

## PRODUCT DESCRIPTION

The active splitter SSF301 is intended for splitting wideband H and V SAT IF and DTT signals up to four optical transmitters. The splitter is compatible with OTF302 optical transmitters. The housing of splitter meets more stringent screening requirements according to EN50083-2, class A. The splitter is intended for indoor use only.

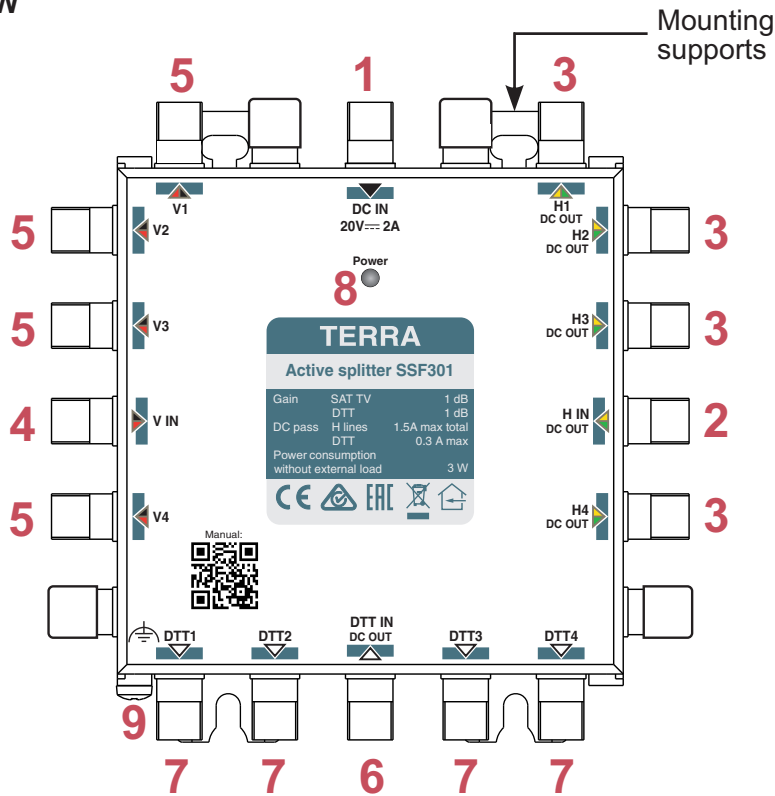
## SAFETY INSTRUCTIONS

Installation of the splitter must be done according IEC60728-11 and national safety standards. The splitter is powered from the power supply +20 V. This voltage is not dangerous to life. External power supply must have a short circuit protection. Any repairs must be done by a skilled personnel. To avoid damaging of the splitter do not connect the supply voltage until all cables have been connected correctly. Avoid placing the splitter next to central heating components and in areas of high humidity. If the splitter has been kept in cold conditions for a long time, keep it in warm room no less than 2 hours before powering. The ventilation should not be impeded by covering the splitter with items, such as newspapers, table-cloths, curtains. From top, front and bottom of installed splitter must be at least 5 cm free space.

## MOUNTING

The splitter must be fixed with steel screws Ø 4-5 mm. The screws are not included in a package.

## EXTERNAL VIEW



Manual:



Figure 2. External view of the splitter

1. DC IN - +20 V DC powering input into SAT H lines. F socket.
2. H IN, DC OUT- SAT IF horizontal polarization input, DC output. F socket.
3. H1-H4, DC OUT - SAT IF horizontal polarization outputs, DC output. F socket.
4. V IN - SAT IF vertical polarization input. F socket.
5. V1-V4 - SAT IF vertical polarization output. F socket.
6. DTT IN, DC OUT - DTT input from MCA101x, DC output. F socket.
7. DTT1-DTT4 - DTT outputs to transmitters OTF302. F socket.
8. Power - powering indicator.
9. Functional grounding clamp.

### Safety of laser product

Optical transmitter module contains laser diode sources. These devices are rated under IEC60825-1: "Safety of Laser Products", Part 1: Equipment classification and requirements as CLASS 1M laser product. When operating the equipment note the following:



Most fiber optic laser wavelengths are totally invisible to the eye and will cause permanent eye damage. Never look into the end of a fiber on a powered device through a magnifying device (microscope, eye loupe, magnifying glass, etc.). Before using such devices always double check that power is disconnected or, if possible, completely disconnect the unit from any power source.

To verify the light output always use an instrument, such as an optical power meter.

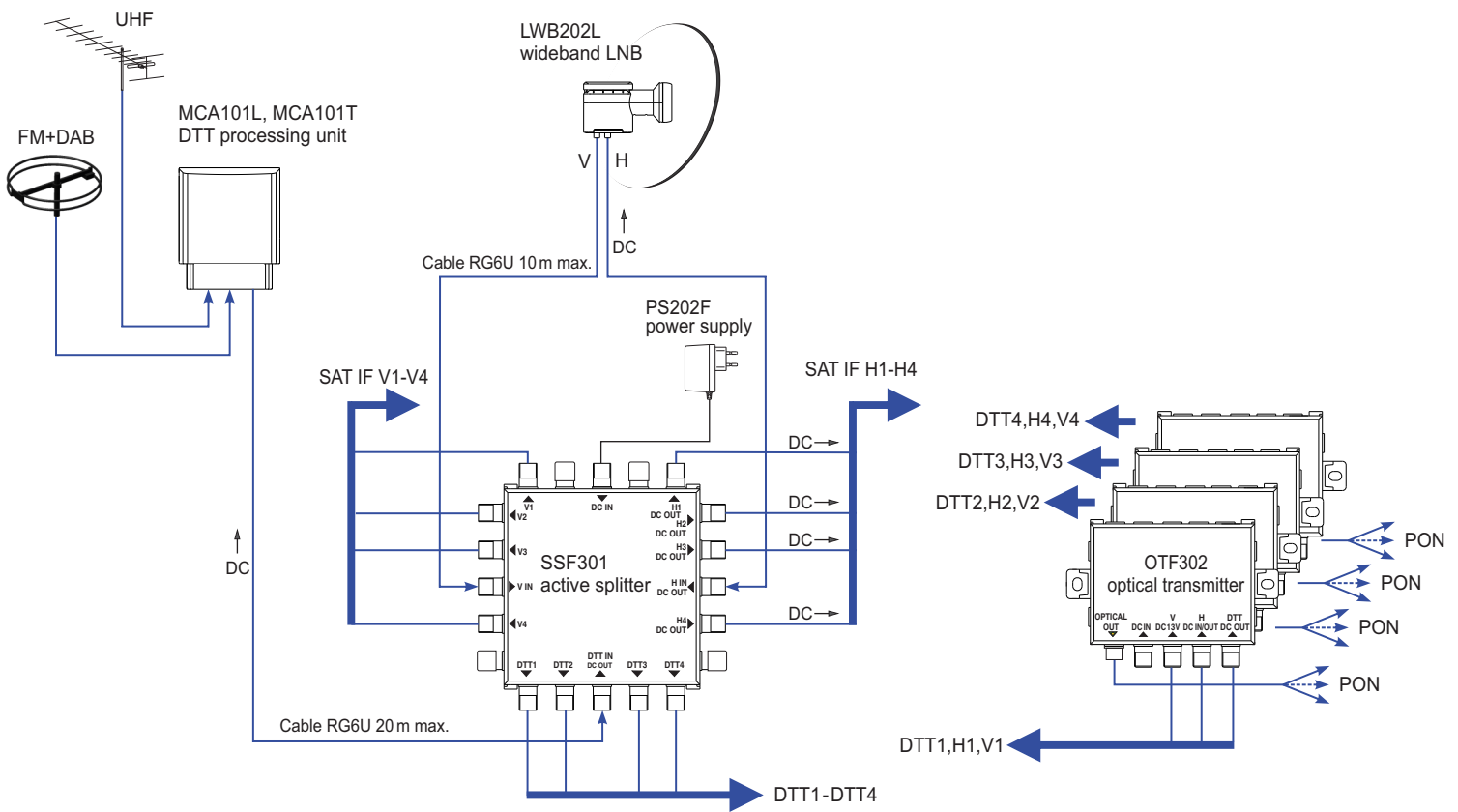
Operate only with the proper optical fiber installed in the device optical connector.

Whenever the optical connector is empty the laser transmitter should be turned off.

Before applying power always connect a fiber to the output of the device.

Never leave equipment with radiating bare fibers accessible - always cap the connectors.

### APPLICATION DIAGRAM OF TRANSMITTING SYSTEM




For installation instructions of OTF302, MCA101T, MCA101L, LWB202L see [www.terraelectronics.com](http://www.terraelectronics.com).

## TECHNICAL CHARACTERISTICS

Frequency range	SAT IF	290-2350 MHz
	DTT*	87.5-240 / 470-790 MHz
Gain	SAT IF	1 dB
	DTT	1 dB
Output level	SAT IF for 60 transp.	85 dB $\mu$ V max. (per carrier)
	DTT	93 dB $\mu$ V max. (per carrier)
Outputs decoupling	SAT IF	24 dB
	DTT	24 dB
<b>General</b>		
Return loss / impedance		> 10 dB / 75 $\Omega$
Supply voltage		20 V
Power consumption without external load		3 W
DC pass	from DC IN into SAT H lines	1.5 A max.
	between DTT ports	300 mA max.
Operating temperature range		-20° ÷ + 50° C
Dimensions/Weight (packed)		135x135x30 mm/0.44 kg

\* system frequency range of the set with MCA101x

## REQUIREMENTS FOR EXTERNAL POWER SUPPLY UNIT (PSU)

- Output voltage +20 V  $\pm$  1 V
- Output current\* recommended to use PSU with 50% extra power reserve
- Ripple at single and/or double mains frequency < 10 mV p-p
- Ripple & noise < 200 mV p-p
- Short circuit protection
- Double insulated (marked )
- Meet EN 55022 class B conducted emissions requirements, measuring with grounded load

\* in case of 4 OTF302 driving power consumption of the system:

$$2.6 \text{ W (MCA101x)} + 2 \text{ W (LWB20xL)} + 3 \text{ W (SSF301)} + 4 \times 4 \text{ W (OTF302)} = 23.6 \text{ W}$$

Current consumption from 20 V PSU: 23.6 W / 20 V = 1.18 A min.



This product complies with the relevant clauses of the European Directive 2002/96/EC. The unit must be recycled or discarded according to applicable local and national regulations.



Equipment intended for indoor usage only.



Functional grounding. Connect to the main potential equalization.



This product is in accordance to following norms of EU: EMC norm EN50083-2, safety norm EN IEC62368-1, RoHS norm EN50581.



This product is in accordance with Custom Union Technical Regulations: "Electromagnetic compatibility of technical equipment" CU TR 020/2011, "On safety of low-voltage equipment" CU TR 004/2011.



This product is in accordance with safety standard AS/NZS 60065 and EMC standards of Australia.