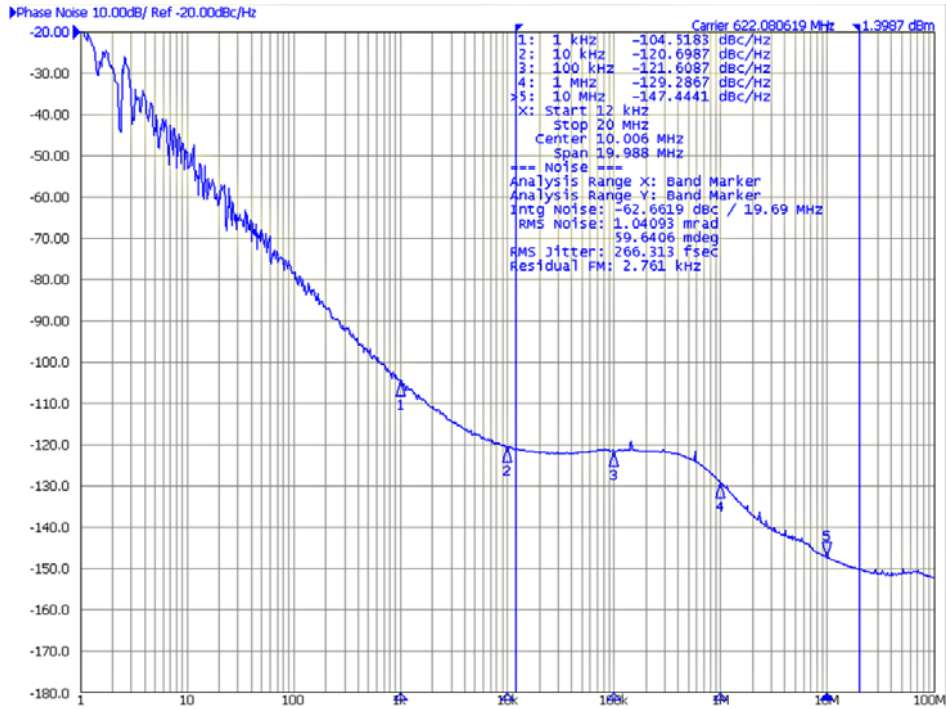


Features and specifications

Product features

1. Low noise and low jitter

These products use an HFF crystal unit that is capable of oscillating at a fundamental frequency of 100 MHz or more. The HFF crystal unit is combined with Epson's own fractional-N PLL IC to achieve low jitter, optimize the frequency of the crystal unit, and control integer-boundary spurs.



Phase noise at 622.08 MHz output

2. Low current consumption

The maximum current consumption is 90 mA (including LVPECL terminal load drive current). Epson's VG7050EAN and VG7050ECN are the industry's lowest power devices in this class.

3. Frequency programmable

The output frequency can be set to any frequency between 50 MHz and 800 MHz.

4. APR programmable

Users can select the desired absolute pull range (APR) from among 12 steps within the range of 0 to $\pm 180 \times 10^{-6}$.

Main specifications

Product name	VG7050EAN	VG7050ECN
Output frequency	50 MHz to 800 MHz	
Supply voltage	2.5 V $\pm 5\%$ / 3.3 V $\pm 10\%$	
Operating temperature range	-40°C to +85°C	

Frequency tolerance	$\pm 50 \times 10^{-6}$	
Current consumption during operation	70 mA, typ. (at 622.08 MHz output) 90 mA, max. (when driven at 3.3 V)	
Phase jitter	0.27 ps, typ. (at 156.25 or 622.08 MHz output)	
External dimensions	7.0 × 5.0 × 1.5 mm, typ. (7050 size)	
Output	LVPECL	
Absolute pull range (APR)	0 to $\pm 180 \times 10^{-6}$ Control voltage: 0.25 V to 2.25 V (when driven at 2.5 V) 0.3 V to 3.0 V (when driven at 3.3 V)	
Frequency setting when power is supplied	1 type	Use special pin to select 1 setting from among 4 types