

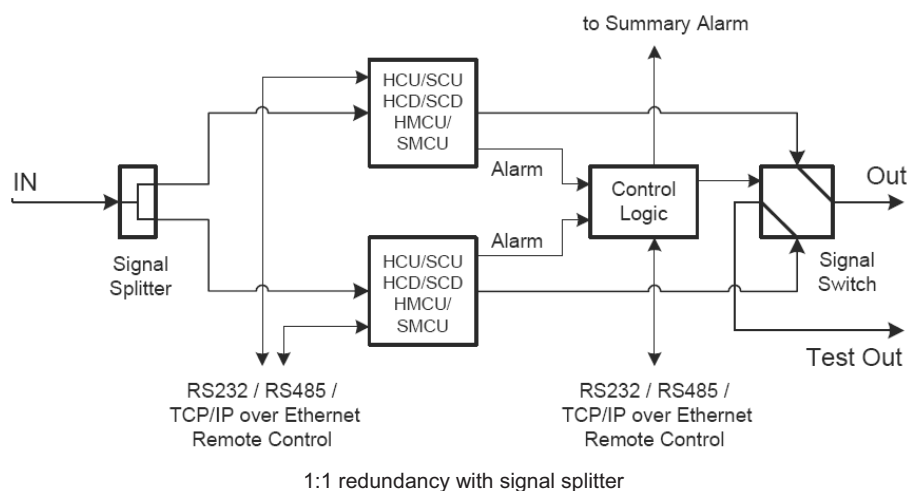
Redundancy Switch 1:1 Redundancy Controller 1:1

The Redundancy Switch is used for 1:1 redundancy configurations for upconverters, downconverters and DVB modulator-upconverters. It includes typically a coaxial signal splitter for the input signal and a coaxial signal switch for the output signal. Also LNAs or even HPAs can be included within the system, as the switch is able to control external waveguide transfer switches as an option. DC power to LNAs can be provided also as an option. The switch accepts alarm signals from 2 types of equipment, so that it can be used for redundancy configurations with e.g. a video encoder and a modulator within one chain.

The units can be controlled from the front panel or remotely via RS 232, RS422/485 or IP over Ethernet.

The unit can operate in automatic mode, where an automatic switchover to the stand by unit is performed upon detection of an alarm of the active unit. Also a manual switchover to the stand-by-unit can be initiated. Two power supplies and two AC input connectors guarantee very high availability of the unit.

The 1:1 redundancy is also available in an outdoor version, where the signal splitter and the signal transfer relay is mounted within an outdoor switch box. The control unit is similar to the indoor redundancy controller, but does not include any signal splitters or signals switches. The outdoor switch box also includes interfaces for alarms and M&C of outdoor units. A control cable runs from the outdoor switch box to the indoor redundancy controller.



Redundancy Switch 1:1

Specifications		
Model	RSCM1-xx-xx Redundancy Switch 1:1	RSCM1-OD Redundancy Controller 1:1 for outdoor switch box RSB1-xx-xx
Control Interface to Outdoor Switch Box RSB1-xx-xx:	-	Alarm inputs, control outputs (Connector DSUB15 female)
Signal Splitter RSCM1-50K-xx	Connector type: SMA female Impedance: 50Ω Power handling: 3 W Frequency Range: 6-18 GHz Insertion loss: < 1.2 dB (above 3dB) Return Loss: > 14 dB Amplitude balance: 0.4 dB	
Signal Splitter RSCM1-50C-xx	Connector type: SMA female Impedance: 50Ω Power handling: 3 W Frequency Range: 4-8 GHz Insertion loss: < 1.2 dB (above 3dB) Return Loss: > 15 dB Amplitude balance: 0.4 dB	
Signal Splitter RSCM1-50L-xx	Connector type: SMA female Impedance: 50Ω Power handling: 3 W Frequency Range: 950-2000 MHz Insertion loss: < 1.0 dB (above 3dB) Return Loss: > 17 dB Amplitude balance: 0.3 dB	
Signal Splitter RSCM1-50V-xx	Connector type: BNC female Impedance: 50Ω Power handling: 1 W Frequency Range: 5-300 MHz Insertion loss: < 1.0 dB (above 3dB) Return Loss: > 15 dB Amplitude balance: 0.4 dB	
Signal Splitter RSCM1-75V-xx	Connector type: BNC female Impedance: 75Ω Power handling: 1 W Frequency Range: 5-300 MHz Insertion loss: < 1.0 dB (above 3dB) Return loss: > 15 dB Amplitude balance: 0.4 dB	
Signal Transfer Switch RSCM1-xx-50K	Connector type: SMA female Impedance: 50Ω Power handling: 1 W (switching) Frequency Range: 0-18 GHz Insertion loss: < 0.1 dB (0-1 GHz) < 0.2 dB (1-4 GHz) < 0.3 dB (4-8 GHz) < 0.4 dB (8-12 GHz) < 0.5 dB (12-18 GHz) Isolation: > 85 dB (0-1 GHz) > 80 dB (1-4 GHz) > 70 dB (4-8 GHz) > 65 dB (8-12 GHz) > 60 dB (12-18 GHz) Return loss: > 26 dB (0-1 GHz) > 21 dB (1-4 GHz) > 16 dB (4-8 GHz) > 15 dB (8-12 GHz) > 14 dB (12-18 GHz)	

Redundancy Switch 1:1

Specifications (cont.)

Model	RSCM1-xx-xx Redundancy Switch 1:1	RSCM1-OD Redundancy Controller 1:1 for outdoor switch box RSB1-xx-xx
Switching	Manual or Automatic	
Remote M&C Interface	RS232 or RS422/RS485 (Connector DSUB09 female) Ethernet/IP (10 or 100 Mbit/s, auto sensing)	
Summary Alarm Interface	Two potential free contacts (DPDT, Connector DSUB09 female)	
Internal M&C Interface	RS485 (Connector DSUB09 male)	
Configuration	16 DIP switches on rear side / serial interface	
Temperature Range	-30°C to 60°C operating -30°C to 80°C storage	
Relative Humidity	< 95 % non condensing	
User Interface	10 LEDs, 4 Function Keys	
Power Input	85...264 V AC, 40...70 Hz 0.9 A max Redundant Power Supply	
Power Consumption	typical 5 W / 10 VA	
Mains Fuse	2 x 3.15 A time-lag (per power supply unit)	
Dimension and Weight	483 x 44 x 270 mm ³ , 1 RU (19") approx. 3 kg	

ORDERING INFORMATION

RSCM1-[Splitter Type]-[Switch Type] or
RSCM1-OD

Examples:
RSCM1-75V-50K
RSCM1-OD