muRata SPEAKS

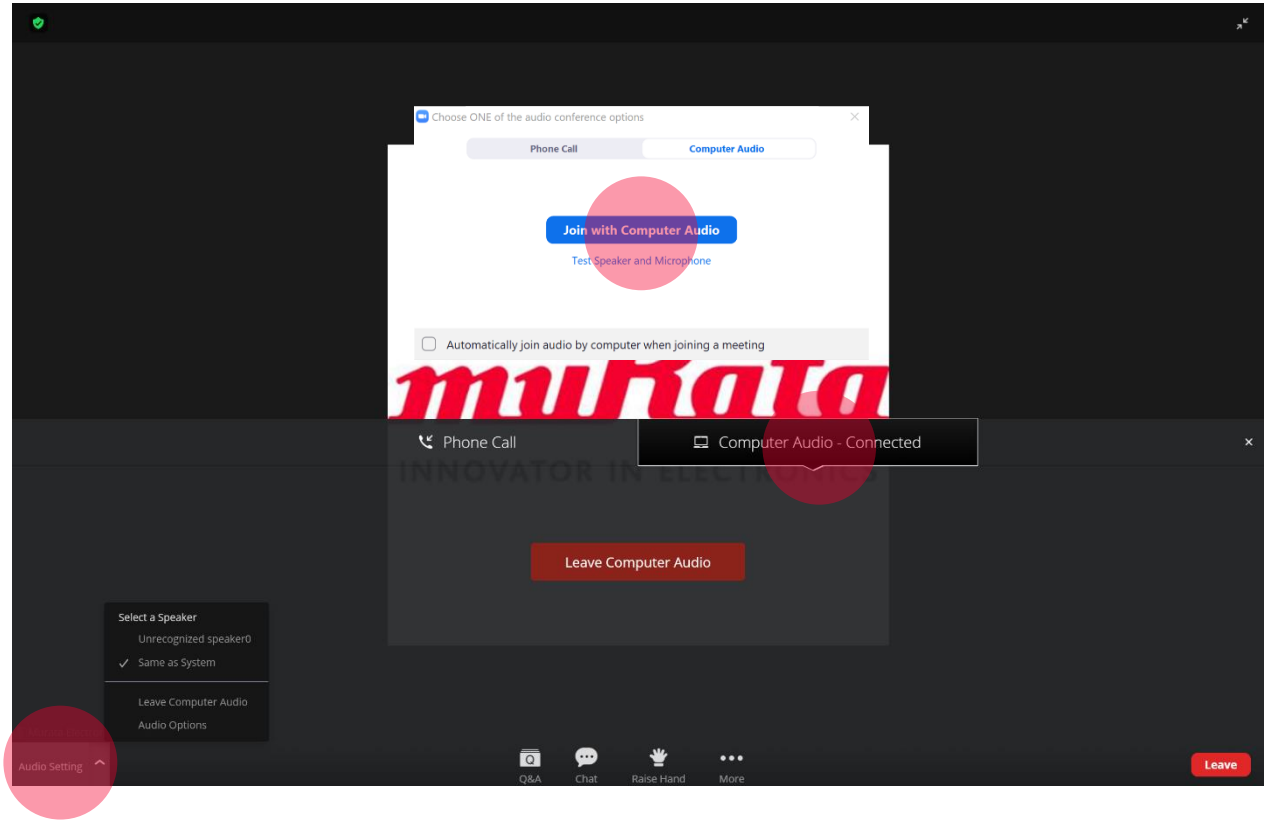
TECHNOLOGY | SOLUTIONS | INNOVATIONS

Murata Speaks - Monthly Webinar Series #26

[Oct 2022]

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

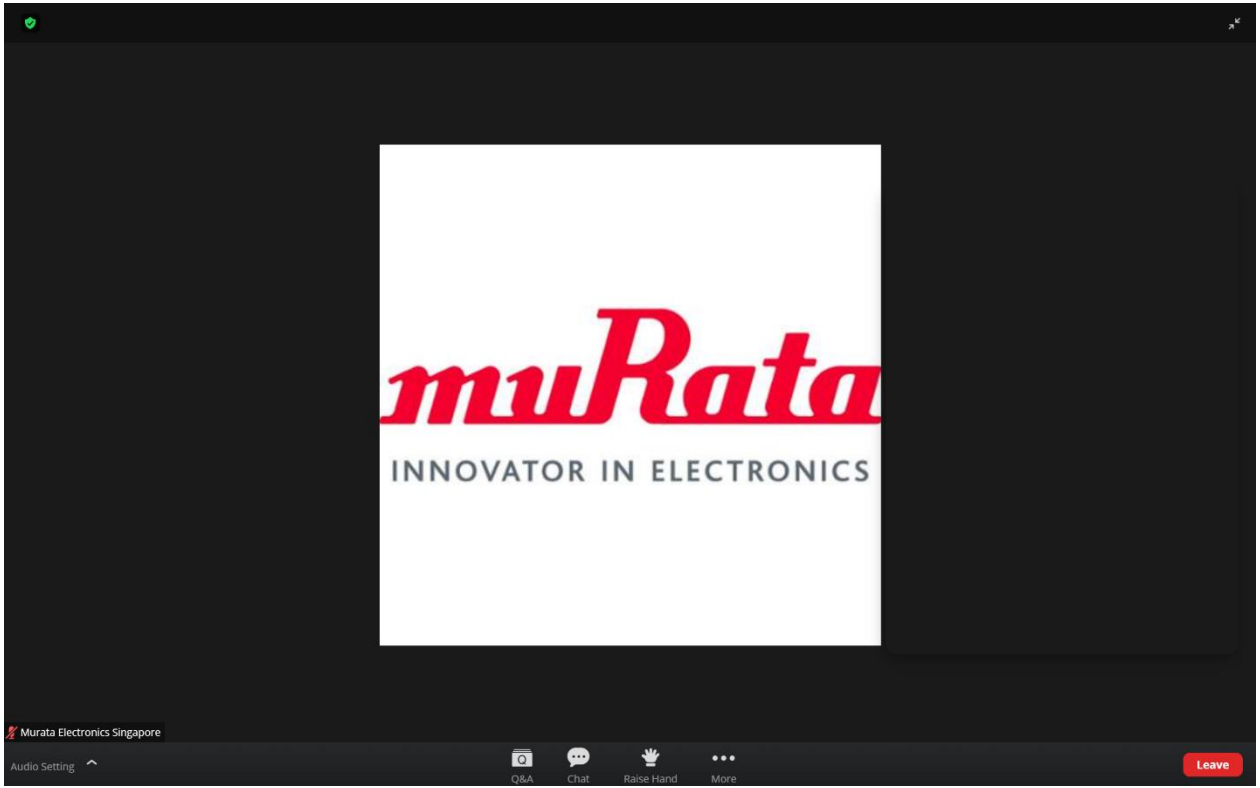
House Rules | Navigation Guide



ENABLE “COMPUTER AUDIO”

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

House Rules | Navigation Guide

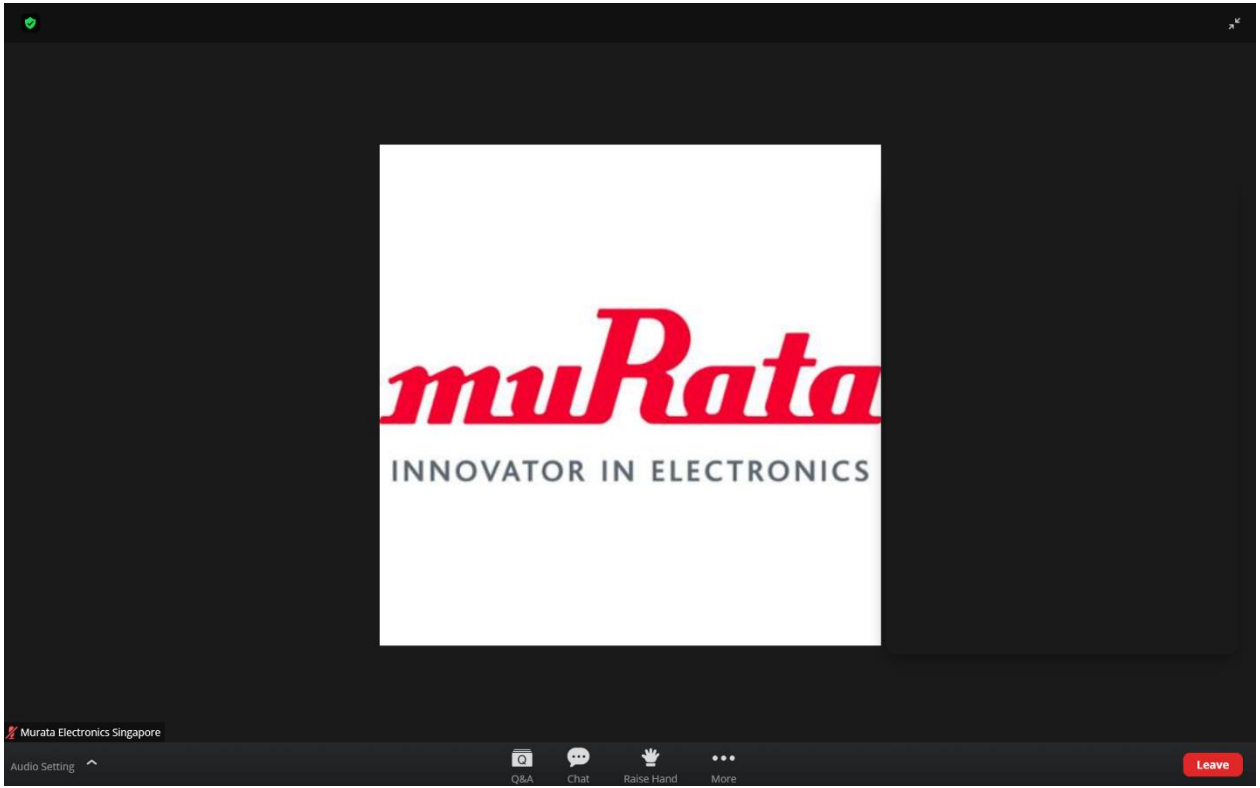


ENABLE “COMPUTER AUDIO”

ATTENDEES WILL BE KEPT ON MUTE DURING THE WEBINAR.

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

House Rules | Navigation Guide



ENABLE “COMPUTER AUDIO”

ATTENDEES WILL BE KEPT ON MUTE DURING THE WEBINAR.

SLIDES AND RECORDING WILL BE AVAILABLE AFTER THE SESSION.

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

muRata SPEAKS
TECHNOLOGY | SOLUTIONS | INNOVATIONS
muRata
CONTRIBUTING TO THE ADVANCEMENT OF A SUSTAINABLE SOCIETY
20th October 2022, Thursday
1:30 pm (AEDT)
AUSTRALIA
Great Sandy Desert
Dividing Mountains
Let's make our planet better together.

Today's Agenda

- **Introduction** (*Co-relationship between Arrow & Murata):
  - About **Arrow**
  - About **Murata** (Innovator in Electronics)
- **Past activities with ecosystem partners for Australia & New Zealand**
- **Murata's first ever exhibition in Australia (All Energy Australia)**
  - **Exhibit highlights:**
    - Battery Energy Storage System (FORTELION Battery)
    - Power Solutions for Open Compute & Data Center
    - UWB Modules
    - LPWA Products
    - SDG Initiatives
  - **Booth details**
- **Murata's Support Tools and Contacts**

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Jaydyn Introduction

Jaydyn Halliwell

Product Marketing Manager
Arrow Electronics
Australia/ New Zealand

Over 20 years experience in Product Marketing, Manufacturing and Supply Chain Management in the semiconductor and electronics industries in Australia and New Zealand. Passionate on seeing our Customers achieve their go-to-market plans and working closely with our Suppliers on meeting their expectations and those of our Customers and market place.

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Who Are Arrow?

- Arrow provide guidance, find solutions and connect people with technology that makes life better.
- We guide innovation forward for over 180,000 leading technology manufacturers and service providers.
- Five Years Out is our way of thinking to bridge the gap between what's possible and the practical technologies to make it happen.
- ANZ: Local Warehousing, Technical Support, Supply Chain and Value Add Services

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

INNOVATOR IN ELECTRONICS

Murata is more than just a capacitor manufacturer!

Murata's Core Competency

CORE

- **Materials** — Materials Design
- **Front-end process** — Laminating & Stacking
- **Product design** — High Frequency Design
- **Back-end process** — Packaging
- **Analytical** — Materials Characterization

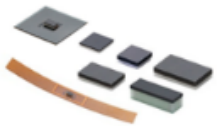
COMPREHENSIVE PRODUCT PORTFOLIO

Capacitors

Inductors

Sensors

Timing Devices
(MEMS Resonator / Crystal Unit / Ceramic Resonator / Oscillator)



RFID Products

Power Products

Batteries

Wireless Communication

and many more…

SOLUTION PROVIDER *(*include numerous collaborations with major market/technology leaders)*

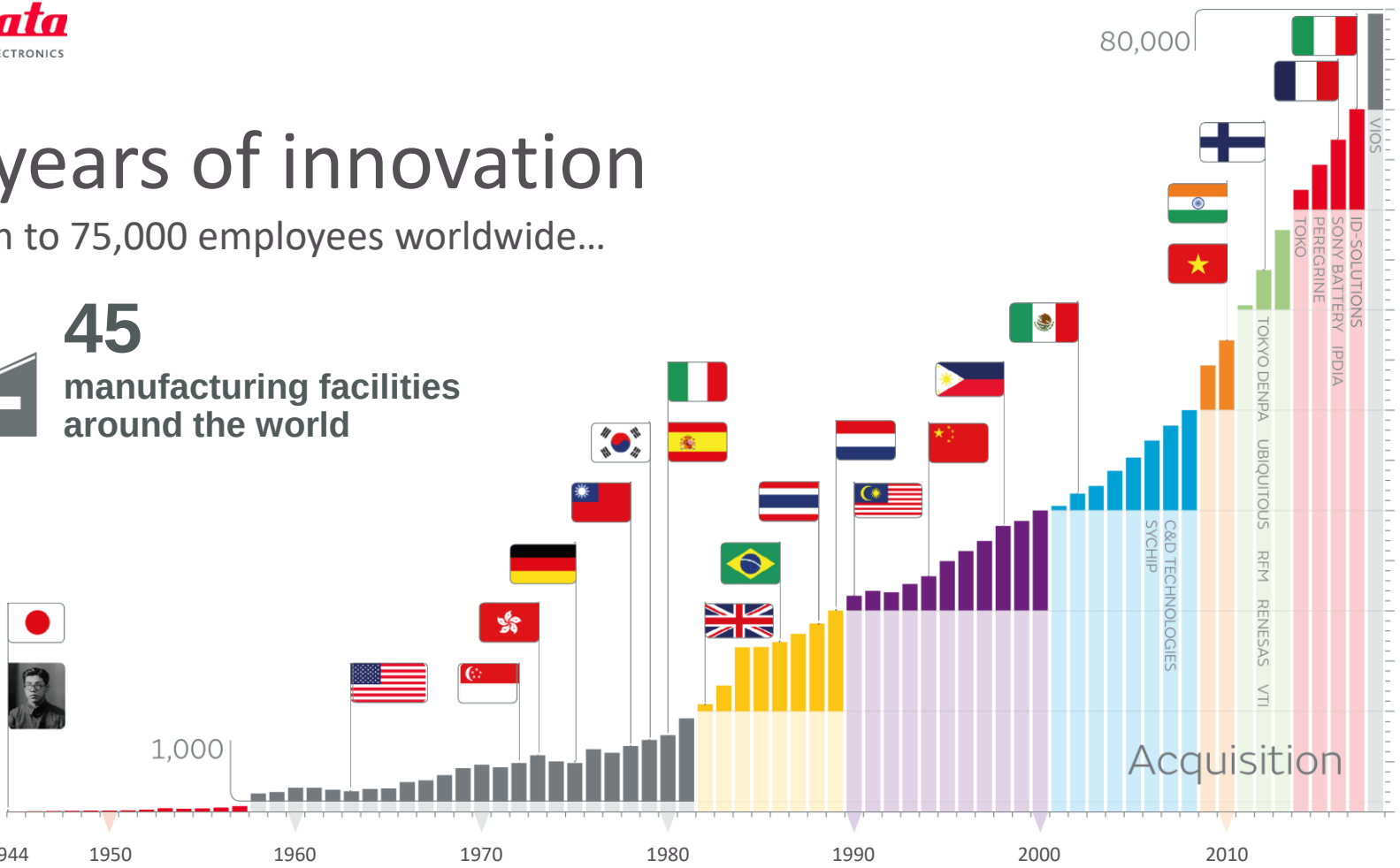
and many more…

muRata
INNOVATOR IN ELECTRONICS

78 years of innovation

Growth to 75,000 employees worldwide…

45
manufacturing facilities around the world



Murata Vision 2030

Murata focuses on 4 key fields with business opportunities to create value

Core fields

Communications

All types of things will be connected and optimized by communications

We will correctly grasp the diversifying applications, changing customer structure and continue to offer value, taking an overwhelming lead with technological innovation.

Mobility

Automobile industry entering an age of once-in-a-century revolution

In addition to contributing to the evolution of the automobile (in-car) , we will aim to capture business opportunities in the broader sense of mobility (out-car).

Challenge fields

Environment

Markets where promises have been made to become a sustainable society

Murata aims to create innovation bringing together our business and solutions to the energy issue and other environmental issues.

Wellness

Pursuing new prosperity for an age when people's expected lifespan reaches 100 years

We will use Murata's technology and our know-how in the electronics field to help the development of the medical field and seek to provide value in terms of preventing sickness and promoting health.

Source: *https://corporate.murata.com/en-global/company/business-strategy/vision2030/growthstrategy1#id1*

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Australia & New Zealand Economic Policy

Australia's Digital Economy

Australia's vision to be a leading digital economy and society by 2030.

Key technologies shaping the future to 2030

- *Artificial Intelligence*
- *Internet of Things*
- *Data Analytics*
- *Quantum Computing*
- *Blockchain*

Source: https://digitaleconomy.pmc.gov.au/

Industry Transformation Plan

New Zealand to be an early adopter and a world leader in the digital economy.

Key technologies shaping the future to 2030

- *Mobile Internet*
- *Fintech*
- *Cloud computing*
- *Big Data*
- *Advanced robotics*
- *Additive manufacturing*
- *AI*
- *IoT*

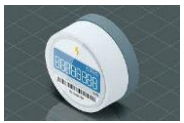
Source: https://www.mbie.govt.nz/

Murata contributing to Australia & New Zealand

Solutions

Smart Street Lighting

Smart Metering



Industrial

Telematics

Healthcare

Energy Storage System

Soil Sensor

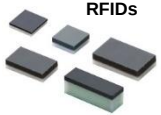
Components/ Devices

Wireless Modules

sigfox LoRa NB-IoT LTE-M

Sensors

RFIDs



Power Modules, Batteries

Battery module

PSU

Coin batteries

Target Audiences:
Design makers, Design houses, System Integrators TELCO, Network providers, Government agencies, and more…

Activities:
Factory automation exhibitions, Roadshows & workshops, Joint-webinars (with major local & global partners), Proof-of-concept Design-IN activities

Future Plans:
More collaborations with existing or new business partners, Events – Exhibitions, Technical workshops, etc., Sponsorship activities

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Murata and Ecosystem Partners for ANZ

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Murata SPEAKS Monthly Webinar [Australia & New Zealand]

muRata INNOVATOR IN ELECTRONICS

Effortlessly and securely connecting your smart devices
[February 2022]

Uniting bright minds for IoT
[May 2022]

Leveraging LvM2M Protocol for Smarter Cellular-IoT Devices
[August 2022]

Presenters:

Jaydyn Halliwell
Product Marketing Manager
Arrow Electronics
Australia/ New Zealand

Simon Churches
Product Owner
(IoT Connectivity)
Telstra

Gonzague Fraval
Product Marketing
Wireless Module
Murata Electronics Singapore

Kwang Meng Koh
Technical Marketing Manager
ST Microelectronics

Desmond Sin
Regional Sales & Marketing
Sony Singapore

Franck Martins
IoT Lead Partner Development
Amazon Partners Network, IoT
Amazon Web Services

Presenters:

Tonie De Vries
Product Manager IoT/ Emerging Technology
Spark New Zealand

Tony Tilbrook
Chief Technical Officer /
Chief Operating Officer
NNNCo

Sourmack Darbouy
Regional Sales Director, APAC
Actility & Abeeway

Gonzague Fraval
Product Marketing
Wireless Module
Murata Electronics Singapore

Zeno Maverick Low
Application Engineer
Murata Electronics Singapore

Jaydyn Halliwell
Product Marketing Manager
Arrow Electronics Australia/ New Zealand

Presenters:

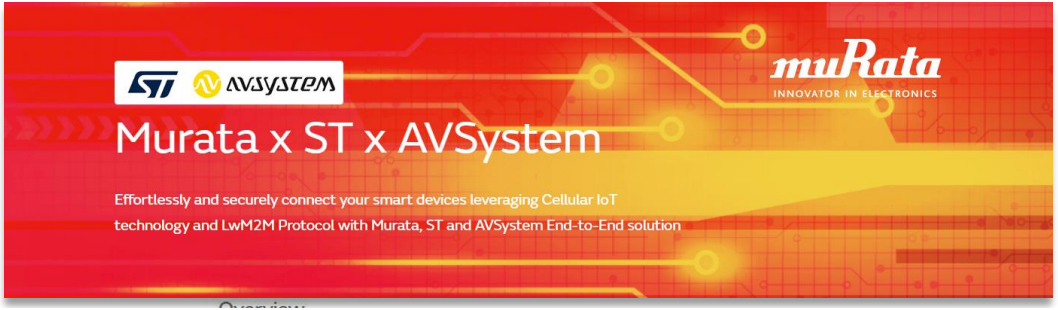
Gonzague Fraval
Product Marketing
Wireless Module
Murata Electronics Singapore

Mieszko Mieruński
Embedded Team Lead
AVSystem Poland

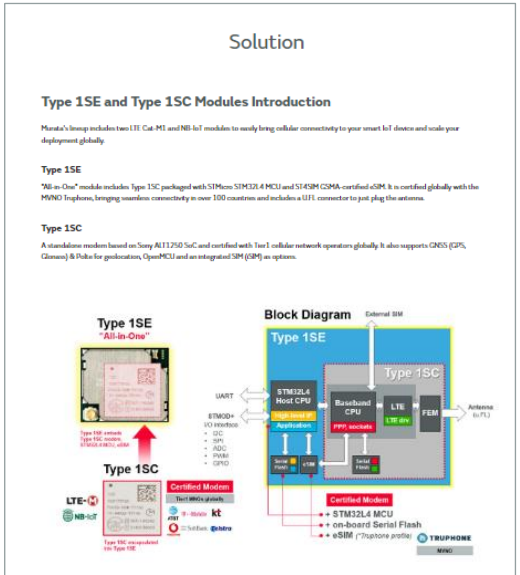
Kwang Meng Koh
Technical Marketing Manager
ST Microelectronics

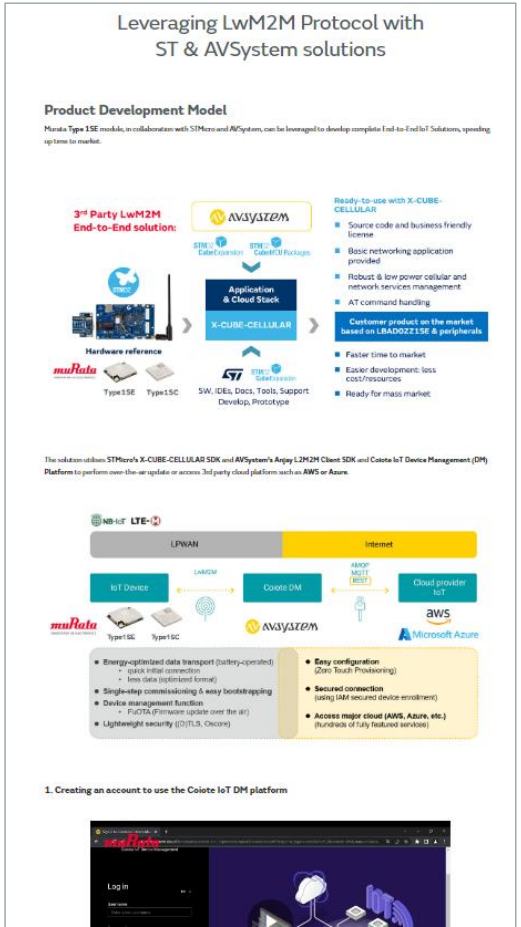
Cyrus Tsang
Pre-Sales Manager
Truphone

Murata Support Tool: Solution Page

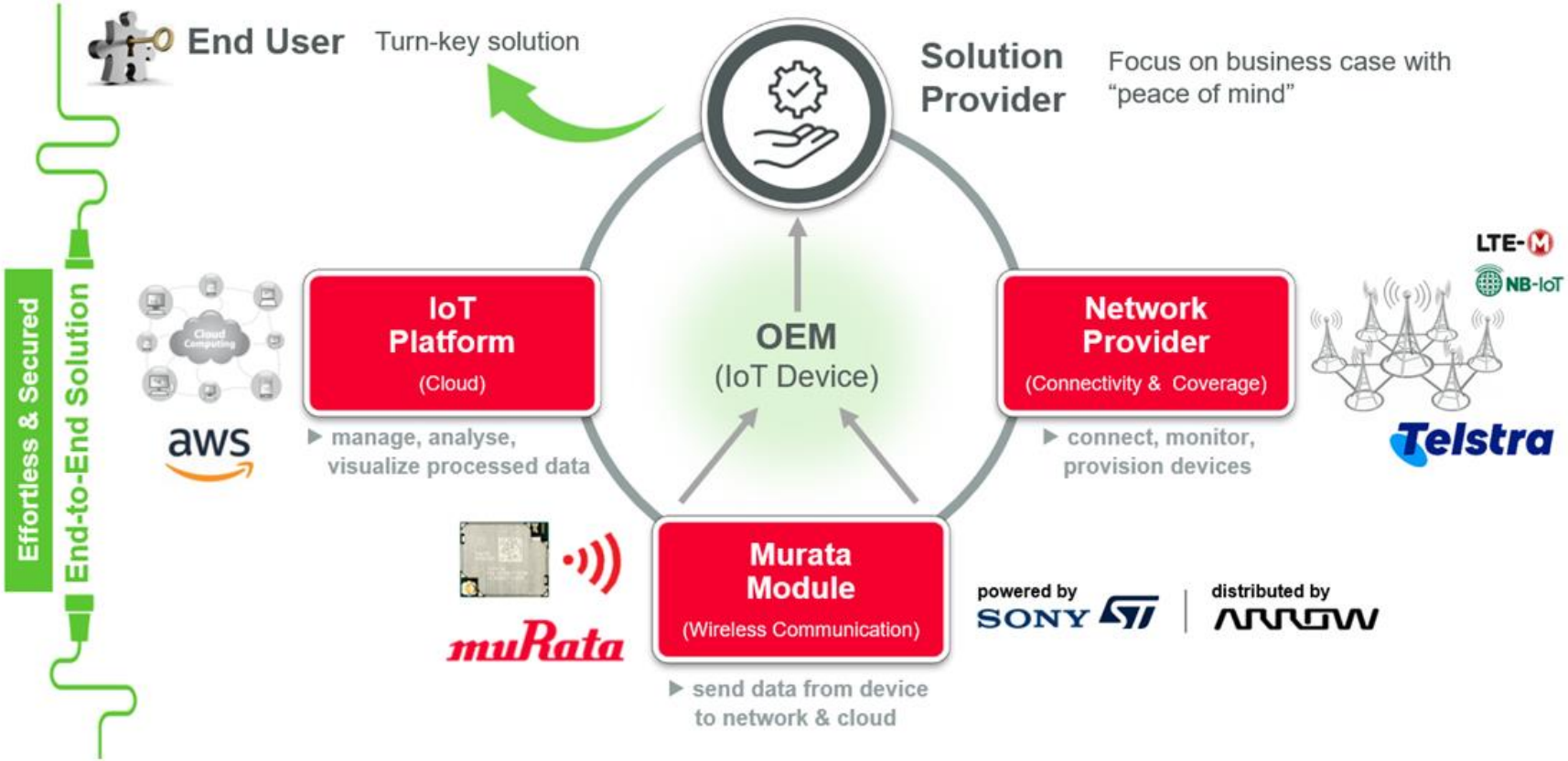


https://solution.murata.com/en-sg/technology/st-avsystem





Ecosystem Partners' Complete End-To-End C-IoT Solution



Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Murata First-Ever Exhibition in Australia

muRata

INNOVATOR IN ELECTRONICS

Murata Team @All Energy Australia 2022 (Melbourne)

Looking forward to meeting you in-person @Murata booth (LL123)!

Battery Energy Storage System

Sugiyanto Soh

Senior Manager

Han Ren

Regional Product Marketing

Energy & Power Device

William Phia

Product Manager

Takahiro Minagawa

Senior Manager

Hiroshi Tanaka

Manager

Connectivity Module

Gonzague Fraval

Regional Product Marketing (Wireless Module)

Zeno Maverick Low

Application Engineering

Jacey Ng

Product Engineer (Wireless Connectivity & RF Components)

Sensor

Andy Teo

Regional Product Marketing (Sensor Device)

Singapore | Japan | Singapore

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

Murata Booth: LL123 (All-Energy Australia, MCEC)

muRata
INNOVATOR IN ELECTRONICS

Exhibit Highlights

Contributing to the Advancement of a Sustainable Society

muRata
INNOVATOR IN ELECTRONICS

Communications Mobility Environment Wellness

Booth LL123

muRata
INNOVATOR IN ELECTRONICS

Murata Electronics Singapore (Pte.) Ltd.

Online Booth Preview

FORTELION Battery

Energy & Power Device

UWB Modules

LPWA Products

Contributing to the Advancement of a Sustainable Society

muRata
INNOVATOR IN ELECTRONICS

Communications Mobility Environment Wellness

Booth LL123

muRata
INNOVATOR IN ELECTRONICS

Murata Electronics Singapore (Pte.) Ltd.

Online Booth Preview

FORTELION Battery

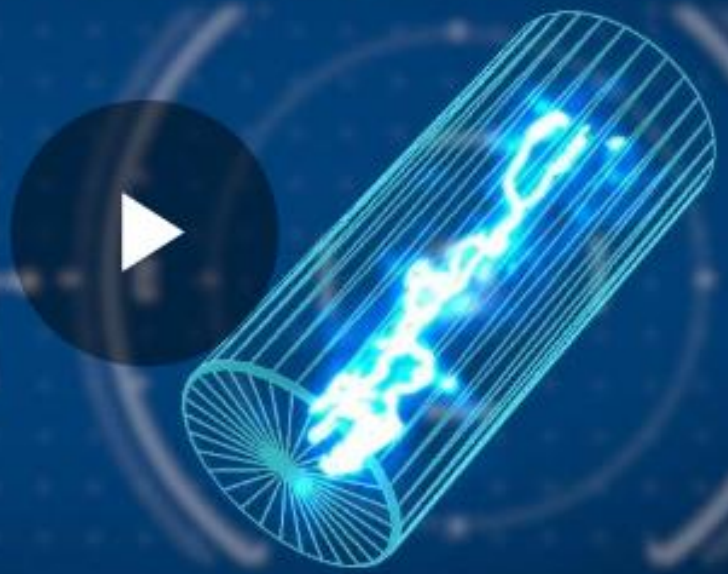
Energy & Power Device

UWB Modules

LPWA Products

FORTELION | Features

- High safety
- Long life
- High input/output capacity
- Cobalt free



Contributing to the Advancement of a Sustainable Society

muRata
INNOVATOR IN ELECTRONICS

Communications Mobility Environment Wellness

Booth LL123

muRata
INNOVATOR IN ELECTRONICS

Murata Electronics Singapore (Pte.) Ltd.

Online Booth Preview

FORTELION Battery

Energy & Power Device

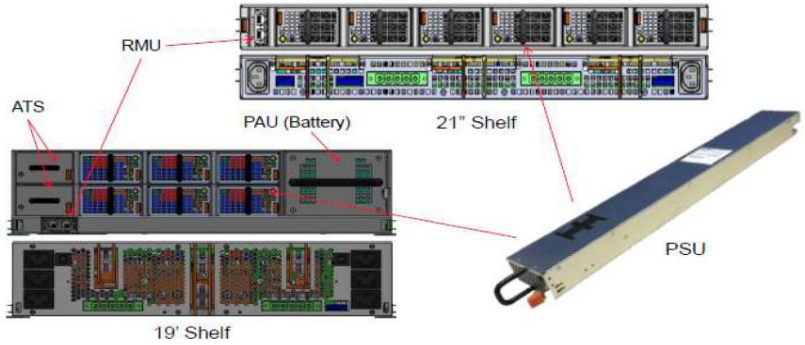
UWB Modules

LPWA Products

Power Solutions for Open Compute & Data Center

Products include:

- 21” 1OU Power Shelf
- 19” 2.5RU Power Shelf
- 3kW Titanium PSU
- RMU (Remote Management Unit)
- ATS (Automatic Transfer Switch)
- PAU (Power Assist Unit, aka Battery)



muRata
INNOVATOR IN ELECTRONICS

Moving OCP Forward

Product experts from Singapore and Japan will be at the exhibition in-person.

muRata
muRata
INNOVATOR IN ELECTRONICS
Open Compute
and Datacenter
Power Solutions

Contributing to the Advancement of a Sustainable Society

muRata
INNOVATOR IN ELECTRONICS

Communications Mobility Environment Wellness

Booth LL123

muRata
INNOVATOR IN ELECTRONICS

Murata Electronics Singapore (Pte.) Ltd.

Online Booth Preview

FORTELION Battery

Energy & Power Device

UWB Technologies

LPWA Module

UWB Modules: Follow Me Demo

Smart Home Data Transfer and Multisession Demo

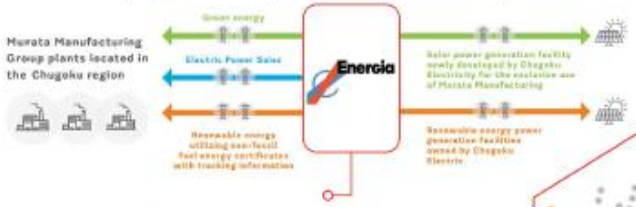
How can UWB be used in a smart home setting?

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

TRANSFORMATION TO RENEWABLES

Achieving RE 50% in Chugoku

Developing new solar plants to reach RE50 by 2030



EV trucks for logistics

Achieving 100% RE + ESS

Murata Battery Energy Storage System

Achieving 100% RE

Achieving 100% RE

- Head Office
- Research Center
- Sales & Marketing Office
- Production Plant

Let's make our planet better together!

2 ZERO HUNGER

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

muRata

INNOVATOR IN ELECTRONICS

Contributing to A Sustainable Society

New Business Development Div.
Murata Singapore

Picture: Rooftop PV solar plant at Murata Singapore

muRata
INNOVATOR IN ELECTRONICS

To register, click here

muRata SPEAKS

TECHNOLOGY | SOLUTIONS | INNOVATIONS

Subscribe

Subscribe to our monthly webinar series. Be the first to be notified!

If you are interested in our monthly webinar series, please sign up here to be notified when the next upcoming webinar is ready!

February 2022

March 2022
**Thai Language*

April 2022

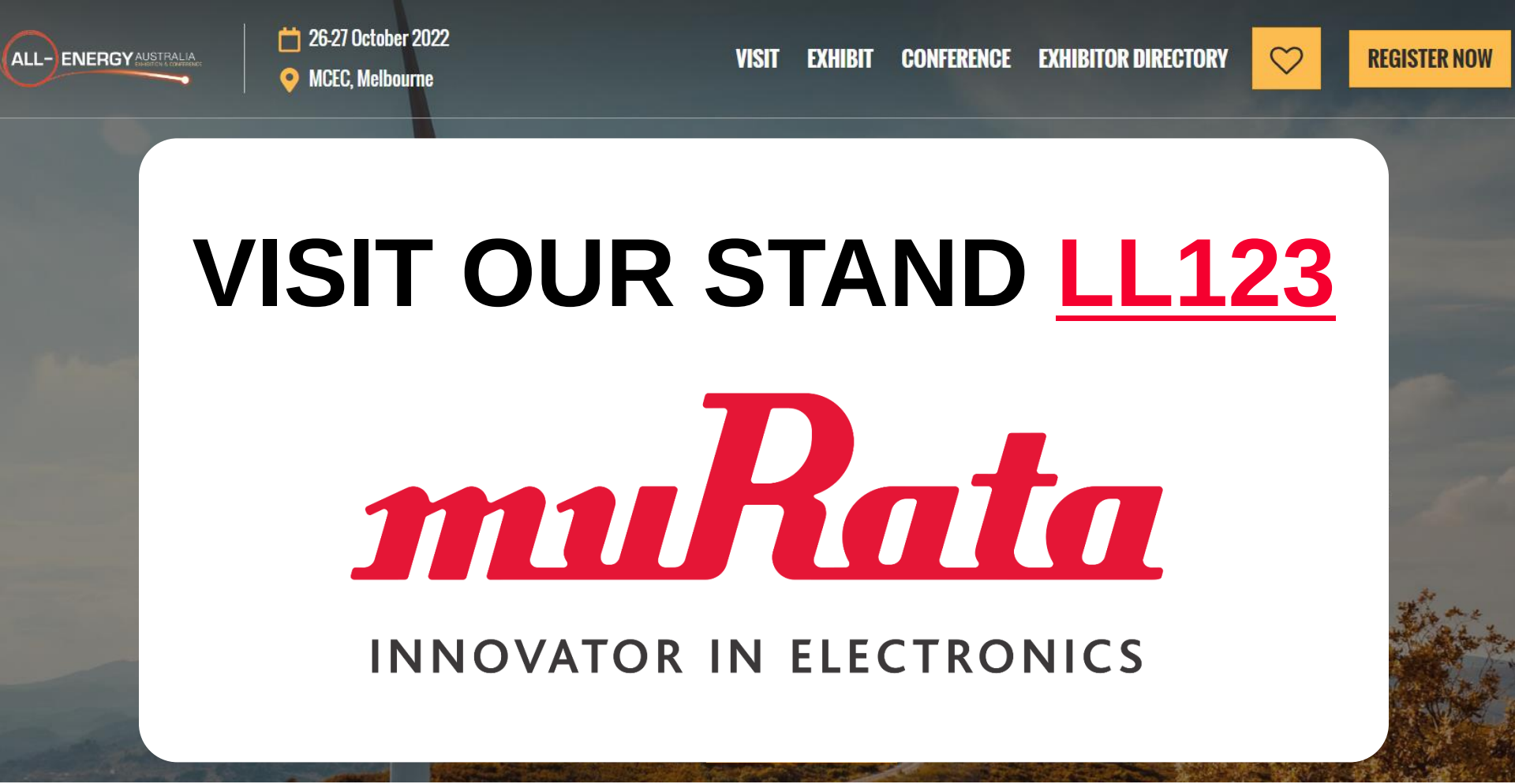
May 2022

June 2022
**Thai Language*

July 2022

August 2022

September 2022



Registration: https://www.all-energy.com.au/en-gb/register.html

Contacts in Australia

muRata Authorized Distributor in ANZ

Jaydyn Halliwell

Product Marketing Manager
Arrow Electronics
Australia/ New Zealand

Arrow Electronics Australia Pty Ltd

14 Nicole Cl, Bayswater North VIC 3153

+61 3 9739 4900

www.ecoinstallers.com.au

*For Battery Energy Storage System inquiry only

Cameron Fear

Managing Director
Eco Installers
Australia/ New Zealand

Eco Installers Pty Ltd

2/1 Apollo Street, Warriewood, NSW, 2102

+61 1300 600123

www.ecoinstallers.com.au

Copyright © Murata Manufacturing Co., Ltd. All rights reserved.

See you there!
muRata
INNOVATOR IN ELECTRONICS
All-Energy Australia 2022
26 – 27 Oct (Wed, Thu) Murata Booth LL123