needCode.

Bring up a custom Qorvo UWB board in the right order

Work through the steps in order. Each one finds faults that would otherwise look like software bugs later.

- [ ] **1 Power and clocks**

  Measure the rails and the crystal before any software runs. A marginal supply or an untrimmed crystal produces symptoms that look like software bugs.

- [ ] **2 Reset**

  Drive RSTn low, release it and wait for the device to leave reset. Confirm on a scope that nothing pulls the line high.

- [ ] **3 SPI at low speed**

  Read the device ID register and compare it with the value Qorvo's driver expects. Nothing else is worth testing until this read is stable.

- [ ] **4 Interrupts**

  Trigger a known event. Confirm that IRQ fires, the polarity is right and your handler defers work to a thread or work queue.

- [ ] **5 Wake-up and sleep**

  Put the device to sleep, wake it with WAKEUP and check that the configuration survives as the driver expects.

- [ ] **6 Radio configuration and calibration**

  Load the configuration and the calibration values: crystal trim, transmit power and antenna delay, from OTP or your own storage.

- [ ] **7 Transmit and receive sanity checks**
  Send and receive simple frames between your board and a known-good kit before attempting ranging.

- [ ] **8 First ranging**
  Run single-sided or double-sided two-way ranging against a reference device at a measured distance, then FiRa sessions if your product needs them.

- [ ] **9 Raise the SPI clock**
  Increase the frequency step by step while repeating the ID read and ranging tests, and keep a margin below the datasheet limit.

- [ ] **10 Bluetooth LE alongside UWB**
  On nRF hosts, check that Bluetooth LE radio scheduling does not delay timing-critical UWB operations such as delayed transmissions.

- [ ] **11 Automate it**
  Turn each step into a test that runs on hardware in CI, so the next board revision or SDK update repeats the whole sequence.

Bring-up record

Board and revision _____ **SDK and driver version** _____

Highest stable SPI clock _____ **Antenna delay value** _____

Tested by _____ **Date** _____