

# SSPA - Solid State Power Amplifier



IN-SNEC®

This Solid State Power Amplifier, designed for S-band Uplink, is available in 1600W and 800W output power configuration, according to the quantity of modules integrated in the cabinet. The standard version contains 8 plug-in modules racked in a 36U standard cabinet.

This SSPA provides many advantages. Thanks to solid state technology, this amplifier has a very high intrinsic reliability and better electrical characteristics. The modular architecture and the excellent operating reliability eliminate redundant equipment. Each module can be removed during operation; thus facilitating maintenance operations.

The monitoring and control is performed through the 1+1 preamplifier unit on the front panel in local mode and via RS485/Ethernet link in remote mode.

## Modular S-band - 1600 & 800 W

### Main Applications

- S-Band Uplink
- Civil and military
- High reliability data link

### Main Features

- 1 + 1 redundant preamplifier
- Built-in redundant output power stages
- Hot swappable plug-in RF modules
- Pout and Preflect measurements
- Local Control & Remote Control
  - ◆ Local Control on preamplifier or Remote Control via RS 485/Ethernet link
  - ◆ Display and alarms monitoring
  - ◆ Modules alarms (Gain /T° /PSU...)
  - ◆ Forced air blowing
  - ◆ Output power monitoring of each module

### Main Benefits

- High linearity
- Excellent reliability
- Self redundancy
- Easy maintainability

### Options

- Rx rejection filter
- Switch & Dummy Load Unit
- WR 430 output
- Air Exhaust System

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## Configuration

### Basic features

1x 36U rack cabinet  
 1x 1+1 pre-amplifier unit  
 8x RF modules (Standard version)  
 Front panel Pout & Preflected Power Test

### Options

Rx rejection filter  
 WR430 output  
 Air Exhaust System  
 Switch & Dummy Load Unit (Air Exhaust System included)

# SSPA

# Solid State Power Amplifier

## MODEL TABLE

SSPA	1600W Standard version 800 W version
Options	Rx rejection filter WR430 output Air Exhaust System Switch & Dummy Load Unit H2 filter

## Technical specifications

### Electrical specifications (@ 25°C)

Frequency range	2025-2120 MHz	
Output power	Psat @PS1	1.6 kW typ (1.4 kW min) 1.2 kW typ Nominal gain > 65 dB (70 dB typ)
Input power	-10 dBm nominal	
Gain adjust	0 to 20 dB	by 0.1 dB step
Gain flatness	@ PS1	< ±1.25 dB
Gain slope	per 10 MHz	< ±0.3 dB
IM3	@ 3 dB OBO/PS1	> 26 dB
AM/PM conversion	@ PS1	5°/dB
Noise figure	@ nom. gain	13 dB max
Harmonics	@ PS1	< -70 dBc
Spurious	@ PS1	< -60 dBc
Input VSWR	< 1.35	
Output VSWR	< 1.35	
EMI / RFI	CE approved	

### Interfaces

RF input connector	N female
RF output connector	1"5/8 or waveguide WR430 in option

### Mechanical characteristics

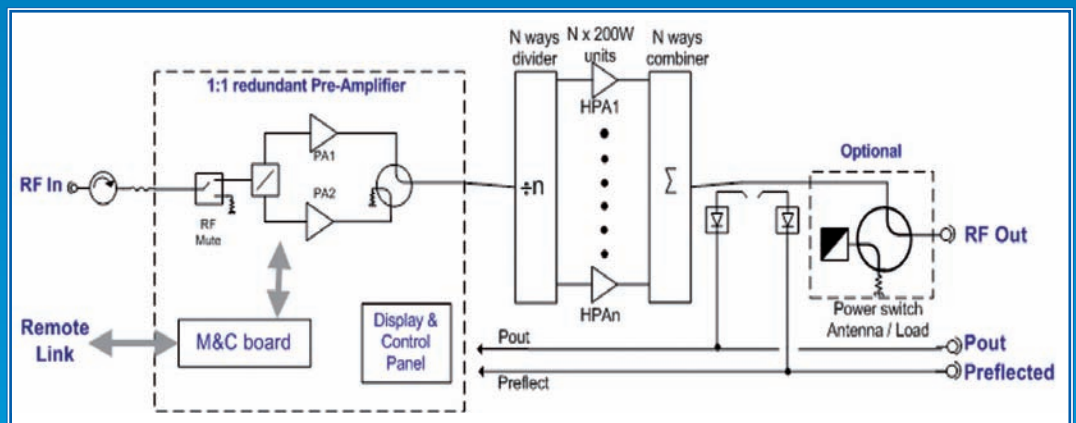
Dimensions (WxHxD)	
without Air Exhaust System	19"x36Ux900mm
with the Air Exhaust System option	H= 36U +350mm
Weight	1100lb (500kg)

### Environmental specifications

Operating conditions	
Temperature range	+5 to +35°C
Relative humidity	93%, non condensing
Storage conditions	
Temperature range	-30°C to +70 °C

## Primary power

Voltage	230VAC ±10% (2 or 4 wires)
Frequency	47/63 Hz
Consumption max	7000W @ Pout =1kW 4500W



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Z.D.S. reserves the right to change specifications without notice - PFP80.9.2