Integrated module, size:1U (can be furthur decreased by vertical PCBs stacking)

LOW COST MULTI STANDARD SATELLITE RECEIVER (DATA DTH) TECHNOLOGY

Space Applications Centre (SAC) has developed a low cost satellite receiver by Interfacing a USB TV tuner and Raspberry pi supporting multiple digital TV standards such as DVB-C/T/S/S2/S2x with tuning range from 950-2150 MHz at 1-45 Msps symbol rate for DVB-S/S2 standard and is successfully tested with GSAT-19 satellite link for the reception of Audio, video and data simultaneously for different symbol rates. In-house developed Akashganga application (A data repository application for admin and client side) is successfully deployed and tested on developed low cost receiver. The developed system can serve as an improvement for existing DTH set top box with data port at low cost.

Future developments

- System modification in progress to make it DVB-S2X reception compatible too which will further enhance its performance.
- To make it more compact and portable i.e. battery operated.

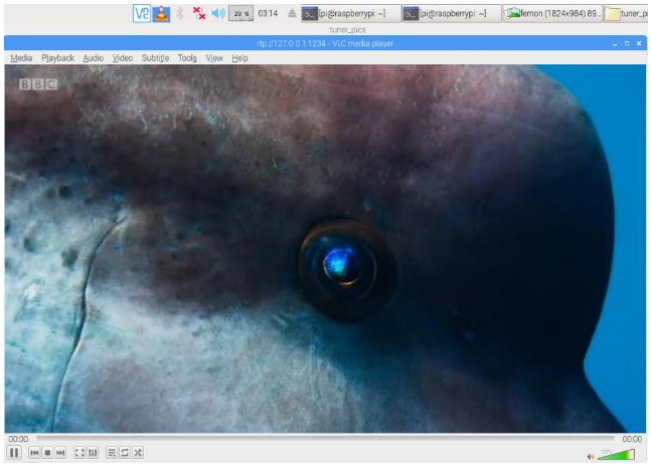
Specifications

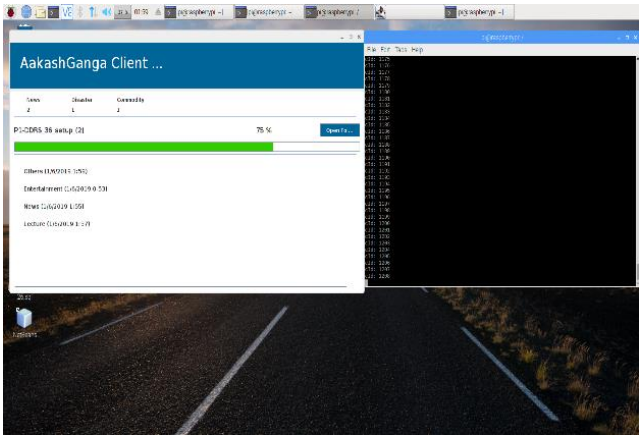
- A common power supply has been designed for the integrated module working at standard 230V AC for easy operation. Earlier design required separate power supplies for both Tuner and Raspberry Pi.
- Receiver supports multiple standards such as DVB-C/T/S/S2/S2x with tuning range from 950-2150 MHz at 1-45 Msps symbol rate for DVB-S/S2.
- Receiver works on Linux based Operating System (Raspbian) which offers added security aspect as compared to windows.
- Single line terminal commands to scan, tune and lock the receiver.
- Receiver is IPTV supportable.
- Wi-Fi functionality in receiver allows user to connect it via mobile/Tablet and access information/data remotely.
- Standard F-Type(Female) RF/LNB input connector.
- Lock state and power indicator LED is provided.
- Small size and low cost.

Program Linkage/Application Areas

- ISRO's Tele-Education broadcasting program and Disaster Warning System.
- Can be deployed at information Kiosks at remote locations where terrestrial network is not available.

SAC Technologies





Reception of High definition Audio video and data simultaneously on the developed receiver

Technology Transfer

SAC/ISRO offers to transfer this technology of the **Low cost multi standard satellite receiver (Data DTH) Technology** developed by SAC to industries in India with adequate experience and facilities. Enterprises interested in obtaining knowhow may register and submit their proposal to IN-SPACe, Ahmedabad at www.inspace.gov.in

SAC Technologies

For more details, Contact:

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