

SPECIFICATION FOR TOTAL STATION

Accuracy	7 second (Angular)
	1.5mm+2ppm (Distance) with a measurement time of 2.5second or better
Least Count	0.1 second (Angular) and 0.1mm (distance)
Magnification	30 x or better erect image
Measurement Range	3500m with single prism under average atmospheric conditions with measurement time of less than 3 seconds in fine and 0.2 seconds in tracking. 30(reflectorless)
Display	Graphic LCD display on both sides with minimum resolution 1sec (Angular) and 0.001m (Distance) (minimum 150 x 250 pixels)
Key Board	Keyboard with user definable multi function trigger keys and function keys on both sides.
Onboard Functions	<ol style="list-style-type: none"> 1) The instrument should have a function to calculate the level of a stationed point from the known target points in both faces. 2) The instrument should have a function of Hidden Point to measure invisible points using hidden point rod.
Onboard application programs	Surveying, Stake out, Area and Volume with visible layout/plan. Tie Distance, Reference line, Free Station, Remote Height and Construction.
Security system	The system should have inbuilt security system of locking the instrument with user definable PIN number to avoid the unauthorized use of the instrument.
Memory	At least 20000 fix points and USER Definable formats / ASCII / GSI / landXML / dxf formats.
GPS Compatibility	Should be able to interchange data between GPS and Total station without any data conversion
Battery	Rechargeable Li ion battery for operation 8 hours minimum.

Compensator		Quadruple axis with ON and OFF facility with a setting accuracy of 2 or better.
Encoder		Absolute continuous and diametrical
Horizontal / Vertical Drives		System recommended to have endless drive i.e. to be free from all mechanical locks for vertical and horizontal movements.
Environmental		IP 55 for dust and splash and 95% non condensing Humidity.
Accessories	1	Machine with built in laser plummet
	2	Tribrach
	3	Tripod (wooden and telescopic)
	4	Poles – 2 Nos
	5	Prism with 3500m measuring range-2nos.
	6	Battery(Li ion – 2 nos.) and charger
	7	Required software for downloading exporting and importing to DXF and ASCII files.
	8	Data downloading cable and external memory device (CF Card/USB)
	9	Tool kit
	10	Compass
Guarantee		2 years (minimum)

All the accessories supplied should be from the original equipment manufacturer themselves. They should have an approved service centre in South India. Training should be imparted to all concerned by the tenderer himself.

Prices quoted should be in Indian Rupees and should be for FOR DTE's office, Thiruvananthapuram. Prices quoted should be inclusive all taxes, duties, leaves, clearance charges etc, as applicable. The list of various Government Departments' Institutions, organizations to which the equipments were previously supplied should be attached.