

**OPTICAL SENSOR SYSTEM CHARACTERISTICS
OF EARTH RESOURCE SATELLITES**

Satellite System	LANDSAT 4/5	LANDSAT 4/5	SPOT	ADEOS	IRS-1C
Optical Sensor System (launch dates)	MSS (1982 L.SAT-4) (1985 L.SAT-5)	TM (1982 L.SAT-4) (1984 L.SAT-5)	XS (1986 SPOT-1) (1990 SPOT-2) (1993 SPOT-3)	AVNIR (1996 ADEOS-1)	LISS-III (1995 IRS-1C)
Sensor Altitude	Landsat 1,2,3 = 900 km Landsat 4, 5 = 705 km	705 km	832 km	800 km	817 km
Spatial Resolution	80 m	30 m	20 m	16 m	24 m
Temporal Resolution (Revisit Cycle) (in days)	16	16	20 (nadir)	41 (nadir)	24 (nadir)
Radiometric Resolution (bytes per pixel)	6 bytes (scaled to 7 or 8 bytes during ground processing)	8 bytes	8 bytest		7 bytest
Swath Width	185 km scene area = 185*170	185 km scene area = 185*170	60 km	80 km	141 km
Off-nadir viewing (side-look) capability for the (PAN) Panchromatic mode for stereo image data acquisition)			SPOT PAN (10 m resolution) 0.51 - 0.73 μ m 3-day revisit capability	ADEOS AVNIR PAN (8 m resolution) 0.52 - 0.72 μ m	IRS-1C PAN (6 m resolution) (70 km swath width) 0.50 - 0.70 μ m (6 bytest)
Spectral Resolution (Number of Bands)	Four	Seven	Three	Four	Four
Blue		0.45 - 0.52		0.40 - 0.50	
Green	0.50 - 0.60	0.53 - 0.61	0.50 - 0.59	0.52 - 0.62	0.52 - 0.59
Red	0.60 - 0.70	0.62 - 0.69	0.62 - 0.68	0.62 - 0.72	0.62 - 0.68
NIR	0.70 - 0.80	0.78 - 0.90	0.78 - 0.88		0.77 - 0.86
NIR	0.80 - 1.10			0.82 - 0.92	
IIR		1.57 - 1.78			1.55 - 1.75
IIR		2.10 - 2.35			
IIR (MIR)					
IIR (MIR)					
ThIR		10.45 - 11.66			
FIR					