

Simultaneous Operation of SPP & BLE Mode

Application Note

TC35661-ROM501

Version 1.1

Document History

Version	Date	Author	Note
1.0	31.10.2013	ARE	Initial document version
1.1	22.11.2013	ARE	Advertising information added

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1. Acronyms

BT	Bluetooth
BLE	Bluetooth Low-Energy
LE	Low-Energy
MCU	Micro Controller Unit
MSC	Message Sequence Chart
SPP	Classic Serial Port Profile

2. References

- [1] Bluetooth Baseband LSI TC3661-ROM501 Low Energy Message Sequence chart.

3. Abstract

This document describes the simultaneous operation of TC3551-501 device in SPP classic and BLE mode.

4. Introduction

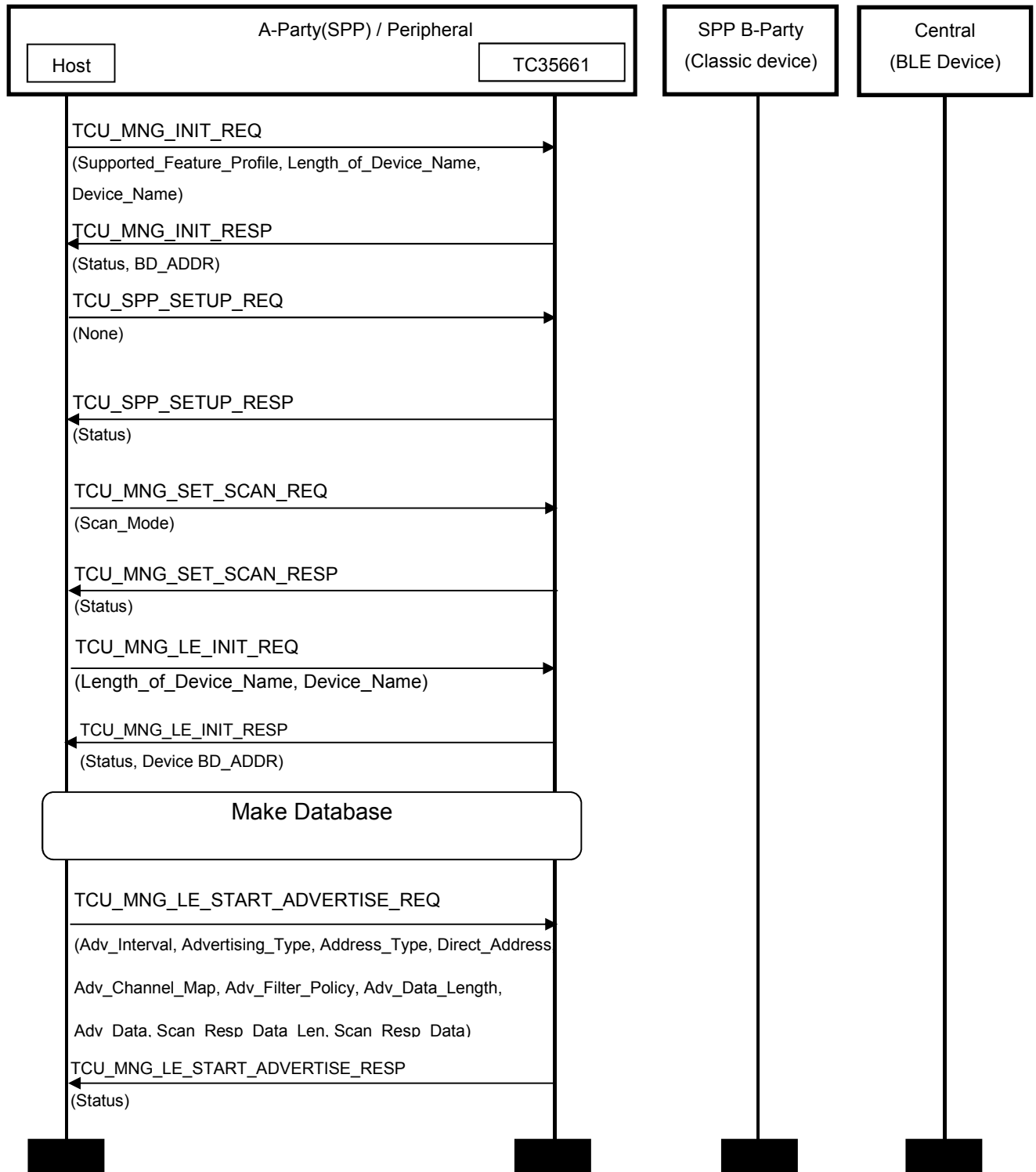
TC3551-501 is a Dual-Mode Bluetooth chip supporting both BT classic and Low-Energy operation modes. It encapsulates both: SPP classic profile and an entire low-energy protocol stack including GATT.

In case of simultaneous operation of SPP and BLE mode following rules applies:

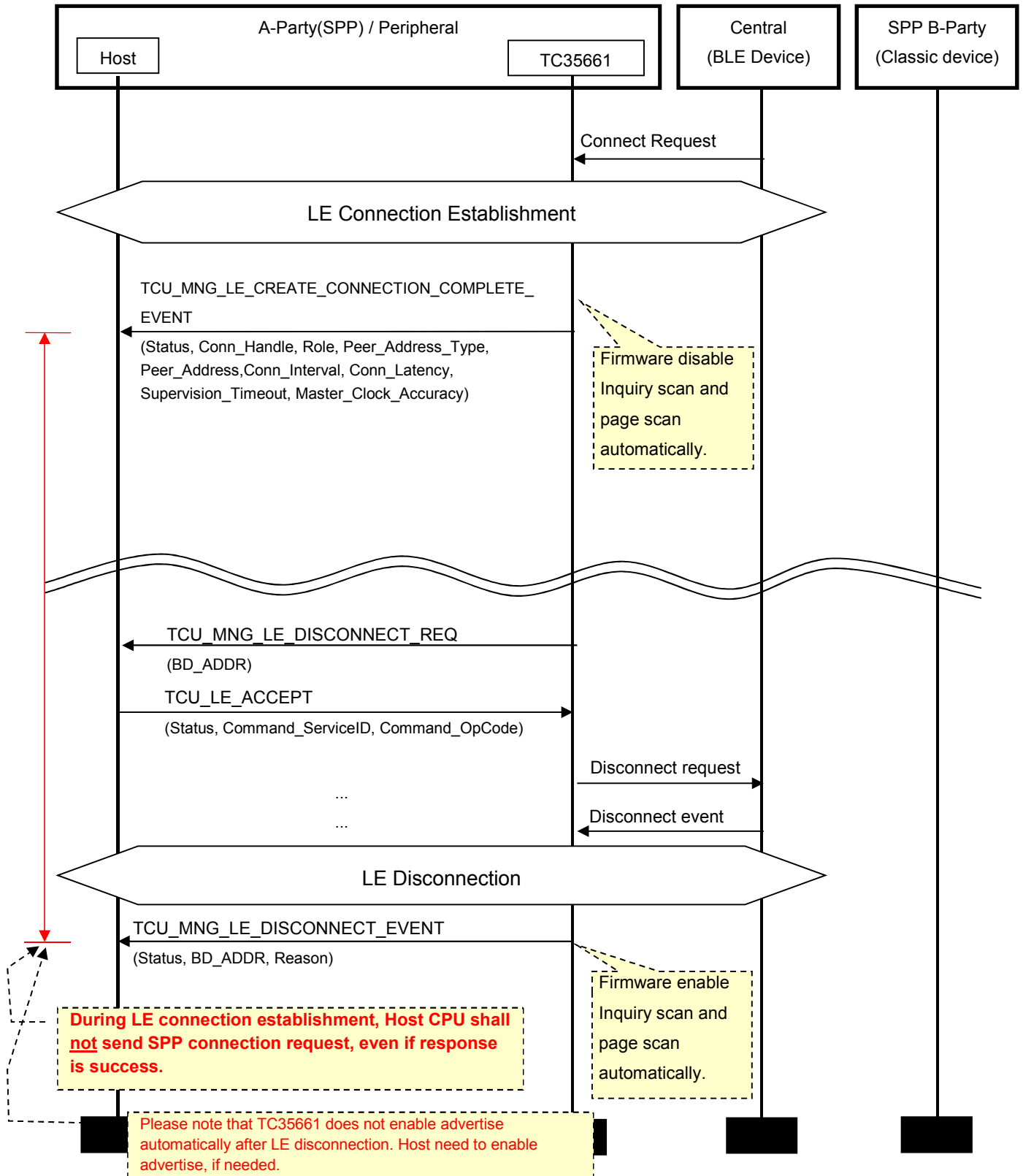
- Inquiry/Page scan and LE advertise can be executed at the same time.
- SPP and GATT connection are exclusive, meaning:
 - When **SPP** connection is established, **GATT** connection cannot be established without SPP disconnection.
 - When **GATT** connection is established, **SPP** connection cannot be established without GATT disconnection.

5. Simultaneous operation of SPP and BLE

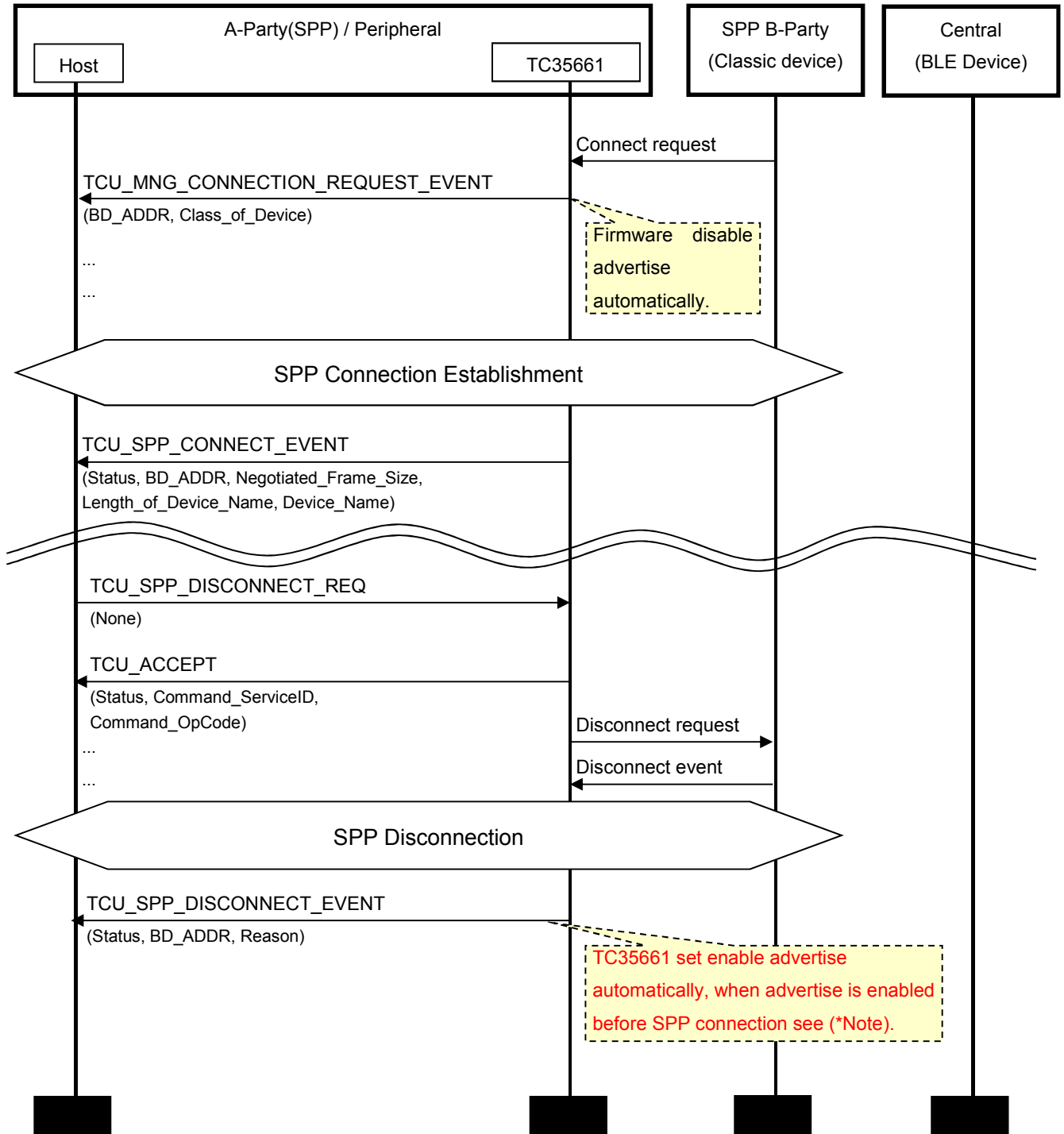
5.1. Device initialization for discoverable



5.2. Host receives LE connection request from local device



1.1 Host receives SPP connection request from local device



(Note) TC35661 does not set enable advertise automatically, when advertise is disabled before SPP connection.

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