

Power Supply/Monitor

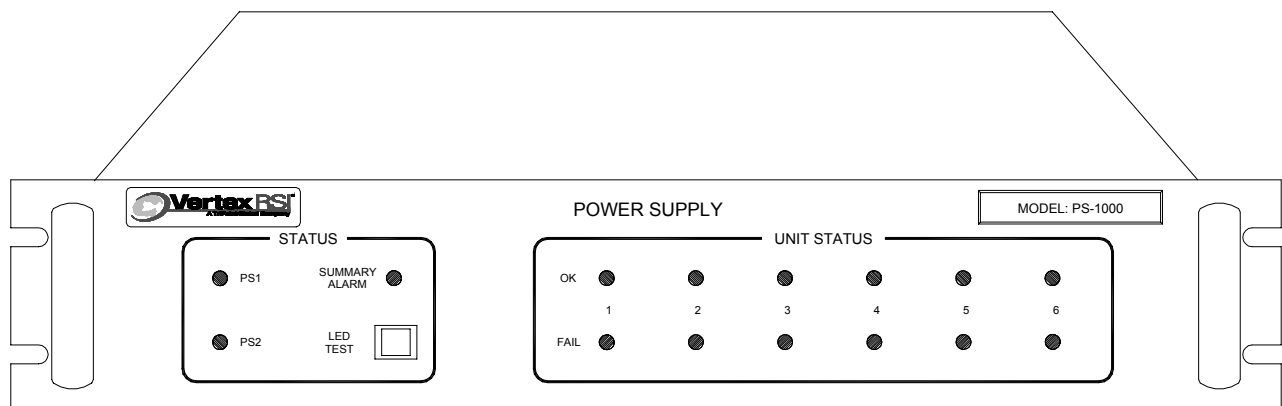
Designed for use in satellite earth stations, the PS-1000 can power and monitor from one to six RF components, such as LNAs, line driver amplifiers, LNBs, block downconverters, or block upconverters. Built-in fault alarms report RF component status to an external computer or monitoring system.

Features

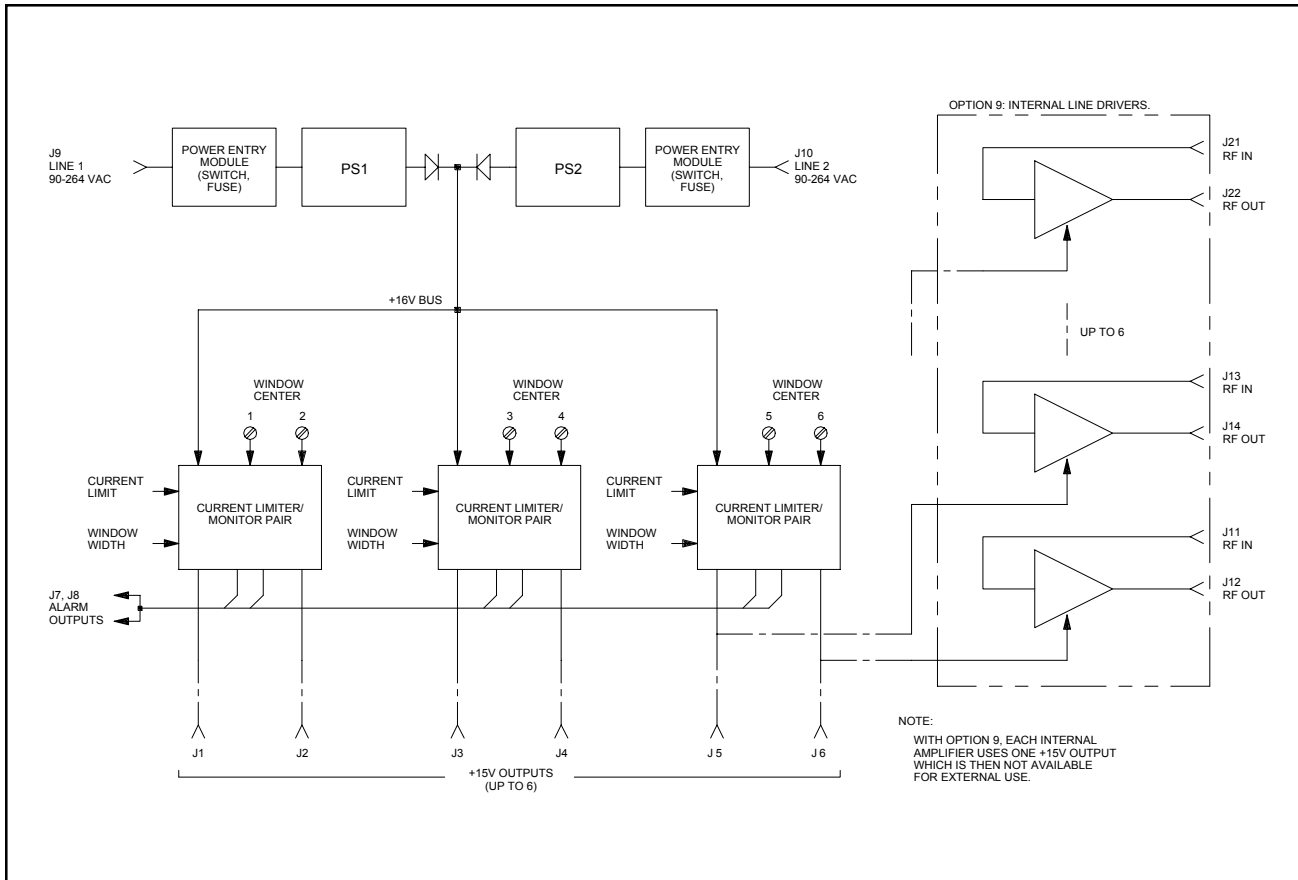
- Standard 19" rack panel, 3½" high
- Dual, redundant 75 W power supplies
- Universal, auto-select AC input, accepts 90 to 264 Vac
- Monitors RF component bias current to detect faults
- Powers up to six +15 volt RF components
- Current-limited outputs
- Form 'C' alarm outputs
- Chassis slides

Options

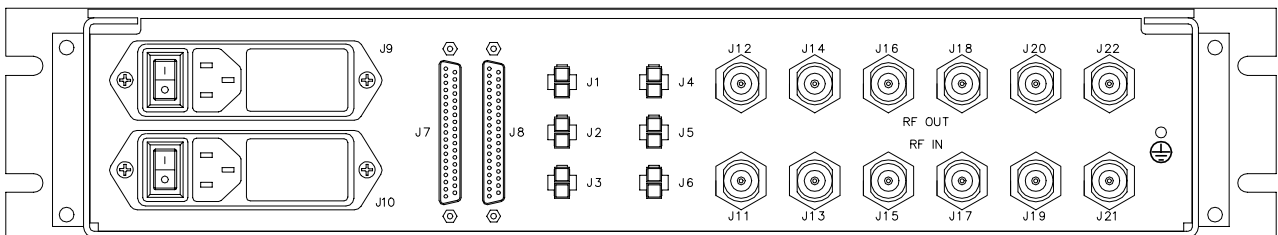
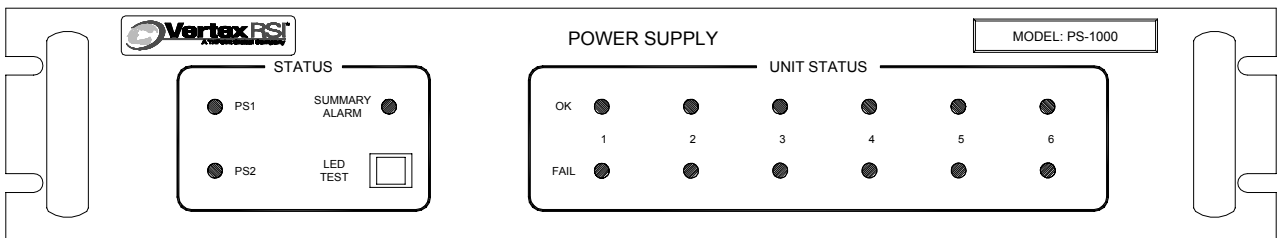
- TTL outputs instead of Form 'C' relays
- Built-in RF components (up to six)



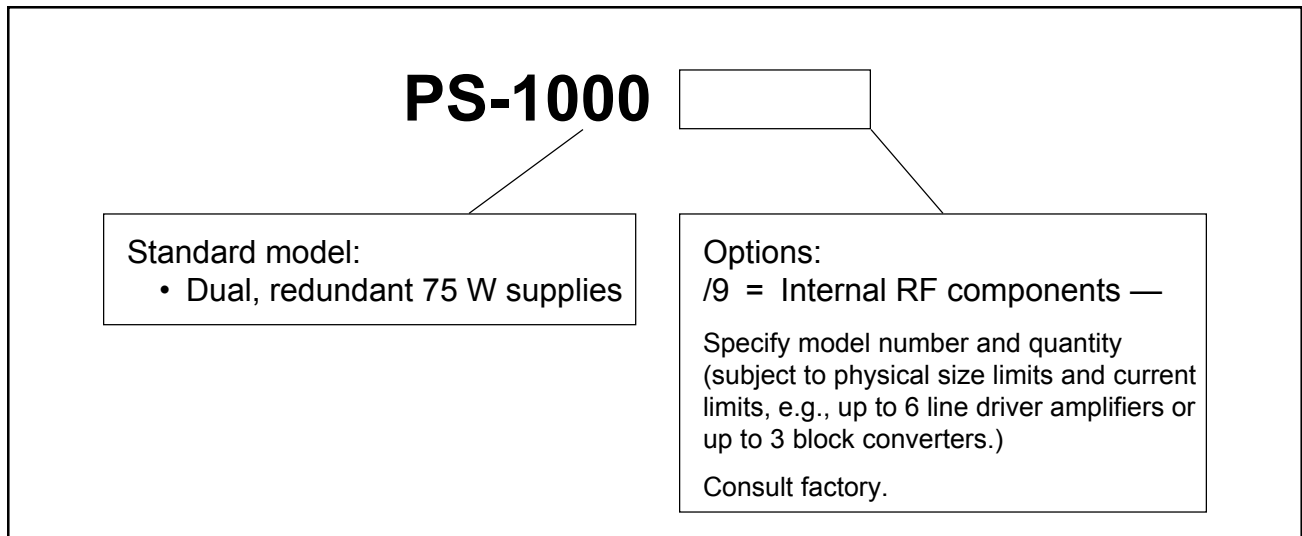
Block Diagram



Front and Rear Panels



Part Number/Ordering Information



Feature and Option Descriptions

<ul style="list-style-type: none"> • Dual Power Supplies 	<p>Units have two separate power supplies, each with its own separate AC input. The outputs of the two supplies are combined via isolation diodes in a redundant configuration. If one supply fails, the other takes over and powers the entire system.</p>
<ul style="list-style-type: none"> • 75 W Power Supplies 	<p>The 75 watt power supplies can deliver up to 5 A at +15 volts. Some typical configurations are as follows:</p> <ul style="list-style-type: none"> • Up to 6 LNAs or LNBs (at up to 750 mA each) • Up to 5 line drivers at 1 A each • 4 line drivers at 1 A each, and 2 LNAs at 500 mA each
<ul style="list-style-type: none"> • Internal RF Components 	<p>The unit may be configured with up to six internal RF components. Each RF component utilizes one +15 V output, which is routed to the RF component and is not available for external use.</p>
<ul style="list-style-type: none"> • Limitations 	<ul style="list-style-type: none"> • Maximum current limit setting is 750 mA (standard); 250 mA, 500 mA, 1 A, or 1.3 A limits are available upon request. • Each limiter setting applies to a pair of outputs; see block diagram. • Total load current must not exceed rating of power supplies (5 A).

SPECIFICATIONS

PS-1000

Parameter	Notes	Min	Nom/Typ†	Max	Units
Outputs			6		
Output Voltage		14.5	15.0	15.5	Vdc
Total Load Current	Dual, redundant 75 W supplies			5	A
Max. Output Current per Load	% of I_{limit} setting	90	100	105	%
I_{limit} Settings (Each setting applies to a pair of outputs)	Standard Available on request		750 250, 500, 1000, or 1300		mA mA
Fault Monitor	Per output		Current window comparator		
Window Center Adjustment	Per output	0		I_{limit}	mA
Window Width Setting	Per pair of outputs		10, 15, 20, 30, 40, 50, 65 or 100		mA
Alarm Outputs	Form 'C' relay contacts	PS1, PS2, Devices 1-6, Summary			
Voltage Rating				100	Vdc
Current Limit				0.5	A
RF Specifications (w/ Opt. 9)	See Note 1.				
Gain	(Unit = RF component)	(Unit gain) - 1 (per Unit spec)			dB
Gain Flatness					
Output Power (P_{out})		(Unit P_{out}) - 1			dB
Noise Figure (NF)				(Unit NF) + 1	dB
VSWR	50 ohm impedance			2.0	:1
Connectors	AC Line Input DC Outputs Alarms RF Input/Output (Opt. 9)		IEC Male Molex 2-pin, Male 37-pin D, Male Type N Female		
Power Requirements	Voltage (autoselecting)		90-135 or 175-264		Vac
	Frequency	47		63	Hz
	Power, fully loaded		130		W
Temperature Range	Operating	0		+50	°C
Size	Rack-mount chassis		19 W x 3.5 H x 22 D 483 x 88.9 x 560		inches mm

† 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.

Note 1: RF specifications are relative to internal RF component performance specifications.

OTHER VertexRSI PRODUCTS

- Low Noise Amplifiers and LNA Systems
- Solid-State Power Amplifiers and SSPA Systems
- General Purpose Converters
- Satellite Communications Equipment
- Custom Subsystems



13154 Rev. B 2/17/04
Specifications are subject to change at VertexRSI's discretion.