Frequency Range

- Frequency range: full 2.4–2.5 GHz ISM band
- Frequency resolution: 1 kHz
- Absolute frequency accuracy: +/- 2.5 ppm
- Frequency stability: +/- 0.5 ppm
- Phase adjustment: 0–360°, 1° resolution
- Operating modes: fixed single frequency, full/partial band sweep, or optimized frequency hopping
- Frequency sweep step speed: 1 Hz to 10 kHz adjustable
- Frequency change response time: <1 msec

Microwave Power

- Power output: based on NXP's MRF24300N
- Power output: 1.2 kW maximum, 1 kW minimum at band edges
- Power set resolution: 1 Watt at full power
- Forward and reflected power (S11 and S21) real-time display
- Power control accuracy: 0.1%
- Power measurement accuracy: forward power 0.1%, reflected power 0.5%
- Maximum mismatch for full power output: 6 dB return loss = 3:1 VSWR
- Integral isolators protect against severe load mismatch
- Proportional power fold back under excessive load mismatch
- Automatic load-tuning
- Automatic return loss mapping across the band
- Power switching speed < 1msec

Modulation

- Modes: CW, pulse width modulation, or user-defined waveform
- PWM pulse mode: 10 kHz maximum pulse rate, 0–100% duty cycle
- Exciter output and RF input connectors permit multiple generators to be phase-coherent



Control System

- Windows-based interactive user control software
- USB 2.0 interface to Windows PC
- Manual or automatic operation
- Built-in test features
- LabView[™] instrument driver available

Wired Control Interface

- Digital outputs (0-24 V sinking): ready, RF-on, fault
- Digital inputs (5–24 V sinking): RFon/off, emergency stop loop, arc detect
- Arc detect input to RF power-off delay: < 10 µsec
- Analog output (4–20 mA): RF power output
- Analog input: (4–20 mA): RF power control



800.348.5580 | 630.208.2200 | RELLPOWER.COM

©2017 National Electronics. National Electronics and its affiliates reserve the right to make changes to the product(s), specifications or other information contained Herein without notice. National Electronics assumes no responsibility for any errors which may appear in this document. No part of this document may be copied or reproduced in any form or by any means without the prior written consent of National Electronics.

2.4-2.5 GHZ SOLID-STATE DESKTOP MICROWAVE GENERATOR

PTS-1

External Connectors

- RF output: 7/16 DIN coaxial
- External RF input: SMA, 0 dBm nominal
- External exciter output: SMA, 0 dBm nominal
- External control: 12-pin 16 mm DIN connector

Power

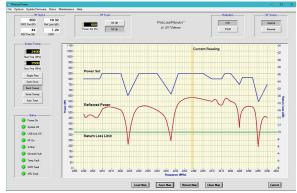
- AC mains power input: 100–120 or 200–240 VAC singlephase, 25/30 A, 50/60 Hz
- Power supply: high-efficiency 32 VDC switch mode
- Inrush current: 40 A max
- Line-to-RF power conversion efficiency: >50%
- Transient over-voltage: 15% greater than voltage rating max
- EN60950-1, IEC60950-1, CE

Environmental

- Air-cooled
- Ambient environmental temperature: 0°-50° C
- Humidity: non-condensing
- Electromagnetic susceptibility: designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3

Dimensions and Weight

- Dimensions: 5.2" H x 21.26" L x 17.58" W (height is 5.63" with optional rubber feet, designed to fit in 19" racking)
- Weight: 55 lb



PrecisePower Control Screen





800.348.5580 | 630.208.2200 | RELLPOWER.COM

©2017 National Electronics. National Electronics and its affiliates reserve the right to make changes to the product(s), specifications or other information contained Herein without notice. National Electronics assumes no responsibility for any errors which may appear in this document. No part of this document may be copied or reproduced in any form or by any means without the prior written consent of National Electronics.