



SEA SURFACE TEMPERATURE (SST) SENSOR



Negative Temperature Coefficient (NTC) Sea Surface Temperature SST sensor is developed for Ocean observation applications. The NTC sensing element is used in an advanced manner in developing temperature sensor for the measurement of sea surface layer temperature. This is the first of its kind as sensor for sea surface temperature (SST) and sea subsurface layer temperature (SSST) measurement is concerned. The Steinhart–Hart equation and coefficients is applied on each sampling to zero down the error components involved in temperature measurements which is corresponding to the nonlinear functionality of NTC element. In-house developed SST sensor and sensor array is calibrated and extensively tested in laboratory conditions.

A high precision and fast responding NTC thermistor element is employed as a temperature sensor. The data acquisition is made of low power, reconfigurable, programmable system on chip PSOC manufactured by Cypress semiconductor. The nonlinearity of the thermistor sensors are corrected with Stein-Hart and Hart model and calibration coefficients.



This technology is developed by **National Institute of Ocean Technology**, Ministry of Earth Sciences, Govt. of India and seeks to stimulate the use of technology by commercialization under Make in India Initiative and **National Research Development Corporation** will facilitate for smooth transfer and licensing of the technology with affordable Licencing terms and conditions.

Any company or organization interested in the technical know-how and to get more details about the technology please refer the contact details below.

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