

# CHAS<sup>2</sup> Dual Sense A/B Switch



## Product Description

CableServ has developed the CHAS<sup>2</sup> Dual Sensing RF Redundant Transfer Switch as an additional component of the CHAS<sup>2</sup> Headend Amplifier System. Designed as a modular unit similar to the CHAS<sup>2</sup> Power Supply and Amplifier Modules, the RF Switch fits into any slot in the CHAS<sup>2</sup> Chassis.

The CHAS<sup>2</sup> Dual Sensing A/B SWX is an RF power transfer design that will automatically switch between a Primary and Secondary RF source. Any two RF sources may be employed, as the RF Switch senses the average power of the Primary (A) source and transfers to the Secondary (B) source when the (A) source drops below a set threshold level.

The RF Switch Primary (A) source is always directed to the Output even during a complete power loss to the RF Switch Module. Transfer of the Secondary (B) source to the Output occurs when the switch module is powered and the Primary (A) input level has dropped below the set threshold level. When Primary input is restored, it again becomes the main input source. As the switch is dual sensing, however, the switch to (B) will not be made if levels on (B) fall below its previously set levels.

Sensor range level is adjustable between 0.5 mW and 50 mW (averaged power). Transfer time is less than 20 ms. For test and set-up purposes, a 3-way locking toggle switch forces the RF Switch to connect the Secondary Input to the Output, three bi-colour LEDs indicate the status of both Primary and Secondary Signal sources, as well as the current status of the switch. A power LED and -20 dB test point is included.

The CHAS<sup>2</sup> Dual Sense A/B SWX occupies any one slot of the CHAS<sup>2</sup> Chassis and employs a spring lock mechanism for easy installation and module security. It is powered by the Chassis' internal power distribution panel which can have automatic redundant power back-up capabilities as well.



## Applications

- Final Headend Amplifier Redundancy
- Multi-purpose Back-up Switching for any two RF sources.

## Product Features

- Senses Primary & Secondary signal sources.
- Part of the CHAS<sup>2</sup> family of Headend Amplifier System modules.
- 0.5 mW to 50 mW Threshold Control Range.
- Max. 20 ms automatic signal transfer time.
- SCTE compliant precision machined F-connectors.
- Low through loss and high isolation.
- 5 - 1000 MHz Bandwidth.
- LED power and RF source indicator.
- -20 dB Test Point.
- Full 24 Month Limited Warranty.

## Product Specifications

PRODUCT MODEL: CHAS-2 Dual Sensing A/B - SWX			
PARAMETER	Notes	Units	
Technology			Wide Band Average Power
Passband		MHz	5-1000 MHz
Through Loss (max @ 1000 MHz)		dB	2.0
Minimum Threshold Level (minimum I/P power)	1	mW	0.05
Adjusting of Threshold Level (continuous)	1		30 dB
Switch Transfer Time		mS	Max 20
Primary Restore Switching Hysteresis		dB	2.5 ± 0.5
Force Transfer Switch	2		Yes
Status Indicator	3		Yes
Remote Status Alarming	4		Yes
Output Test Point		dB	-20 ± 0.5
Return Loss		dB	-16
Isolation (between Secondary I/P to Main O/P) @ 5-870 MHz @ 870-1000 MHz	5	dB dB	greater than -75 greater than -70
Powering from two independent power supplies			Yes
Operating Voltage		VDC	+24
Current Consumption Primary I/P is active Secondary I/P is active / Force Transfer	6	mA mA	Max 200 Max 240
Weight		kg	0.7
Dimensions (LxWxH)		cm	30.0x13.0x4.5

Specifications are subject to change without notice.

### NOTES:

- 1) For both primary and secondary outputs
- 2) Three Position Force Transfer Locked Switch: Primary I/P Active, Auto, Secondary I/P Active
- 3) Green for Primary I/P active; Red for Secondary I/P active
- 4) High impedance output: + 2V for Primary I/P active; + 0.2V for Secondary I/P active
- 5) When Primary I/P is active
- 6) Current consumption depends of relay's status and threshold regulators

## Order Information

PRODUCT MODEL	ORDER NUMBER
CHAS-2 DUAL SENSE REDUNDANT A/B SWITCH	824-707-600-OCE



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