|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Address 42, 4 Byte Data 0xAD918752** | | | | | | | |
| Bit7 (MSB) | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 (LSB) |
| Block1 | | | | | | | |
| Lead Header | | Length + Data Bit31 | | | Data | | |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| Block 2 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| Block 3 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| Block 4 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Block 5 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Block 6 | | | | | | | |
| End Header | | Address-1 | | | | | |
| 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Address 64, 2 Byte Data 0x4E48** | | | | | | | |
| Bit7 (MSB) | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 (LSB) |
| Block1 | | | | | | | |
| Lead Header | | Length | | | Data | | |
| 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| Block 2 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| Block 3 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Block 4 | | | | | | | |
| End Header | | Address-1 | | | | | |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Address 10, 10 Bit Data 0x026E** | | | | | | | |
| Bit7 (MSB) | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 (LSB) |
| Block1 | | | | | | | |
| Lead Header | | Length | | | Data | | |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| Block 2 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| Block 3 | | | | | | | |
| End Header | | Address-1 | | | | | |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Address 1, 1 Byte Data 0x6E** | | | | | | | |
| Bit7 (MSB) | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 (LSB) |
| Block1 | | | | | | | |
| Lead Header | | Length | | | Data | | |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| Block 2 | | | | | | | |
| Data Header | Data | | | | | | |
| 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| Block 3 | | | | | | | |
| End Header | | Address-1 | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Address 5, 1 Bit Data 0x01** | | | | | | | |
| Bit7 (MSB) | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 (LSB) |
| Block1 | | | | | | | |
| Lead Header | | Length | | | Data | | |
| 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| Block 2 | | | | | | | |
| End Header | | Address-1 | | | | | |
| 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Command 13** | | | | | | | |
| Bit7 (MSB) | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 (LSB) |
| Block1 | | | | | | | |
| Lead Header | | Command + Bit3 | | | Data | | |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |

|  |  |  |
| --- | --- | --- |
| **Header definition** | | |
| Bit1 | Bit0 | Definition |
| 0 | 0 | Data |
| 0 | 1 | Data |
| 1 | 0 | End |
| 1 | 1 | Lead |

|  |  |  |  |
| --- | --- | --- | --- |
| **Length definition** | | | |
| Bit2 | Bit1 | Bit0 | Definition |
| 0 | 0 | 0 | Reserved/Command Bit3=0 |
| 0 | 0 | 1 | Reserved/Command Bit3=1 |
| 0 | 1 | 0 | 2 Blocks |
| 0 | 1 | 1 | 3 Blocks |
| 1 | 0 | 0 | 4 Blocks |
| 1 | 0 | 1 | 5 Blocks |
| 1 | 1 | 0 | 6 Blocks + Data Bit31=0 |
| 1 | 1 | 1 | 6 Blocks + Data Bit31=1 |

|  |  |
| --- | --- |
| **NHP\_Enum\_t** | |
| Value | Definition |
| 1-64 | Address |
| 0 | In progress reading |
| -1 | Command |
| -2 | Lead Error |
| -3 | Data Error |
| -4 | End Error |
| -5 | Checksum Error |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Reserved Addresses + Data(with Checksum)** | | | | |
| Address | Usage | Values | Data structure | Project |
| 0x01 | 0x01 | ID | (~((Usage<<8) | ID)<<16) | (Usage<<8) | ID | Hoodloader |

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Checksum** | | | |
| Byte3 | Byte2 | Byte1 | Byte0 |
| ~Data1 | ~Data0 | Data1 | Data0 |