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(1σ)	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

Improve vertical streaking stripes of PRISM
Improve geometric accuracy of PRISM/AVNIR-2