APPLICATIONS

Redundancy Switching for:

- Modulators
- Converters
- HPAs, LNAs, LNBs
- 1:1 Redundancy Switch
- Up to 8:1 Redundancy Switch

FEATURES

- Input IF Switching
- Output RF Switching
- Indoor 1RU Controller
- Optional Outdoor Switch
- Optional DC Power
- Dual Power Supplies

RSCC-T SERIES

Redundancy Switch 1:1

The **RSCC-T Series Redundancy Switch** is used for 1:1 redundancy configuration for Upconverters, Downconverters, Modulator-Upconverters, Transport Stream Modulators, Demodulators, and Modems. It comes standard with a coaxial signal switch for the input signal and a coaxial signal switch for the output signal.
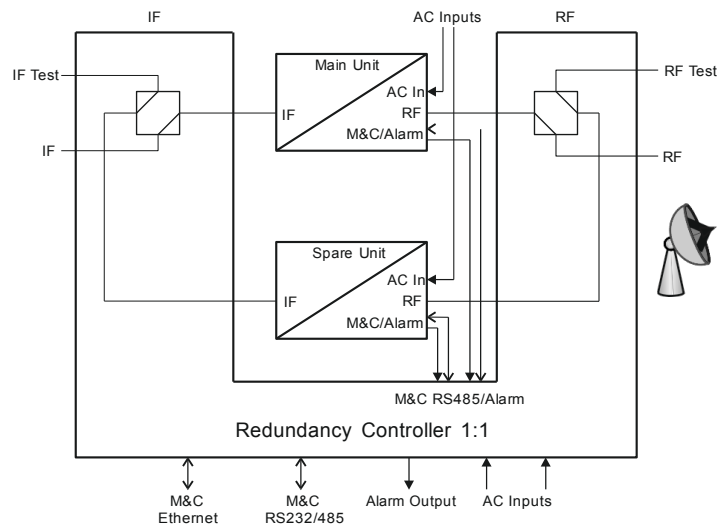
The switch is capable to control external waveguide transfer switches as an option for LNAs or even HPAs. DC power to LNAs can also be provided as option. The switch accepts alarm signals from two equipment chains.

The unit can be controlled from the front panel or remotely via RS-232, RS-422/485, or IP over Ethernet.

The unit can operate in automatic mode, whereby an automatic switchover to the standby unit is performed upon detection of an alarm generated by the active unit. In addition, a manual switchover to the standby unit can be initiated.

Two power supplies and two AC input connectors guarantee high availability of the unit.

The 1:1 redundancy switch is also available in an outdoor version, where the signal transfer relays are mounted within an outdoor switch box. The control unit is like the indoor redundancy controller but does not include any signal 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.

TECHNICAL

CONTROLLER RSCC-T COMMON PARAMETERS		
Monitoring and Control Interface	Protocol: Connection:	SNMP UDP over Ethernet (10 or 100 Mb/s, auto sensing), connector RJ-45
	Protocol: Connection:	HTTP (web browser interface) TCP/IP over Ethernet (10 or 100 Mb/s, auto sensing), connector RJ-45
	Protocol: Connection:	Multipoint RS-232 or RS-422/RS-485 (configurable), connector DSUB09 female or TCP/IP over Ethernet (10 or 100 Mb/s, auto sensing), connector RJ-45
User Interface	10 LEDs, 4 Function Keys	
Configuration	16 DIP switches on rear side / serial interface	
Summary Alarm Interface	Two potential free contacts (DPDT), connector DSUB09 female	
Internal M&C Interface	RS485, connector DSUB09 male	
Switching	Manual or Automatic	
Delay from unit alarm occurrence until IF/RF relay switching	Typical 8 ms, max. 15 ms	
Temperature Range	-30°C … 60°C operating, - 30°C … 80°C storage	
Relative Humidity:	< 95 % non-condensing	
Mains Power Input	2 x 100 … 240 VAC nominal, 90 … 264 VAC max, 50 … 60 Hz, Redundant Power Supply, Hot swap	
Mains Power Consumption	Max: 25 VA / 7 W	
Mains Power Input Connector	2 x IEC C14	
Mains Fuse	2 x 2 x 2.0 A time-lag fuse	
Dimension and Weight of Indoor Controller	483 x 44 x 270 mm or with option L 483 x 44 x 470 mm (WxHxD), 1 RU (19") approx. 3 kg	

CONTROLLER RSCC-T PARAMETERS	
Alarm Interface to Units	2 Interfaces to sense contact closures or alarm signals at alarm outputs of unit or additional units, connectors DSUB15 female

CONTROLLER RSCC-T-DC PARAMETERS	
Alarm Interface to Units	2 Interfaces to sense contact closures or alarm signals at alarm outputs of unit or additional units

CONTROLLER RSCC-T-OD PARAMETERS	
Control Interface to Outdoor Switch Box	Unit alarms, RS485 communication interface to units, relay control, connector MIL-C-26482: MS 3120 E 16-26 P
M&C Interface to Units	RS-485, connector DSUB09 female

CONTROLLER RSCC-T-O-O PARAMETERS	
Alarm Interface to Units	2 Interfaces to sense contact closures or alarm signals at alarm outputs of unit or additional units, connectors DSUB15 female
Control Interface to Relay Panel	Relay control, connector DSUB15 female (same as Alarm Interface to Unit)

PANEL WITH RELAYS RSP-1 PARAMETERS	
Interface to Controller	Relay control, connector DSUB15 male
Dimension and Weight	483 x 88 + connectors x 96 mm (WxHxD), 2 RU 19" + SMA/BNC connectors approx. 1 kg

REDUNDANCY OUTDOOR SWITCH BOX OSB-1 PARAMETERS	
Interface to Indoor Controller	Unit alarms, internal M&C interface (RS-485), relay control, connector Type: MIL-C-26482: MS 3120 E 16-26 S
M&C Interfaces to Outdoor Converters	Unit alarm, RS-485 communication interface to units, connector Type: MIL-C-26482: MS 3120 E 14-19 P
Interface to External Wave Guide Switch (only with Option XWGS)	Coil control, indicator contact, connector Type: MIL-C-26482
Temperature Range	-30°C … 60°C operating, - 30°C … 80°C storage
Relative Humidity	100 %
Dimension and Weight	Small: 190 x 190 x 100 mm (WxHxD), approx. 3 kg, Large: 300 x 150 x 400 mm (WxHxD), approx. 8 kg
Degree of Protection	IP 66 (acc. IEC 60529)

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TECHNICAL

IF AND RF SWITCH TYPE PARAMETERS WITHOUT CABLING							
Relay 75L, 0 … 2.5 GHz	Impedance: 75 Ω Power handling: 1 W (switching) Connector: 1.6/5.6 female, adapter to BNC female provided						
	Frequency (GHz) V.S.W.R. (max.) Insertion loss (dB max.) Isolation (dB min.)	0 … 1 1.20 0.2 80	1 … 2.5 1.30 0.3 70				
Relays 50K, 50Ka26, 50Ka40	Impedance: 50 Ω Power handling:1 W (switching)						
50K, 0 … 18 GHz:	Connector: SMA female						
50Ka26, 0 … 26.5 GHz:	Frequency (GHz): V.S.W.R. (max.): Insertion loss (dB max.): Isolation (dB min.):	0 … 1 1.1 0.2 85	1 … 4 1.15 0.2 80	4 … 8 1.25 0.3 70	8 … 12.4 1.35 0.4 65	12.4 … 18 1.6 0.6 60	18 … 26.5 1.7 0.8 55
50Ka40, 0 … 40GHz:	Connector: K female						
	Frequency (GHz): V.S.W.R. (max.): Insertion loss (dB max.): Isolation (dB min.):	0 … 6 1.3 0.3 70	6 … 12.4 1.4 0.4 60	12.4 … 18 1.5 0.5 60	18 … 26.5 1.7 0.7 55	26.5 … 40 1.9 0.8 50	

Specifications are subject to change

Order Information

RSCC-T-[IF Switch Type]-[RF Switch Type]-[Options]
Redundancy Switch with integrated relays

RSCC-T-[IF Switch Type]-[RF Switch Type]-[Options]-OD
Indoor Redundancy Controller RSCC-T-OD and Outdoor Switch Box with integrated relays

RSCC-T-0-0-[Options]
Redundancy Controller without switches for external relay panel

RSP-1-[IF Switch Type]-[RF Switch Type]
Redundancy Switch Panel with up to 4 IF relays and up to 4 RF relays

RSCC-T-OD-[Options]
Redundancy Controller without switches for Outdoor Switch Box

OSB-1-[IF Switch Type]-[RF Switch Type]-[Options]
Outdoor Switch Box with integrated relays

Possible Options

L   housing depth of indoor controller 470 mm
DC   redundant 24V DC output, not on RSCC-T-OD

Examples

RSCC-T-75L-50K	IF Relay 75 Ω 2.5 GHz, RF Relay 50 Ω 18 GHz
RSCC-T-0-50K	without IF part, RF Relay 50 Ω 18 GHz
RSCC-T-50K-50Ka26-L	IF Relay 50 Ω 18 GHz, RF Relay 50 Ω 26 GHz, housing depth 470 mm
RSCC-T-OD	Controller without Switches for Outdoor Switch Box
RSCC-T-50K50K-XWGS-OD	Outdoor System with Controller and Outdoor Switch Box with 2x IF 50 Ω 18 GHz IF Relays and connector for external Wave Guide Switch
RSCC-T-75L75L75L75L-50K50K50K50K	Controller with external Panel with 4x IF Relays 75 Ω 2.5 GHz and 4x RF Relays 50 Ω 18 GHz