



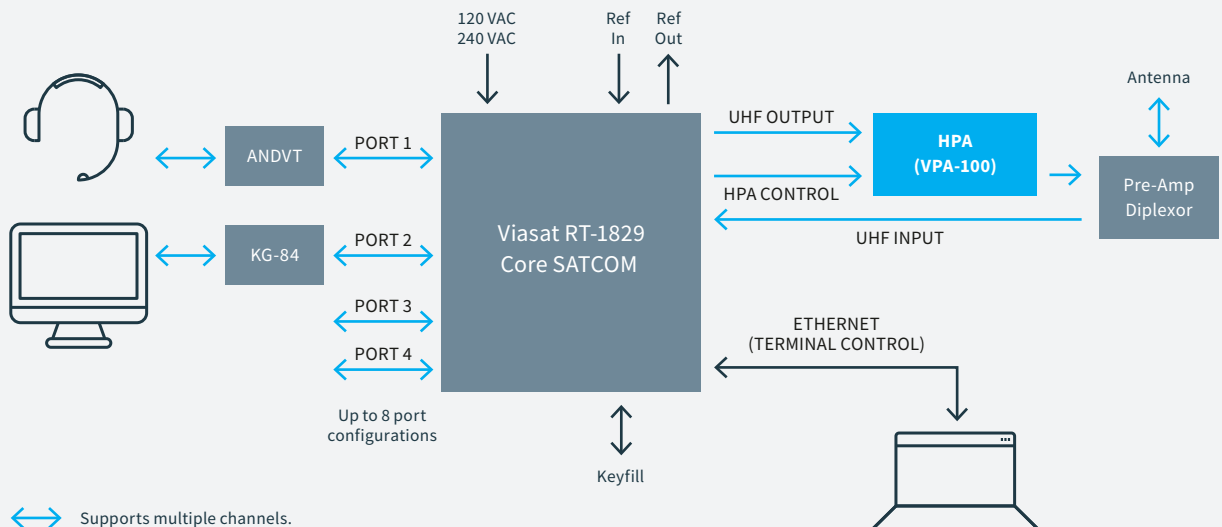
The Viasat VPA-100 High Power Amplifier (HPA) provides up to 250 Watts of transmit output power amplification for the Viasat RT-1829(P)/S UHF SATCOM terminal for shipboard applications.

The VPA-100 is an integral part of a SATCOM and Line-of-Sight (LOS) UHF DAMA/TDMA communications system that complies with the waveform requirements of MIL-STD-188-181, -182, and -183 for 5 and 25 kHz non-TDMA, 5 kHz DAMA, 25 kHz TDMA/DAMA, respectively. The VPA-100 operates from 225 MHz to 400 MHz as controlled by the host modem and is capable of amplifying both AM and FM modulated signals.

The VPA-100 comes in a standard 19" rack mountable configuration that is housed in a ruggedized chassis to withstand typical military shipboard environments. Protection against over-stress if used outside of maximum operating parameters is also built into the unit.

### VIASAT VPA-100 AT-A-GLANCE

- » Output Power: 250 watts CW Typical @ Saturation (SATCOM)
- » Frequency Range: 225-400MHz
- » CE Certified
- » Ruggedized for shipboard applications
- » 3U rack mountable
- » Thumbwheel gain control
- » Keyline control



## SPECIFICATIONS

### INTERFACES

|                         |  |
|-------------------------|--|
| <b>TX IN</b>            | Transmit Signal Input  |
| <b>TX OUT</b>           | Transmit Signal Output   |
| <b>Control</b>          | Keyline Control Input  |
| <b>RF Gain</b>          | RF Gain Control thumbwheel   |
| <b>Battle Override</b>  | Battle Override Mode/Normal Operation Control switch   |
| <b>LED Indicators</b>   | Indicators for Power On, Module On, Transmit, BIT Fault, High VSWR, Over Temp, Battle Override |
| <b>ETI</b>              | Elapsed Time Indicator. Time in hours.   |
| <b>AC Power</b>         | AC Power In, 115/220 VAC, 50/60Hz nominal, 1 kW  |
| » <b>Inrush Current</b> | 75A for 1 msec, 20A for 25 msec maximum  |

### PERFORMANCE

#### Frequency Range

- » 225 – 400 MHz

#### Transmit Input Power

- » -20 dBm to 0 dBm. Protected to +5 dBm

#### Transmit Output Power

- » 250 watts CW Typical @ Saturation (SATCOM)
- » 160 watts CW Minimum @ 1 dB Compression (SATCOM)
- » 125 watts CW Typical @ Saturation (LOS)
- » 100 watts CW Minimum @ 1 dB Compression (LOS)

#### Gain Control

- » Thumbwheel control to 0.1dBm resolution

#### Small Signal Gain Flatness

- » ± 1.0 dB over 291 – 318 MHz (SATCOM)
- » ± 1.5 dB over 225 – 291 MHz (LOS)
- » ± 1.5 dB over 318 – 400 MHz (LOS)

#### VSWR

- » 1.5:1 maximum (input)
- » 2.0:1 maximum (output)
- » Protected above 2.0:1

#### Total Harmonic Distortion

- » <5% @ 30 W (AM)
- » <5% @ 100 W (FM)

### PHYSICAL CHARACTERISTICS

|                     |                      |
|---------------------|----------------------|
| <b>3 Rack Units</b> | Standard 19-in. rack |
| <b>Depth</b>        | 25.9 in.             |
| <b>Weight</b>       | <65 lb.              |

### ADDITIONAL SPECIFICATIONS

|                                    |   |
|------------------------------------|---|
| <b>Operation Temperature Range</b> | -40°C to +55°C                            |
| <b>Humidity</b>                    | 95% Non-condensing                        |
| <b>Cooling system</b>              | Internal Forced Air                       |
| <b>Vibration</b>                   | MIL-STD-167-1A (Type 1)                   |
| <b>Shock</b>                       | MIL-S-901D Class I Grade B Shipboard Test |
| <b>Salt Fog</b>                    | MIL-STD-810G                              |
| <b>ITE Safety</b>                  | UL/EN 60950-1                             |

### CERTIFICATIONS

- » CE Compliant



## CONTACT

### SALES

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### TECHNICAL SUPPORT

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