Clicksie - Running

START (Factory Reset)

Undergoes Deep SLEEP Mode with Wake-ON GPIO falling edge INT

ASIST button long press ? — NO

YES

Wake Up From DEEP SLEEP

LOW BAT Indication by LED

BAT GOOD ? — NO

YES

Turn ON Radio, Enable Peripheral Mode with - Battery Service, Device Info Service, nRF UART Service, and nRF DFU Service

Generate 6 Digit PassKey from the serial number combination

LED stops blinking

Start Advertising with SC, MITM bit Bonding Flag are Set & PassKey option(generated from SN) + LED blinks 3Sec

If Timeout > 15Sec — YES / NO

Pairing Response Received ? — NO

YES

Verify PassKey

Disconnect

PassKey Match and Paired ? — NO

YES

A Request sent to APP for full verification over UART service

Retrieve SKC1/PKA1 keys from ROM

validity = EdDSA_Signature_Verify (LicenseID, PKA1,LicenseKey)

Receive APP Confirmation with LicenceID, License Key

APP Authentication Success ? — NO

Send APP Confirmation Fail flag

YES

SessionToken=RNG(4bytes) Signature = EdDSA_sign(MAC Address+Token+LicenseID, SKC1)

Send APP Confirmation Success flag, Token and Signature

Bond Formed and along with SessionToken are stored in ROM

Send APP a request to get the current TIME

Update RTC Register Values

APP Response with current TIME

LED stalls for 5 Sec and fade away

Undergoes SLEEP mode with RADIO OFF, RAM retention and Wake-ON GPIO falling edge INT

Clicksie is now able to accepts user inputs

START (Battery Replace)

Undergoes Deep SLEEP Mode with Wake-ON GPIO falling edge INT

ASIST button long press ? — NO

YES

Wake Up From DEEP SLEEP

LOW BAT Indication by LED

BAT GOOD ? — NO

YES

Turn ON Radio, Enable Peripheral Mode with - Battery Service, Device Info Service, nRF UART Service, and nRF DFU Service

Previous BOND information available in ROM ? — NO

YES

LED stops blinking

If Timeout > 15Sec — NO

Start Advertising with Whitelist + LED blinks 3Sec

Connect Response Received ? — NO