Header File Descriptions

See ENVI Help for a complete list of field descriptions
Blue denotes a user-defined field

Note that not all files will have all fields

Field — **Description**

description — A character string describing the image or the processing performed.

samples — The number of samples (spatial pixels) per image line (frame) for each band.

lines — The number of lines (frames) per image for each band.

bands — The number of bands per image file.

header offset — The number of bytes of imbedded header information present in the file. ENVI skips these bytes when reading the file.

file type — The ENVI-defined file type, such as a certain data format and processing result. The available file types are listed in the ENVI *filetype.txt* file. The file type ASCII string must match an entry in the *filetype.txt* file verbatim, including case.

data type — The type of data representation (see ENVI Help for a complete listing of the 15 supported data type descriptions).

Type	Description
4	32-bit single precision floating point
5	64-bit double precision floating point

interleave — Refers to whether the data are interleaved as BSQ (band sequential), BIP (band interleaved by pixel), or BIL (band interleaved by line).

sensor type — The available sensor types are listed in the ENVI *sensor.txt* file. The sensor type ASCII string defined here must match one of the entries in the *sensor.txt* file verbatim, including case. Mako, SEBASS, SEBASS-2, *etc* should be added to this file to prevent ENVI from overwriting this entry with "unknown". This may not be necessary in the later ENVI releases?

byte order — The byte storage order used.

Byte Order	Description
0	Host (Intel), least significant byte first (LSF), little endian
1	Network (IEEE), most significant byte first (MSF), big endian

wavelength units — Text string indicating the wavelength units.

default stretch — Determines what type of stretch (% linear, linear range, Gaussian, equalization, square root) to use when ENVI displays the image.

spatial channel key — The spatial channel number to which the wavelengths are keyed to remove the spectral smile by interpolation.

wavecoef — The wavelength coefficients (a_{00}, a_{01}, a_{02}, a_{10}, a_{11}, a_{12}, and a_{20}) used to determine the wavelength arrays for each spatial channel number. $\lambda\ (i,j) = \text{SQRT}\ [a_{00} + a_{01} * j + a_{02} * j^2 + a_{10} * i + a_{11} * i * j + a_{12} * i * j^2 + a_{20} * i^2]$. Where i and j are the spectral and spatial channel numbers on the array [i, j = (0, 1, 2, …)]. Unused (higher order) coefficients are set to zero. **Note: Remove the SQRT for the Mako sensor.**

wavelength — Lists the center wavelength values of each band in an image. Units should be the same as those used for the fwhm field (described next) and set in the wavelength units parameter.

band names	Allows entry of specific names for each band of an image.