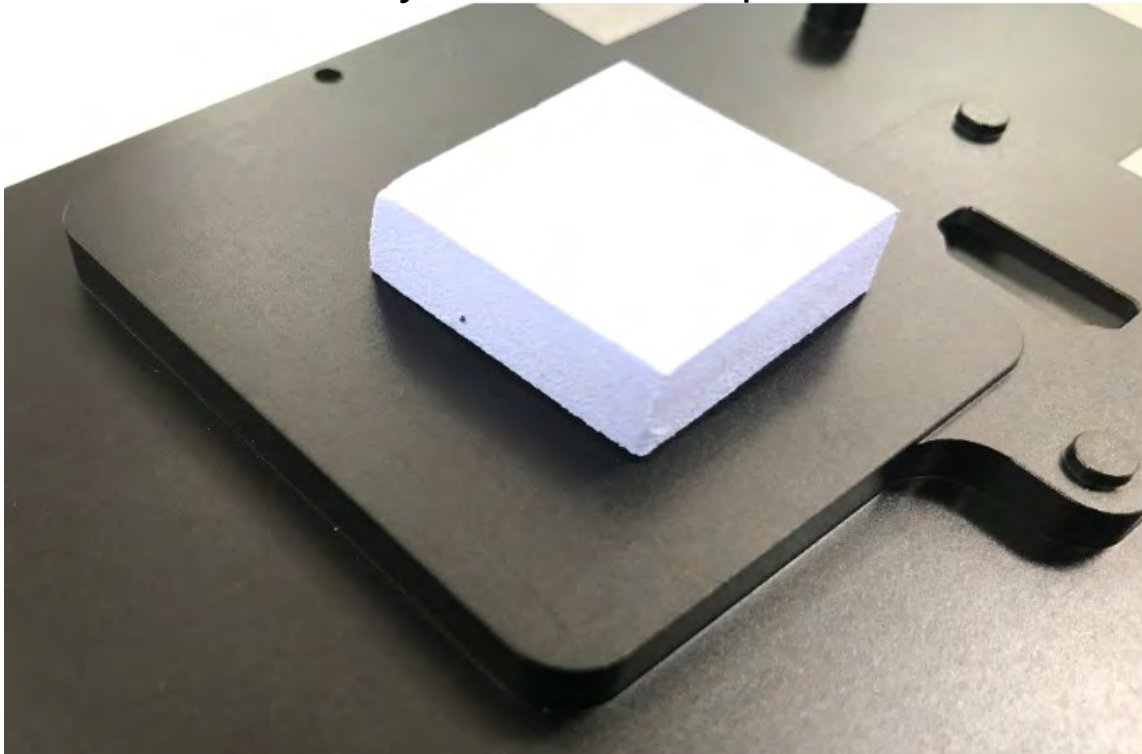
Under the I/O door, there are some debugging ports for field support, including Micro USB, micro SD card slot, Reset....with these abundant interface, operators don' t have to disassembly the unit to check.



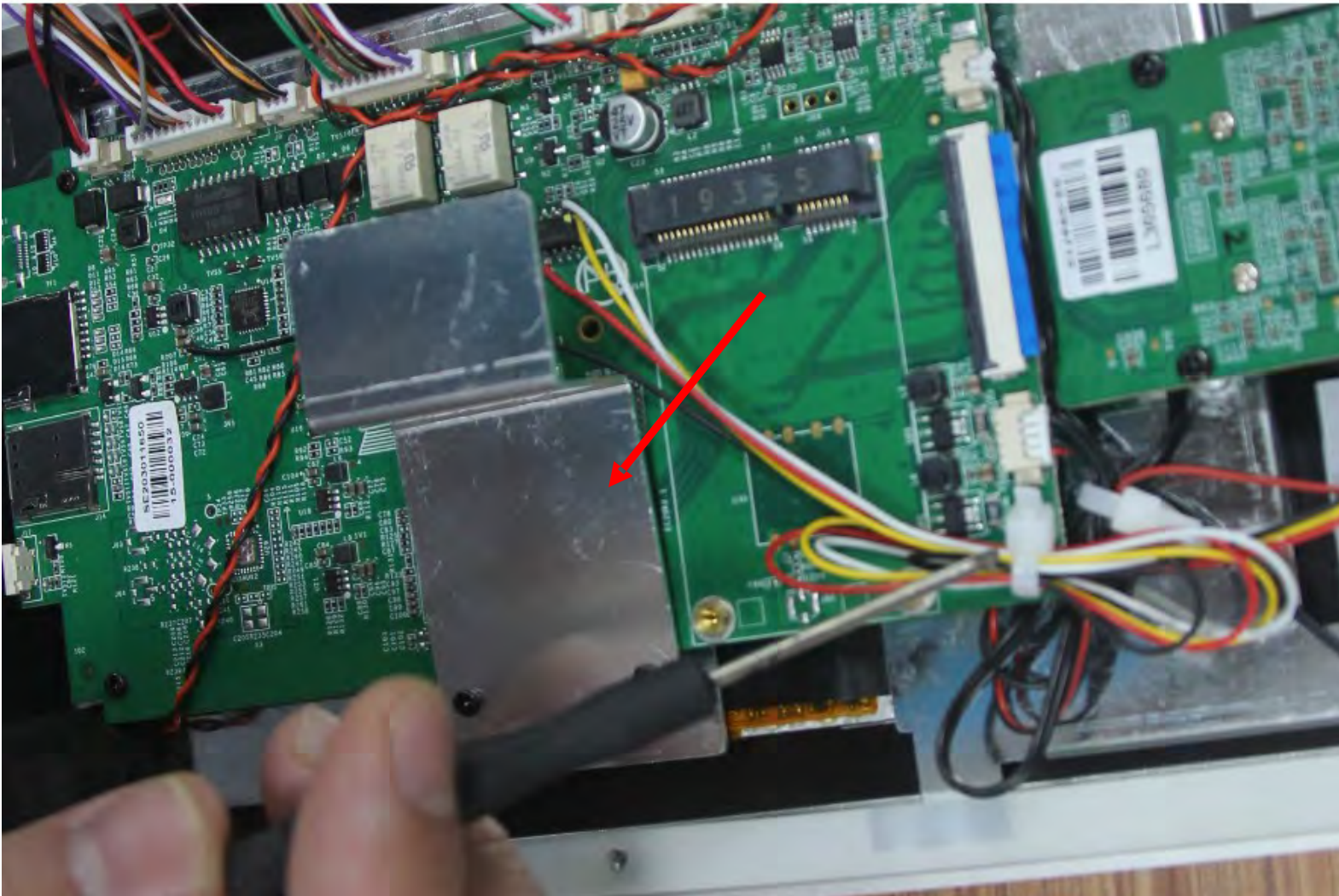
Smart Heat Sink

Inspired by Apple Macbook,

The unit has a natural heat sink body from the unibody housing, with
Conjunction of the silicon layer between the processor & heat sink body.



What "other companies" are doing: with an aluminium panel, bended.



Droid820Covid19

Interior Design Art

All functional parts are designed separately, connected seamlessly, mechanically Matched precisely, with cable management simplified to maximum.

All the connectors are designed fool-proof.



The secret of IP ratings

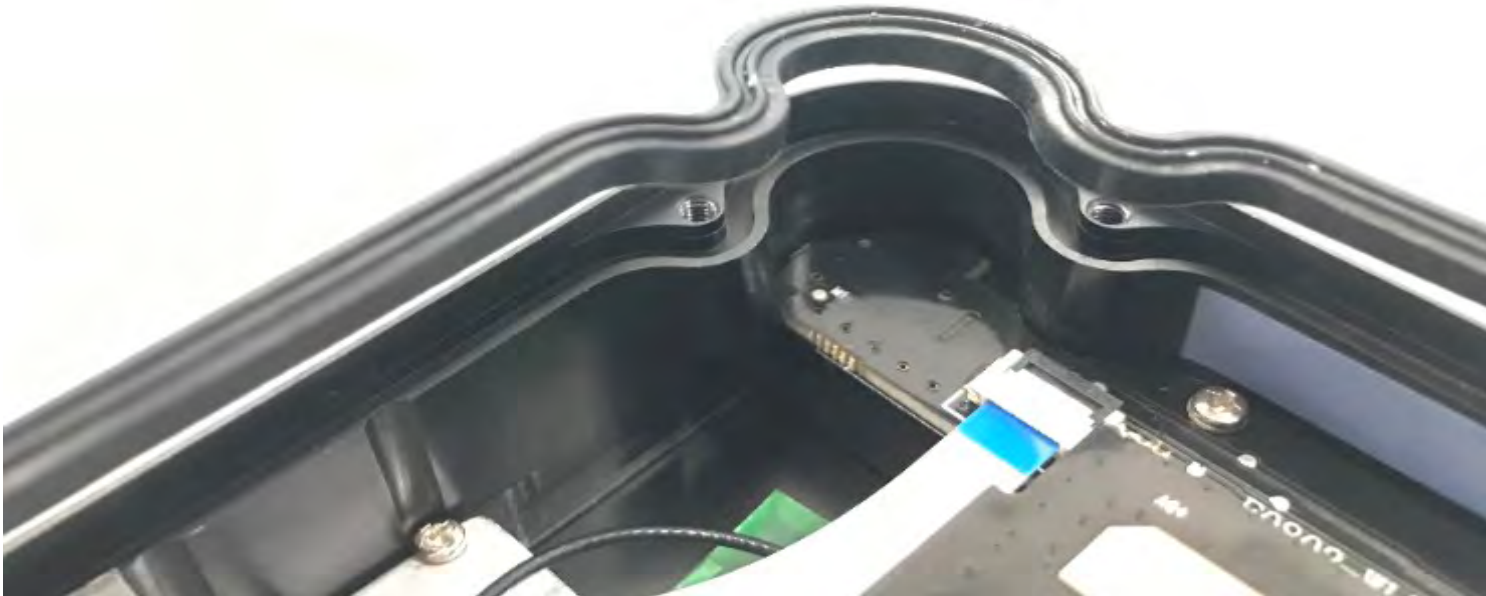
Other than the water proof rubber protector made by diecut, we use tooling
Made silicon rubber protector to make the whole protector a unibody.



The secret of IP ratings

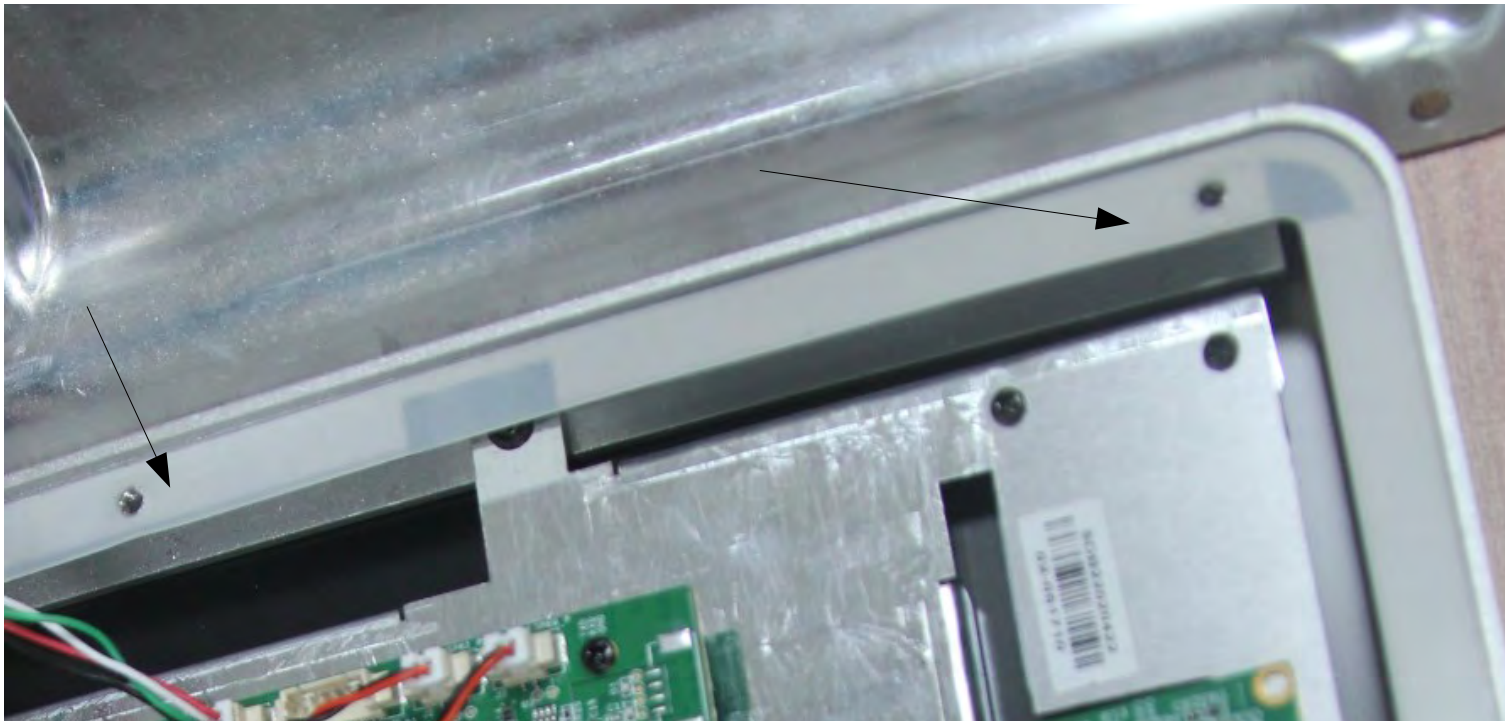
In addition to the unibody water proof protector made of silicon tooling,

We also CNC made the loader for the protector precisely based on its actual mechanical dimensions, to make them 100% matched, seamlessly.



Compare: what others will do ?

See below, they made the protector via diecut mould, and there is no designated Loader for the protector and also, the screw holes are just in between. The IP Ratings will be potentially compromised.



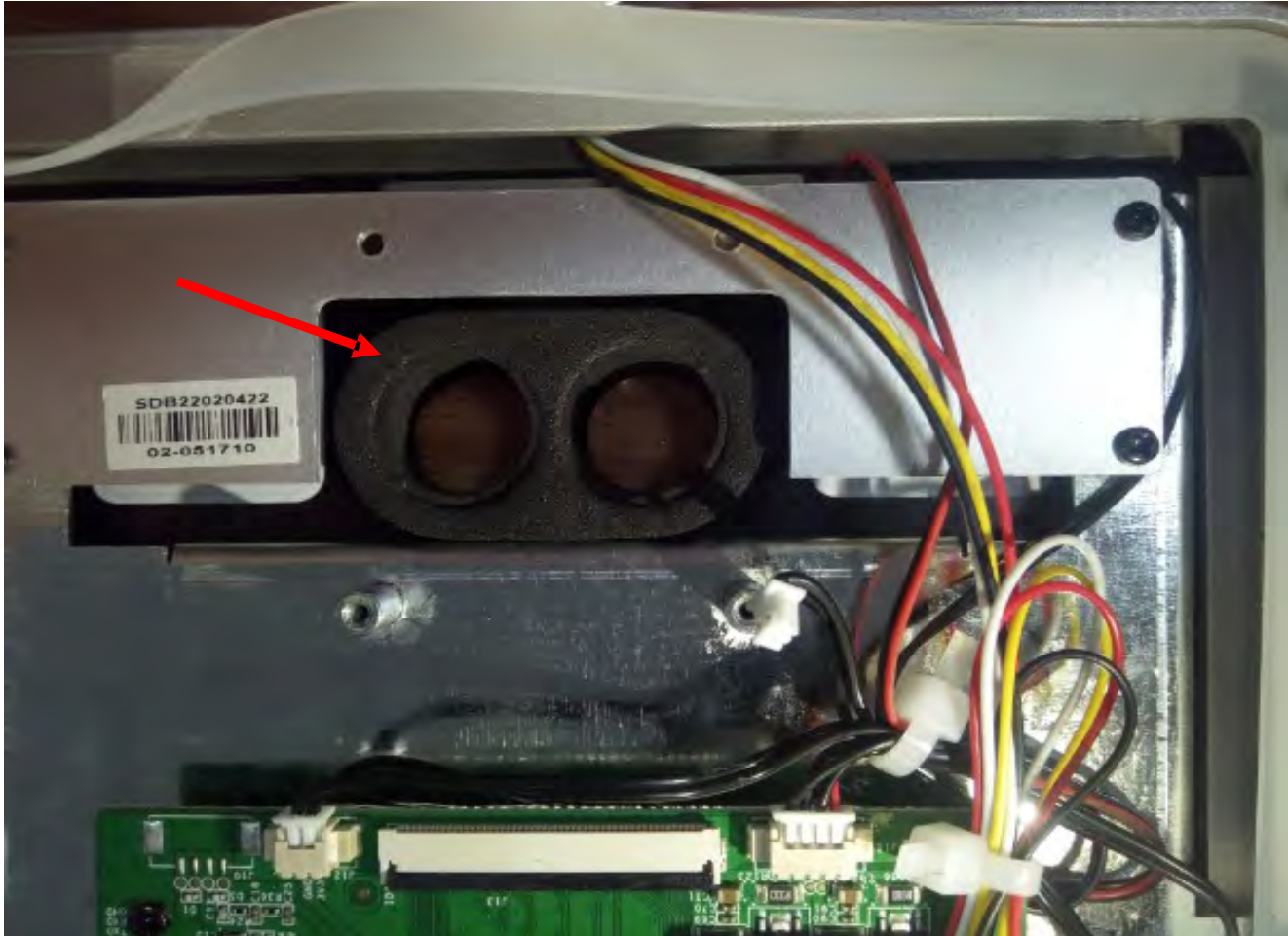
Close-up to the wide dynamics cameras

Camera module mounted on a separate board with micron 0230 light sensor, Precisely matched mechanically with housing, touchscreen, mother board.



Compare :

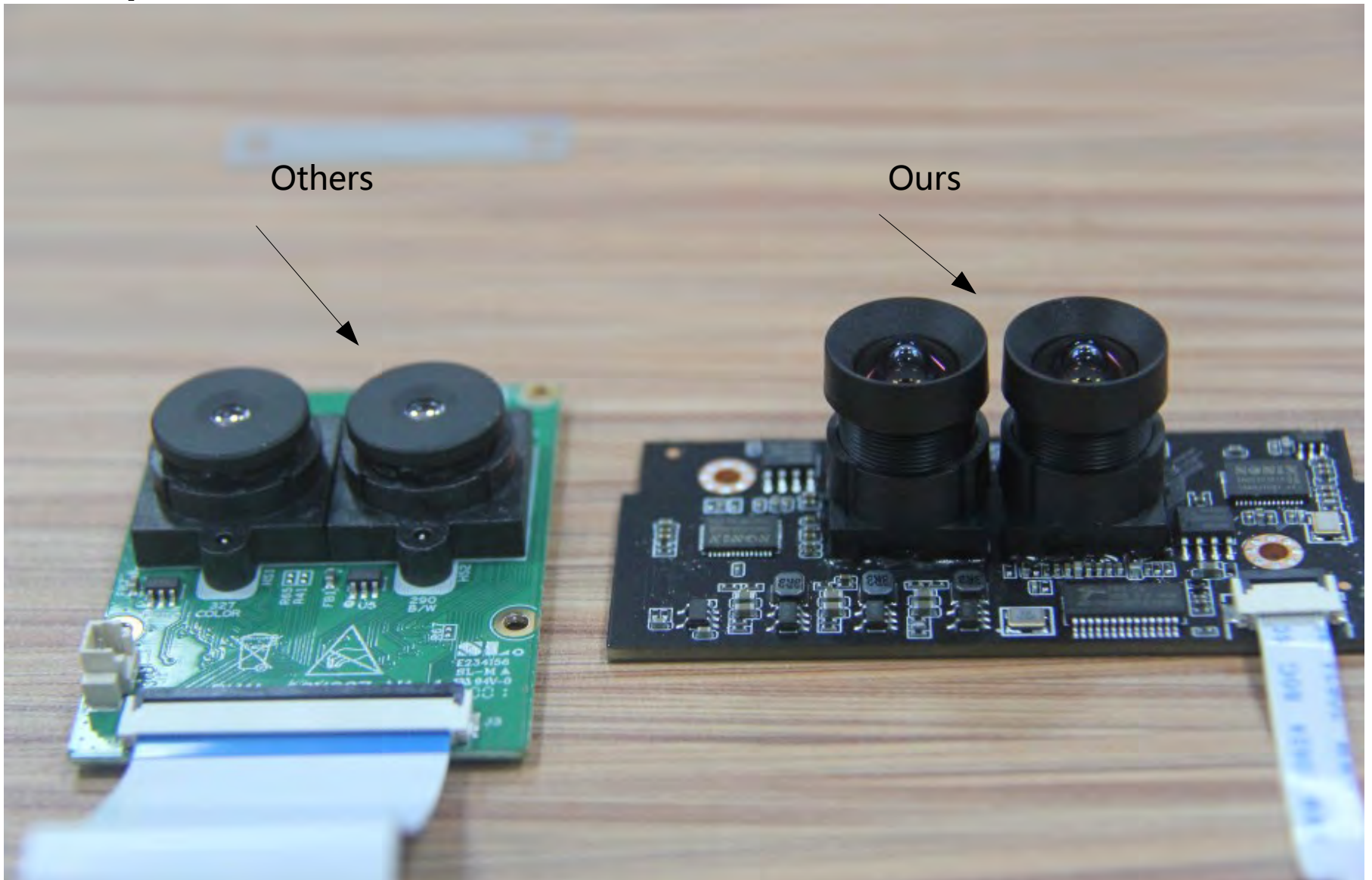
Others use EVA to accommodate the camera module



Compare the cameras

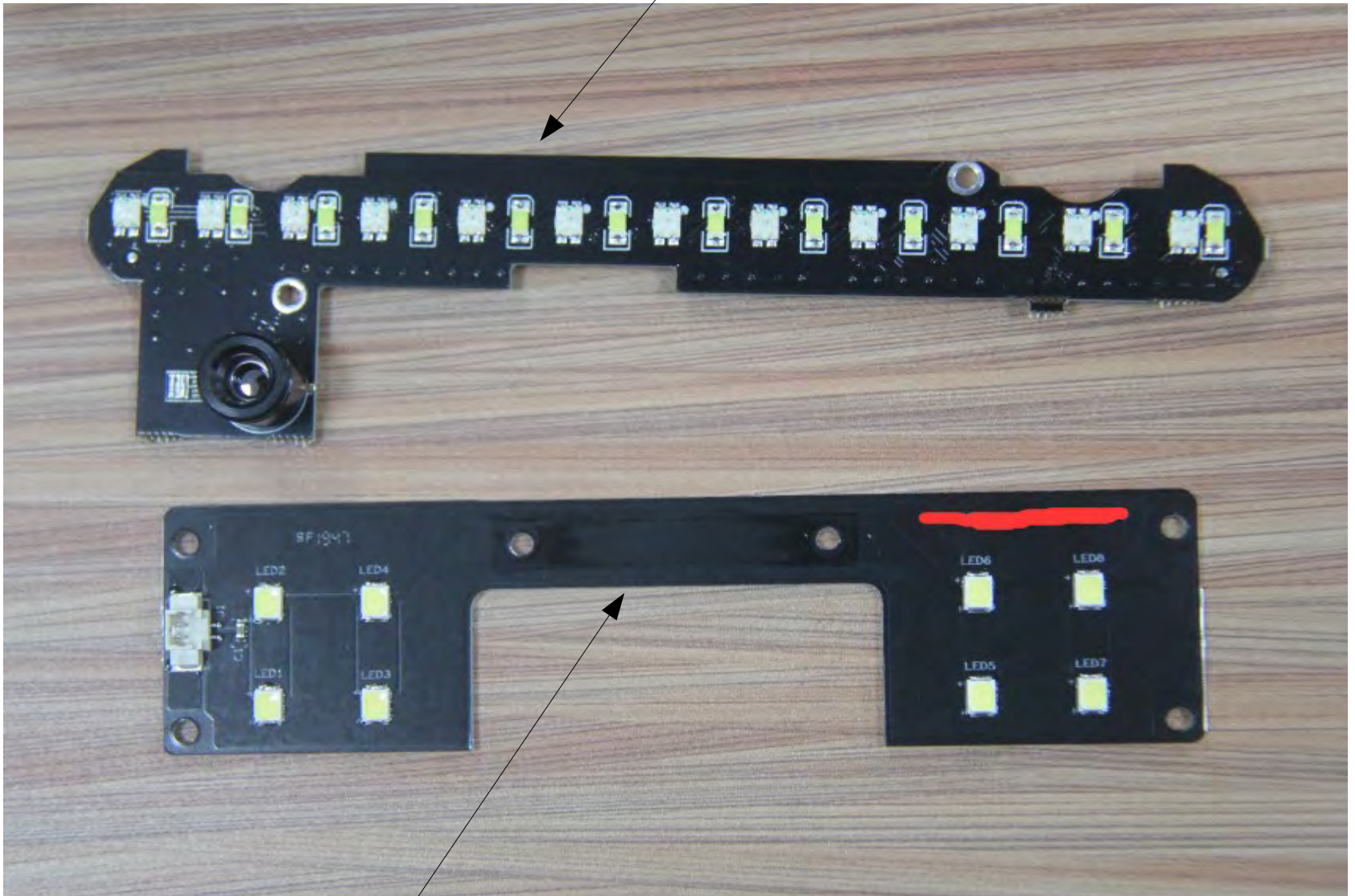
Others

Ours



Compare with others:

Ours



Others

Droid820Covid19

A full view for the interior



Q & A:

For more details, please visit:

<https://posaok.com>