



Apollo Mapping

Digital Elevation Models (DEMs):

Pricing & Product Specifications

Table Notes:

AES Premium Region countries = Brunei, Burma, Cambodia, China, East Timor, Laos, Malaysia, North Korea, Philippines, Russia, Singapore, Taiwan, Thailand and Vietnam

* Academics receive a 10% discount on ImageSat DEMs, a 30% discount on AES DEMs and a 50% discount on Elevation1, 4 and 8. Archived stereo and DEM coverage is subject to a feasibility. Abbreviations used in this document include:

CE90 = Circular Error 90% (i.e. horizontal error)

GCPs = ground control points

LE90 = Linear Error 90% (i.e. vertical error)

m = meters

min = minimum

sq km = square kilometers

** Orders over 2,000 sq km are subject to custom pricing. DTM subject to feasibility.

*** Final product accuracies are dependent on the slope of the terrain and the quality of GCPs (if supplied). Accuracies not guaranteed.

**** Turnaround is dependent on existing coverage, local tasking competition and/or average cloud cover. These turnaround times are only estimates so data delivery can take more or less time than stated here.

***** Pricing for AES contours is driven by the resolution of the product. The actual delivered contour intervals are twice the absolute vertical LE90 of the data from which the contours are generated.

Prices current as of October 20, 2021.



Product Series*	Source Satellite(s)	Product Format & Resolution	Expected Absolute Accuracy (CE90/LE90)***	Customer Supplied GCPs?	Expected Turnaround****	Price (per sq km) & Minimum Order
HxGN Content 20-cm	15-cm HxGN Aerial Images	DSM Point Cloud, 20-cm (varies with stereo GSD) DSM Raster, 5-m	Vertical: 2X nominal stereo GSD Horizontal: ≤ 2.6-m	Not accepted	1 to 2 weeks	DSM, \$11.31 <i>Min Order: \$7,500</i>
HxGN Content 40-cm	30-cm HxGN Aerial Images	DSM Point Cloud, 40-cm (varies with stereo GSD) DSM Raster, 5-m	Vertical: 2X nominal stereo GSD Horizontal: ≤ 2.6-m	Not accepted	1 to 2 weeks	DSM, \$6.77 (USA) DSM, \$18.40 (Europe) <i>Min Order: \$7,500</i>
Precision3D 50-cm	WorldView-1/2/3/4 GeoEye-1 QuickBird	DSM & DTM 50-cm	Vertical: ≤ 3 m Horizontal: ≤ 3 m	Not accepted	1 week (archive only)	DSM, \$25 DTM, \$35 <i>Min Order: 100 sq km (per polygon); 1,000 sq km for entire order</i>
Elevation1**	Pléiades 1	DSM & DTM 1-m	Vertical: ≤ 10 m (GCPs, ≤ 1.5 m) Horizontal: ≤ 10.5 m (GCPs, ≤ 1.5 m)	Not required Increase accuracy	<i>Stereo Exists:</i> 30 to 45 days <i>New Collection:</i> at least 2 months	DSM, \$68.75 DTM, \$81.25 (DTM + DSM, \$93.75) Contours + Ortho + Stereo, included <i>Min Order: 100 sq km; 10-km width</i>
AES 2-m	WorldView-1/2/3/4 GeoEye-1	DSM & DTM 2-m	<i>2-m Vertical Accuracy Option</i> Vertical: ≤ 2 m (GCPs required) Horizontal: ≤ 2 m (GCPs required) <i>4-m Vertical Accuracy Option</i> Vertical: ≤ 4 m (GCPs required) Horizontal: ≤ 5 m (GCPs required) <i>8-m Vertical Accuracy Option – no GCPs accepted</i> Vertical: ≤ 8 m Horizontal: ≤ 10 m	See column to left for details by DEM accuracy	<i>Stereo Exists:</i> about 30 days <i>New Collection:</i> at least 3 months	DSM, \$55 (Premium Region, \$75) DTM, \$60 (Premium Region, \$80) DSM + DTM, \$72 (Premium Region, \$92) Add Contours ****, \$3; Add Hydro Enforced/Breaklines, \$3; Add Road Flattening (DSM only), \$1; Add Shaded Relief, \$1 <i>Order: 100-10,000 sq km; 5-km width</i>
AW3D Standard 2.5-m	ALOS	DSM & DTM 2.5-m	Vertical: ≤ 7 m Horizontal: ≤ 7 m <i>(expected to exceed the accuracy of 5-m AW3D but tests are still underway)</i>	Not accepted	<i>Level 1:</i> 10 days <i>Level 2:</i> 20 days <i>Level 3:</i> 30 days Where available	Level 1 DSM (raw data), \$5; \$3.50 ≥ 10,000 sq km Level 2 DSM (standard), \$7; \$4.50 ≥ 10,000 sq km Level 3 DTM, \$32; \$17 ≥ 400 sq km; \$7 ≥ 10,000 sq km <i>Min Order: 400 sq km (Level 1 & 2); 100 sq km (Level 3)</i>
Elevation4**	Pléiades 1	DSM & DTM 4-m	Vertical: ≤ 10 m (GCPs, ≤ 2 m) Horizontal: ≤ 10.5 m (GCPs, ≤ 1.5 m)	Not required Increase accuracy	<i>Stereo Exists:</i> 30 to 45 days <i>New Collection:</i> at least 2 months	DSM, \$31.25 DTM, \$43.75 (DTM + DSM, \$56.25) Add Contours, \$2.50; Add Ortho, \$8.75 <i>Min Order: 100 sq km; 10-km width</i>

Product Series*	Source Satellite(s)	Product Format & Resolution	Expected Absolute Accuracy (CE90/LE90)***	Customer Supplied GCPs?	Expected Turnaround****	Price (per sq km) & Minimum Order
AES 4-m	WorldView-1/2/3/4 GeoEye-1	DSM & DTM 4-m	<i>4-m Vertical Accuracy Option</i> Vertical: ≤ 4 m (GCPs required) Horizontal: ≤ 5 m (GCPs required) <i>8-m Vertical Accuracy Option – no GCPs accepted</i> Vertical: ≤ 8 m Horizontal: ≤ 10 m	See column to left for details by DEM accuracy	<i>Stereo Exists:</i> about 30 days <i>New Collection:</i> at least 3 months	DSM, \$25 (Premium Region, \$45) DTM, \$35 (Premium Region, \$55) DSM + DTM, \$42 (Premium Region, \$62) Add Contours****, \$1; Add Hydro Enforced/Breaklines, \$3; Add Road Flattening (DSM only), \$1; Add Shaded Relief, \$1 <i>Order: 200-10,000 sq km; 5-km width</i>
AW3D Standard 5-m	ALOS	DSM & DTM 5-m	Vertical: ≤ 7 m Horizontal: ≤ 7 m	Not accepted	<i>Level 1:</i> 1 week <i>Level 2:</i> 2 weeks <i>Level 3:</i> 3 weeks Where available	Level 1 DSM (raw data), \$3; \$1.50 ≥ 10,000 sq km Level 1 DSM (voids filled), \$3.50; \$2 ≥ 10,000 sq km Level 2 DSM (standard), \$5; \$2.50 ≥ 10,000 sq km Level 3 DTM, \$30; \$15 ≥ 400 sq km; \$5 ≥ 10,000 sq km Add 5-m Contours - \$8; Add 10-m Contours - \$4 <i>Min Order: 400 sq km (Level 1 & 2); 100 sq km (Level 3)</i>
Precision3D 5-m	WorldView-1/2/3/4 GeoEye-1 Quickbird	DSM & DTM 5-m	Vertical: ≤ 3 m Horizontal: ≤ 3 m	Not accepted	1 week (archive only)	DSM, \$15; \$12 ≥ 10,000 sq km DTM, \$30; \$15 ≥ 400 sq km <i>Min Order: 100 sq km; 1,000 sq km if not archived</i>
ImageSat DEMs	EROS B	DSM & DTM Up to 5-m	Vertical: ≤ 25 m (GCPs, ≤ 2.5 m) Horizontal: ≤ 20 m (GCPs, ≤ 4 m)	Not required Increase accuracy	<i>Stereo Exists:</i> 30 to 45 days <i>New Collection:</i> at least 2 months	Stereo DEM, \$45 Triplet DEM, \$55 GCP Processing, adds \$5 Rush Tasking, adds \$6 <i>Min Order: 50 sq km; 1-km width</i>
WorldDEM Neo	TerraSAR-X + TanDEM-X	DSM & DTM 5-m	Vertical: < 4 m Horizontal: < 6 m	Not accepted	2 to 4 weeks Where available	Processed DSM, \$11.25 DTM, available 2022 <i>Min Order: 100 sq km; 1-km (DSM) & 2-km (DTM) width</i>
AES 8-m	WorldView-1/2/3/4 GeoEye-1	DSM & DTM 8-m	Vertical: ≤ 8 m Horizontal: ≤ 10 m	Not accepted	<i>Stereo Exists:</i> about 30 days <i>New Collection:</i> at least 3 months	DSM, \$15 (Premium Region, \$35) DTM, \$25 (Premium Region, \$45) DSM + DTM, \$30 (Premium Region, \$50) Add Contours****, \$1; Add Hydro Enforced/Breaklines, \$1; Add Road Flattening (DSM only), \$1; Add Shaded Relief, \$1 <i>Order: 500-10,000 sq km; 5-km width</i>

Product Series*	Source Satellite(s)	Product Format & Resolution	Expected Absolute Accuracy (CE90/LE90)***	Customer Supplied GCPs?	Expected Turnaround****	Price (per sq km) & Minimum Order
Elevation8	SPOT 6/7	DSM & DTM 8-m	Vertical: ≤ 10 m (GCPs, ≤ 2 m) Horizontal: ≤ 20 m (GCPs, ≤ 2.5 m)	Not required Increase accuracy	<i>Stereo Exists:</i> 30 to 45 days <i>New Collection:</i> at least 2 months	DSM, \$10.00 DTM, \$25.00 (DSM + DTM, \$18.75) Add Contours, \$2.50; Add Ortho, \$3.15 <i>Min Order: 1,000 sq km; 20-km width</i>
Elevation10	TerraSAR-X	DSM & DTM 10-m	Vertical: 5 to 10 m Horizontal: 5 to 10 m	Not accepted	1 to 2 months Often less than 1 month	DSM, \$21.25 DSM-Hydro, \$25.00 DTM, \$37.50 <i>Min Order: 500 sq km; 20-km width</i>
WorldDEM	TerraSAR-X + TanDEM-X	DSM & DTM 12-m	Vertical: < 4 m Horizontal: < 6 m	Not accepted	2 to 4 weeks Where available	Processed DSM, \$6.25 DTM, \$13.75 (DTM + DSM, \$17.50) <i>Min Order: 100 sq km; 1-km (DSM) & 2-km (DTM) width</i>
Elevation30	SPOT 5 HRS	DSM 20-m	Vertical: 8 to 20 m Horizontal: 15 to 30 m	Not accepted	2 to 4 weeks Where available	DSM, \$2.90 DSM + Quality Layers, \$5.65 DSM + Quality Layers + Ortho, \$8.75 SPOT DEM Precision, \$5.20 <i>Min Order: 500 sq km; 15-km width</i>