# EFI Tape IO to Test

## EFI\_TAPE\_IO\_PROTOCOL Test

Reference Document:

*UEFI Specification*, EFI\_TAPE\_IO\_PROTOCOL Section.

Configuration

Before testing of TapeRead() and TapeSapce(), we must make tape ready by calling TapeWrite() and TapeWriteFM() to write some blocks and some FileMarks.

Required Elements

### TapeRead()

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| --- | --- | --- | --- |
| Number | GUID | Assertion | Test Description |
| 12.5.1.0.1 | 0xc42dcb51, 0x5101, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | check input parameters of testing EFI\_TAPE\_IO\_PROTOCOL.TapeRead()**.** | Check interface/environment valid. |
| 12.5.1.1.1 | 0xc42dcb51, 0x5102, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRead() read some data from the tape. | Call TapeRead() with (bufferSize=16384) should return EFI\_SUCCESS.  Exit testing when error occurred.  Please note the configuration. |
| 12.5.1.1.2 | 0xc42dcb51, 0x512f, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | Verify the data getting from step **(12.5.1.1.1)**. | After success of step **(12.5.1.1.1)** check reading data is all correctly or not. |
| 12.5.1.2.1 | 0xc42dcb51, 0x5103, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRead() Buffer invalid checking test. | Call TapeRead() with (bufferSize!=0,Buffer=NULL) should return EFI\_INVALID\_PARAMETER. |
| 12.5.1.2.2 | 0xc42dcb51, 0x5104, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRead() This=NULLchecking test. | Call TapeRead()with (This =NULL) should return EFI\_INVALID\_PARAMETER. |
| 12.5.1.3.1 | 0xc42dcb51, 0x5105, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRead()parameters valid checking test. | Call TapeRead() with (bufferSize=0,buffer=NULL) should return EFI\_SUCCESS. |
| 12.5.1.3.2 | 0xc42dcb51, 0x5107, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRead()parameters valid checking test. | Call TapeRead() with (bufferSize=0,buffer!=NULL) should return EFI\_SUCCESS. |

### TapeWrite()

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| Number | GUID | Assertion | Test Description |
| 12.5.2.0.1 | 0xc42dcb51, 0x5108, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | check input parameters of testing EFI\_TAPE\_IO\_PROTOCOL.TapeWrite(). | Check interface/environment valid. |
| 12.5.2.1.1 | 0xc42dcb51, 0x5109, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWrite() write some data to the tape. | Call TapeWrite() with (bufferSize=16384) should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.2.2.1 | 0xc42dcb51, 0x510a, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWrite() Buffer invalid checking test. | Call TapeWrite() with (bufferSize!=0,Buffer=NULL) should return EFI\_INVALID\_PARAMETER. |
| 12.5.2.2.2 | 0xc42dcb51, 0x510b, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWrite()This invalid checking test. | Call TapeWrite() with (This =NULL) should return EFI\_INVALID\_PARAMETER. |
| 12.5.2.3.1 | 0xc42dcb51, 0x510c, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWrite() parameters valid checking test A. | Call TapeWrite() with (bufferSize=0,buffer=NULL**)** should return EFI\_SUCCESS. |
| 12.5.2.3.2 | 0xc42dcb51, 0x510e, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWrite()parameters valid checking test B. | Call TapeWrite() with (bufferSize=0,buffer!=NULL) should return EFI\_SUCCESS. |

### TapeRewind()

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| Number | GUID | Assertion | Test Description |
| 12.5.3.0.1 | 0xc42dcb51, 0x5110, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | check input parameters of testing EFI\_TAPE\_IO\_PROTOCOL.TapeRewind(). | Check interface/environment valid. |
| 12.5.3.1.1 | 0xc42dcb51, 0x5111, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRewind() rewind the tape. | Call TapeRewind() should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.3.2.1 | 0xc42dcb51, 0x5112, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeRewind()parameters Thisinvalid checking test. | Call TapeRewind(NULL) should return EFI\_INVALID\_PARAMETER. |

### TapeSpace()

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| Number | GUID | Assertion | Test Description |
| 12.5.4.0.1 | 0xc42dcb51, 0x5118, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | check input parameters of testing EFI\_TAPE\_IO\_PROTOCOL.TapeSpace(). | Check interface/environment valid. |
| 12.5.4.1.0 | 0xc42dcb51, 0x511f, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace() make the tape testing ready. | Call TapeRewind() for tape ready.  Exit testing when error occurred.  Please note the configuration. |
| 12.5.4.1.1 | 0xc42dcb51, 0x5119, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace() space some BLOCKs | Call TapeSpace() with (spaceType = TAPE\_SPACE\_TYPE\_BLOCK) should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.4.1.2 | 0xc42dcb51, 0x511e, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace() space some FILEMARKs | Call TapeSpace() with (spaceType = TAPE\_SPACE\_TYPE\_FILEMARK) should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.4.2.1 | 0xc42dcb51, 0x511a, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace() spaceDir < 0 testing | Call TapeSpace() with (spaceDir < 0) should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.4.3.1 | 0xc42dcb51, 0x511b, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace() spaceDir = 0 testing | Call TapeSpace() with(spaceDir = 0)should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.4.4.1 | 0xc42dcb51, 0x511c, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace() spaceDir > 0 testing | Call TapeSpace() with (spaceDir > 0)should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.4.5.1 | 0xc42dcb51, 0x511d, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeSpace()parameter spaceType invalid checking test. | Call TapeSpace() with invalid spaceType should return EFI\_INVALID\_PARAMETER. |

### TapeWriteFM()

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| Number | GUID | Assertion | Test Description |
| 12.5.5.0.1 | 0xc42dcb51, 0x5120, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | check input parameters of testing EFI\_TAPE\_IO\_PROTOCOL.TapeWriteFM(). | Check interface/environment valid. |
| 12.5.5.1.1 | 0xc42dcb51, 0x5121, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWriteFM(**)** write some FileMarks to the tape. | Call TapeWriteFM() with **(**Count=1) should return EFI\_SUCCESS.  Exit testing when error occurred. |
| 12.5.5.2.1 | 0xc42dcb51, 0x5122, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeWriteFM() parameter Thisinvalid checking test. | Call TapeWriteFM(NULL) should return EFI\_INVALID\_PARAMETER. |

### TapeReset()

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| Number | GUID | Assertion | Test Description |
| 12.5.6.0.1 | 0xc42dcb51, 0x5128, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | check input parameters of testing EFI\_TAPE\_IO\_PROTOCOL.TapeReset(). | Check interface/environment valid. |
| 12.5.6.1.1 | 0xc42dcb51, 0x5129, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeReset() reset the tape. | Call TapeReset() with **(**extendReset=TRUE) should return EFI\_SUCCESS. |
| 12.5.6.1.2 | 0xc42dcb51, 0x512a, 0x4d36, 0xba,0x07, 0x9e,0xfc, 0x66,0xd1, 0x00,0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeReset() reset the tape. | Call TapeReset() with (extendReset=FALSE) should return EFI\_SUCCESS. |
| 12.5.6.2.1 | 0xc42dcb51, 0x5122, 0x4d36, 0xba, 0x07, 0x9e, 0xfc, 0x66, 0xd1, 0x00, 0xde | EFI\_TAPE\_IO\_PROTOCOL.TapeReset()parameter This invalid checking test. | Call TapeReset() with invalid parameters (This=NULL) should return EFI\_INVALID\_PARAMETER. |