



StingRay S-band Active Splitter and Redundancy Switch

SRY-G2S-DS6-401-xxxxxx is a hot swap active splitter with 10MHz & DC pass between the output and common ports. The module provides 0 dB gain with an input impedance of 50 or 75 Ohms, the output is always 50 Ohms. The module is designed to be used with 50 Ohm transmit modules from the StingRay series to produce 1+1 redundant systems. The module is designed to work in Genus 2U chassis and ODUs.

SRY-G2S-SS6-402-xxxxxx is a hot swap, redundancy switch operating over -5 to -55dBm mean power. The module incorporates RF detection at each of its input ports and switches over if the level differs by more than 2 to 30dB, customer settable. It is designed to operate with optical receivers from the StingRay Genus chassis series.

- Typical applications:**
- Ku-band and Ka-band ready for HTS applications
 - Distribution of comms traffic across site with minimal loss
 - General satcoms– teleports, video head-ends, TVRO
 - Compact solution for small quantity links such as tactical HQ
 - A resilient solution for satellite teleports with transition distances up to 10km

Resilience from dual redundant hot-swap power supplies & field replaceable CPU & HMI

Local control & monitoring via HMI high resolution touchscreen

Compact housed in a 2U high chassis with capacity for up to 17 modules

Hot Swap & replaceable modules

Field replaceable Internal 10MHz reference source and external reference inject port with auto detection (optional)

Remote control & monitoring via RJ45 Ethernet port with SNMP & web browser interface

| Chassis - Specification | |
|--------------------------------|---|
| Dimensions / Weight / Colour | 2U high x 510mm deep x 19" wide / <10 kg / RAL9003—White (Semi-matte) |
| Capacity | Total of 17 module slots. Note that 1 slot may be used for fan (if required) and 1 slot may be used for 10 MHz EXT inject module (if required). Note actual modules may require >1 slot. Refer to required module spec table. |
| Temperature | Operating: 0°C to +45°C / Storage: -20°C to +75°C |
| Location / Humidity / Altitude | Indoor use only / 20 to 90% non-condensing / 10,000 feet AMSL (Operational) 30,000 feet AMSL (Storage) Above Mean Sea Level |
| Control & Monitoring | Local: HMI touch screen Remote: Ethernet via RJ45, 10BaseT/100 BaseTx. TCP/IP, SNMP V3 & HTTPS & Web browser interface HMI and CPU field replaceable. Each module independently monitored and reported. |
| MTTR | 20 minutes (15 minutes to retrieve spare part and 5 mins to replace) Applies to LRUs only and assumed in house stock |
| AC Input / Consumption | 85-264Vac 50/60Hz / 150W |
| PSU Redundancy | Dual redundant and alarmed Diode OR. Hot swappable |
| Input & Output ports | Dependant upon module fitted |





Preliminary Technical Specifications and Operating Parameters

RF Parameters (Splitter and Switch Modules)

| Model Number | | SRY-G2S-DS6-401 | SRY-G2S-SS6-402 |
|---|---------------|--|--|
| Frequency Range | | 500 to 3150 MHz (S-band) | |
| Gain | | 0 dB \pm 1.5 dB | 0 dB \pm 1.5 dB |
| Flatness | 850-2150MHz | \pm 1.0 dB | \pm 1.0 dB |
| | 500-3150MHz | \pm 1.5 dB | \pm 2.0 dB |
| | Any 36MHz | \pm 0.25 dB | \pm 0.25 dB |
| Return Loss <small>(All RF ports are DC blocked)</small> | 50 ohm SMA | 18 dB typical, 13 dB minimum | 18 dB typical, 12 dB minimum |
| | 50 ohm BNC | 18 dB typical, 13 dB minimum | 18 dB typical, 10 dB minimum |
| | 75 ohm BNC | 16 dB typical, 10 dB minimum | 16 dB typical, 8 dB minimum |
| | 75 ohm F-type | 16 dB typical, 10 dB minimum | 16 dB typical, 8 dB minimum |
| Isolation | | 19 dB typical, 16dB minimum | -40 dB (-10dBm tone across operational bandwidth unselected input to output) |
| 1dB Gain Compression Point | | +5 dBm minimum (output power) | +7 dBm minimum (output power) |
| OIP3 | | - | +18 dBm minimum |
| Noise Figure | | 9dB typical, 11 dB maximum | 12 dB maximum |
| Group Delay Variation | | 1ns over full band, 0.5ns over any 36MHz | 2ns over full band, 1ns over any 36MHz |
| RF Signal Range | | Input: -70 to -10dBm (total power) Operational i/p range (Note that all Specifications are only 'typical' between -60 & -70dBm unless otherwise detailed). | Output: -70dBm to -10dBm (total power) o/p range available under all i/p conditions. (Note that all Specifications are only 'typical' between -60 & -70dBm unless otherwise detailed). |
| Max RF Input | | 20 dBm total power (Damage level, NOT operational) | 16 dBm total power (Damage level, NOT operational) |
| Switching Threshold | | - | 2 dB to 30 dB Differential (Customer Settable) |
| Switching Delay | | - | 0 to 10 Seconds (Customer Settable) |
| 10MHz Level at output | | 10MHz Ref Bypass , 0dB loss | -10dBm to +10dBm |

Non RF Parameters

| | |
|-------------------|----------|
| Power Consumption | <3W |
| Module Swap | Hot Swap |

Control, Monitoring & Alarms

| | |
|---------------------|--|
| Temperature | Each module monitored |
| Monitoring Includes | Status of amplifier stage, supply voltage, temperature |
| Control | Local and Remote via parent chassis |

Environmental Conditions

| | |
|-----------------------|--|
| Operating Temperature | -20°C to +60°C |
| Storage Temperature | -40°C to +90°C |
| Location | Indoor use (ODU options available) |
| Humidity | 20 to 90% non-condensing |
| Altitude | 10,000ft AMSL |
| Mass | 0.4kg typical |
| Size | 19mm Width x 87mm Height x 225mm Depth |
| Spec Issue | 0.4 |

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

