

























	Acronym	Description	View Modes	Observation Modes
1	SFTIR	Solar Fourier Transform IR Spectrometer: Broad survey of trace gases with high precision	Solar Occultation only; passive radiative cooler	2 Solar Occultations per orbit (~24/day); processing interferorgrams throughout orbit
1	SLNIR	Solar-Nadir IR Mapper: Detection and mapping of specific trace gases	Solar occultation; nadir and limb viewing; heat sink required (assumed to be provided by s/c)	2 solar occultations + dayside nadir/limb (60 min) on each orbit
2	Sub-mm	Sub-mm Spectrometer profiler/mapper Atmospheric temperature & winds plus H20 and specific trace gases	Nadir and limb, including away from velocity vector	Continuous operations switching between nadir, space, different limb; observe both sides of ground track
2	TIR	Thermal IR profiler/mapper spectrometer or radiometer for atmospheric temperature and dust , plus H2O and some trace gases	Nadir and limb views, including away from velocity vector	Continuous operations switching between nadir, space, different limb; observe both sides of ground track
2	WAC	Wide Angle Camera imaging atmospheric phenomena for discriminating between surface, dust clouds, & ice clouds	push-frame operation with .GE. 2 color bands; requires alignment with ground track motion	Cross-track (nearly orthogonal to velocity vector) horizon-to-horizon
3	HRCSC	High Resolution Color Stereo Camera: Surface imaging	~1 m/pixel ground sampling (at nadir) with TDI; fore/nadir/aft views	Designated targets of opportunity; requires alignment with ground track motion (mitigation needed)

































Instrument Name	Description	Mass (kg) including maturity margin		
PanCam (WAC + HRC)	Panoramic camera system	1.560		
MOMA	LD-MS + Pyr GC-MS for organic molecule characterisation	6.100		
MicrOmega IR	IR imaging spectrometer	0.960		
Mars-XRD	X-ray diffractometer + X-ray fluorescence	1.480		
Raman (internal)	Raman spectrometer	2.260		
WISDOM	Shallow ground-penetrating radar	1.380		
Ma_Miss included in 2.0-m drill	IR borehole spectrometer	0.650		

