Slow switching Taper charger Regulator

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed Slow Switching Taper Charged Regulator as a bus control / battery charging scheme for battery tied bus configuration.

Salient Features

- Provides very low frequency switching of strings for battery charge/bus control.
- Configured with SMD components including power handling elements.
- PCB based system to be simple, miniaturized and for smaller s/c's with domestic regulator.
- For any given operating condition, works in CC-CV profile with one string switching and voltage & current for TCR are commandable.
- Power handling capacity can be enhanced to 1KW by cascading SSTCR cards.

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Major Specifications

Parameter	Specifications
Type of Bus	Battery tied, Single, 30V-42V
Power support	500W @ 40V
Charge Control	SSTCR-All strings are on/off- frequency of switching is 3Hz
No of TCR	1
No of SA Strings	5 (2.5A / string)
Charge Current ref / Bat voltage ref	Settable (16bit data command)
Domreg	Single with two outputs
Domreg voltage	+/-14V
Solar array current sensor	0-15A
Batter current sensor	Discharge: 0-10A, Charge:0-10A
Size	132mm X 132mm

Technology Transfer

URSC-ISRO offers to transfer of Slow switching Taper charger Regulator 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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