RF-Grade Clock Jitter Attenuator and Frequency Synthesizer

Generates JESD204B Compliant Clocks with Phase Noise < 100 fs RMS

FEATURES
- Flexible JESD204B timing source with single and dual VCO device options and a wide range of output frequency dividers
- Cleans input jitter from any digital clock source
- Meets stringent phase noise requirements of converters and high-speed PHYs
- Low phase noise clocks minimize converter errors, improve SNR figures, and improve bit error rates
- Meets blocker specifications in wireless radio applications
- Up to 3 GHz clock speed for RF converters
- Enables clock phase management

TARGET APPLICATIONS
- Wireless infrastructure radio and base-band clocking
- JESD204B converter clock and SYSREF signals
- 10/40/100 Gbps Ethernet line cards
- DOCIS/Cable TV head-end
- Radar
- Instrumentation, industrial and medical imaging

Industry-Leading Low Phase Noise Clocks

The 8V19N407/408 ultra-high-performance jitter attenuator and frequency synthesizer devices are ideal RF converter clocks enabling designers to generate pristine, low-phase clock signals in leading-edge high-speed communication applications. Key features are JESD204B compliance including SYSREF generation, input clock jitter attenuation, and flexible frequency and phase management on nine RF clock/SYSREF outputs. The integrated VCOs at 2.92 to 3.0, 2.4 to 2.5 and 1.9 to 2.0 GHz support multiple frequency plans. Output clock frequencies range from 25 MHz to 3 GHz. Universal LVDS/LVPECL outputs with configurable output amplitudes and flexible phase management ease system design. The devices work seamlessly with IDT’s single and dual channel RF clock fanout buffers.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>8V19N408Z</td>
<td>Dual VCO 2.94912 and 2.4 to 2.5 GHz clock jitter attenuator and frequency synthesizer</td>
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<tr>
<td>8V19N407Z-24</td>
<td>Single VCO 2.4 to 2.5 GHz clock jitter attenuator and frequency synthesizer</td>
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<tr>
<td>8V19N407Z-19</td>
<td>Single VCO 1.9 to 2.0 GHz clock jitter attenuator and frequency synthesizer</td>
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To request samples, download documentation or learn more, visit: idt.com/go/rf-clocks