

彎彎Tech Talks 扁瞞需檐 一齣救齣準

4:00

彎彎Tech Talks 扁瞞需檐 一齣救齣準

日期 (星期四)	时间 (北京/台北时间)	主题
6月19日	14:00 - 15:00	Matter 样円瘡噎鼓剩儼
7月3日	14:00 - 15:00	俠剪艰祿祿扁瘡xG22E 龜曷肽燐籽縉擷臧肽酏
7月17日	14:00 - 15:00	霰发曩朦幕珏雁氈 鑄壇舳閨仙勛爺忤瘡蒞爇SoC
7月31日	14:00 - 15:00	MG26 鑄PG26 坛BG26 笛二屠骚燥瀕浹瘡SoC 帳廠 溢赳恩瘡難 曉燐籽縉雁氈
8月14日	14:00 - 15:00	赆赋譴酏屠进轆WI-SUN 覬铂鼓溼肽
8月28日	14:00 - 15:00	搗糲墟匐譯幹縹扁瞞瘡噎鼓辞尔
9月11日	14:00 - 15:00	搗糲孚乏赆伏剝翹SiWx917 Wi-Fi 6 覬天毆栳瘡AI/ML幕珏
9月25日	14:00 - 15:00	寇蒞爇6.0 冉途搗洌揆发嵩囹屠孟賓嬋優馭曷肽瘡村磬洌趁幕珏

Matter标准的最新动态

6幢19所

2025
tech talk
WEBINAR SERIES



MATTER

繳壢秋譯

01 榑

02 壇諱坤箆湑肽

03 拊攢瓠譚散呶瓠爆粼糾擰抵

04 閼斷閱稻鍍一肽剝辞擺瘤壇譚氡發霰，**LIT**

05 **Matter** 攢嘆謗警

06 **All-in-one** 淫氡雁瘤勝秋砒幕

07 **Studio SDK** 抵擰瘤

握震



Matter 檣

- 梓掄枰圀籽曜， **Connectivity Standards Alliance, CSA** | 賞賢勳芊呿廁湑**SDK**瘤桀琿
- **Matter**枰圀嶠佗寐樂進巷殊棧厠寵齧櫟鼓勳芊呿**SDK**屠旦嫫呿滋嫫
 - 艰祿祿扁北佻囡**CSA**厠寵斷双欬挨泯擰抵**Matter**鼓勳芊瘤**SDK**爐轡
- 殊櫟厠寵厖肽劬召鼓擰抵譙壇[]賓曉譙壇瘤嘆鼓ㄣ懾優鼓剝肽
- 嶠佗寐樂度譯廁厠翠嘆鼓凰噎鼓勳芊ㄣ亦砮伽譙壇舰会输佗帶拱匈阡懸伋驍

MATTER 1.0

Launched: **November 2022**

Device Types: 34

Major Features:

- Standardized BLE Based Commissioning
- Wi-Fi and Thread support
- Manufacturer Authentication
- Compatibility with major home ecosystems
- Integration of many Zigbee Device Types



MATTER 1.1

Launched: **May 2023**

Device Types: 34

Major Features:

- General Improvements for Battery Powered Devices
- Testing Automation for Pre-qualification



MATTER 1.2

Launched: **October 2023**

Device Types: 43

Major Features:

- Appliances
- Improved Battery life for actuators (short idle time)
- Robot Vacuums
- Device Appearance Description
- Generic Operating States (Start / Stop / Pause)



MATTER 1.3

Launched: **May 2024**

Device Types: 54

Major Features:

- More Appliances
- Energy Management Devices
- Enhanced Entertainment Controls for Media Players
- Scenes





Matter 1.4 櫟麓

Mounted On/Off and Dimmable Load Control

- New device type for on/off devices
- Previously seen mainly as "lights" and that could confuse users or limit controller interactions

Enhancements to Occupancy Sensing

- Radar, vision and ambient sensing
- Customized Sensitivity Settings
- History reporting through event-based updates

Energy Management Devices

- Management and energy reporting of any Matter enabled device

Very Sleepy Device Support

- Increase how long devices can sleep from 15 seconds to 18 hours

Improvements to Infrastructure and Ecosystems

- More opportunities to use Thread based devices thru 3rd Party Border Routers
- Enhanced Multi-admin to synchronize device lists between commissioners
- Interoperability testing through Connectivity Standards Alliance

全新和现有更新的能源管理设备





肽涓栧坤譏壇

Matter 1.3 introduced reporting of estimated and actual measurements

Energy and power consumption or generation including power, voltage and current

- Electrical Power Measurement, Electrical Energy Measurement, Power Topology clusters for reporting
- Device Energy Management, Energy EVSE and Appliances clusters for consumption control

Matter 1.4 added new and updated device types for energy management

- New device types
 - Solar Power
 - Batteries
 - Heat Pumps
 - Water Heaters
- Updated device types
 - Electric Vehicle Supply Equipment (EVSE)
 - Thermostats

Energy management and mode improvements

- Enables energy consuming device to adjust based on energy forecast and power management

Matter v1.4 鑑完肽湑筢坤幕阡癰嘆鼓 — 譏壇籌仝

鼓譏壇籌仝

■ 儋仝肽湑

- Report power and energy production from Solar Power device types, including inverters, individual and panel arrays, and hybrid solar/battery systems.

■ 瓶氫

- Enabled by home energy management systems, they support load balancing, with any controller potentially serving as the management system.

■ 炮沕

- Devices can forecast consumption and adjust usage during peak demand. Heat pumps can shift energy use to off-peak times, such as pre-heating the home.

■ 炮氈禱

- Device can be set to a preset temperature or percentage, letting users monitor hot water levels. A boost command, which enables rapid heating from multiple energy sources for situations where hot water is needed quickly, allows temporary overrides in the heating schedule, ideal for situations like hosting guests. This gives consumers more control and flexibility.

Matter v1.4 鑑亮肽湑筭坤幕氐癰嘆鼓 — 剝肽臧 · Clusters

鼓剝肽臧

- **Device Energy Management Mode cluster**

- Enables easy toggling between device-specific, local, or grid-wide energy optimization, providing greater flexibility and efficiency for managing power across the home.

- **Water Heater Mode cluster**

- Provides users with the ability to easily toggle scheduling on and off, making it simple to adjust heating patterns when normal routines change.

Enhancements to existing clusters

- **Electric Vehicle Supply Equipment (EVSE):**

- Introducing user-defined charging preferences like specifying when they want their car to be charged, allowing users to choose optimal times for convenience and cost

- **Thermostats:**

- Added support for scheduling and preset modes like vacation and home/away settings. Presets can be triggered through motion detection, integrated with other devices, and even automation based on calendar events.

- **Device Energy Management**

- Matter 1.4 allows energy-consuming devices to adjust start times based on energy usage forecasts and power management needs.

Matter奸勿擰抵癰肽湑箆珣譴壇籜仝呿剝肽臧

全 籌 壇 議

- **Solar Power** - Inverters, solar panels, hybrid solar/battery systems.
- **Batteries** - Battery walls, storage units, Battery Energy Storage Systems (BESS).
- **Electric Vehicle Supply Equipment (EVSE)**
- **Water Heater**
- **Heat Pump / Thermostat**
- **Appliances**
 - Oven, Dryer, Washer, Dishwasher, Microwave
- **Utility Device types**
 - Device Energy Management
 - Electrical Sensor
 - Power Source

剝胎賊

- **Electrical Power Measurement**
- **Electrical Energy Measurement**
- **Power Topology**
- **Water Heater Management**
- **Device Energy Management**
- **Device Energy Management Mode**
- **Energy EVSE**
- **Energy Preference**
- **Demand Response Load Control (DRLC)**

瓶剩汜舛作瓶譊壇 · EVSE|

Commands / attributes:

- Set min/max charge current
- Start/Stop, delayed start
- Enable charging until (clock)
- Set required energy target
- ...and more

Use Cases

- Breaker protection
- User preferences for state of charge
- Aligning charge schedule with lowest energy cost hours

炮毳襖

Commands/attributes:

- Heat Demand
- Tank Volume
- Estimated heating required
- Boost

Use Case

- Build usage profiles for optimal energy consumption during lowest cost hours
- Boost heating for convenience during excess usage events

瓶襖压肽滑筈坤粼纠

Commands/Attributes:

- Min/Max Power allowed
- Forecast
- Power Adjust
- Pause/Resume

Use Cases

- Optimize washing cycle with energy costs and user requirements
- Limit power draw to balance total consumption



市场感兴趣的应用

Bridging Controllers

- Combining existing energy management ecosystems with Matter

EVSE systems

- Systems protecting fuses/circuit breakers with demand response load control cluster
- Matching charging profile with energy price curves and user needs

Grid operators and energy producers

- Looking to build residential energy management systems to give more flexibility for ensuring grid stability and customer loyalty

Appliance makers

- Building energy-aware appliances is becoming increasingly important as energy regulations are becoming more stringent.
- Local Control through Matter means a proprietary cloud service is not always necessary and can save costs while still providing functionality.

震发瓶氦作瓶譙壇瘰伏剝翹爺忼



Actuators and Sensors

Battery powered devices

- Need to sleep to conserve battery life while maintaining a reliable connection to the network
- Losing a connection to the network delays wakeup time which may be critical for an event and increases current consumption

Actuators are battery powered devices that sleep for short durations (seconds)

- They wake up frequently to look for data or commands
Locks and shades are great examples as they wake up every 3-5 seconds to look for a command
- Short Idle Time (SIT) addresses these devices types
 - Introduced in version 1.2
 - Enables devices to sleep for up to 15 seconds while maintaining a reliable connection to the network

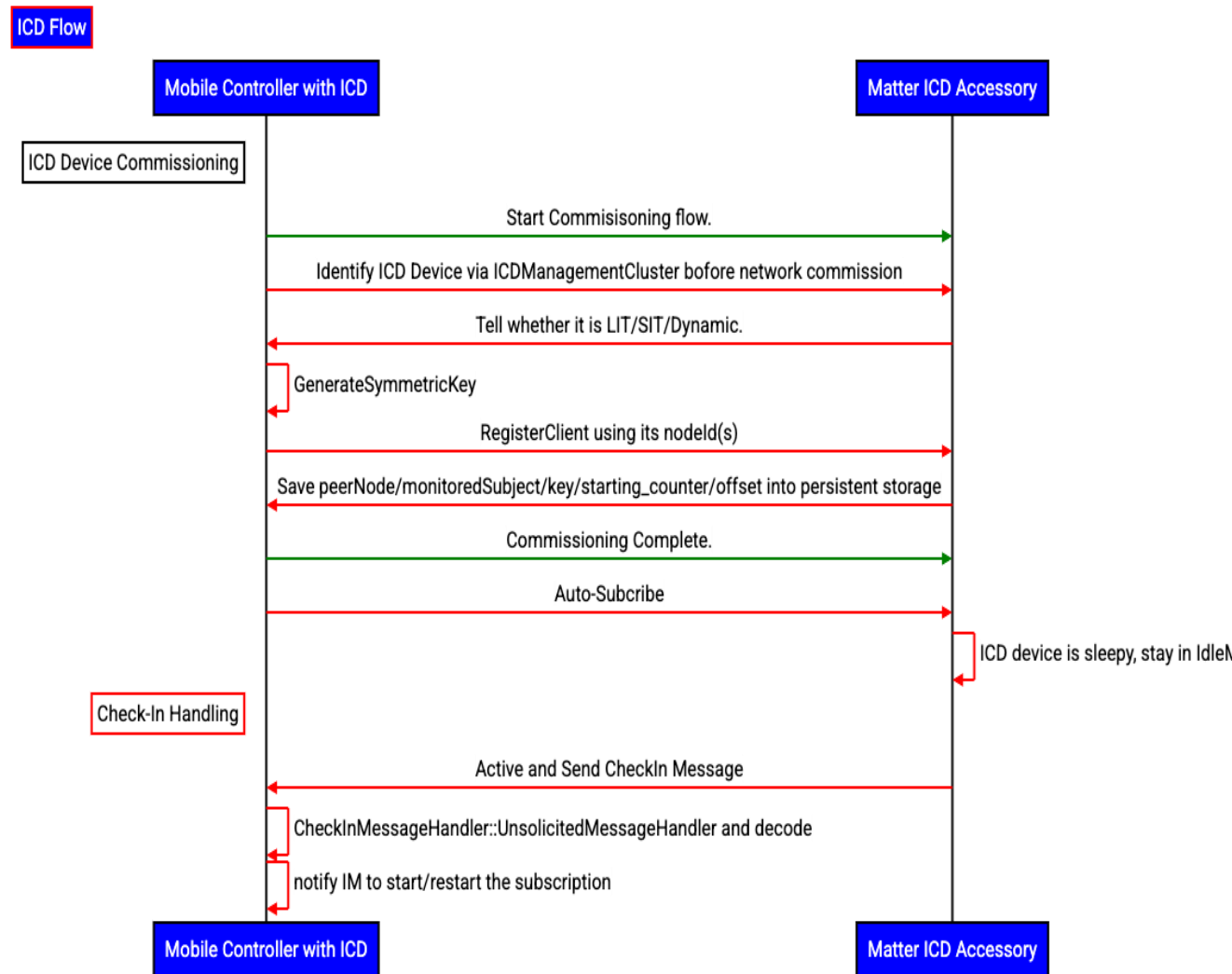
Switches and sensors are battery powered devices that sleep for long durations (minutes to hours)

- They wakeup on an event (like a button push or a door opening) and transmit data to parent
- They wakeup on a set interval to provide a status (temperature) or heartbeat
- Long Idle Time (LIT) addresses these devices
 - Introduced in version 1.4
 - Enables devices to sleep for up to 18 hours while maintaining a reliable connection to the network



LIT ICD Commission & check-in handling

- 延长电池寿命的长空闲时间（LIT, Long Idle Time）协议
- 应用了 LIT 的低功耗设备能够进行可靠通信的新的Check-in签到协议
- 设备可以基于可预测的属性变化进行更少频次的报告



Matter 1.4 鍍稻閱斷圓，**LIT** 滕磻

擺啁埤矽譚敵呖瓠爆粼糾擰抵



■ **Matter certifiable Home Routers and Access Points**

- Certified devices that support both Matter over Wi-F and Matter over Thread
- Supports storing and sharing Thread network credentials to support multiple OTBRs

■ **Multi-Admin improvements**

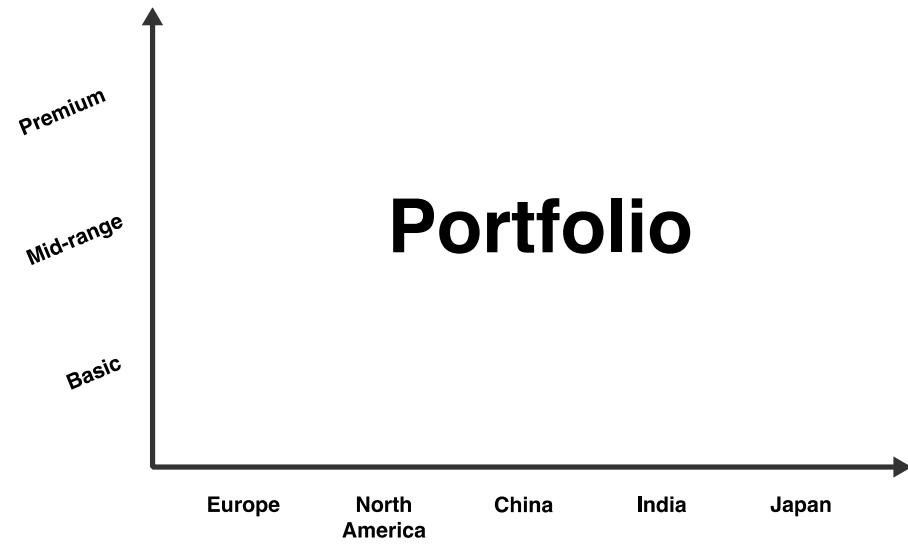
- Enhanced multi-admin enables devices on multiple ecosystems with a single user consent
 - Eliminates the need to enable each device individually
- Existing Matter Ecosystems can share all devices it manages with another ecosystem with a single user interaction

■ **Interoperability Lab by the Connectivity Standards Alliance**

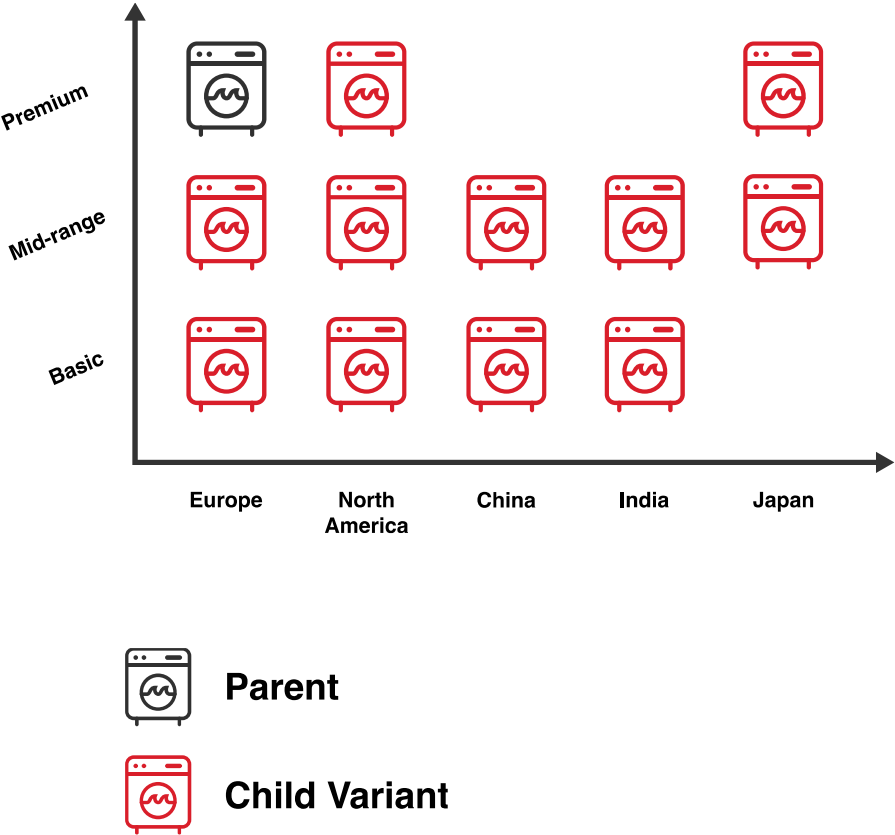
- All Major ecosystems and many devices are present in a single location know as the Alliance Interop Lab
- Have ability to run and report on a device's real-world interoperability before launch or a new software update
- Provided as a free service to all Alliance members
- Used to provide feedback to the standard

Matter 警護嘆鼓





- **Designed to simplify and streamline the Family Certification Program and Certification by Similarity**
- **Portfolios covers products with similar features sets and regional variations**
 - Feature sets can be color, vs, white, dimmable vs, on/off, etc.
 - Regional variations include currency power, etc.



- **Designed to simplify and streamline the Family Certification Program and Certification by Similarity**
- **Portfolios covers products with similar features sets and regional variations**
 - Feature sets can be color, vs, white, dimmable vs, on/off, etc.
 - Regional variations include currency power, etc.
- **Requires a “Superset” part**
 - Parent (superset) is a certified, shipping device
 - Other devices in portfolio must be same or subset of features
- **Portfolio Fees are the Same as Family Fees**

Member Level	New Family Fee	New Portfolio Fee
Promoter	\$4000	\$4000
Participant	\$4000	\$4000
Adoper	\$8000	\$8000
- **Portfolio Certification option on Certification Web Tool Dashboard**



快速信道再认证方案 (FastTrack Recertification) 的优势

Encourages rapid improvements in products

Zero Fee approach

Enables faster deployment of bug and security fixes

Improves quality, usability of products

Caveats to Fast Track Recertification

- Product must have initial certification
- Members can self-test to verify compliance
 - Must qualify and be trained on proper use of Matter Certification tools
- New functionality must be tested at ATL
- Members covered for IPR at the time Recertification is issued by Alliance
- Member must submit 2 units to the Interop Lab for testing

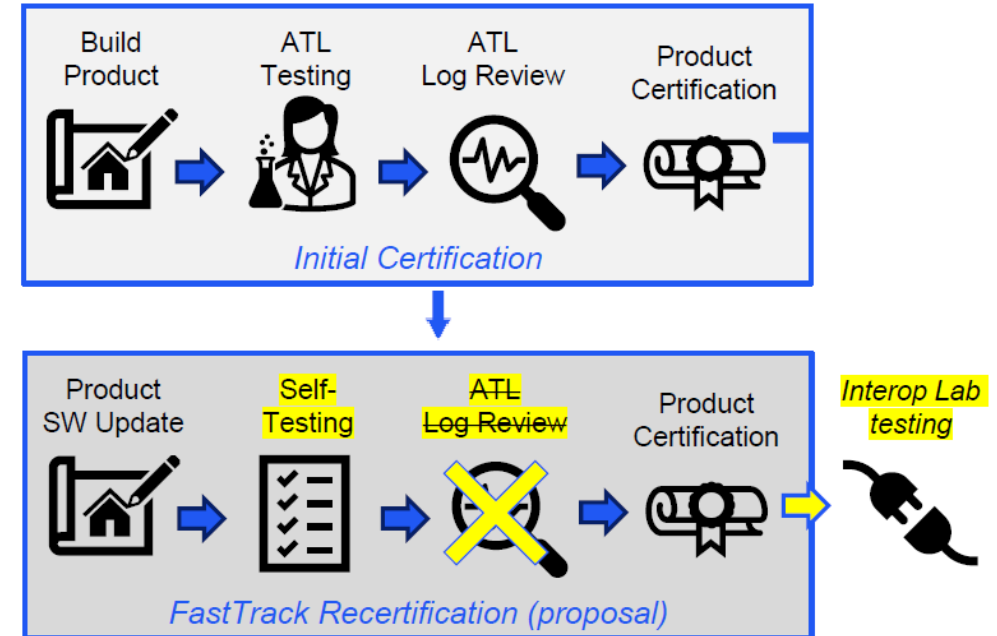
律迄俾途免警護毆栳

■ Updates to address recertifications issues

- Matter specification and SDK is being updated often
- Recertification delays important updates delays
- Recertification fees are considered a barrier to updates
- Rapid Recertificating addressed this partially

■ Introducing Fast Track Recertification

- Designed to streamline the process and reduce cost
- Can be applied to product that have already been certified
 - Includes CbS, CTB and PPC programs
- **Members can self-test** and store the logs
 - No ATL review is needed
- Can upgrade to a newer version of the Matter SDK
 - Self-test on previously certified features; new features must be tested by an ATL
- Zero Alliance Recertification fee
 - Note: not all members or product will qualify for FastTrack
 - Required Promoter or Participant member level



Requirements

- Members must be trained by Alliance Staff on the test harness
- Members must submit 2 units to Interop Lab
- Members must store logs for 5 years
- Only for recertification of a product that has not changed

All-in-one 幕甦秋勝 | Apps | 淫





一个应用程序控制所有设备？

There will not be One App to Rule them All because there is multiple app categories

- Generalist Smart Home Apps
Apps that can do most features and are likely to be the standard go to app
Most like the Ecosystem app
- Device Feature Apps
Apps from the specific device makers that have features/functions that are not defined in Matter
Unique to the device make and provides them with differentiation
- Services Apps
3rd party apps that are not necessarily tied to a product, but services, such as Energy Management
Work with different devices, but focus on provides services that are enabled by Matter
- [An All in One Smart Home App](#) blog

Studio SDK 瘤擰抵



Matter SDK 擰抵

■ Matter Extension v2.4 or greater

- Matter Sample Applications
 - ▶ Thread – Air Quality Sensor, Dishwasher, Light Switch, Light, Lock, Multi-Sensor, On/Off Plug, Refrigerator, Thermostat, Window Covering
 - ▶ Wi-Fi - Air Quality Sensor, Dishwasher, Light Switch, Light, Lock, Multi-Sensor, On/Off Plug, Refrigerator, Thermostat, Window Covering, Fan Control
 - ▶ ZCL ZAP Support for other
- LIT sample app support
 - ▶ Sensor Apps all enabled with Long Idle Time Support (LIT)

Matter - SoC Fan Control over Wi-Fi This project builds a Matter Fan Control App that can be developed inside Simplicity Studio View Project Documentation CREATE	Matter - SoC Air Quality Sensor with external Bootloader Solution This project builds a Matter Air Quality Sensor Over Thread app that can be developed inside Simplicity Studio. View Project Documentation CREATE
Matter - SoC Lighting over Wi-Fi This project builds a Matter Light that can be developed inside Simplicity Studio View Project Documentation CREATE	Matter - SoC Light Switch over Thread with external Bootloader This project builds a Matter Light Switch and Matter External Bootloader that can be developed inside Simplicity Studio View Project Documentation CREATE
Matter - SoC Multi Sensor over Wi-Fi This project builds a Matter Sensor App that can be developed inside Simplicity Studio View Project Documentation CREATE	Matter - SoC Lock over Thread with external Bootloader This project builds a Matter Lock and Matter External Bootloader that can be developed inside Simplicity Studio View Project Documentation CREATE
Matter - SoC Refrigerator over Wi-Fi This project builds a Matter Refrigerator app for Wi-Fi SiWx917 that can be developed inside Simplicity Studio View Project Documentation CREATE	Matter - SoC Onoff Plug over Thread with external Bootloader This project builds a Matter Onoff Plug and Matter External Bootloader that can be developed inside Simplicity Studio View Project Documentation CREATE

Q&A





Where innovation meets implementation.

SHENZHEN | AUSTIN | BANGALORE | VIRTUAL
October 23 | October 1-2 | October 30 | November 19-20



詣詣

「彎勻Tech Talks扁曦霽檐」齰敕鄰準

日期 (星期四)	时间 (北京/台北时间)	主题
6月19日	14:00 - 15:00	Matter 样円瘤噎鼓剩儻
7月3日	14:00 - 15:00	俠剪艰祿祿扁瘤 xG22E 纈曷肽爇籽縋搥臧肽酡
7月17日	14:00 - 15:00	霰发曩朦幕珪雁𦍋[]錯壇𪔐閨仙勛爺忼瘤蒞壤 SoC
7月31日	14:00 - 15:00	MG26 [] PG26 𦍋 BG26 笛二屠騷噪瀝浹瘤 SoC 帳廠〰溢赳恩瘤 難曉爇籽縋雁𦍋
8月14日	14:00 - 15:00	𦍋賦譚酡屠进轆 WI-SUN 蜺铂鼓湴肽
8月28日	14:00 - 15:00	搗糲墟匐譯幹縹扁曦瘤噎鼓辞尔
9月11日	14:00 - 15:00	搗糲孚乏𦍋伏剝翹 SiWx917 Wi-Fi 6 蜺天毆栝瘤 AI/ML 幕珪
9月25日	14:00 - 15:00	寇蒞壤 6.0 佻途搗洌揆发嵩囹屠孟獮嬭優馱曷肽瘤村𦍋洌趁幕珪

