# Protocols Compression Test

## EFI\_DECOMPRESS\_PROTOCOL Test

Reference Document:

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

### GetInfo()

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| Number | GUID | Assertion | Test Description |
| 5.13.1.1.1 | 0xb4929cbe, 0x0d83, 0x481f, 0x89, 0xc7, 0xb8, 0xbd, 0x49, 0x05, 0x7c, 0xae | EFI\_DECOMPRESS\_PROTOCOL.GetInfo - Calling GetInfo() returns EFI\_SUCCESS. | 1. Get the Compressed file name and uncompressed file size from the profile.  2. Read the Compressed file into memory  3. Call GetInfo() to retrieve the decompression info.  The returned status should be EFI\_SUCCESS. |
| 5.13.1.1.2 | 0x1c5d4afb, 0x66b2, 0x4ff3, 0xb9, 0x20, 0x6a, 0x21, 0x32, 0x62, 0x9f, 0xae | EFI\_DECOMPRESS\_PROTOCOL.GetInfo - Calling GetInfo() returns a DestinationSize that is equal to the Uncompressed File Size. | 1. Get the Compressed file name and uncompressed file size from the profile.  2. Read the Compressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  The returned DestinationSize should equal the Uncompressed File Size gotten from the profile. |
| 5.13.1.1.3 | 0x01a92787, 0x0d15, 0x4213, 0x92, 0x06, 0x8a, 0x3a, 0xb4, 0xa3, 0xba, 0x54 | EFI\_DECOMPRESS\_PROTOCOL.GetInfo - Calling GetInfo() the second time returns EFI\_SUCCESS. | 1. Get the Compressed file name and uncompressed file size from the profile.  2. Read the Compressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call GetInfo() again.  The returned status should be EFI\_SUCCESS. |
| 5.13.1.1.4 | 0xb80b38e3, 0x3f4c, 0x43e0, 0xb8, 0x6d, 0x5b, 0x01, 0x38, 0xbd, 0x0f, 0x3e | EFI\_DECOMPRESS\_PROTOCOL.GetInfo - Calling GetInfo() the second time returns a DestinationSize that is equal to the DestinationSize returned after the first call. | 1. Get the Compressed file name and uncompressed file size from the profile.  2. Read the Compressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call GetInfo() again.  The returned DestinationSize should be the same value as the first time. |
| 5.13.1.1.5 | 0x43ee9ff0, 0x4867, 0x4fe6, 0xac, 0x09, 0x72, 0x0a, 0x33, 0x8b, 0x80, 0xd8 | EFI\_DECOMPRESS\_PROTOCOL.GetInfo - Calling GetInfo() the second time returns a ScratchSize that is equal to the ScratchSize returned after the first call. | 1. Get the Compressed file name and uncompressed file size from the profile.  2. Read the Compressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call GetInfo() again.  The returned ScratchSize should be the same value as the first time. |
| 5.13.1.1.6 | 0x66c06d59, 0x77ab, 0x4bc6, 0x98, 0x20, 0xbf, 0x01, 0x60, 0xd6, 0x1e, 0x6a | EFI\_DECOMPRESS\_PROTOCOL.GetInfo - Calling GetInfo() with SourceSize < 8 returns EFI\_INVALID\_PARAMETER. | Call GetInfo() with SourceSize < 8.  The returned status should be EFI\_INVALID\_PARAMETER. |

### Decompress()

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| Number | GUID | Assertion | Test Description |
| 5.13.1.2.1 | 0x37d2514e, 0x27f0, 0x4182, 0xb7, 0x13, 0x14, 0xf4, 0xbf, 0x53, 0xbb, 0xae | EFI\_DECOMPRESS\_PROTOCOL.Decompress – Calling Decompress() on a 0 length file returns EFI\_SUCCESS. | 1. Get the Compressed file name and uncompressed file name from the profile.  2. Read the Compressed file and uncompressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call Decompress() with the compressed file buffer.  The returned status should be EFI\_SUCCESS. |
| 5.13.1.2.2 | 0xf2665735, 0x8992, 0x47bc, 0xb2, 0x99, 0x8a, 0x00, 0x32, 0xab, 0x59, 0x93 | EFI\_DECOMPRESS\_PROTOCOL.Decompress - Calling Decompress() on a 0 length file does not modify the buffer. | 1. Get the Compressed file name and uncompressed file name from the profile.  2. Read the Compressed file and uncompressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call Decompress() with the compressed file buffer.  If the uncompressed file size is 0, the destination buffer should not be modified. |
| 5.13.1.2.3 | 0x8eceea13, 0x34ce, 0x43af, 0xbf, 0x9c, 0xb8, 0x3d, 0xe6, 0x32, 0x29, 0x69 | EFI\_DECOMPRESS\_PROTOCOL.Decompress - Calling Decompress() on a non‑0 file returns EFI\_SUCCESS. | 1. Get the Compressed file name and uncompressed file name from the profile.  2. Read the Compressed file and uncompressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call Decompress() with the compressed file buffer.  The returned status should be EFI\_SUCCESS. |
| 5.13.1.2.4 | 0xd8aa9038, 0xc3d1, 0x4f9c, 0x9d, 0xbb, 0x3c, 0xc8, 0x6d, 0xee, 0xd1, 0xe6 | EFI\_DECOMPRESS\_PROTOCOL.Decompress – After calling Decompress() on a non‑0 file, the Decompressed data is equal to the Uncompressed data. | 1. Get the Compressed file name and uncompressed file name from the profile.  2. Read the Compressed file and uncompressed file into memory.  3. Call GetInfo() to retrieve the decompression info.  4. Call Decompress() with the compressed file buffer.  If the uncompressed file size is non-0, the Decompressed data should be equal to the Uncompressed file data. |
| 5.13.1.2.5 | 0x9e6e6f21, 0x15f3, 0x4b0c, 0x9a, 0x9a, 0x17, 0xfc, 0xab, 0x5c, 0x54, 0x23 | EFI\_DECOMPRESS\_PROTOCOL.Decompress - After calling Decompress() with an invalid compressed file, the returned status is EFI\_INVALID\_PARAMETER. | 1. Get the invalid compressed format file name from the profile.  2. Call GetInfo() to retrieve the decompression info.  3. Call Decompress() with an invalid compress format buffer.  The returned status should be EFI\_INVALID\_PARAMETER. |
| 5.13.1.2.6 | 0xe145f85e, 0xcc48, 0x42d4, 0xab, 0x48, 0xb5, 0x16, 0x2f, 0xc3, 0xef, 0xae | EFI\_DECOMPRESS\_PROTOCOL.Decompress - Calling Decompress() with an incorrect SourceSize ( SourceSize - 1 ) returns EFI\_INVALID\_PARAMETER. | 1. Read the Compressed file into memory and save the buffer pointer.  2. Call GetInfo() to retrieve the decompression info.  3. Call Decompress() with incorrect SourceSize ( SourceSize - 1 )  The returned status should be EFI\_INVALID\_PARAMETER. |
| 5.13.1.2.7 | 0xfdc75fd3, 0x3a02, 0x48e5, 0x8d, 0x7f, 0x0b, 0x14, 0x75, 0xb5, 0xcf, 0x1c | EFI\_DECOMPRESS\_PROTOCOL.Decompress - Calling Decompress() with SourceSize < 8 returns EFI\_INVALID\_PARAMETER. | 1. Read the Compressed file into memory and save the buffer pointer.  2. Call GetInfo() to retrieve the decompression info.  3. Call Decompress() with SourceSize < 8.  The returned status should be EFI\_INVALID\_PARAMETER. |