# EFI Byte Code Virtual Machine Test

## EFI\_EBC\_PROTOCOL Test

Reference Document:

*UEFI Specification*, EFI\_EBC\_PROTOCOL Section.

### CreateThunk()

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| --- | --- | --- | --- |
| Number | GUID | Assertion | Test Description |
| 5.15.1.1.1 | 0x5de39abd, 0xe9d4, 0x4fee, 0xb4, 0xdd, 0x31, 0x73, 0xb7, 0x35, 0xe3, 0x20 | EFI\_EBC\_PROTOCOL.CreateThunk - Calling CreateThunk() with an invalid Parameters returns EFI\_INVALID\_PARAMETER. | Call CreateThunk() when the EBC image entry point is not 2-byte aligned.  The return code should be EFI\_INVALID\_PARAMETER. |
| 5.15.1.1.2 | 0x6f19a253, 0xc6ff, 0x41a3, 0xa5, 0x8b, 0xa4, 0x57, 0x16, 0xe1, 0x2f, 0x4c | EFI\_EBC\_PROTOCOL.CreateThunk - Calling CreateThunk() to create ebc thunk returns EFI\_SUCCESS. | Call CreateThunk() to create thunk for the EBC image.  The return code should be EFI\_SUCCESS. |
| 5.15.1.1.3 | 0xcabc5c1e, 0x75a0, 0x4349, 0xab, 0xd8, 0x41, 0x17, 0x7b, 0x25, 0x9e, 0x8a | EFI\_EBC\_PROTOCOL.CreateThunk – Calling CreateThunk() invokes the Ebc entry point. | Call CreateThunk() to create thunk for the EBC image and invokes the thunk.  The entry point of EBC image must be invoked. |

### UnloadIImage()

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| Number | GUID | Assertion | Test Description |
| 5.15.1.2.1 | 0x99c53b53, 0x0998, 0x4fda, 0xaa, 0x4e, 0x9c, 0xc4, 0x9a, 0x1c, 0x8a, 0x19 | EFI\_EBC\_PROTOCOL.UnloadImage - Calling UnloadImage() with an invalid Parameters returns EFI\_INVALID\_PARAMETER. | Call UnloadImage() when the image handle is not recognized as belonging to an EBC image that has been executed.  The return code should be EFI\_INVALID\_PARAMETER. |
| 5.15.1.2.2 | 0xecea2853, 0xe14e, 0x493b, 0x9a, 0xb3, 0xcd, 0xa4, 0xc8, 0x32, 0x2c, 0x3e | EFI\_EBC\_PROTOCOL.UnloadImage - Calling UnloadImage() unloads ebc thunk. | Call UnloadImage() to unload the EBC image from memory.  The return code should be EFI\_SUCCESS. |

### RegisterICacheFlush()

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| Number | GUID | Assertion | Test Description |
| 5.15.1.3.1 | 0xf362b36f, 0x819d, 0x45a4, 0xa5, 0xc7, 0xa0, 0x0a, 0x81, 0x2b, 0xf3, 0x5f | EFI\_EBC\_PROTOCOL.RegisterICacheFlush - Calling RegisterICacheFlush() registers an ebc callback function. | Call RegisterICacheFlush() to register a callback function.  The return code should be EFI\_SUCCESS. |
| 5.15.1.3.2 | 0x26480c1d, 0xac79, 0x46e5, 0xa4, 0xff, 0xec, 0x3e, 0xd5, 0x99, 0x87, 0xec | EFI\_EBC\_PROTOCOL.RegisterICacheFlush - Callback function is invoked after calling CreateThunk(). | 1. Call RegisterICacheFlush() to register a callback function.  2. Call CreateThunk() to create thunk for an EBC image.  The callback function should be invoked. |

### GetVersion()

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| Number | GUID | Assertion | Test Description |
| 5.15.1.4.1 | 0xce787a92, 0x1ee8, 0x4f65, 0xb7, 0x7c, 0xb4, 0xcd, 0xcf, 0xcd, 0xd3, 0xf2 | EFI\_EBC\_PROTOCOL.GetVersion - Calling GetVersion() when version pointer is NULL and returns EFI\_INVALID\_PARAMETER. | Call GetVersion() when version pointer is NULL.  The return code should be EFI\_INVALID\_PARAMETER. |
| 5.15.1.4.2 | 0x57100f81, 0xe05a, 0x4abf, 0x93, 0xc2, 0x49, 0x1c, 0xf8, 0xd4, 0xb6, 0x7c | EFI\_EBC\_PROTOCOL.GetVersion - Calling GetVersion() to get ebc interpreter version returns EFI\_SUCCESS. | Call GetVersion() to get the version of the EBC interpreter.  The return code should be EFI\_SUCCESS. |