

Jitter Results



Jitter measurements were performed on a Wavecrest SIA-3300C signal integrity analyzer. The measurements were recorded by testing the devices on an evaluation board with an AC coupled output. The evaluation board was connected to the SIA-3300C with an SMA bullet and 90k samples were taken. The values in the table represent typical values.

Period Jitter: Period jitter compares the length of each cycle to the average period of an ideal clock using the long term averaging frequency.

Random Jitter: Unbounded and unpredictable jitter.

Total Jitter: The sum of all of the jitter, measured to a 1×10^{-12} BER or confidence level.

Also included is the integrated jitter for several frequency offset bands, using an Agilent E5052 signal source analyzer (SSA).

Output MHz	Period		Random ps-pp	Total ps-pp	Integrated (fs-rms)		
	ps-pp	ps-rms			12kHz-20MHz	50kHz-40MHz	50kHz-80MHz
122.88	19.8	2.3	2.3	32.6	269	361	*
155.52	19.5	2.3	2.3	32.1	239	301	*
212.50	19.3	2.1	2.1	30.1	209	258	*
245.76	18.4	2.2	2.2	30.6	186	219	*
311.04	18	2.1	2.1	29.2	172	184	255
425.00	19	2.2	2.2	32.3	105	160	218
491.52	17.9	2.1	2.1	29.8	129	106	141
622.08	17.3	2	2	28.4	121	79	101
850.00	16.9	2	2	28.6	100	67	84

* values can not be determined using E5052 SSA because frequency is too low

Table of typical jitter values for the VS-705 series of oscillators

Typical Phase Noise for the VS-705 Series

Phase Noise Results

Phase noise measurements were performed on an Agilent E5052 SSA using an evaluation board with AC coupled output. The E5052 SSA has a phase noise to jitter integration calculation feature and devices were characterized in several frequency bands. Please contact Vectron for other offset integration bands.



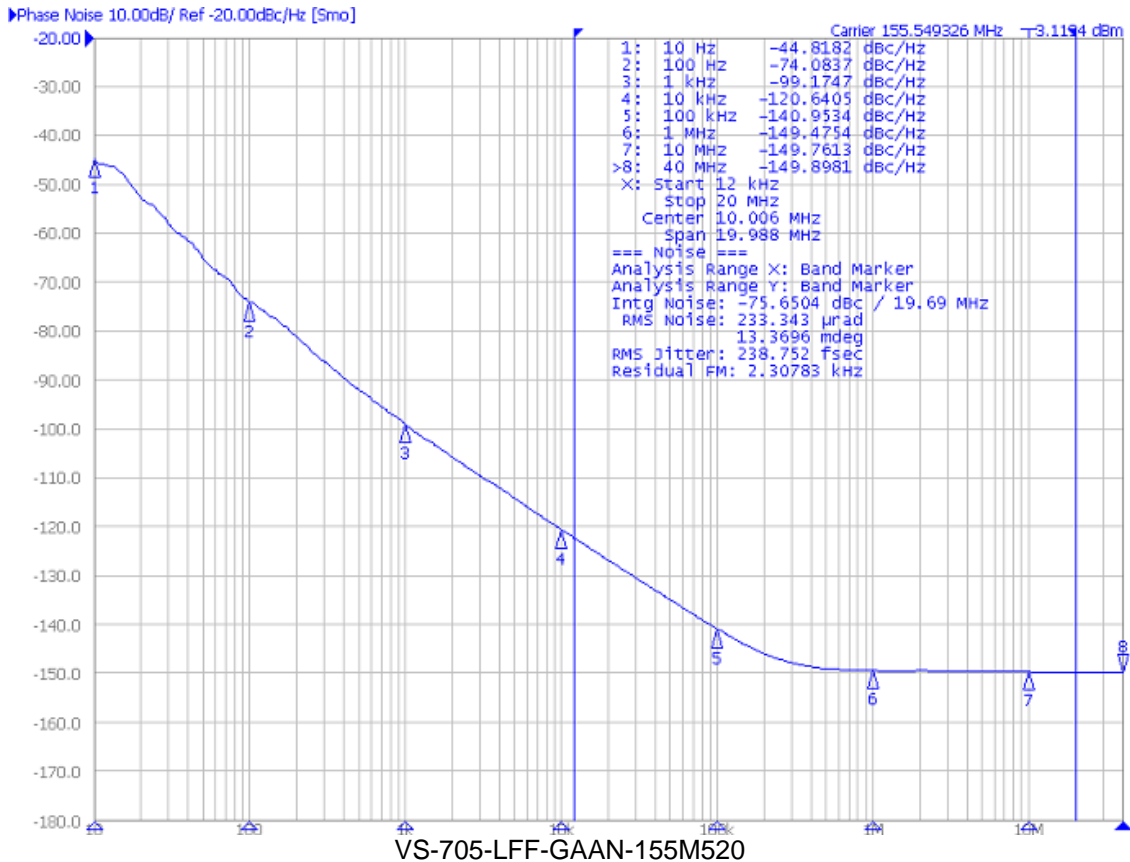
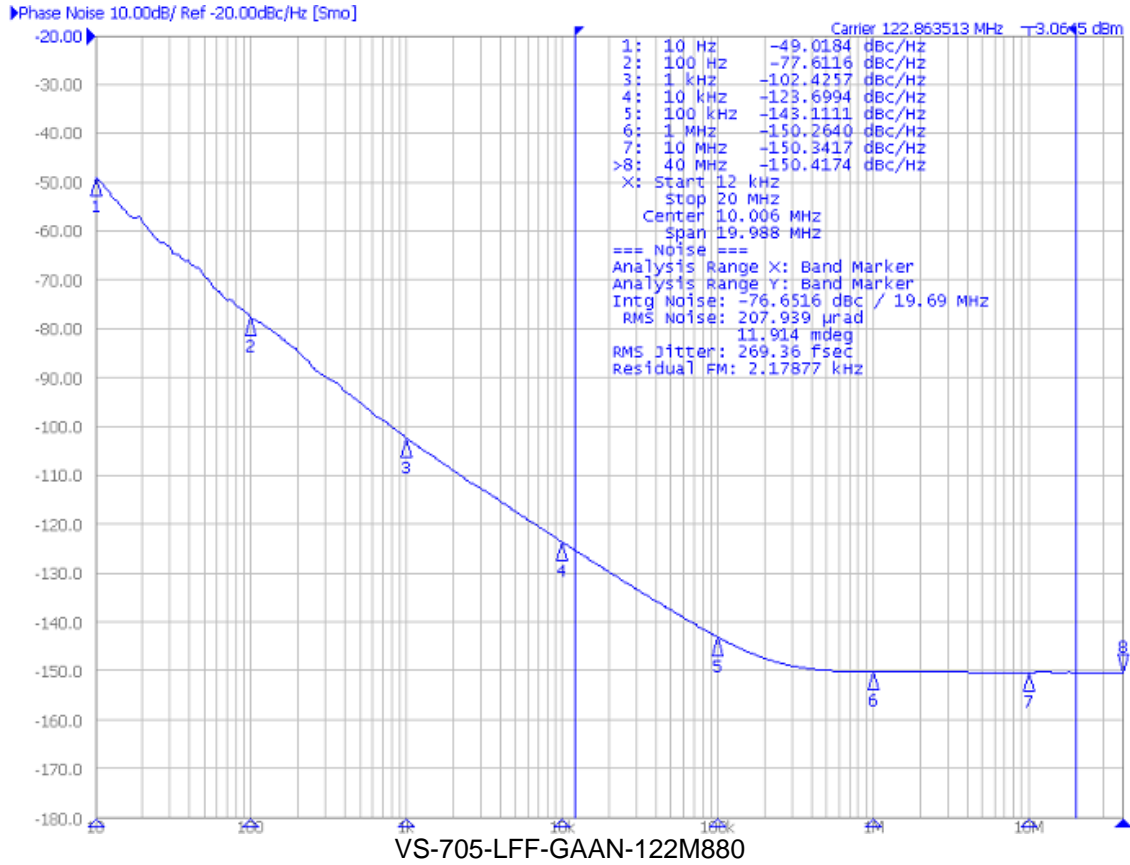
Contact Application Engineering for any phase noise/jitter data on frequencies not listed.

Output MHz	Phase Noise (dBc/Hz)								
	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	1 MHz	10 MHz	40 MHz	100 MHz
122.88	-49.0	-77.6	-102.4	-123.7	-143.1	-150.3	-150.3	-150.4	*
155.52	-44.8	-74.1	-99.2	-120.6	-141.0	-149.5	-149.8	-149.9	*
212.50	-45.3	-74.3	-98.4	-119.7	-139.6	-147.8	-148.1	-148.4	*
245.76	-44.3	-72.9	-96.4	-117.4	-137.5	-148.4	-148.6	-148.9	*
311.04	-40.7	-69.5	-93.5	-114.7	-135.0	-147.6	-148.1	-148.1	*
425.00	-37.0	-66.9	-92.2	-117.0	-138.3	-148.1	-148.7	-149.0	-149.3
491.52	-40.3	-65.9	-89.5	-111.0	-131.6	-149.0	-149.7	-150.0	-150.2
622.08	-36.3	-63.9	-88.0	-109.0	-129.5	-149.6	-151.0	-150.9	-150.8
850.00	-28.9	-60.1	-86.6	-107.8	-128.4	-148.2	-149.7	-149.8	-150.0

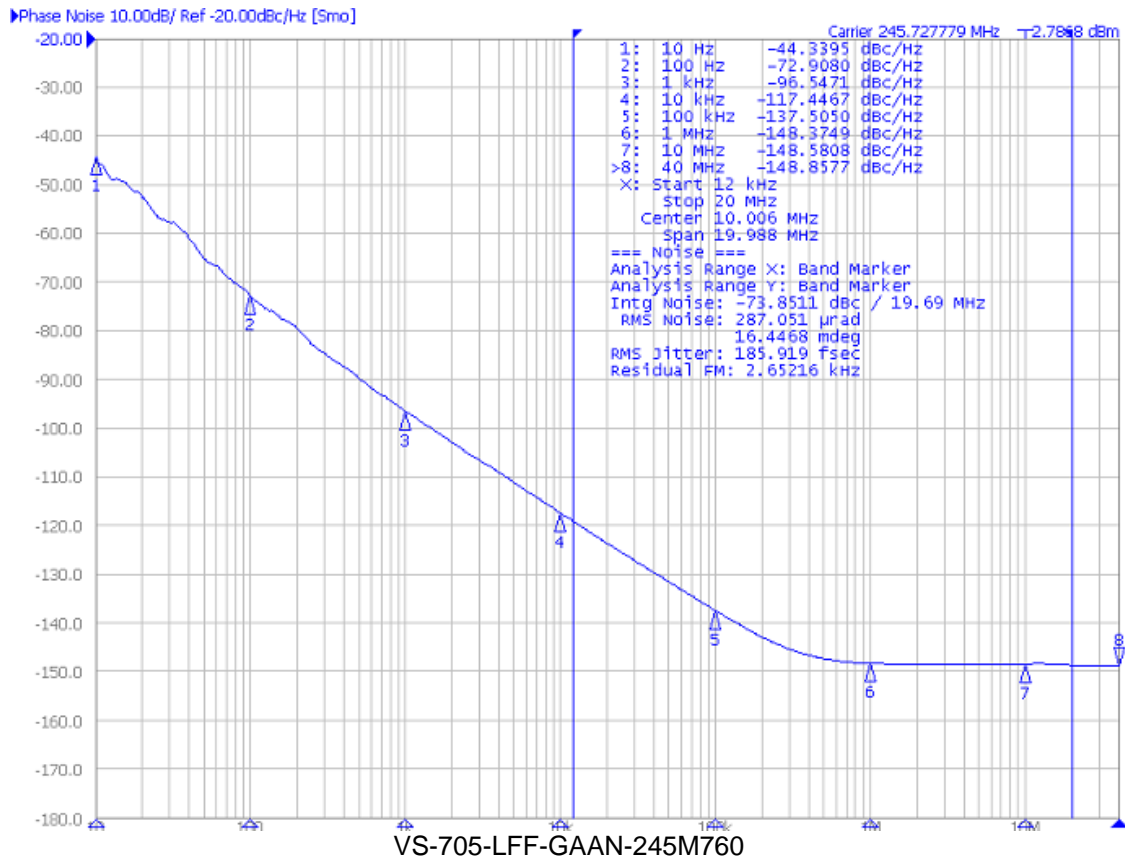
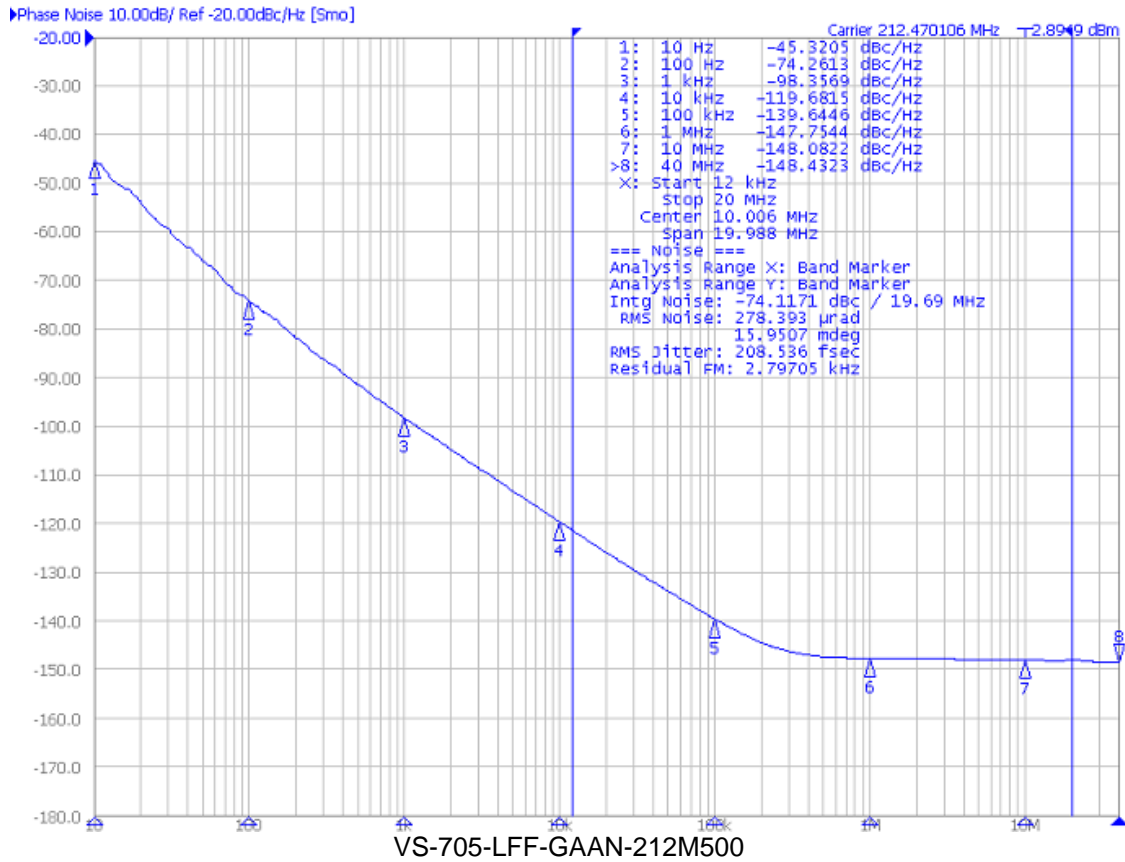
* values can not be determined using E5052 SSA because frequency is too low

Table of typical phase noise for the VS-705 series of oscillators

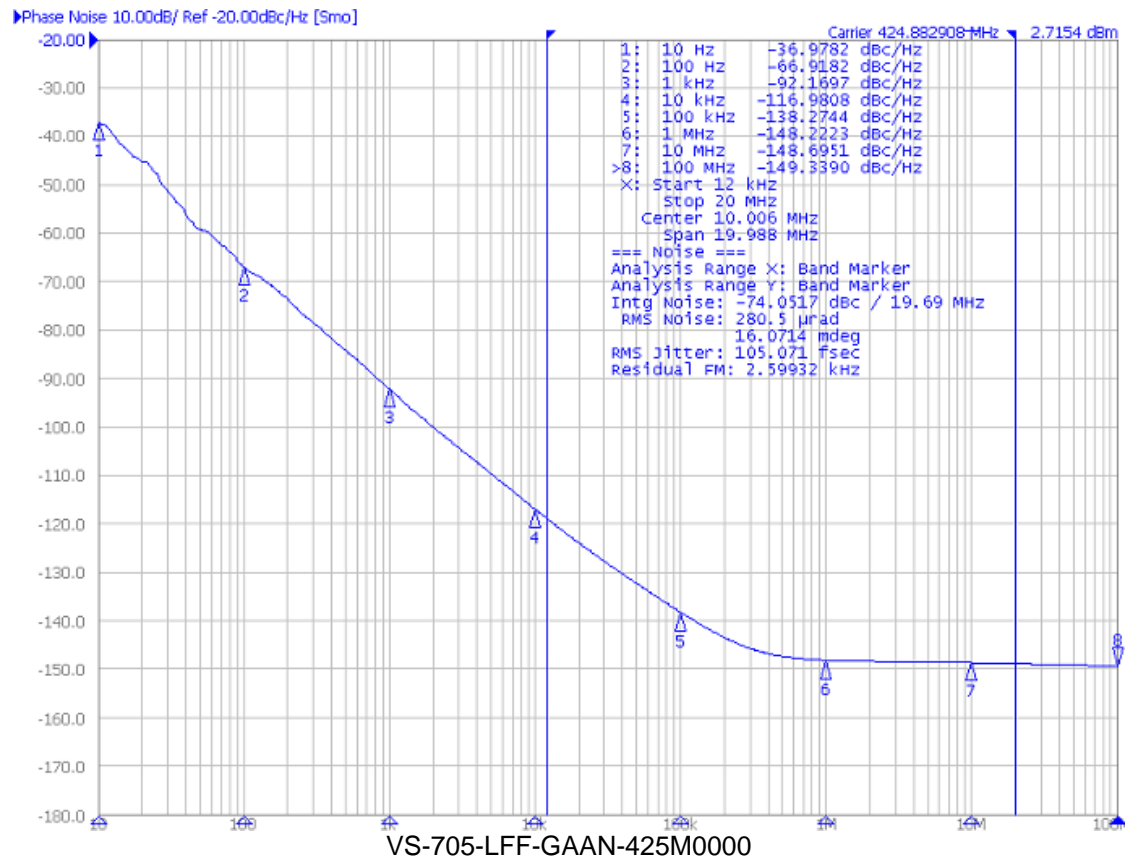
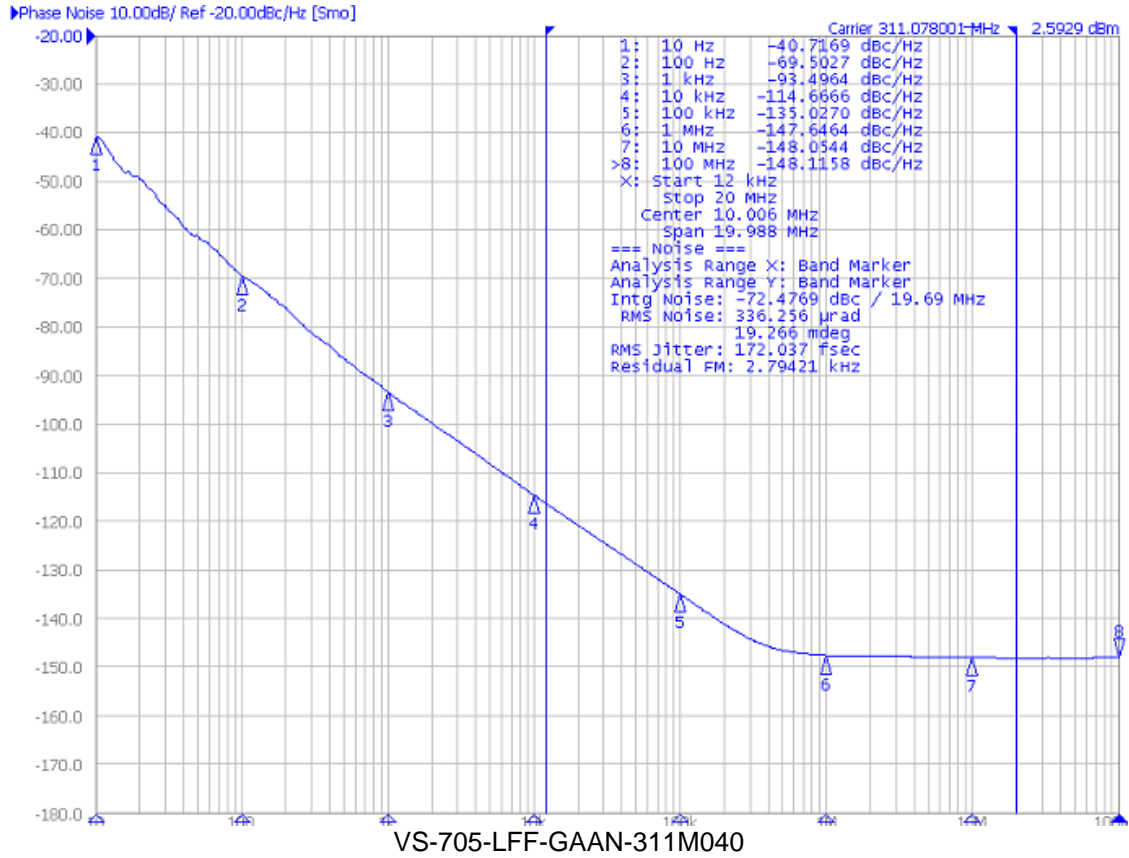
Typical Phase Noise for the VS-705 Series



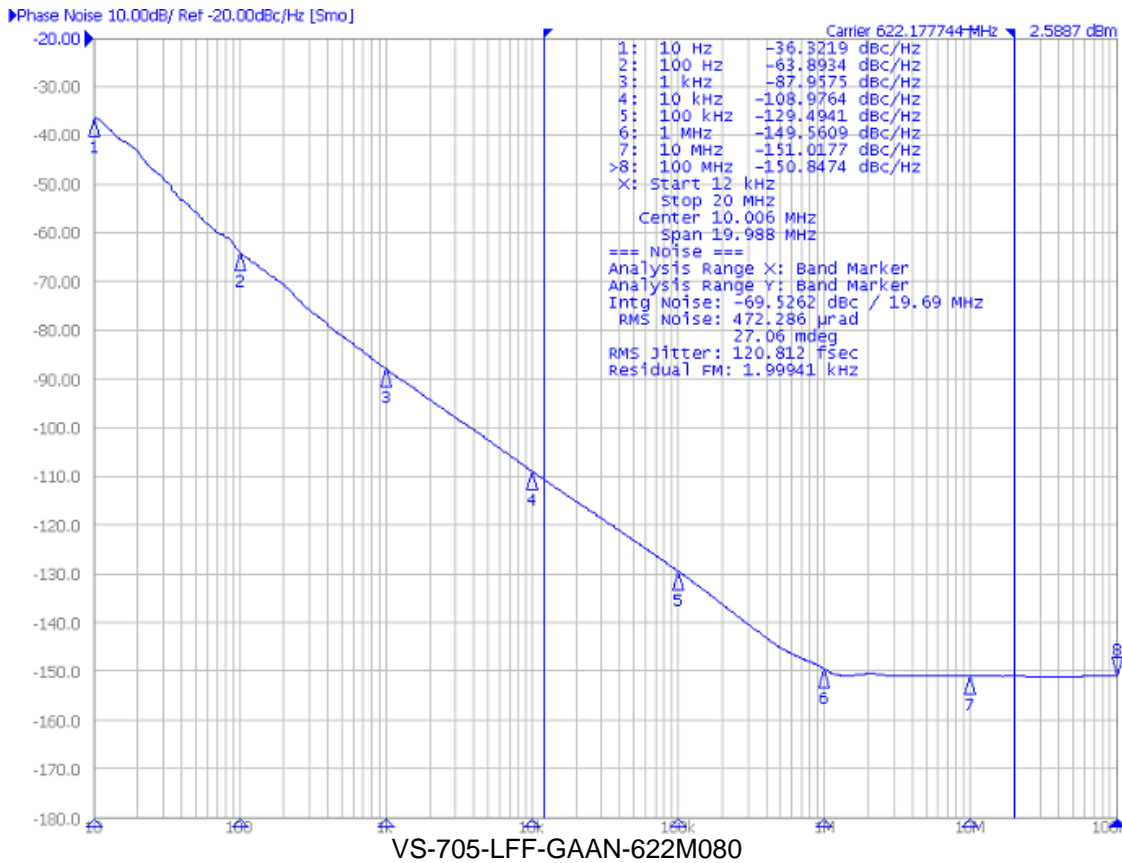
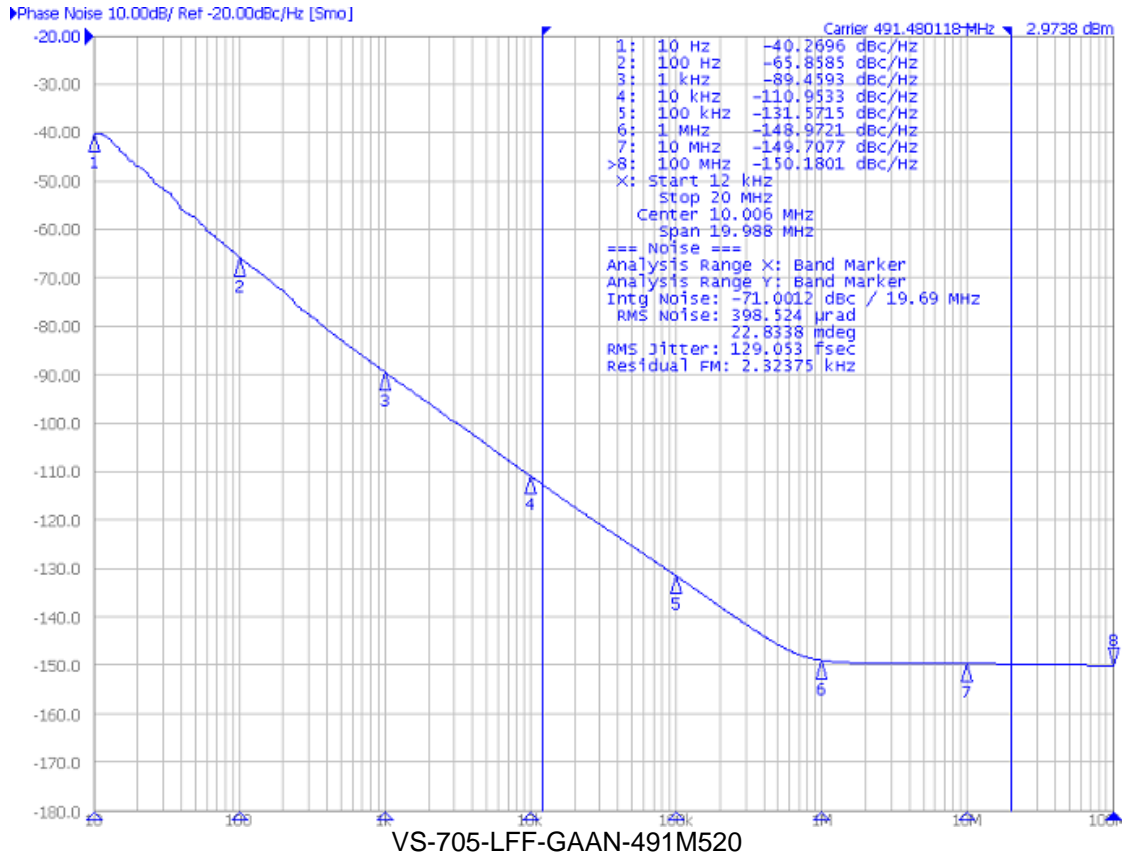
Typical Phase Noise for the VS-705 Series



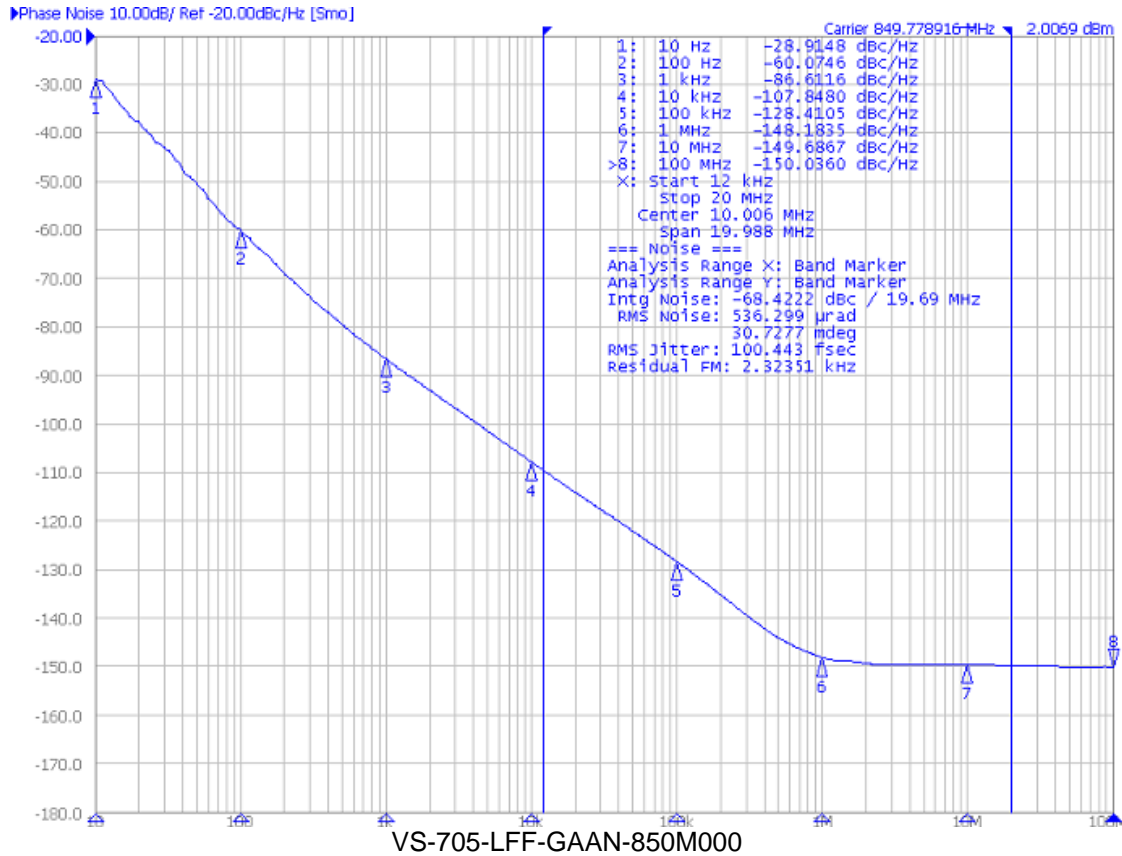
Typical Phase Noise for the VS-705 Series



Typical Phase Noise for the VS-705 Series



Typical Phase Noise for the VS-705 Series



Contact Application Engineering for any phase noise/jitter data on frequencies not listed.

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April 2008.