

For more information on each sensor, refer to JAXA HP (AMSR/AMSR-E, AMSR2) or "Data Users Handbook" (AMSR, AMSR-E, AMSR2).

Sensor	AMSR (Advanced Microwave Scanning Radiometer)	AMSR-E (Advanced Microwave Scanning Radiometer for EOS)	AMSR2 (Advanced Microwave Scanning Radiometer 2)	
Satellite	ADEOS-II	Aqua	GCOM-W1	
Launch Date	Dec 14, 2002	May 04, 2002	May 18, 2012	
Operation	Operation completed (~Dec 31, 2003)	Observation halted	In operation	
Observation Period	Apr 02, 2003~Oct 24, 2003	Jun 01, 2002~Oct 04, 2011	Jul 03, 2012~	
Orbit	Type	Sun-synchronous sub-recurrent orbit (frozen orbit)	Sun-synchronous sub-recurrent orbit (frozen orbit)	
	Inclination	Approx. 98.7°	Approx. 98.2°	
	Altitude	Approx. 800 km	Approx. 700 km	
	Period	Approx. 101min	Approx. 98.9 min	
	Recurrent Period (Revolutions per Recurrent Period)	4 days (57 rev./4 days)	16 days (233 rev./16 days)	16 days (233 rev./16 days)
	Local sun time at ascending node	AM 10:30 ± 15 min	PM 01:30 ± 15 min	PM 01:30 ± 15 min
Observation Frequency	A-train	-	○	
	6 GHz	○	○	
	7 GHz	-	○	
	10 GHz	○	○	
	18 GHz	○	○	
	23 GHz	○	○	
	36 GHz	○	○	
	50 GHz	○	-	
	52 GHz	○	-	
	89 GHz (A/B)	○	○※1	○
Swath Width	Approx. 1600 km	Over 1450 km	Over 1450 km	
Near real time products	N/A	N/A	For agreement organization and PIs only.	
Major performance changes from previous AMSR series sensors	-	<ul style="list-style-type: none"> Reduced the antenna diameter (from 2.0 meters to 1.6 meters) due to limitations of the payload faring, used an antenna expansion deployment method, and eliminated the 50 GHz band channels. 	<ul style="list-style-type: none"> Enlarged the deployed antenna diameter to 2 meters to boost spatial resolution. Upgraded the calibration system for more reliable calculations of brightness temperatures. Added a 7.3 GHz band channel to lower interference from terrestrial radio signals. The design life is extended from 3 years to 5 years. Temperature required for calibration is uniform because of temperature control. 	

<About products> Legend ○: Available - : N/A

Product	AMSR	AMSR-E	AMSR2
Level 1A	○	○	×
Level 1B	○	○	○
Level 1B Map	- ※3	- ※3	-
Level 1R	-	-	○
Level 2	Total Precipitable Water	○	○
	Cloud Liquid Water	○	○
	Precipitation	○	○
	Sea Surface Temperature	○	○
	Sea Surface Wind speed	○	○
	Sea Ice Concentration	○	○
	Snow Depth※2	○	○
Soil Moisture Content	○	○	○
Level2 Map	- ※3	- ※3	-
Level 3	Brightness Temperature	○	○
	Total Precipitable Water	○	○
	Cloud Liquid Water	○	○
	Precipitation	○	○
	Sea Surface Temperature	○	○
	Sea Surface Wind speed	○	○
	Sea Ice Concentration	○	○
Snow Depth※2	○	○	
Soil Moisture Content	○	○	○
Data Format	HDF4	Standard	-
	HDF5	Available	Standard
	NetCDF	Available	Available
	GeoTIFF	Available	Available

※1 A-horn had stopped observing since Nov 04, 2004.
 ※2 Product name in AMSR/AMSR-E is "Snow Water Equivalent".
 ※3 Discontinuation: Only on the product format specification.