

OUTPUT

Frequency

125 MHz (Three dual square wave outputs)

Signal Type (Sine to Square)

- Three signal translators (sine to dual square wave)
- Two square wave outputs per signal translator, 180 degrees out of phase with minimal phase skew
- Each output high level independently adjustable from 0.5 to 1 VDC
- Each output low level will be 0 VDC, nominal
- Each output will drive a 50 ohm load
- J2 outputs - Square (+)
- J3 outputs - Square (-)

STABILITY

Phase Noise L(f)

10 kHz offset, -150 dBc/Hz, goal

Total RMS Jitter

(Considering an integrated phase noise bandwidth of 10 Hz to 10 kHz)
≤ 2.5E-13 seconds, goal

POWER REQUIREMENTS

Supply Voltage

+15 VDC ±2%
(Regulated to +12 VDC to power oscillators and modules)

Warm-up Power

≤ 1.8 Amp for <5 minutes at +25°C

Total Power

≤ 1.5 Amp at steady state (+25°C)

MECHANICAL

Package

Sprinter oscillators and LNST Modules mounted on an aluminum plate

Dimensions

8 x 10 x 1.5" max

Connectors

RF Outputs: SMA(f)
(Located on last modules in the string)
Power and GND: Terminal Strip

Mounting

0.166" thru holes, 6 places

ADJUSTMENT

(Accessible on each individual oscillator)

Mechanical Tuning

$$\pm 4 \times 10^{-6}$$

Electrical Tuning

$$\pm 5 \times 10^{-7}, \pm 5 \text{ VDC}$$

Negative slope

CRYSTAL

Type

125 MHz SC-cut

OTHER

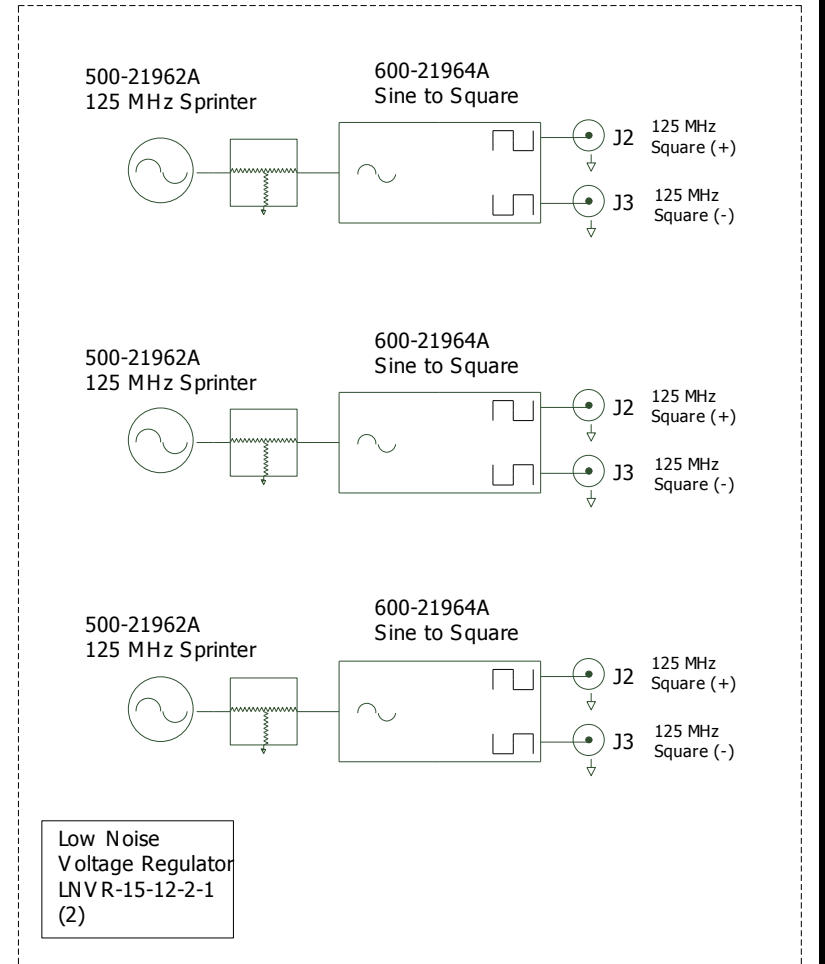
Design

Consists of three individual 125 MHz Sprinter oscillators, each followed by a LNST module. Each LNST module will produce two adjustable square wave outputs that are 180 degrees out of phase via SMA connectors.

Test Data

Square Wave Level
(verify adjustment range)
Phase Noise
RMS Jitter
Current Draw

| REV | DATE | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| - | 03-03-14 | Initial Release | PAC | |
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Wenzel Associates, Inc.

Austin, Texas

Title:

125 MHz Three Oscillator Clock Signal Plate

P/N:

501-27900

Rev:

-

Date:

03-03-14

Drawn:

Ref:

22145

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:
±0.030"

0.XXX Dec:
±0.010"

FSCM:
62821

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