PXB8S025N

8 GHz Solid-State Power Amplifier

The VertexRSI model PXB8S025N Solid-State Power Amplifier consists of a power amplifier module, power supply, and fault alarm logic packaged in a weatherized housing.

Features

- Outdoor packaging
- High linearity
- High efficiency
- Gain vs. temperature compensation
- Internal power supply
- Status monitoring and alarms: voltage, current, temperature and low RF
- Variable Gain Adjustment
- Output sample port (-40 dBc)

Applications

- Satellite Uplink
- Point-to-Point Radio

Options

- Detector output
- Block upconverter
- Redundant configurations available

Part Number/Ordering Information:

PXB8S025N-XX

Options:

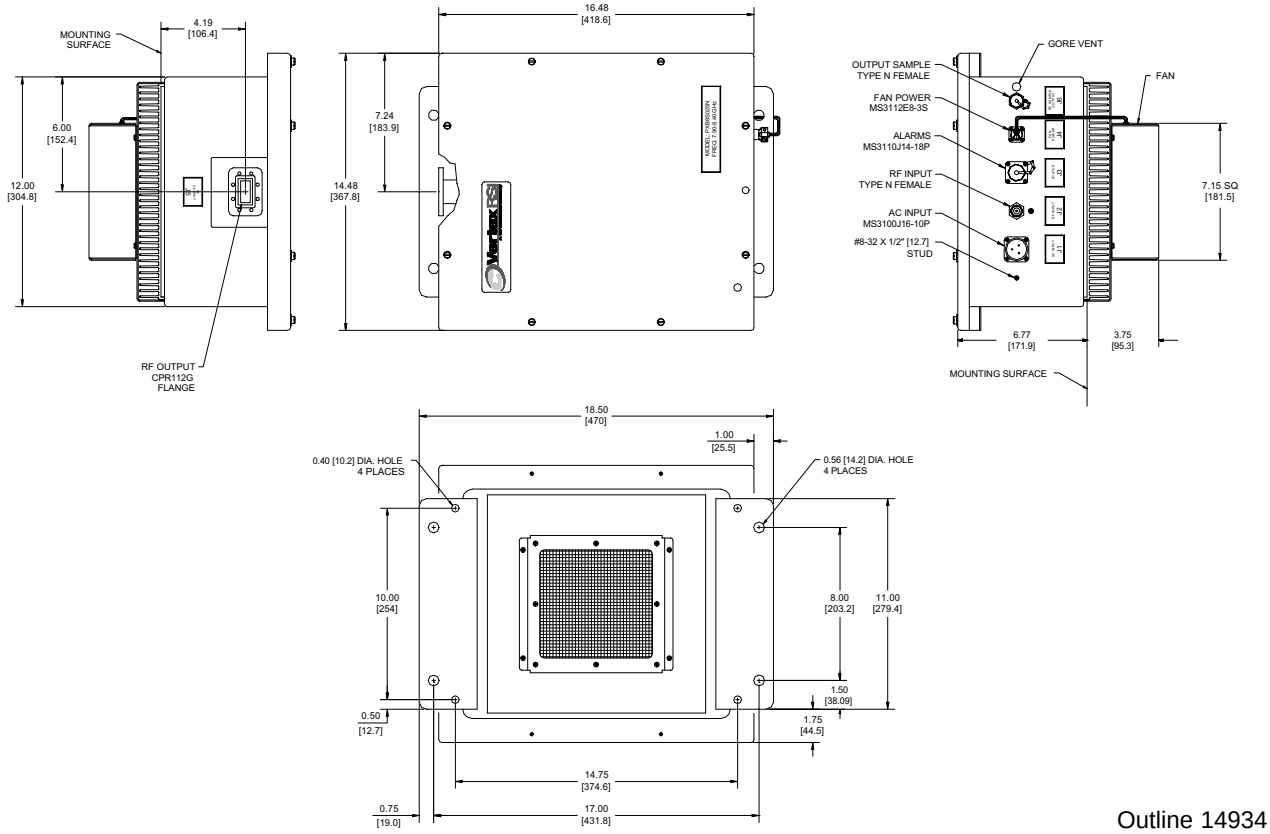
Analog Detector Output 3

Buffered output, 5 Vdc out at $P_{1\,dB}$ (adjustable). Drives balanced lines to 600 ohms minimum.

Integrated Block Upconverter 7

L-Band (950-1450 MHz) input

Outline Drawing



Outline 14934

SPECIFICATIONS PXB8S025N-XX

Parameter	Notes	Min	Nom/Typ†	Max	Units
Frequency Range		7.90		8.40	GHz
Input Frequency Range with Option 7	Integral block upconverter	950		1450	MHz
Gain	Standard unit	52	54		dB
	With Option 7	70	75		dB
Gain Adjust Range		20	23		dB
Gain Flatness	Full band (standard)			±0.75	dB
	Full band (with Option 7)			±2.0	dB
	Per 40 MHz (standard)			±0.3	dB
	Per 40 MHz (w/ Option 7)			±0.5	dB
Gain Variation vs. Temperature, -40 to +50 °C inlet air	Standard unit		±1.0	±1.5	dB
	With Option 7			±2.0	dB
VSWR	Input, standard unit		1.20	1.30	:1
	Input, with Option 7			1.50	:1
	Output			1.30	:1
Noise Figure at +23 °C	Standard unit		6.0		dB
	With Option 7		15		dB
Saturated Power Output			+44 (25)		dBm (W)
Power Output		+43 (20)			dBm (W)
Two-tone Intermodulation	At 3 dB total backoff from 1 dB compression point		-30	-25	dBc
AM/PM Conversion	At 3 dB backoff		1.0	2.0	°/dB
Group Delay/40 MHz segment	Linear			0.03	ns/MHz
	Parabolic			0.003	ns/MHz^2
	Ripple			1.0	ns p-p
Output Sample Port			-40		dBc
Alarm Outputs (Form 'C' relay contacts)	Voltage rating			100	Vdc
	Current rating			0.5	A
	Power (resistive load)			3	W
Connectors	RF in		Type N Female		
	RF out		CPR112G Waveguide Flange		
	Output sample		Type N Female		
	Power in		3-pin MS circular		
	Alarms out		18-pin MS circular		
Power Requirements	Voltage		90-135 or 180-270		Vac
	Frequency	47		63	Hz
	Power		200	250	W
Line Input Protection & Switch			Circuit breaker		
Operating Temperature Range	Ambient air inlet	-40		+50	°C
Physical Package, Outside Dimensions			"NEMA-4X" enclosure, 18.50 x 14.48 x 10.52		in
			470 x 368 x 267		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.

MS- Circular Connector Pinouts

J1 — AC INPUT, MS3100E16-10P*

- A - Line 1
- B - Line 2/Neutral
- C - Ground

* Mating connector supplied.

J3 — ALARMS, MS3110J14-18P*

- A - Open on fault
- N - Common } Summary Alarm
- B - Closed on fault
- L - Open on fault
- K - Common } Auxiliary Alarm
- M - Closed on fault
- H - Open on fault
- S - Common } Power Supply Alarm
- G - Closed on fault
- J - Detector Out +
- F - Detector Out - } Detector Out (Opt. 3)
- T - Ground

J4 — FAN POWER, MS3112E8-3S*

- A - +12 Vdc
- B - Return
- C - Return

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