



# ZY1-02D SATELLITE

## Hyperspectral, 8-band, HR, Agriculture & forest-oriented

ZY-1 02D (short for ZiYuan-1 02D, also named ZY-1E or ZY1E) was launched on September 12, 2019. It is equipped with two cameras, one is VNIR camera (VNIC) and the other is hyperspectral camera (AHSI). The VNIR camera has panchromatic and eight multispectral bands, and it has a large view field, with 115 km swath width. The hyperspectral camera has 166 bands, and its swath width is 60 km. It's mainly applied in investigating land resources, emergent monitoring and supervising services, and it also provides supports for disaster deduction, environmental protection, housing, transportation, agriculture, forestry, marine and mapping.

### Technical Specifications

<b>Number of satellites</b>	2 satellites: ZY-1 02D and ZY-1 02E		
<b>Mission life</b>	5 years		
<b>Weight</b>	1840 kg		
<b>Launch time</b>	ZY-1 02D: September 12, 2019; ZY-1 02E: December 26, 2021		
<b>Orbit</b>	Sun-synchronous, 10:30 am descending node 778 km altitude, 98.5° inclination angle		
	<b>Visible Near Infrared Camera</b>	<b>Hyperspectral Camera</b>	<b>IRS Camera (ZY-1 02E only)</b>
<b>Sensor bands</b>	Panchromatic Blue, Green, Red, NIR1 Coastal Blue, Yellow Red Edge, NIR2	Spectral Range: 0.4 μm ~ 2.5 μm VNIR: 76 bands SWIR: 90 bands	Spectral Range: 7.7 μm ~ 10.5 μm
<b>Resolution (at nadir)</b>	Panchromatic: 2.5 m Multispectral: 10 m	30 m	10 m
<b>Dynamic range at imaging</b>	12 bits		
<b>Swath width (at nadir)</b>	115 km	60 km	115km
<b>Locational accuracy</b>	50 m CE90° (w/o GCPs)		
<b>Onboard storage</b>	2 Tb		
<b>Revisit capacity</b>	5 days		

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