Initial Calibration Result of JAXA standard products(As of October 23, 2006)

PRISM Level 1B2 data products

- Radiometric Accuracy

1) Relative Accuracy

Better than 1.2% (better than 3DN)(RMS): Vertical streaking stripes may appear in some of the images with similar characteristics.

2) Absolute Accuracy

Better than 6.2 %(RMS)

- Geometric Accuracy

1) Absolute Accuracy

	Error in pixel direction (cross track)	Error in line direction (along track)
Forward view (RMS)	13 m	64 m
Nadir view (RMS)	17 m	34 m
Backward view (RMS)	32 m	32 m

Absolute accuracy is defined as the RMS error; no reference is made to Ground Control Points (GCP).

2) Relative Accuracy

	Error in pixel direction (cross track)	Error in line direction (along track)	
Std. dev. in a scene(1 σ)	4 m	6m	for all three kinds of views

AVNIR-2 Level 1B2 data products

- Radiometric Accuracy

1) Relative Accuracy

Better than 0.4% (better than 1DN)(RMS)

2) Absolute Accuracy

Band 1 to 3: better than 6.2 %(RMS)

Band 4: better than 15.8 %(RMS)

- Geometric Accuracy (for all pointing angles)

1) Absolute Accuracy

	Error in pixel direction (cross track)	Error in line direction (along track)
RMS	520 m	370 m

Absolute accuracy is defined as the RMS error; no reference is made to Ground Control Points (GCP).

2) Relative Accuracy

	Error in pixel direction (cross track)	Error in line direction (along track)
Std. dev. in a scene(1σ)	14 m	6 m

PALSAR Level 1.1/1.5 data products

- Radiometric Accuracy(for all off-nadir angles)

Absolute Gain 0.7dB(1σ)

VV/HH Gain Ratio(PLR) 0.023dB(1σ)

VV/HH Phase Difference(PLR) 0.104 (1σ)

- Geometric Accuracy(for all off-nadir angles)

RMS 8m (Std Dev. 5m): FBS, FBD

RMS 11m (Std Dev. 6m): PLR

RMS Better than 100m: WB1, WB2

<Evaluation Method>

- Radiometric Accuracy of PRISM/AVNIR-2

Compared with TERRA/AQUA MODIS data (over Desert, Ocean, etc.)

- Geometric Accuracy of PRISM/AVNIR-2

Compared with GCPs (CAL/VAL sites) considering target height

- Radiometric Accuracy of PALSAR

Analyzed data from Corner Reflectors (CAL/VAL sites) and uniform forests over Amazon

- Geometric Accuracy of PALSAR

  Compared with GPS measured data of Corner Reflectors (CAL/VAL sites) considering target height

<Future Improvement>

- To improve vertical streaking stripes of PRISM
- To improve geometric accuracy of PRISM/AVNIR-2.