**Description**: This version of the minxss\_fm1\_respnse\_structure.sav contains almost all the relevant information to fit spectra, calculate estimated signals and create an estimated incident photon flux from a measured count rate.

**Call sequence**: minxss\_detector\_response.*tag\_name*

**Structure content and details:**

Structure <70f72ba0>, 51 tags, length=2246192, data length=2246180, refs=1:

VERSION STRING 'V1'

VERSION\_DATE STRING '2016-05-23'

FLIGHT\_MODEL STRING 'FM1'

PHOTON\_ENERGY DOUBLE Array[3099]

PHOTON\_ENERGY\_UNITS

STRING 'keV'

PHOTON\_WAVELENGTH

DOUBLE Array[3099]

PHOTON\_WAVELENGTH\_UNITS

STRING 'nm'

XP\_APERTURE\_GEOMETRIC\_AREA

FLOAT 0.196350

XP\_APERTURE\_GEOMETRIC\_AREA\_UNITS

STRING 'cm$^{2}$'

XP\_EFFECTIVE\_AREA

DOUBLE Array[3099]

XP\_EFFECTIVE\_AREA\_UNITS

STRING 'cm$^{2}$'

XP\_SPECTRAL\_RESPONSE

DOUBLE Array[3099]

XP\_SPECTRAL\_RESPONSE\_UNITS

STRING 'femptocoulombs photon$^{1}$'

XP\_FC\_PER\_DN FLOAT 37.4359

X123\_ENERGY\_GAIN\_KEV\_PER\_BIN

FLOAT 0.0297500

X123\_ENERGY\_GAIN\_KEV\_PER\_BIN\_UNITS

STRING 'kev/bin'

X123\_ENERGY\_OFFSET\_KEV

DOUBLE -0.075555536

X123\_ENERGY\_OFFSET\_KEV\_UNITS

STRING 'keV'

XP\_FOV\_SOLAR\_RESPONSE\_MAP

DOUBLE Array[401, 401]

XP\_FOV\_SOLAR\_RESPONSE\_MAP\_UNITS

STRING 'percent difference from center'

XP\_ALPHA\_FOV\_SOLAR\_RESPONSE

FLOAT Array[401]

XP\_BETA\_FOV\_SOLAR\_RESPONSE

FLOAT Array[401]

X123\_APERTURE\_GEOMETRIC\_AREA

FLOAT 0.000248846

X123\_EFFECTIVE\_AREA

DOUBLE Array[3099]

X123\_EFFECTIVE\_AREA\_UNITS

STRING 'cm$^{2}$'

X123\_SI\_SPECTRAL\_DETECTION\_EFFICIENCY

DOUBLE Array[3099]

X123\_SPECTRAL\_EFFICIENCY

DOUBLE Array[3099]

X123\_BE\_FIT\_SPECTRAL\_EFFICIENCY

DOUBLE Array[3099]

X123\_BE\_FIT\_THICKNESS\_UM

DOUBLE 25.199600

X123\_SPECTRAL\_EFFICIENCY\_UNITS

STRING 'counts photon$^{1}$'

X123\_COMPTON\_INTERACTION\_PROBABILITY

DOUBLE Array[3099]

X123\_PHOTOELECTRON\_EFFICIENCY\_YIELD

DOUBLE 0.30000001

X123\_PHOTOELECTRON\_ENERGY\_OFFSET\_KEV

DOUBLE -0.054308856

X123\_PHOTOELECTRON\_SPECTRAL\_DETECTION\_EFFICIENCY

DOUBLE Array[3099]

X123\_SI\_K\_ESCAPE\_PROBABILITY

DOUBLE Array[3099]

X123\_SI\_K\_EDGE\_ENERGY\_KEV

FLOAT 1.83900

X123\_SI\_K\_PHOTON\_ESCAPE\_ENERGY\_KEV

FLOAT 1.72100

X123\_SI\_L\_2S\_ESCAPE\_PROBABILITY

FLOAT Array[3099]

X123\_SI\_L\_2S\_EDGE\_ENERGY\_KEV

FLOAT 0.151000

X123\_SI\_L\_2S\_PHOTON\_ESCAPE\_ENERGY\_KEV

FLOAT 0.149000

X123\_SI\_L\_2P\_ESCAPE\_PROBABILITY

FLOAT Array[3099]

X123\_SI\_L\_2P\_EDGE\_ENERGY\_KEV

FLOAT 0.110000

X123\_SI\_L\_2P\_PHOTON\_ESCAPE\_ENERGY\_KEV

FLOAT 0.0990000

X123\_NOMINAL\_SPECTRAL\_RESOLUTION

FLOAT 0.150000

X123\_SPECTRAL\_RESOLUTION\_ARRAY

DOUBLE Array[3099]

X123\_NOMINAL\_SPECTRAL\_RESOLUTION\_UNITS

STRING 'keV (@ 5.9 keV)'

X123\_FOV\_SOLAR\_RESPONSE\_MAP

DOUBLE Array[281, 281]

X123\_FOV\_SOLAR\_RESPONSE\_MAP\_UNITS

STRING 'percent difference from center'

X123\_ALPHA\_FOV\_SOLAR\_RESPONSE

FLOAT Array[281]

X123\_BETA\_FOV\_SOLAR\_RESPONSE

FLOAT Array[281]

ALPHA\_BETA\_FOV\_SOLAR\_RESPONSE\_UNITS

STRING 'degrees'