

RPC00 - Rapid Positioning Capability

RPC00 contains rational function polynomial coefficients and normalization parameters that define the physical relationship between image coordinates and ground coordinates. Use of RPC00 is optional. The format and descriptions for the user-defined fields of the RPC00B extension is detailed in Table 1.

TABLE 1 RPC00B – RAPID POSITIONING CAPABILITY EXTENSION FORMAT

R = REQUIRED, C = CONDITIONAL, <> = BCS SPACES ALLOWED FOR ENTIRE FIELD

Field	Name	Size	Value Range	Units	Type
CETAG	Unique Extension Identifier.	6	RPC00B		R
CEL	Length of Entire Tagged Record.	5	01041	bytes	R
<i>The following fields define RPC00B</i>					
SUCCESS		1	1		R
ERR_BIAS	Error - Bias. 68% non time-varying error estimate assumes correlated images.	7	0000.00 to 9999.99	meters	R
ERR_RAND	Error - Random. 68% time-varying error estimate assumes correlated images.	7	0000.00 to 9999.99	meters	R
LINE_OFF	Line Offset	6	000000 to 999999	pixels	R
SAMP_OFF	Sample Offset	5	00000 to 99999	pixels	R
LAT_OFF	Geodetic Latitude Offset	8	±90.0000	degrees	R
LONG_OFF	Geodetic Longitude Offset	9	±180.0000	degrees	R
HEIGHT_OFF	Geodetic Height Offset	5	±9999	meters	R
LINE_SCALE	Line Scale	6	000001 to 999999	pixels	R
SAMP_SCALE	Sample Scale	5	00001 to 99999	pixels	R
LAT_SCALE	Geodetic Latitude Scale (cannot be ±00.0000)	8	±90.0000	degrees	R
LONG_SCALE	Geodetic Longitude Scale (cannot be ±000.0000)	9	±180.0000	degrees	R
HEIGHT_SCALE	Geodetic Height Scale (cannot be ±0000)	5	±9999	meters	R
LINE_NUM_COEFF_1 (through) LINE_NUM_COEFF_20	Line Numerator Coefficients. Twenty coefficients for the polynomial in the Numerator of the r_n equation.	12 --- 12	±0.999999E±9 --- ±0.999999E±9		R --- R
LINE_DEN_COEFF_1 (through) LINE_DEN_COEFF_20	Line Denominator Coefficients. Twenty coefficients for the polynomial in the Denominator of the r_n equation.	12 --- 12	±0.999999E±9 --- ±0.999999E±9		R --- R
SAMP_NUM_COEFF_1 (through) SAMP_NUM_COEFF_20	Sample Numerator Coefficients. Twenty coefficients for the polynomial in the Numerator of the c_n equation.	12 --- 12	±0.999999E±9 --- ±0.999999E±9		R --- R
SAMP_DEN_COEFF_1 (through) SAMP_DEN_COEFF_20	Sample Denominator Coefficients. Twenty coefficients for the polynomial in the Denominator of the c_n equation.	12 --- 12	±0.999999E±9 --- ±0.999999E±9		R --- R