



V005 MODIS 8-Day LAI/FPAR QA Science Data Sets

The QA information below is excerpted from an HDF-EOS file of the MODIS LAI/FPAR product MOD15A2, and is also available in the file specifications found at <http://modular.nascom.nasa.gov/pub/LatestFilespecs/collection5/>.

There are two QC data sets for LAI/FPAR QC. Table 1 displays the bit legend for the general QC values found in the SDS "FparLai_QC," while Table 2 shows the more detailed information included in "FparExtra."

Table 1: MOD15A2.005 LAI/FPAR General QA (8-bit)

Bit No.	Parameter Name	Bit Comb.	FparLai_QC
0	MODLAND_QC bits	0	Good quality (main algorithm with or without saturation)
		1	Other Quality (back-up algorithm or fill values)
1	Sensor	0	Terra
		1	Aqua
2	DeadDetector	0	Detectors apparently fine for up to 50% of channels 1,2
		1	Dead detectors caused >50% adjacent detector retrieval
3 – 4	CloudState (inherited from Aggregate_QC bits {0,1} cloud state)	00	0 Significant clouds NOT present (clear)
		01	1 Significant clouds WERE present
		10	2 Mixed cloud present on pixel
		11	3 Cloud state not defined, assumed clear
5 – 7	SCF_QC (five level confidence score)	000	0, Main (RT) method used, best result possible (no saturation)
		001	1, Main (RT) method used with saturation. Good,very usable
		010	2, Main (RT) method failed due to bad geometry, empirical algorithm used
		011	3, Main (RT) method failed due to problems other than geometry, empirical algorithm used
		100	4, Pixel not produced at all, value couldn't be retrieved (possible reasons: bad L1B data, unusable MODAGAGG data)

Table 2: MOD15A2.005 LAI/FPAR Detailed QA (8-bit)

Bit No.	Parameter Name	Bit Comb.	FparExtra_QC
0 – 1	LandSea Pass-Thru	00	0 LAND AggrQC(3,5)values{001}
		01	1 SHORE AggrQC(3,5)values{000,010,100}
		10	2 FRESHWATER AggrQC(3,5)values{011,101}
		11	3 OCEAN AggrQC(3,5)values{110,111}
2	Snow_Ice (from Aggregate_QC bits)	0	No snow/ice detected
		1	Snow/ice detected
3	Aerosol	0	No or low atmospheric aerosol levels detected
		1	Average or high aerosol levels detected
4	Cirrus	0	No cirrus detected
		1	Cirrus was detected

5	MODAGAGG_Internal_CloudMask	0	No clouds
		1	Clouds were detected
6	MODAGAGG_Cloud_Shadow	0	No cloud shadow detected
		1	Cloud shadow detected
7	SCF_Biome_Mask	0	Biome outside interval <1,4>
		1	Biome in interval <1,4>

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URL: http://LPDAAC.usgs.gov/modis/qa/mod15a2_qa_v5.asp

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