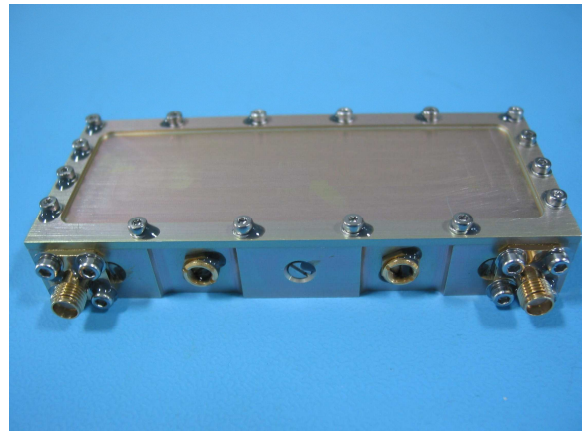


# S-Band Transmit Filter

## Applications

- LEO/MEO S-Band Filter
- Earth Observation Missions
- Space Science Missions



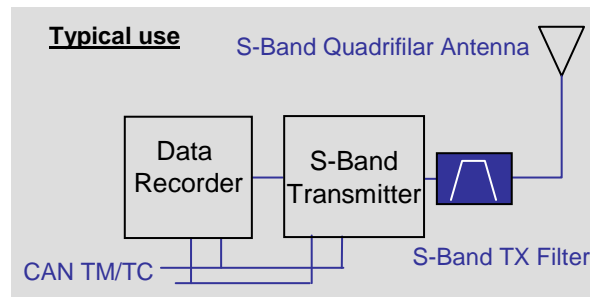
S-Band Transmit filter

## Features

- Extensive flight heritage
- 80 MHz operating frequency band
- > 60dB Rejection across 2025 – 2110 MHz band
- < 1.5 dB insertion loss at band centre
- 7.5 year design life

## Interfaces

- 50 Ohm interface (Female SMA)



## Key Specifications

- Operating frequency band: 2200 – 2280 MHz
- Dimensions: 43 x 103 x 19 mm
- Mass: 90 g

## Heritage

- 15 S-Band Transmit filters in orbit (13 LEO, 2 MEO)

## Options

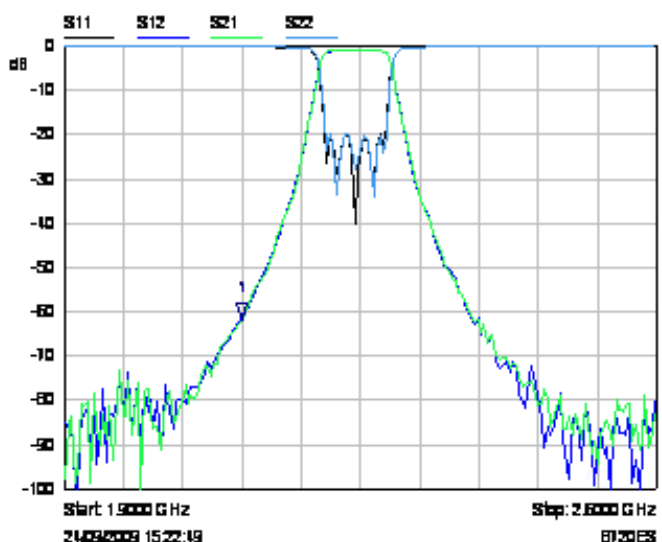
- Adjustable centre frequency

## SSTL Associated Products

- S-Band Transmitter
- S-Band Quadrifilar Helix Antenna

## Typical Performance Characteristics

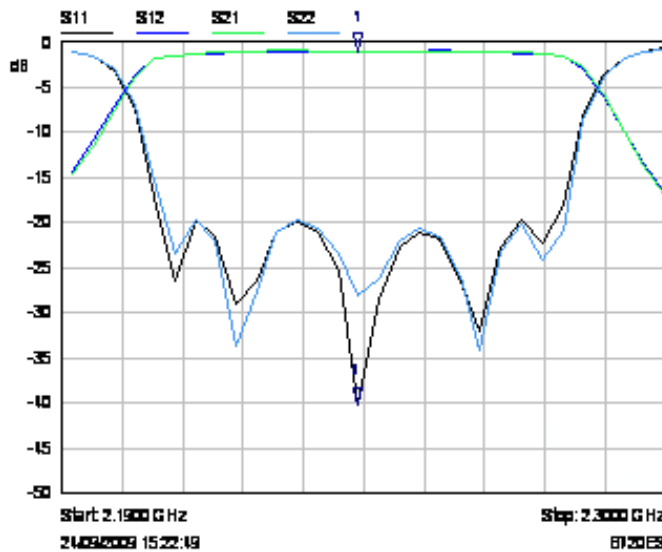
All performance characteristics at 23°C



Min	Trace	X-Axis	Value	Notes
1	S21	2.1102 GHz	-62.05 dB	RX BAND EDGE

S-Band Transmit Filter Rejection Performance

# S-Band Transmit Filter



Mtr	Trace	X-Axis	Value	Notes
1	S21	2.2441 GHz	-0.99 dB	CENTER FREQUENCY
1	S11	2.2441 GHz	-10.17 dB	CENTER FREQUENCY

S-Band Transmit Filter band centre performance

SSTL is ISO9001:2008 certified

- Manufacture to:
  - ECSS Q-ST-70-08C
  - ECSS Q-ST-70-38C
  - All work overseen by ESA trained assembly staff

Standard Delivery Service Includes

- Compliance Testing
- Test Plan
- Test Results
- Export License and Shipping
- Thermal Vacuum Testing available
- Unit can be supplied prior to environmental testing

Operating Frequency Band	2200 - 2280 MHz
VSWR Band Centre	< 1.5:1
Insertion Loss (Band Centre)	< 1.5 dB
RX Band Rejection	> 60 dB
Passband Ripple	< 1.0 dB
Dimensions	43 x 103 x 19 mm
Mass	90 g
Operating Temperature	-20 to +50 °C operating -30 to +60 °C non-operating
Terminal Impedance	50 Ω

## Surrey Satellite Technology Limited

SSTL has launched over 30 satellites gaining almost 200 years in-orbit experience. SSTL draws on its world-class expertise in both small satellite platform technology and high and medium resolution optical instruments. SSTL provides complete turn-key system solutions; spacecraft, ground station, launch, operations and image processing.

SSTL is unique in the space industry; able to design, manufacture and integrate multiple satellites in-house.

Changing the economics of space  
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