Using technology developed for ModuMAX™ amplifiers, these rack-mount SSPAs offer output powers of 100, 125, 200 or 250 watts accross the standard 5.850-6.425 GHz or extended 5.850-6.725 GHz satellite uplink bands

The SSPAs incorporate a modular architecture that includes the RF modules, power supplies, logic, fans, and front panel assembly. The amplifiers are designed for reliable service in fixed and mobile applications.

FEATURES:

- 100, 125, 200 or 250 W saturated output power
- Digital gain adjustment (20 dB range)
- Forward and reflected power monitoring
- Microprocessor based monitor and control
- Serial interface (RS-232/-422/-485) standard
- 10 Base-T network interface (SNMP, HTTP)
- RF input and output sample port
- Integral 1:1 redundancy control

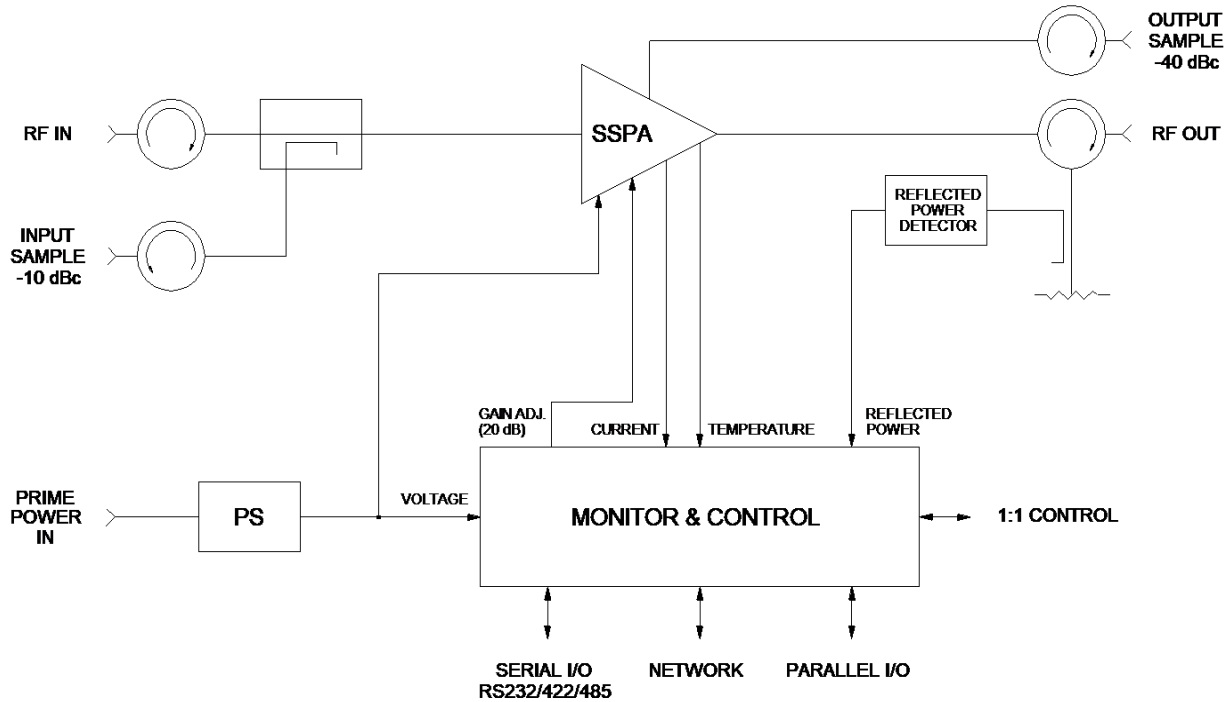
APPLICATIONS:

- Single-thread SSPA
- Redundant systems (1:1, 1:2)
- Fixed installations
- Mobile terminals
- Commercial, Government and Military systems

ACCESSORIES:

- RCP-2001 remote panel

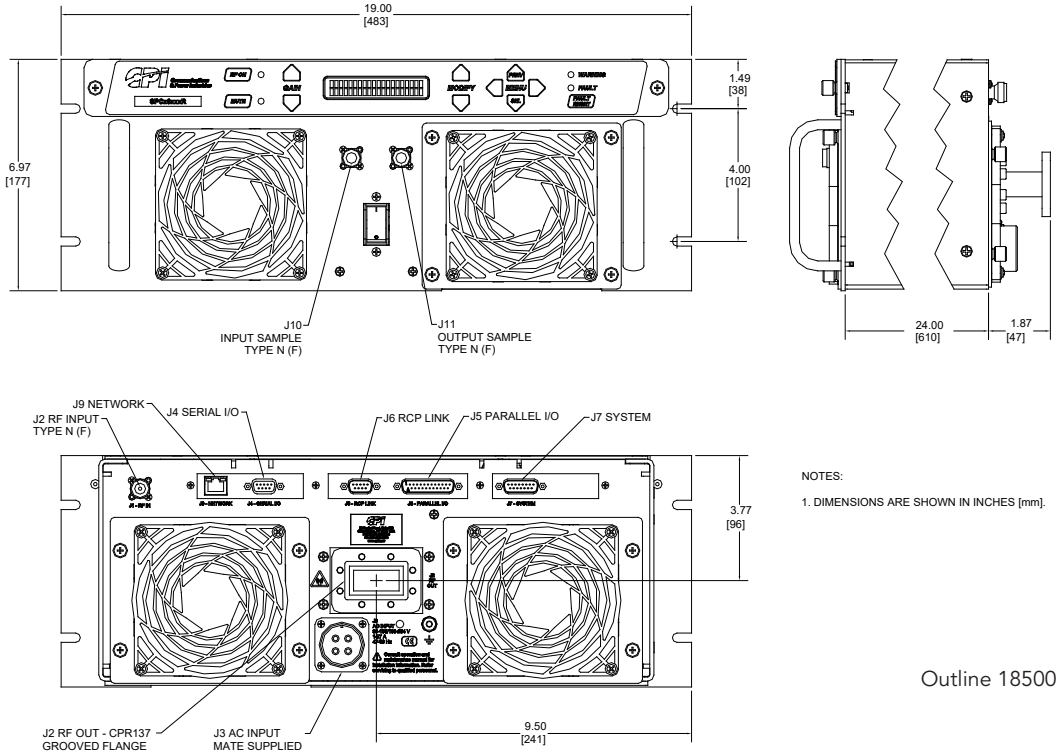
Block Diagram



Parameter	Notes	Specification
Frequency Range	Band "D" Band "M"	5.85 to 6.425 GHz 5.85 to 6.725 GHz
Gain, at Maximum Setting		70 dB min., Standard
Gain Adjustment Range	Digital	20 dB min. in 0.1 dB steps
Gain Flatness		±0.75 dB over the full band; ±0.3 dB over any 40 MHz
Saturated Power Output	100 W 125 W 200 W 250 W	+50 dBm typ. (100 W) +51 dBm typ. (125 W) +53 dBm typ. (200 W) +54 dBm typ. (250 W)
Power Output at 1dB compression ($P_{1\ dB}$)	100 W 125 W 200 W 250 W	+49.5 dBm min. (89 W) +50 dBm min. (100 W) +52 dBm min. (159 W) +53 dBm min. (200 W)
Two Tone Intermodulation		-25 dBc max.,-30 dBc typical at 3 dB total backoff from 1dB compression point
Group Delay	Linear Parabolic Ripple	0.03 ns/MHz 0.003 ns/MHz^2 1.0 ns peak to peak
AM/PM Conversion		2.5°/dB typical, 3.5°/dB max. at ($P_{1\ dB}$)
Noise Figure		8 dB typical at maximum gain
VSWR	Input Output	1.25:1 typical 1.30:1 max. 1.20:1 typical 1.30:1 max.
Front Panel Sample Ports	Input Output	-10 dB typical -40 dB typical
Connectors	RF Input RF Output Sample Ports Serial I/O Parallel I/O System RCP Link Network Power	Type N Female CPR137G Waveguide Type N Female 9-pos D-sub Female, mate supplied 25-pos D-sub Male, mate supplied 15-pos D-sub, Male 9-pos D-sub, Male RJ-45 Jack 4-pos CE05, mate supplied
Power Requirements	Voltage Frequency Power, 100 W Power, 125 W Power, 200 W Power, 250 W Power factor corrected	90 to 135 VAC or 180 to 270 VAC 63 Hz max., 47 Hz min. 500 W typical, 600 W max. (1) 750 W typical, 900 W max. (1) 900 W typical, 1100 W max. (1) 1000 W typical, 1200 W max. (1) .99 typical
Cooling System		Forced Air, Intake on front panel
Operating Temperature Range	Ambient air temperature	0°C to +50°C
Dimensions	See outline drawing	7" H x 19" W x 24" D; 178 mm H x 483 mm W x 610 mm D
Weight	Approximate	70 lb (32 kg)

(1) Cold start, at -40 °C and P_{OUT} in saturation.

Outline Drawing, SSPA

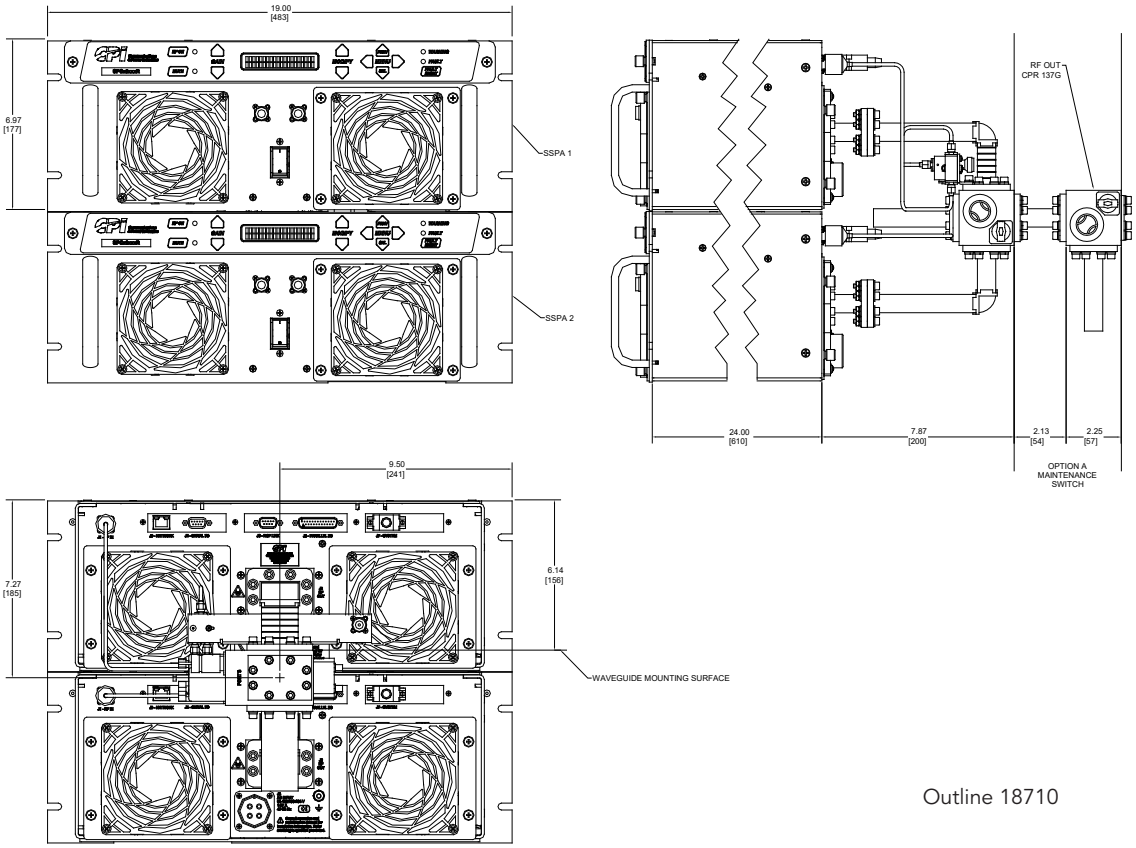


NOTES:

1. DIMENSIONS ARE SHOWN IN INCHES [mm].

Outline 18500

Outline Drawing, Typical 1:1 Redundant System



Outline 18710

Connector Interface

Ref. Des.	Function	Connector Type	Mating Connector	Comment
J1	RF Input	Type N Female	Type N Male	
J2	RF Output	CPR137G Waveguide	CPR137 Flange	
J3	AC In	4-pos CE05, Male	4-pos MS or CE05, Female	Mate supplied
J4	Serial I/O	9-pos D-sub, Female	9-pos D-sub, Male	Mate supplied
J5	Parallel I/O	25-pos D-sub, Male	25-pos D-sub, Female	Mate supplied
J6	RCP Link	9-pos D-sub, Male	9-pos D-sub, Female	
J7	System	15-pos D-sub, Male	15-pos D-sub, Female	
J9	Network	RJ-45 Jack	RJ-45 Plug	
J10	Input Sample	Type N Female	Type N Male	Front panel mounted
J11	Output Sample	Type N Female	Type N Male	Front panel mounted

Part Number Ordering Information

SSPA:

Part/Model No. **SPC□6□R**

5.850–6.425 GHz = D
5.850–6.725 GHz = M

100 Watts = 100
125 Watts = 125
200 Watts = 200
250 Watts = 250

* Performance specifications of a redundant system depend on the installed configuration and optional accessories. Contact the factory for more information and for 1:2 system capabilities.

1:1 Redundant System*:

Part/Model No. **SPRC1□□R-X**

5.850–6.425 GHz = D
5.850–6.725 GHz = D

100 Watts = 100
125 Watts = 125
200 Watts = 200
250 Watts = 250

Option:

Maintenance Switch .....A
Selects antenna or dummy load at system output

Related Accessory:

RCP-2001, SSPA Remote Control Panel

1U-high rack-mount panel enables remote manual control of the SSPA. Can be located up to 1.3 km (4000 ft.) away and interconnects with inexpensive cable. (One panel is required for each SSPA in a redundant system, for full remote manual control.)

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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.