

SDS name	Dimensions	Description
Geolocation fields		
Longitude	X, Y	Geodetic longitude of the center part of the pixel (°)
Latitude	X, Y	Geodetic latitude of the center part of the pixel (°)
FoV75Area	X	Mean area for 75 % field-of-view pixels on the WGS-85 ellipsoid (km ²)
FoV75CornerLongitude	X, Y, 4	Corner latitudes for 75 % field-of-view pixels on the WGS-85 ellipsoid (°)
FoV75CornerLatitude	X, Y, 4	Corner latitudes for 75 % field-of-view pixels on the WGS-85 ellipsoid (°)
SolarZenithAngle	X, Y	Solar zenith angle (°)
ViewingZenithAngle	X, Y	Satellite viewing zenith angle (°)
RelativeAzimuthAngle	X, Y	Relative azimuth angle (°) aolar zenith angle + 180 – viewing zenith angle
TerrainPressure	X, Y	Terrain pressure (mbar)
Time	Y	Time at the start of each scan (s, TAI93)
SecondsInDay	Y	Seconds of day at start of scan
XTrackQualityFlags	X, Y	XTrack quality flags
GroundPixelQualityFlags	X, Y	Ground pixel quality flags
Data fields		
AerosolOpticalDepthOverCloud	X, Y, 3	Aerosol optical depth over cloud at 354, 388, and 500 nm
AerosolCorrCloudOpticalDepth	X, Y, 3	Aerosol-corrected cloud optical depth at 354, 388, and 500 nm
ApparentCloudOpticalDepth	X, Y, 3	Apparent (not corrected for aerosols) cloud optical depth at 354, 388, and 500 nm
FinalAlgorithmFlags	X, Y	Final algorithm flags assigned to each OMACA retrieval
FinalAlgorithmFlags_MieAI	X, Y	Final algorithm flags associated with UV aerosol index calculations
CloudOpticalDepth_MieAI	X, Y	Cloud optical depth (388 nm) imported from the OMAERUV AI (Mie) algorithm
CloudFraction_MieAI	X, Y	Radiative cloud fraction (388 nm) imported from the OMAERUV AI (Mie) algorithm
InputSSA354	X, Y	Aerosol single-scattering albedo at 354 nm assumed in the retrieval
InputSSA388	X, Y	Aerosol Single-scattering Albedo at 388 nm assumed in the retrieval
InputSSA500	X, Y	Aerosol single-scattering albedo at 500 nm assumed in the retrieval
UVAerosolIndex	X, Y	UV aerosol index (354–388 nm pair) imported from the OMAERUV algorithm
NormRadiance	X, Y, 3	Normalized radiance at 354, 388, and 500 m
Reflectivity	X, Y, 2	Reflectivity at 354 and 388 nm
Residue	X, Y	Residue (354–388 nm pair)
SurfaceAlbedo	X, Y, 2	Surface albedo at 354 and 388 nm
FinalAerosolLayerHeight	X, Y	Final aerosol layer height (km) from the CALIOP-OMI monthly dataset
AIRSL3COvalue	XY	AIRS carbon monoxide L3 data
AerosolType	X, Y	Aerosol type assigned to each OMACA retrieval
Wavelength	3	Wavelength of interest (354, 388, 500 nm)
PixelQualityFlags	X, Y, 3	Pixel quality flags for 354, 388, and 500 nm