

GF-3 SATELLITES

3 Satellites, SAR, 1 m Resolution, 12 Modes, Full Polarization, C-band

GF-3 (short for Gaofen-3) is composed of three satellites. The satellite is equipped a multi-polarized C-band Synthetic Aperture (SAR) at meter-level resolution. Its Imaging modes include spot mode, strip-map mode, and scan mode. GF-3 was launched on August 10, 2016, it is the first Chinese high-resolution SAR satellite to acquire multi-polarized SAR image with resolution of 1-500 m, and the imaging swath is 10-650 km depending on the varied imaging modes. GF-3 02 and 03 were successively launched on November 23, 2021, and April 7, 2022, they are GF-3's follow-on satellites and provided with very close parameters. The three satellites work as a constellation, doubling the collection and enhancing the revisit capacity.

Technical Specifications

Number of satellites	3 satellites: GF-3, GF-3 02 and GF-3 03									
Mission life	8 years									
Weight	2800 kg									
Launch time	GF-3: August 10, 2016; GF-3 02: November 23, 2021; GF-3 03: April 7, 2022									
Orbit	631 km altitude, Sun-synchronous reapeat orbit, equatorial passing time 6:00 am (descending pass), 6:00 pm (ascending pass)									
Centre frequency	5.4GHz (C-band)									
Polarization	Single, dual and full									
Revisit capacity	Single look: ≤5 days; double look, 10 m resolution and 100 km swath: 1.5 days (single satellite)									
Imaging Range	South latitude 5°~North latitude 53°, East longitude 70°~West longitude 150°									
Imaging modes	Spotlight (SL)	Ultra fine strip(UFS)	Fine strip 1 (FS 1)	Fine strip 2 (FS 2)	Standard strip(SS)	Full polarized strip 1	Full polarized strip 2	Narrow scan(NSC)	Wide scan (WSC)	Global observation scan
Resolution (at nadir)	1 m	3 m	5 m	10 m	25 m	8 m	25 m	50 m	100 m	500 m
Swath width (at nadir)	10x10 km²	30 km	50 km	100 km	130 km	30 km	40 km	300 km	500 km	650 km
Incidence angle	20°-50°	20°-50°	19°-50°	19°-50°	17°-50°	20°-41°	20°-38°	17°-50°	17°-50°	17°-53°

O This document is made for our data users, clients and customers' reference, for other use, please contact us. It is subject to change without notice. All rights reserved.

SpaceWill Info. Co., Ltd.

➡ marketing@spacewillinfo.com
▲ +86 10 50981678

Q 10th Floor, Building 5, Yard A2, Xisanhuan NorthRoad, Haidian District, Beijing, China 10081