

# Embedded IoT Design Made Easy with Microchip Technology

Questions and answers



## Question 1

I see the short range wireless connectivity but what about cell mobile support do your devices support the usb connectivity to support these cell modems with video cameras?

## Answer 1

There are confusions here because not having the full background of the question and what challenge we need to address. If we can get more details, we might be able to give a better and specific answer.

In general:

First and foremost we have presented different technologies suitable for short and long range communication. For instance, LoraWAN is long range

Second, cell modems with video cameras have different strategies as they can rely on :

- Cloud computing : here high throughput is required to push data to the cloud, and get analysed on the cloud servers
- Edge computing : here low throughput is required, because device will go the job

So to your question, select the architecture you need, with processing local or to the cloud

From this, look at you power budget and BOM cost

And select what is appropriate

As a last comment, wireless connectivity is trade-off between power, distance and throughput. The more you ask on 1 aspect the less you will get for the others

As you mention USB, wired technology will help a lot providing best throughput compared to wireless. And also wired means typically less concern with power consumption

But here will need wires... and thus distance will be limited

In any case, we have multiple solutions including high speed USB connectivity (your point). Systems to connect cameras to or how to connect wireless solutions to our boards.

First starting point could be:

[www.microchip.com/wireless](http://www.microchip.com/wireless)

[www.microchip.com/USB](http://www.microchip.com/USB)

<https://www.microsemi.com/product-directory/technology/3861-imaging#imaging-and-video-ips>

Else you can contact us. Data provided in the presentation at the final end.

## Question 2

Hello, not all MikroE click boards (only a few) are supported by MCC MPLAB. Are you working on having most of the click boards supported?

## Answer 2

Several MikroE boards are supported by our MCC and Harmony. As the MikroE bus is an open format using SPI, I2C or UART for communication it is very easy to get connected to other variants of the MikroE boards using the individual graphic peripheral initialisation window. With that the communication with all MikroE boards in general can be done easily. On top many initiatives are on-going now to extend our solutions with theirs – so more and more be available ooo.

## Question 3

Whats about IO-LINK Wireless integration & develops for IIoT devices needed for Automation Industry ?

## Answer 3

We agree that IO-LINK is a key communication bus for IIoT application. For the moment being we do not have an in-house solution. On the other side our IoT Design Partner Round Solution has build a solution to connect easily lo Linked based application to the cloud. More details you can find here: <https://www.roundsolutions.com/de/io-key/>