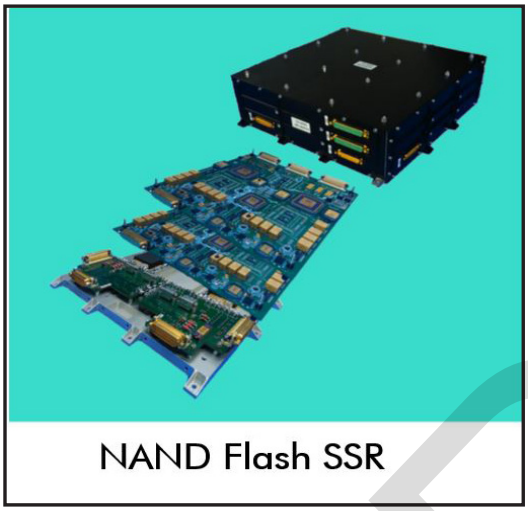
Nand Flash based Onboard Solid state Recorder

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed Nand Flash based Onboard Solid State Recorder. This product is made suitable for onboard applications by overcoming its inherent reliability issues, taking the advantage of its non-volatility and high memory density which makes them more attractive in power constrained spacecraft that handles very huge data.



NAND Flash SSR

Salient Features

- Space qualified flash memory SSR.
- Single board or Multi board configurations.
- Scalable from 176Gb to 700 Gb per board Up to 2.8Tb for multi board configuration.
- Record/Playback/Near Real Time operations.
- File based data storage/retrieval.
- Command & Control through 1553 I/F.

Major Specifications

Base Storage User Storage Capacity	64 Gb made of 8x8 Gb NAND Flash dies. Up to 2.8Tb (Expandable)
Typical Input & Output Specifications/ board	Input : Two channels-1.2Gbps DSER interface Output: One channel-320 Mbps SER Interface
Command interface	1553B, 32 bit command, 32 x16 bit bulk command packet
Telemetry interface	1553B, 18 bytes packet
Power Consumed	15-16 W at nominal data rates of Input -> 400-500 Mbps Output -> 240-320 Mbps
Input Voltage range	28-42Volts
Mass	~3.5 kg. For every additional 700 Gb, mass will increase by 1.75 kg
Foot Print on Platform	~12 x 12 inch (Volume depends on capacity)

Technology Transfer

URSC-ISRO offers to transfer this technology of Nand Flash based Onboard Solid state Recorder developed by URSC to industries in India with adequate experience and facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.

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