SMOSL1OP

Smos Comparator Tool: SCoT
SMOSL1OP SCoT Tool

The goal of this software is to produce comparison plots, statistics and histograms between two SMOS products (DBL) of the same type.
L1A products

HKTM, CRSx1A, UAVX1A, SCIX1A, TARx1A, ANIR1A products.

• **Telemetry plots:**
  - One item fields: Snapshot OBET – field for each product, differences, histogram of the differences (mean, STD)
  - More than one item field: Number of items – DSR for each product, differences and histogram of differences (mean, STD)

• **Fields:** Information about the selected field in one snapshot/DSR (or in a range of snapshots/DSRs)

• **Per snapshot/DSR:** Gives information for one field for the whole product.

• **Statistics (SCIx1A):** Plot statistical differences for each vector field (maximum delta, mean delta and STD of delta, one value per vector) across all the snapshots of the L1A product. It creates one plot per polarization configuration.
L1B products

SCIx1B, TARx1B products.

• U,V snapshot plots: Used for Scene BT Fourier field. Each plot gives information about one snapshot at a time. Four plots: Product 1, Product 2, Differences, Histogram of differences.

• Xi, Eta snapshot plots: Discrete Fourier Transform of the L1b Fourier components in the antenna frame to convert Scene BT Fourier field from u-v domain to Xi-Eta domain

• Per snapshot plots: Gives information for one field for the whole product

• L1b Statistics: Plots statistical differences for L1B frequencies (maximum delta, mean delta and STD of delta, one value per vector) across all the snapshots of the L1B product.
L1C products

SCxx1C products, L1c Browse products.

- **Single snapshot Plots:** L1c magnitude for one snapshot. X=longitude, y=latitude and the colour represents the value of the magnitude.

- **Science Snapshot Plots:** Plots the differences across all the product for all one-value fields inside the SCIx1C product.

- **Snapshot-Bias Statistics Plots:** Give statistic parameters for each snapshot of the products compared.

- **Scene Bias Statistics Plots:** Give statistic parameter per snapshot of the differences of all then matching pixels between the two products being compared.

- **Swath plots:** Plots differences across all the grid-points inside two SCx1C products: BT.Counter and Grid_Point_Mask are geolocated.

- **Browse:** Plots geolocated differences of information contained inside the Browse products.
Examples: L1A

**System Temperature 284550 VVV**

- **Calibrated Visibilities 284556 HHH**

- **Delta**

Mean: 2.21E+006 STD: 1.99E+006

Mean: 8.2817E+007 STD: 1.9555E+007
Examples: L1B
Examples: L1C

![Graph and histograms related to L1C](image-url)