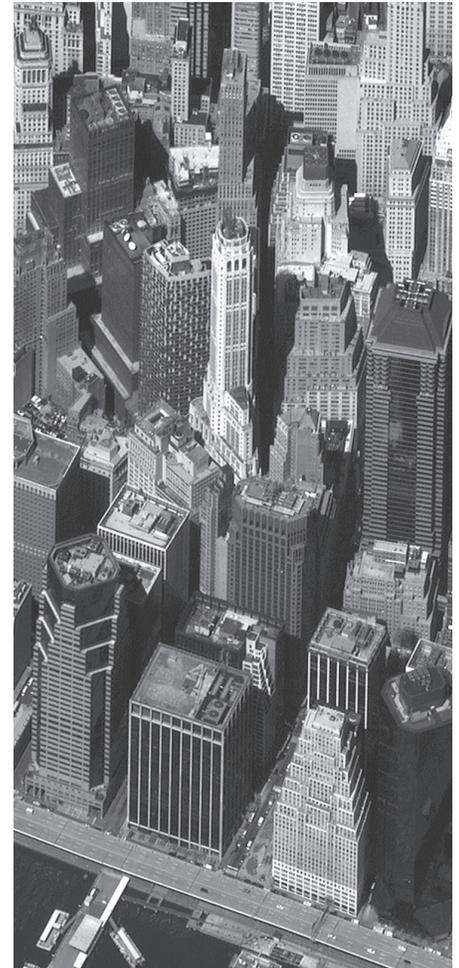# STEREO IMAGERY

📄 **DATA SHEET**

Stereo Imagery

Stereo Imagery products are designed for users with advanced image processing capabilities and photogrammetric tools. This product is ideal for Digital Elevation Model (DEM) generation, 3D visualization and feature extraction applications. Stereo images are collected in-track, meaning on the same orbit, and are acquired at angles optimal for stereo viewing and manipulation. Stereo Imagery products come in two varieties: System Ready and View Ready.

New York City, New York, U.S.A.

Features

- High three-dimensional accuracy Stereo accuracy
  - 5.0 m CE90 at <30 degrees off nadir
  - 5.0 m LE90 at <30 degrees off nadir
- High resolution
  - 30 cm panchromatic
  - 1.2 m multispectral
- Large image swath collection size
  - 16.4 km–17.6 km width at nadir
- Highly radiometric response
  - 11-bit digitization (up to 2,048 levels of gray scale)
- Superior image classification and analysis
  - Discretre non-overlapping spectral bands
- Open systems- Integrated camera model in most leading commercial photogrammetry software packages
  - Popular image file formats

Benefits

- More accurate mapping and terrain modeling results
- Provides high density terrain posting to produce highly detailed surface data
- Flexible product composition
  - System Ready Imagery unit size is at least 16.4 km wide by 14 km long
  - View Ready Imagery area-framed based on AOI
  - 100 sq km minimum (View Ready)
  - Tiling available (View Ready)
- Ease-of use in commercial photogrammetry tools resulting in faster processing

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Specifications

ORDER PARAMETERS		
	System Ready	**View Ready**
Product type	Panchromatic, multispectral 4-band, or bundle (pan+4-band multispectral)	Panchromatic, multispectral 4-band, 8-band, 4-band/8-band bundle (pan+MS), natural color, 4-band pan-sharpened
Image bits/pixel	8 or 16 bits	
File formats	GeoTIFF 1.0, NITF 2.1, NITF 2.0	
Resampling options	- 4x4 cubic convolution - Nearest neighbor - MTF kernel - Enhanced Kernel* - Pan-sharpened Kernel**	
Minimum AOI size	210 sq km	100 sq km
Product framing	Full-width framed (products delivered in units that are the swath width of sensor, 14 km long) or AOI divided into equal parts (some limitations due to file size)	Area-framed
Tilting	None	Pixel based: 8k, 14k, 16k Map Based

IMAGERY ACCURACY SPECIFICATIONS**	
Horizontal	5.0 m CE90
Vertical	5.0 m LE90

PROCESSING		
	System Ready	**View Ready**
Radiometric corrections	Relative radiometric response between detectors, nonresponsive detector fill, conversion to absolute radiometry	
Sensor corrections	Internal detector geometry, optical distortion, scan distortion, any line-rate variations	
Geometric corrections	None	Projected to a plane using a map projection and datum, projected to a constant base elevation (calculated on the average terrain elevation based on order area of interest)

DELIVERABLES

Stereo Imagery can be acquired directly from the Maxar archive or you can submit a new collection request. View Ready is delivered based on the AOI and can be tiled. Products are delivered by FTP or on DVD with all the Image Support Data files needed for photogrammetric processing, including a stereo file that identifies the images in the pair and collection angles, attitude and ephemeris data, geometric calibration, camera model, image metadata, radiometric data and rational functions.

DELIVERY METHODS

- Media delivery: DVD
- Media delivery: external HD
- Web-based delivery: FTP

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