All Bluetooth frequency hopping applications should include the following:

1. Please describe when the EUT enters into hybrid mode (per Section 15.247(f)), i.e., when in page and inquiry modes.

Inquiry and paging modes are only used to monitor members of the system and to establish the initial connection between communicating units. These functions are randomly selected from 32 channels in a very brief interval of time (in a few milliseconds). After the connection is made, the system goes into a pseudo random 79 channel hopping sequence for data transmission. The pseudo random sequence is selected by the master unit system clock and all units within a specific system are synchronized to the same sequence.
Please see the file that already sent to you. (page 1 of Description of FHSS to FCC)

2. Please provide an example of the hopping sequence used by the EUT.

Example for Test mode (79 hopping channel)

The following is an example of possible 79 channel hopping sequences with channels identified as 1 through 79. The channel numbering scheme starts with channel 1 at 2402 MHz with the 79th channel then appearing at 2480 MHz as channel 79.

Sequence example for Connection State:

55, 42, 63, 50, 53, 26, 61, 34, 12, 76, 20, 05, 10, 60, 18, 68
08, 44, 16, 52, 06, 28, 14, 36, 43, 70, 51, 78, 41, 54, 49, 62
39, 38, 47, 46, 37, 22, 45, 30, 75, 72, 04, 01, 73, 56, 02, 64
71, 40, 00, 48, 69, 24, 77, 32, 12, 25, 20, 33, 08, 09, 16, 17

Example for Inquiry and Page mode (32 hopping channel)

The following are two examples of possible hopping sequences for Inquiry and Page mode.

Sequence example for Inquiry State:
55, 71, 34, 62, 39, 10, 30, 74, 57, 73, 42, 70, 41, 75, 38, 48
43, 59, 16, 44, 27, 77, 12, 56, 45, 61, 24, 52, 29, 00, 20, 50

Sequence example for Page State:
75, 04, 72, 01, 73, 02, 56, 64, 71, 00, 40, 48, 69, 77, 24, 32
59, 67, 74, 03, 57, 65, 58, 66, 55, 63, 42, 50, 53, 61, 26, 34

3. Please address Section 15.247(a)(1): does the EUT rx have an input bandwidth matching the transmitted signal bandwidth, and, does the EUT rx have the capability to hop in synchronization with the transmitted signal?

The receiver bandwidth is 1 MHz.
In the receiver of the Bluetooth unit, the received signal is downconverted by intermediate frequency of 1MHz and is filtered by low pass filter whose bandwidth is 1MHz. And a

quadricorrelator type is used as demodulator.

Each Bluetooth device has a unique device address called BD Address and a system clock called Bluetooth clock of 32kHz. The hopping sequence is generated by using BD Address and Bluetooth clock of “Master” unit. So “Master” unit makes other “Slave” units know own BD Address and Bluetooth clock.
In Inquiry State and Page State, “Master” unit sends to other “Slave” units these information included in the packet. The “Slave” units can calculate the clock offset by comparing the received “Master” clock with own clock. After that, the hopping frequency can be synchronized between two communicating units.

4. Does the EUT comply with Section 15.247(g) with respect to transmitting a lengthy data stream?

Hopping frequencies are selected by pseudo random sequence so that each frequency must be used equally on the average. The slot length of Bluetooth is separated by 625 microsecond and Bluetooth specifications allow a multi-slots packet using these slots, up to five slots without an interval.
As for the timing for Tx and Rx, please see the file that already sent to you.
(page 3 of Description of FHSS to FCC)

5. Does the EUT comply with Section 15.247(h) with respect to non-coordination?

Hopping sequence selection for a system is controlled by the master unit within a specific system. The sequence is selected by a combination of address codes and master unit system clock. There are no provisions for coordination between various systems.