

## 8 GHz Solid-State Power Amplifier

Using technology developed for VertexRSI's ModuMAX™ amplifiers, this rack-mount SSPA offers an output power of 350 watts across the standard 7.90–8.40 GHz satellite uplink band. The SSPA incorporates a modular architecture that includes the RF modules, power supplies, logic, fans, and front panel assembly. The amplifier is designed for reliable service in fixed and mobile applications.

### Features

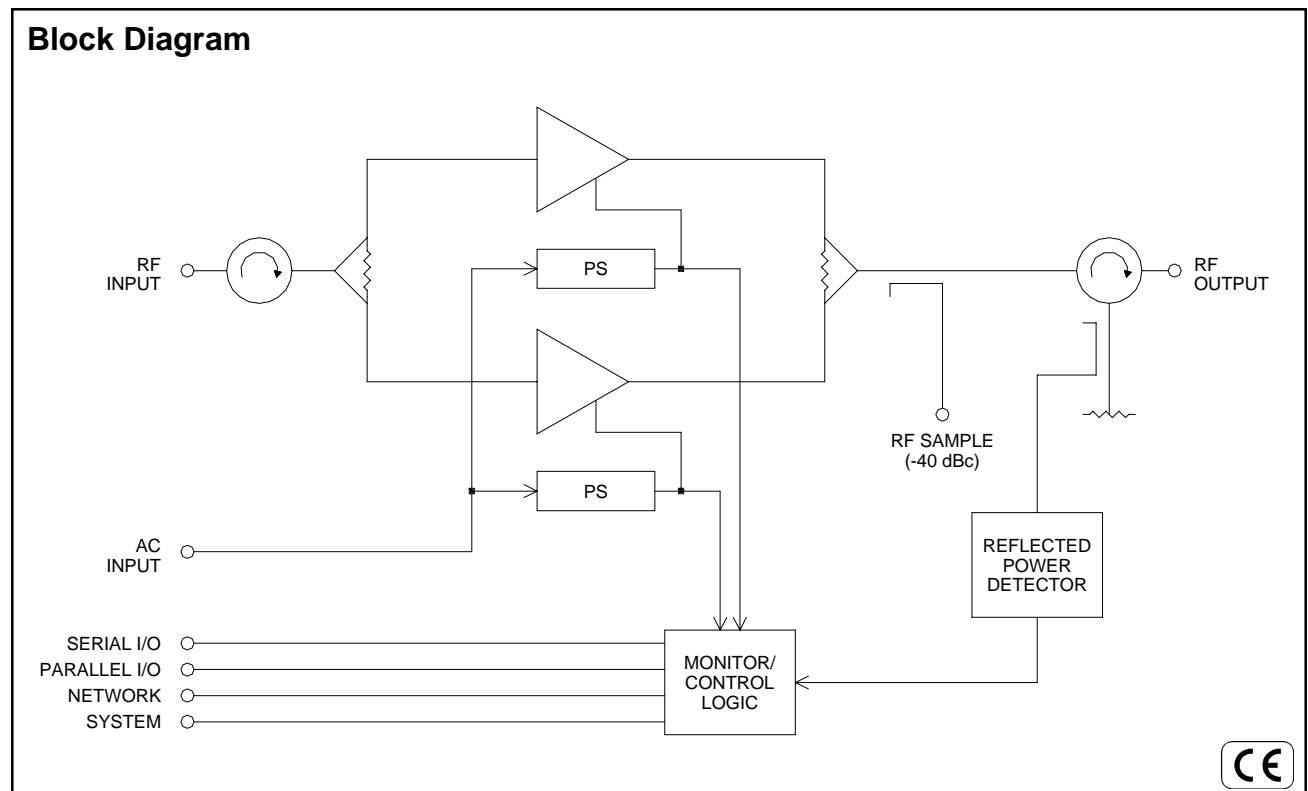
- 350 W saturated output power
- Digital gain adjustment (20 dB range)
- Forward and reflected power monitoring
- Microprocessor-based monitor and control
- Serial interface (RS232/422/485) standard
- 10 Base-T Network interface (SNMP, HTTP)
- 10 Base-T Network interface (SNMP, HTTP)
- RF input and output sample ports
- Integral 1:1 redundancy control

### Applications

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

### Accessories

- RCP-2001 Remote Panel



# GENERAL DYNAMICS

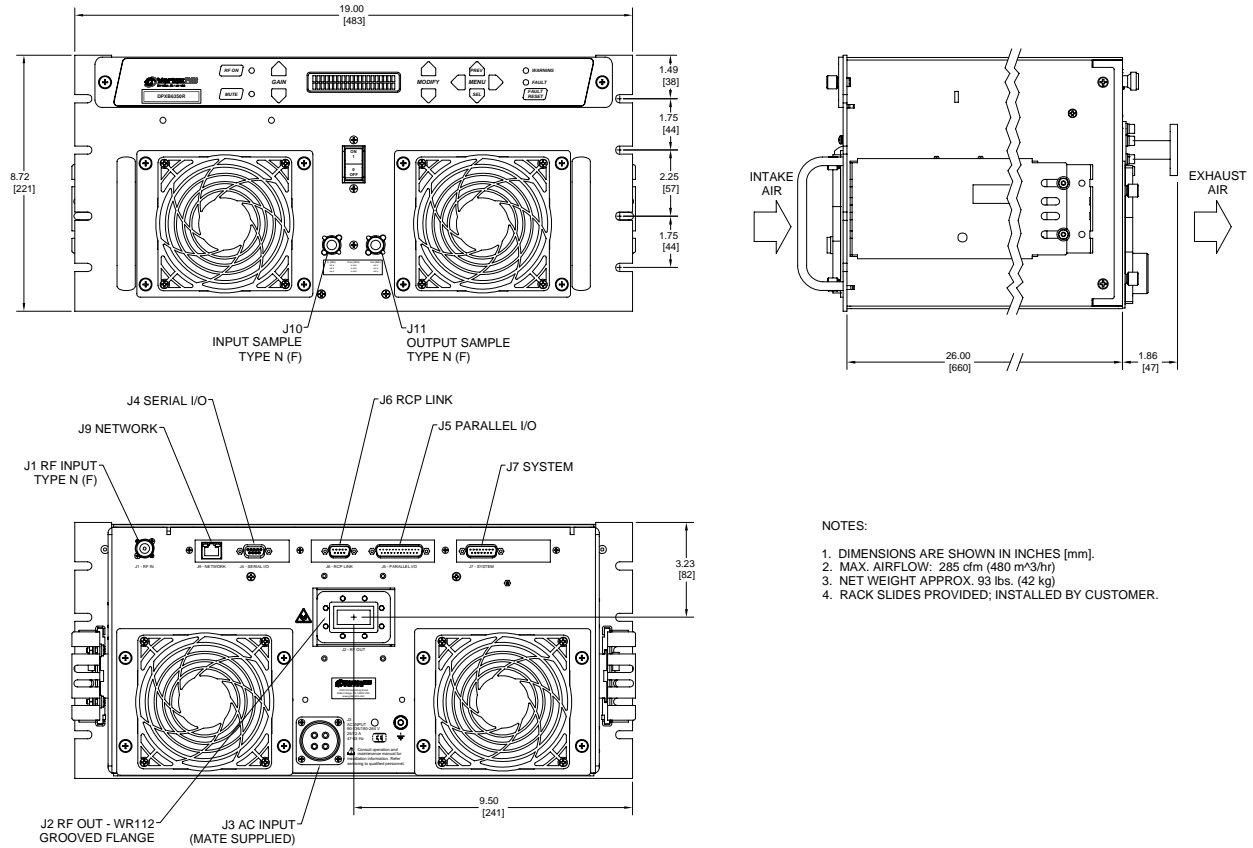
## C4 Systems

Parameter	Notes	Min	Nom/Typ*	Max	Units
Frequency Range		7.90		8.40	GHz
Gain, at maximum gain setting	Standard	67			dB
Gain Adjust Range	Digital, 0.1 dB steps	20			dB
Gain Flatness	Full band			±1.0	dB
	Per 40 MHz			±0.3	dB
Saturated Power Output			+55.5 (358)		dBm (W)
Power Output, at 1 dB compression ( $P_{1\text{dB}}$ )		+54.8 (305)			dBm (W)
Two-tone Intermodulation	At 3 dB total backoff from 1 dB compression point		-30	-25	dBc
Group Delay	Linear			0.03	ns/MHz
	Parabolic			0.003	ns/MHz <sup>2</sup>
	Ripple			1.0	ns p-p
AM/PM Conversion	At $P_{1\text{dB}}$		2.5	3.5	°/dB
VSWR	Input		1.25	1.30	:1
	Output		1.20	1.30	:1
RF Sample Ports	Input		-10		dB
	Output		-40		dB
Connectors	RF Input		Type N Female		
	RF Output		CPR112G Waveguide		
	Sample Ports		Type N Female		
	Serial I/O		9-pos D-sub Female, mate supplied		
	Parallel I/O		25-pos D-sub Male, mate supplied		
	System		15-pos D-sub, Male		
	RCP Link		9-pos D-sub, Male		
	Network		RJ-45 jack		
	Power		4-pos CE05, mate supplied		
Power Requirements	Voltage		90–135 or 180–270		Vac
	Frequency	47		63	Hz
	Power		1900	2100 <sup>A</sup>	W
	Power factor corrected		0.98		
Cooling System			Forced air		
Operating Temperature Range	Ambient air temperature	0		+50	°C
Dimensions	See outline drawing		8.75 H x 19 W x 27.88 D 222 H x 483 W x 708 D		inches mm
Weight	Approximate		93 (42)		lb (kg)

\* When there is only one value on a line, this column is a nominal value. Otherwise it is a typical value. Typical values are intended to illustrate typical performance, but are not guaranteed.

<sup>A</sup> Cold start, at 0 °C and Pout in saturation.

## Outline Drawing, SSPA



### NOTES:

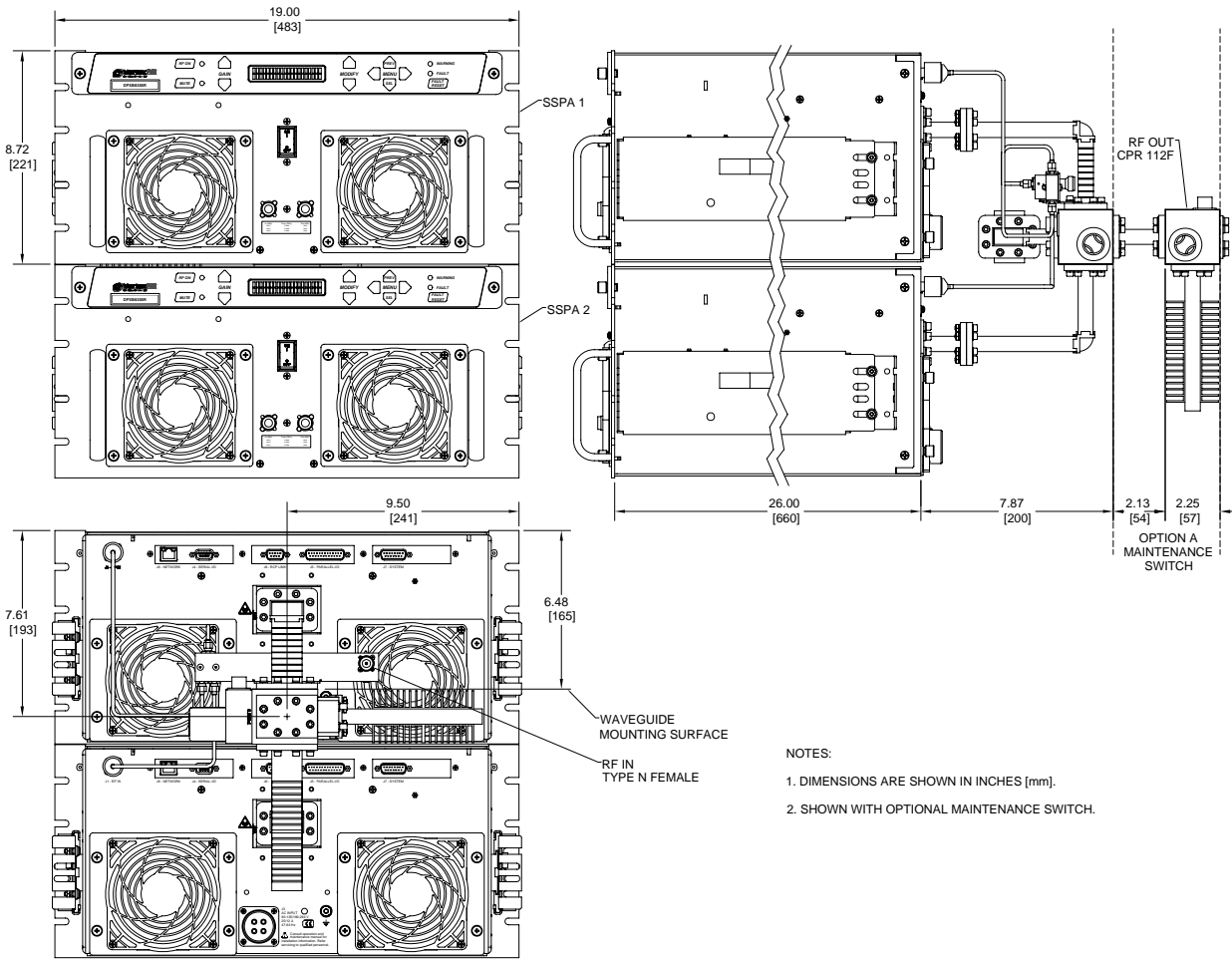
1. DIMENSIONS ARE SHOWN IN INCHES [mm].
2. MAX. AIRFLOW: 285 cfm (480 m<sup>3</sup>/hr)
3. NET WEIGHT APPROX: 93 lbs. (42 kg)
4. RACK SLIDES PROVIDED; INSTALLED BY CUSTOMER.

Outline 18446

## Connector Interface

Ref. Des.	Function	Connector Type	Mating Connector	Comment
J1	RF Input	Type N Female	Type N Male	
J2	RF Output	CPR112G Waveguide	CPR112 Flange	
J3	AC Input	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	
J8	Network	RJ-45 Jack	RJ-45 Plug	
J9	RF Input Sample	Type N Female	Type N Male	
J10	RF Output Sample	Type N Female	Type N Male	

**Outline Drawing, 1:1 System**



Outline 18833

**Part Number/Ordering Information**

SSPAs: **DPXB8350R**  
 7.90–8.40 GHz = B  
 350 watts = 350

1:1 Redundant Systems: **DPRX1B350R-X**  
 7.90–8.40 GHz = B  
 350 watts = 350  
**Options:**  
**Maintenance Switch**  
 Select antenna or dummy load at system output..... **A**

**Related Accessories:**

- **RCP-2001 SSPA Remote Control Panel**  
 1U-high rack-mounted panel. Can be located up to 1.3 km (4000 ft) away from the SSPA.



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 Specifications are subject to change at VertexRSI's discretion.