

Distress Alert Transmitter (DAT-SG)



Space Applications Centre (ISRO) has developed the Distress Alert Transmitter-Second Generation (DAT-SG) which is a UHF transmitter based on NavIC receiver module. This NavIC receiver module supports position determination

as well as broadcast messages reception called NavIC messaging service. The end users are mainly fishermen of small boats who can use this device for emergency messages reporting with position information and the unit can also help them receive useful information like Potential Fishing Zone, weather alerts etc. as supported by NavIC messaging service.

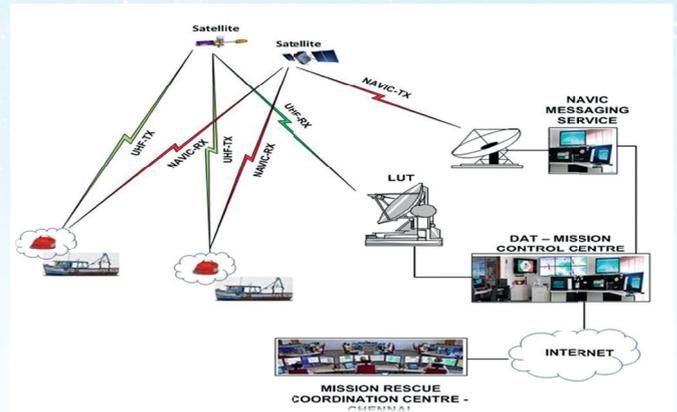
Features

Modulation	BPSK/QPSK
Data Rate	300bps
Amp. Imbalance	± 0.3 dB
Phase Imbalance	± 3 deg.
Waveform	BPSK with rate $\frac{1}{2}$ FEC
Output Power	5 W [37 dBm \pm 1 dB]
Power supply	7.2V Primary Lithium Battery

Features

- Emergency message reporting from Deep Sea to Control Station
- Processing and display of alert received at the Control Center (HUB) and dissemination of received emergency information to Maritime Rescue Coordination Centres

- Transmission of emergency position and Distress alerts



Technology Deliverables

- Schematics, Gerber
- Hex code for firmware
- Limited Support for Development

Present Platform details

- Microcontroller: MSP 430
- Frequency: UHF
- NavIC: SkyTraQ

