

Confidential



Bluetooth Test Mode



Cypress

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2 Introduction

The purpose of this document is to document the HCI commands required to be sent to the Bluetooth controller by a Bluetooth Host stack so that the Bluetooth controller may enter Test Mode. Complete details of these commands can be found in the BLUETOOTH SPECIFICATION. This documented set of commands are intended for use with a Cypress Bluetooth BR/EDR and BLE controller.

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3 Perform a Bluetooth Controller Reset

Send HCI command HCI_RESET

Issue the HCI commands listed from 3 through 8 to enter Test Mode for BR/EDR

7.3.2 Reset Command

Command	OCF	Command Parameters	Return Parameters
HCI_Reset	0x0003		Status

Return Parameters:

Status:

Size: 1 Octet

Value	Parameter Description
0x00	Reset command succeeded, was received and will be executed.
0x01-0xFF	Reset command failed. See "Error Codes" on page 339 [Part D] for a list of error codes and descriptions.

Command: [03 0C 00]

opcode = 0xC03 (3075, "Reset")

Response: [0E 04]: 01 03 0C 00

event = 0xE (14, "Command Complete")

Num_HCI_Command_Packets = 0x1 (1)

Command_Opcode = 0xC03 (3075, "Reset")

Status = 0x0 (0, "Success")

- 4 Set auto accept connection as this is needed during test mode
Send HCI command HCI_SET_EVENT_FILTER

7.3.3 Set Event Filter Command

Command	OCF	Command Parameters	Return Parameters
HCI_Set_Event_Filter	0x0005	Filter_Type, Filter_Condition_Type, Condition	Status

Filter_Type:

Size: 1 Octet

Value	Parameter Description
0x00	Clear All Filters (Note: In this case, the Filter_Condition_Type and Condition parameters should not be given, they should have a length of 0 octets. Filter_Type should be the only parameter.)
0x01	Inquiry Result.
0x02	Connection Setup.
0x03-0xFF	Reserved for future use.

Connection_Setup_Filter_Condition_Type:

Size: 1 Octet

Value	Parameter Description
0x00	Allow Connections from all devices.
0x01	Allow Connections from a device with a specific Class of Device.
0x02	Allow Connections from a device with a specific BD_ADDR.
0x03-0xFF	Reserved for future use.

Condition for Connection_Setup_Filter_Condition_Type = 0x00

Condition:

Size: 1 Octet

Auto_Accept_Flag:

Size: 1 Octet

Value	Parameter Description
0x01	Do NOT Auto accept the connection. (Auto accept is off)
0x02	Do Auto accept the connection with role switch disabled. (Auto accept is on).
0x03	Do Auto accept the connection with role switch enabled. (Auto accept is on). Note: When auto accepting an incoming synchronous connection, no role switch will be performed. The value 0x03 of the Auto_Accept_Flag will then get the same effect as if the value had been 0x02.
0x04 – 0xFF	Reserved for future use.

Return Parameters:

Status:

Size: 1 Octet

Value	Parameter Description
0x00	Set_Event_Filter command succeeded.
0x01-0xFF	Set_Event_Filter command failed. See Part D, Error Codes for a list of error codes and descriptions.

Set the parameter(s) as follows:

Filter type should be 0x02, Connection Set Up.

Filter Condition Type – 0x00, Allow Connections from all devices

Condition – 0x02, Do Auto accept the connection with role switch disabled

Command: [05 0C 03]: 02 00 02

opcode = 0xC05 (3077, "Set_Event_Filter")

Filter_Type = 0x2 (2, "Connection Setup")

Connection_Setup_Filter_Condition_Type = 0x0 (0, "Allow Connections from all devices")

Auto_Accept_Flag = 0x2 (2, "Do Auto accept the connection with role switch disabled")

Response: [0E 04]: 01 05 0C 00

event = 0xE (14, "Command Complete")

Num_HCI_Command_Packets = 0x1 (1)

Command_Opcode = 0xC05 (3077, "Set_Event_Filter")

Status = 0x0 (0, "Success")

5 Put device in connectable mode

Send HCI command HCI_Write_Page_Scan_Activity

7.3.20 Write Page Scan Activity Command

Command	OCF	Command Parameters	Return Parameters
HCI_Write_Page_Scan_Activity	0x001C	Page_Scan_Interval, Page_Scan_Window	Status

Command Parameters:

Page_Scan_Interval: *Size: 2 Octets*

Value	Parameter Description
	See Section 6.8 on page 481

Page_Scan_Window: *Size: 2 Octets*

Value	Parameter Description
	See Section 6.9 on page 481

Return Parameters:

Status: *Size: 1 Octet*

Value	Parameter Description
0x00	Write_Page_Scan_Activity command succeeded.
0x01-0xFF	Write_Page_Scan_Activity command failed. See Part D, Error Codes for a list of error codes and descriptions.

Set the parameter(s) as follows:

Page_Scan_Interval - 0x0800

Page_Scan_Window - 0x0012

Command: [1C 0C 04]: 00 08 12 00

opcode = 0xC1C (3100, "Write_Page_Scan_Activity")

Page_Scan_Interval = 0x800 (2048, slots)

Page_Scan_Window = 0x12 (18, slots)

Response: [0E 04]: 01 1C 0C 00

event = 0xE (14, "Command Complete")

Num_HCI_Command_Packets = 0x1 (1)

Command_Opcode = 0xC1C (3100, "Write_Page_Scan_Activity")

Status = 0x0 (0, "Success")

- 6 Put device to discoverable mode
 Send HCI command HCI_Write_Scan_Enable

7.3.18 Write Scan Enable Command

Command	OCF	Command Parameters	Return Parameters
HCI_Write_Scan_Enable	0x001A	Scan_Enable	Status

Command Parameters:

Scan_Enable:

Size: 1 Octet

Value	Parameter Description
0x00	No Scans enabled. Default.
0x01	Inquiry Scan enabled. Page Scan disabled.
0x02	Inquiry Scan disabled. Page Scan enabled.
0x03	Inquiry Scan enabled. Page Scan enabled.
0x04-0xFF	Reserved

Return Parameters:

Status:

Size: 1 Octet

Value	Parameter Description
0x00	Write_Scan_Enable command succeeded.
0x01-0xFF	Write_Scan_Enable command failed. See Part D, Error Codes for a list of error codes and descriptions.

Set the parameter(s) as follows:

Scan_Enable = 0x03, Inquiry Scan enabled, Page Scan enabled

Command: [1A 0C 01]: 03

opcode = 0xC1A (3098, "Write_Scan_Enable")

Scan_Enable = 0x3 (3, "Inquiry and Page Scan enabled")

Response: [0E 04]: 01 1A 0C 00

Event = 0xE (14, "Command Complete")

Num_HCI_Command_Packets = 0x1 (1)

Command_Opcode = 0xC1A (3098, "Write_Scan_Enable")

Status = 0x0 (0, "Success")

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- 7 Mask off all events from controller
 - Send HCI command HCI_Set_Event_Mask

7.3.1 Set Event Mask Command

Command	OCF	Command Parameters	Return Parameters
HCI_Set_Event_Mask	0x0001	Event_Mask	Status

Event_Mask: Size: 8 Octets (Array of 8 bytes) – Set to all 0x00 to disable events to Host.

Return Parameters:

Status:

Size: 1 Octet

Value	Parameter Description
0x00	Set_Event_Mask command succeeded.
0x01-0xFF	Set_Event_Mask command failed. See Part D, Error Codes for error codes and descriptions.

Set the parameter(s) as follows:

Event_Mask = 0x0000000000000000, No Events

Command: [01 0C 08]: 00 00 00 00 00 00 00 00

opcode = 0xC01 (3073, "Set_Event_Mask")

Event_Mask = 0x0 (0, "")

Event_Mask (63:32) = 0x0 (0, "")

Response:

Set_Event_Mask

HCI Command Complete Event

[0E 04]: 01 01 0C 00

Event = 0xE (14, "Command Complete")

Num_HCI_Command_Packets = 0x1 (1)

Command_Opcode = 0xC01 (3073, "Set_Event_Mask")

Status = 0x0 (0, "Success")

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8 Enable Test Mode

Send HCI command HCI_Enable_Device_Under_Test_Mode

7.6.3 Enable Device Under Test Mode Command

Command	OCF	Command Parameters	Return Parameters
HCI_Enable_Device_Under_Test_Mode	0x0003		Status

Return Parameters:

Status:

Size: 1 Octet

Value	Parameter Description
0x00	Enter_Device_Under_Test_Mode command succeeded.
0x01-0xFF	Enter_Device_Under_Test_Mode command failed. See Part D, Error Codes on page 370 for a list of error codes and descriptions.

Command: [03 18 00]

Opcode = 0x1803 (6147, "Enable_Device_Under_Test_Mode")

Response: [0E 04]: 01 03 18 00

event = 0xE (14, "Command Complete")

Num_HCI_Command_Packets = 0x1 (1)

Command_Opcode = 0x1803 (6147, "Enable_Device_Under_Test_Mode")

Status = 0x0 (0, "Success")

9 Frequently Used Test Cases

9.1 Set continuous radio transmission mode

To enable continuous radio transmission at a fixed frequency on the Bluetooth Controller, use below command sequence:

First, send **HCI_Reset** command

- Command: [03 0C 00]
- Response: [0E 04]: 01 03 0C 00

Next, send **Set_Tx_Carrier_Frequency_ARM** vendor specific command

- Command: [14 FC 07 *Param1* ... *Param7*]
- Response: [0E 04]: 01 14 FC 00

e.g. [14 FC 07 00 27 01 00 09 00 00] will generate continuous wave at carrier 2439MHz in maximum output power level with PRBS9 pattern

Set_Tx_Carrier_Frequency_ARM

OCF 0x0014

Description:

Set radio in manual mode for TX tests

Command Parameters:

Param1 - Carrier_Enable

Size: 1 byte

Used to turn the carrier on and off

Values:

Value	Description
0x0	Carrier on
0x1	Carrier off

Param2 - Carrier_Frequency_Encoded

Size: 1 byte

Bluetooth frequency minus 2400

Example: To set the fixed frequency at 2439, give Param2=0x27 (i.e. 2439-2400=39)

Param3 - Mode

Size: 1 byte

Selects unmodulated or modulated with pattern

Values:

Value	Description
0x0	Unmodulated
0x1	PRBS9
0x2	PRBS15
0x3	All Zeros
0x4	All Ones
0x5	Incrementing Symbols

Param4 - Modulation Type

Size: 1 byte

1 Mbps, 2Mbps, or 3 Mbps selection, ignored if Mode is Unmodulated

Values:

Value	Description
0x0	GFSK
0x1	QPSK
0x2	8PSK

Param5 - Transmit_Power Size: 1 byte

Requested power table index

Values:

Value	Description
0x0	0 dBm
0x1	-4 dBm
0x2	-8 dBm
0x3	-12 dBm
0x4	-16 dBm
0x5	-20 dBm
0x6	-24 dBm
0x7	-28 dBm
0x8	Specify Power in dBm
0x9	Specify Power Table index

Note: To enable maximum output power, set Param5=0x9 Param6=0x0 Param7=0x0.

Param6 - Transmit_Power_dBm Size: 1 byte

If Transmit_Power is Integer override, requested output power in dbm

Param7 - Transmit_Power_Table_Index Size: 1 byte

If Transmit_Power is Table index override, requested table index

Return Parameters:

Status Size: 1 byte

Error code per Bluetooth Core Specification

9.2 Connectionless Bluetooth packets transmission and receiving

9.2.1 Transmission test

To enable the Bluetooth Controller to repeatedly transmit Bluetooth packets in connectionless mode, use below command sequence:

First, send **HCI_Reset** command

- Command: [03 0C 00]
- Response: [0E 04]: 01 03 0C 00

Next, send **Tx_Test** vendor specific command

- Command: [51 FC 10 *Param1* ... *Param10*]
- Response: [0E 04]: 01 51 FC 00

e.g. [51 FC 10 06 05 04 03 02 01 00 00 04 01 0F 00 00 00 00 00] will set local used BDADDR as 010203040506 and repeatedly transmit ACL DH5 packet with PRBS pattern when hopping through all 79 Bluetooth channels.

Tx_Test	OCF 0x051
---------	-----------

Description:

Connectionless transmit test to send Bluetooth packets

Command Parameters:

Param1 - Local_Device_BD_ADDR (little endian)	Size: 6 bytes
--	---------------

BD_ADDR for the **local** device.

Param2 - Hopping_Mode	Size: 1 byte
------------------------------	--------------

Set the hopping mode. The fixed pattern hopping mode will transmit a repeating pattern.

Values:

Value	Description
0x0	79 channels
0x1	Single frequency

0x2	Fixed pattern
-----	---------------

Param3 - Frequency	Size: 1 byte
---------------------------	--------------

When Hopping_Mode is 'Single Frequency' this param sets the frequency

Values:

Value	Description
0x00	2402 MHz
0x01	2403 MHz
0x02	2404 MHz
0x03	2405 MHz
0x04	2406 MHz
0x05	2407 MHz
0x06	2408 MHz
0x07	2409 MHz
0x08	2410 MHz
0x09	2411 MHz
0x0A	2412 MHz
0x0B	2413 MHz
0x0C	2414 MHz
0x0D	2415 MHz
0x0E	2416 MHz
0x0F	2417 MHz
0x10	2418 MHz

0x11	2419 MHz
0x12	2420 MHz
0x13	2421 MHz
0x14	2422 MHz
0x15	2423 MHz
0x16	2424 MHz
0x17	2425 MHz
0x18	2426 MHz
0x19	2427 MHz
0x1A	2428 MHz
0x1B	2429 MHz
0x1C	2430 MHz
0x1D	2431 MHz
0x1E	2432 MHz
0x1F	2433 MHz
0x20	2434 MHz
0x21	2435 MHz
0x22	2436 MHz
0x23	2437 MHz
0x24	2438 MHz
0x25	2439 MHz
0x26	2440 MHz

0x27	2441 MHz
0x28	2442 MHz
0x29	2443 MHz
0x2A	2444 MHz
0x2B	2445 MHz
0x2C	2446 MHz
0x2D	2447 MHz
0x2E	2448 MHz
0x2F	2449 MHz
0x30	2450 MHz
0x31	2451 MHz
0x32	2452 MHz
0x33	2453 MHz
0x34	2454 MHz
0x35	2455 MHz
0x36	2456 MHz
0x37	2457 MHz
0x38	2458 MHz
0x39	2459 MHz
0x3A	2460 MHz
0x3B	2461 MHz
0x3C	2462 MHz

0x3D	2463 MHz
0x3E	2464 MHz
0x3F	2465 MHz
0x40	2466 MHz
0x41	2467 MHz
0x42	2468 MHz
0x43	2469 MHz
0x44	2470 MHz
0x45	2471 MHz
0x46	2472 MHz
0x47	2473 MHz
0x48	2474 MHz
0x49	2475 MHz
0x4A	2476 MHz
0x4B	2477 MHz
0x4C	2478 MHz
0x4D	2479 MHz
0x4E	2480 MHz

Param4 - Modulation_Type

Size: 1 byte

Sets the data pattern that is continuously transmitted

Values:

Value	Description
0x1	0x00 8-bit Pattern

0x2	0xFF 8-bit Pattern
0x3	0xAA 8-bit Pattern
0x9	0xF0 8-bit Pattern
0x4	PRBS9 Pattern

Param5 - Logical_Channel

Size: 1 byte

Sets the logical channel. Only ACL Basic is supported if the Hopping_Mode is Fixed pattern.

Values:

Value	Description
0x0	ACL EDR
0x1	ACL Basic
0x2	eSCO EDR
0x3	eSCO Basic
0x4	SCO Basic

Param6 - BB_Packet_Type

Size: 1 byte

Sets the packet type. Only DH1 / 2-DH1 is supported if the Hopping_Mode is Fixed pattern.

Values:

Value	Description
0x0	NULL
0x1	POLL
0x2	FHS
0x3	DM1
0x4	DH1 / 2-DH1
0x5	HV1

0x6	HV2 / 2-EV3
0x7	HV3 / EV3 / 3-EV3
0x8	DV / 3-DH1
0x9	AUX1 / PS
0xA	DM3 / 2-DH3
0xB	DH3 / 3-DH3
0xC	EV4 / 2-EV5
0xD	EV5 / 3-EV5
0xE	DM5 / 2-DH5
0xF	DH5 / 3-DH5

Param7 - BB_Packet_Length (little endian)

Size: 2 bytes

The length in bytes for the BB Packet type selected

Note: To get highest duty cycle, use below settings:

Packet Type	Length
DH1	27
DH3	183
DH5	339
2-DH1	54
2-DH3	367
2-DH5	679
3-DH1	83
3-DH3	552

3-DH5	1021
-------	------

Note: When BB_Packet_Length=0x0, the Bluetooth Controller firmware will use max length for the selected BB_Packet_Type.

Param8 - Tx_Power_Level	Size: 1 byte
--------------------------------	--------------

Sets the Tx output power in dbm

Values:

Value	Description
0x0	0 dBm
0x1	-4 dBm
0x2	-8 dBm
0x3	-12 dBm
0x4	-16 dBm
0x5	-20 dBm
0x6	-24 dBm
0x7	-28 dBm
0x8	Specify Power in dBm
0x9	Specify Power Table index

Param9 - Transmit_Power_dBm	Size: 1 byte
------------------------------------	--------------

If Tx_Power_Level is Integer override, requested output power in dbm

Note: When intends to give specific power level in dBm, set Param8=0x8 and specify Param9 with a value in range of -127 ~ +128. For example, -4dBm (Param9=0xFC), -5dBm (Param9=0xFB), -6dBm (Param9=0xFA), etc.

Param10 - Transmit_Power_Table_Index	Size: 1 byte
---	--------------

If Tx_Power_Level is Table index override, requested table index

Note: To enable maximum output power, set Param8=0x9 Param9=0x0 Param10=0x0.

Return Parameters:

Status	Size: 1 byte
Error code per Bluetooth Core Specification	

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9.2.2 Receiving test

To enable the Bluetooth Controller in connectionless receiver mode to accept incoming Bluetooth packets, use below command sequence:

First, send **HCI_Reset** command

- Command: [03 0C 00]
- Response: [0E 04]: 01 03 0C 00

Next, send **Rx_Test** vendor specific command

- Command: [52 FC 0E *Param1 ... Param7*]
- Response: [0E 04]: 01 52 FC 00

e.g. [52 FC 0E 06 05 04 03 02 01 E8 03 00 04 01 0F 00 00] will have Bluetooth Controller hop through all 79 Bluetooth channels and attempt to receive ACL DH5 packets with PRBS pattern from a remote device BDADDR=010203040506. Bluetooth Controller then reports statistic data in every 1000 ms to the Host Processor.

Rx_Test	OCF 0x052
---------	-----------

Description:

Connectionless receive test for Bluetooth packets

Command Parameters:

Param1- Remote_Device_BD_ADDR (little endian)	Size: 6 bytes
--	---------------

BD_ADDR of the **remote** transmitting device

Param2 - Report_Period (little endian)	Size: 2 bytes
---	---------------

The report period in milliseconds.

For example, 1000 milliseconds = 0x3e8 (which is e8 03 in little endian).

Param3 - Frequency

Size: 1 byte

When Hopping_Mode for the peer Tx_Test is Single frequency, sets the receive test frequency. When Hopping_Mode for the peer Tx_Test is Fixed pattern, the Frequency value for the corresponding Tx_Test should likewise be Fixed pattern. The Fixed pattern hopping mode will cause the Rx_Test to attempt synchronization with a transmitter which is transmitting the fixed pattern.

Values:

Value	Description
0x00	2402 MHz
0x01	2403 MHz
0x02	2404 MHz
0x03	2405 MHz
0x04	2406 MHz
0x05	2407 MHz
0x06	2408 MHz
0x07	2409 MHz
0x08	2410 MHz
0x09	2411 MHz
0x0A	2412 MHz
0x0B	2413 MHz
0x0C	2414 MHz
0x0D	2415 MHz
0x0E	2416 MHz

0x0F	2417 MHz
0x10	2418 MHz
0x11	2419 MHz
0x12	2420 MHz
0x13	2421 MHz
0x14	2422 MHz
0x15	2423 MHz
0x16	2424 MHz
0x17	2425 MHz
0x18	2426 MHz
0x19	2427 MHz
0x1A	2428 MHz
0x1B	2429 MHz
0x1C	2430 MHz
0x1D	2431 MHz
0x1E	2432 MHz
0x1F	2433 MHz
0x20	2434 MHz
0x21	2435 MHz
0x22	2436 MHz
0x23	2437 MHz
0x24	2438 MHz

0x25	2439 MHz
0x26	2440 MHz
0x27	2441 MHz
0x28	2442 MHz
0x29	2443 MHz
0x2A	2444 MHz
0x2B	2445 MHz
0x2C	2446 MHz
0x2D	2447 MHz
0x2E	2448 MHz
0x2F	2449 MHz
0x30	2450 MHz
0x31	2451 MHz
0x32	2452 MHz
0x33	2453 MHz
0x34	2454 MHz
0x35	2455 MHz
0x36	2456 MHz
0x37	2457 MHz
0x38	2458 MHz
0x39	2459 MHz
0x3A	2460 MHz

0x3B	2461 MHz
0x3C	2462 MHz
0x3D	2463 MHz
0x3E	2464 MHz
0x3F	2465 MHz
0x40	2466 MHz
0x41	2467 MHz
0x42	2468 MHz
0x43	2469 MHz
0x44	2470 MHz
0x45	2471 MHz
0x46	2472 MHz
0x47	2473 MHz
0x48	2474 MHz
0x49	2475 MHz
0x4A	2476 MHz
0x4B	2477 MHz
0x4C	2478 MHz
0x4D	2479 MHz
0x4E	2480 MHz
0xF0	Fixed pattern

Param4 - Modulation_Type

Size: 1 byte

Sets the data pattern that is continuously received

Values:

Value	Description
0x1	0x00 8-bit pattern
0x2	0xFF 8-bit pattern
0x3	0xAA 8-bit pattern
0x9	0xF0 8-bit pattern
0x4	PRBS9 pattern

Param5 - Logical_Channel

Size: 1 byte

Sets the logical channel. Only ACL Basic is supported if the Frequency is set to Fixed pattern.

Values:

Value	Description
0x0	ACL EDR
0x1	ACL Basic
0x2	eSCO EDR
0x3	eSCO Basic
0x4	SCO Basic

Param6 - BB_Packet_Type

Size: 1 byte

Sets the packet type. Only DH1 / 2-DH1 is supported if the Frequency is set to Fixed pattern.

Values:

Value	Description
0x3	DM1
0x4	DH1 / 2-DH1
0x5	HV1

0x6	HV2 / 2-EV3
0x7	HV3 / EV3 / 3-EV3
0x8	DV / 3-DH1
0x9	AUX1
0xA	DM3 / 2-DH3
0xB	DH3 / 3-DH3
0xC	EV4 / 2-EV5
0xD	EV5 / 3-EV5
0xE	DM5 / 2-DH5
0xF	DH5 / 3-DH5

Param7 - BB_Packet_Length (little endian)	Size: 2 bytes
--	---------------

The length in bytes for the BB Packet type selected

Note: When BB_Packet_Length=0x0, the Bluetooth Controller firmware will assume maximum length of the selected BB_Packet_Type.

Return Parameters:

Status	Size: 1 byte
---------------	--------------

Error code per Bluetooth Core Specification

10 LE transmitter and receiver tests

10.1 LE transmitter test

To enable LE transmitter test function, use below command sequence:

First, send **HCI_Reset** command

- Command: [03 0C 00]
- Response: [0E 04]: 01 03 0C 00

Next, send **HCI_LE_Transmitter_Test** (0x201E)

- Command: [1E 20 03 *Param1 ... Param3*]
- Response: [0E 04]: 01 1E 20 00

e.g. [1E 20 03 00 20 07] will have Controller transmit 32-byte payload data packet with repeated '01010101' pattern at 2042MHz.

send **HCI_LE_Test_End** (0x201F) to stop on-going test before sending the other HCI_LE_Transmitter_Test command

- [1F 20 00]

HCI_LE_Transmitter_Test	OCF 0x001E
-------------------------	------------

Description:

Generate test reference packets at a fixed interval with maximum power.

Command Parameters:

Param1- TX_Channel	Size: 1 bytes
---------------------------	---------------

$N = (\text{Frequency} - 2402) / 2$. Frequency range: 2042MHz to 2480MHz.

Param2 – Length_Of_Test_Data	Size: 1 bytes
-------------------------------------	---------------

Length in bytes of payload data in each packet.

Param3 – Packet_Payload

Size: 1 byte

Values:

Value	Description
0x0	PRBS9
0x1	Repeated '11110000'
0x2	Repeated '10101010'
0x3	PRBS15
0x4	Repeated '11111111'
0x5	Repeated '00000000'
0x6	Repeated '00001111'
0x7	Repeated '01010101'

Return Parameters:**Status**

Size: 1 byte

Error code per Bluetooth Core Specification

10.2 LE receiver test

To enable LE receiver test function, use below command sequence:

First, send **HCI_Reset** command

- Command: [03 0C 00]
- Response: [0E 04]: 01 03 0C 00

Next, send **HCI_LE_Receiver_Test** (0x201D)

- Command: [1D 20 01 *Param1*]
- Response: [0E 04]: 01 1D 20 00

e.g. [1D 20 01 00] will have Controller set at 2042MHz and receive test packets from Tx tester.

send **HCI_LE_Test_End** (0x201F) to stop receiver test

- [1F 20 00]

HCI_LE_Receiver_Test	OCF 0x001D
----------------------	------------

Description:

Start receiver test for receiving test reference packets at a fixed interval.

Command Parameters:

Param1- RX_Channel	Size: 1 bytes
--------------------	---------------

$N = (\text{Frequency} - 2402) / 2$. Frequency range: 2042MHz to 2480MHz.

Return Parameters:

Status	Size: 1 byte
--------	--------------

Error code per Bluetooth Core Specification