

## SOCET GXP® At-a-Glance

# Synthetic Aperture Radar (SAR) Capabilities

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### Amplitude Change Detection

- » Two-color multi-view (2CMV)

### Anamorphic Correction

- » Toggles square pixels for Sensor Independent Complex Data (SICD)

### Automatic Application of Enhancements Based on Image and Sensor Type

### Coherent Change Detection

- » Automatic registration
- » Coherence image output
- » Goldstein filtering
- » Interferogram / phase interferogram generation
- » Spatial smoothing
- » Support for the following sensors:
  - COSMO-SkyMed
  - KOMPSAT-5
  - NITF (CMETAA)
  - RADARSAT-2
  - Sentinel-1A
  - TanDEM-X
  - TerraSAR-X

### Colorization

- » Customizable look-up tables

### Complex Data Visualization

- » Allow real-time switching to view phase, inphase (I), and quadrature (Q) data
- » Convert I and Q values to magnitude on the fly
- » COSMO-SkyMed complex (HDF5)
- » KOMPSAT-5 complex (HDF5)
- » PALSAR-2 complex (CEOS/TIFF)
- » RADARSAT-2 complex (TIFF)
- » RISAT-1 complex (CEOS)
- » Sentinel-1A complex (TIFF)
- » SICD
- » TanDEM-X complex (COSAR)
- » TerraSAR-X complex (COSAR)

### Ortho On-the-Fly™

- » Works for complex, detected, and derived products

### Orthophoto Generation

- » Customizable seamlines
- » Orthomosaics

### Polarimetric Color Composites

### Polarimetric Decompositions

- » Accomplished using Band Math functionality
- » Pauli decompositions

### Rigorous SAR Sensor Models

- » COSMO-SkyMed
- » COSMO-SkyMed complex
- » KOMPSAT-5
- » KOMPSAT-5 complex
- » PALSAR-2
- » PALSAR-2 complex
- » RADARSAT-1
- » RADARSAT-2 complex
- » RADARSAT-2 north aligned
- » RADARSAT-2 orbit aligned
- » Sentinel-1A complex
- » Sentinel-1A GRD
- » TanDEM-X
- » TanDEM-X complex
- » TerraSAR-X
- » TerraSAR-X complex

### SAR Overlay

- » View important collection angles

### Slant to Ground Plane Toggle

- » Enabled for all complex data

### Sub-Aperture Stack

- » Anamorphic correction toggles square pixels for all output frames
- » Color composite sub-aperture stack generation
- » Configurable number of output frames
- » Customizable animation rates for visualizing stack as a movie

### Terrain Extraction from Stereo SAR Imagery

- » RADARSAT strategy included
- » Bare earth terrain generation (DEM)
- » Surface model terrain generation (DSM)

### Threshold Look Up Tables

- » Filters out low returns while highlighting high returns

### Transparency Threshold

Current as of v4.3

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