

muRata SPEAKS

TECHNOLOGY | SOLUTIONS | INNOVATIONS

Questions & Answers



1 In the out-field conditions, devices will be left exposed to different hash factors unattended. How robust is the product design to withstand such environment?

For multimodal soil sensor, the package is IP68 rating. It is the highest protection against dust and water ingress. Not only that, Additionally, the 9-point sensing electrode is specially engineered to counter uncertainty under the ground to increase sensing accuracy. On the other hand, for CO2 sensor, it can be enclosed in moisture-proof casing. This feature has been adopted in the market with many greenhouse operators.

2 Are the sensors ready to be used on-site?

For multimodal soil sensor, it is completed with casing (IP68 rating) with data cable and it has digital output signal of various data communication protocols. With the data cable connected to the transmitter terminal and system settings, its ready to be used in the field. For CO2 sensor, the output signal is analog type. Depending on your system design, some ADC signal conversion may be required during integration. But we are also offering CO2 sensor with complete casing to be applied in greenhouse environment.

3 How do I select the best RF technology for my application between LoRa, Sigfox, NB-IoT or other?

There are several factors to consider such as network coverage in the target are of deployment, the technology performance itself in term of data rate, payload, communication range, power consumption, latency etc., as well as subscription plan from preferred network operator.

4 How can I approach Murata for my technical needs esp. new product development and explore collaboration chance?

You can contact me with the brief summary of your proposal to the mail address which will be shared later.
- You also check out our Murata Open Innovation website (share link in the Chat).
- We are open to work with partners (especially in data analytics) to provide total solutions to customers and continue to explore collaboration opportunities.
- Murata is committed to our role for advancing society as a global innovation leader in smart agriculture //(numerous applications sectors across various eco systems). Those looking to pursue collaboration opportunities with Murata should visit the Open Innovation website at <https://solution.murata.com/en-global/collaboration/>

5 For smart irrigation system, will Murata provide total solutions including data analytics?

At this moment, Murata will provide only sensing element which measures soil moisture % and soil temperature. However, we are open to work with partners to provide total solutions and exploring collaboration opportunities.

6 Can the low cost smart irrigation sensor used for surface irrigation in addition to drip irrigation system?

Yes, the low cost smart irrigation sensor can be applied to surface irrigation in open farms as well. Water efficiency can be maximized by sensor based irrigation system.

7 Are there any future roadmaps for Agriculture market?

We are considering developing soil health and nutrient sensing such as NPK, pH etc., in future. We are looking for technical & business collaboration in these areas as well.