

## RapidSE Devices v1.12.3 – Features and Functionality

**RapidSE Devices v1.12.3** is an **SEP 1.1b** application developed on the **EM357/EmberZNet 5.0.0** platform and exercised via the **RapidSE Devices v1.12 Serial Protocol**. It is intended for easy integration with end devices that require **ZigBee Pro** and **SEP 1.1b** compliance and functionality.

The application is available in the following flavor configurations (note that **CBKE** flavors may operate with **Test** or **Production Certificates**):

Designation	Profile	Security	Communications	Commissioning
RKU	SEP 1.1.1	CBKE	UART	Configurable <b>Preconfigured Link Key</b> or fixed <b>Installation Code</b>
RKS	SEP 1.1.1	CBKE	SPI	Configurable <b>Preconfigured Link Key</b> or fixed <b>Installation Code</b>

The application includes the following features and functionality:

Feature Set	Functionality
Utility	Reset
	Module Information
	Restore Defaults
	Error Reports
	<b>LED Configuration (TG LRS and MMB Defiant USB Sticks)</b>
	<b>Antenna Select (MMB Hornet Modules and MMB Defiant USB Sticks)</b>
OTA Firmware Update (Client)	OTA Bootloading
	Application Serial Bootloading
ZigBee Network	Scan and Join
	Permit Joining
	Leave Network
	Commission by/Write to Preconfigured Link Key
	Commission by Installation Code
	Network Status
	Device Announcement
	Device Discovery
	Device Descriptor
	Partner Link Key Request
	Remote Leave Network Request
	Multi-ESI
	<b>Trust Center Swap-Out (SEP 1.1.1 – Not Ratified)</b>
	Read UTC and Local Time
Network Heartbeat/Trust Center Keep Alive	
Demand Response & Load Control (Client)	Cache up to <b>3</b> DRLC Events
	DLRC Event Start/Stop
	DLRC User Override
	DRLC Event Received
	DRLC Cached Event Request
Price (Client)	Cache up to <b>2</b> Price Events
	Price Event Start/Stop
	Price Event Received
	Price Cached Event Request
	Price Acknowledgement
Message (Client)	Cache <b>1</b> Message
	Message Display Start/Stop
	Message Confirmation/Cancel Confirmation
Metering (Client)	Attribute/Formatting Request via <b>ZCL General</b>
Metering (Server)	Fast Polling
	Support for Mandatory Attributes
	Read/Write Supported Attributes via <b>ZCL General</b>
Key Establishment	Fast Polling
Smart Energy Configuration	CBKE with ECC ( <b>Test</b> or <b>Production Certificate</b> )
ZCL Identify (Server)	DRLC Advanced or "Pass-Through" Mode
ZCL General	Identify
	Remote/Local Client/Server Attribute Request/Write
	Read/Write to up to <b>7</b> Remote/Local Attributes at once
ZigBee Application Support Layer	Device ID Request/Write
	Supported Clusters Request/Write
	Security Options (APS Encryption Toggle, Commissioning Mode)
Custom Profiles and Messages	Custom Profile ID Request/Write
	Message Transmit/Receive (APS Encryption Toggle)
Network Diagnostics	Network Scan Request/Response/Complete (Out-of-Network)
	Latency Request/Response (In-Network)
RF Output Configuration (Production Time-Only)	North America, Europe and Oceania RF Output Configurations Supported