

Frequency Synthesizer

KSN-2170A-119+

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (mA)		
				F2			F3								
	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C
2110	2.76	2.43	1.78	-58.00	-52.81	-50.30	-42.30	-44.29	-50.63	25.30	26.31	27.16	7.25	8.54	10.16
2116	2.75	2.41	1.74	-58.37	-53.00	-50.29	-42.38	-44.61	-50.94	25.29	26.30	27.15	7.25	8.55	10.18
2122	2.74	2.39	1.71	-58.88	-53.23	-50.23	-42.34	-44.64	-50.88	25.26	26.28	27.15	7.26	8.55	10.18
2128	2.72	2.38	1.67	-59.65	-53.55	-50.15	-42.14	-44.05	-50.65	25.24	26.27	27.14	7.27	8.56	10.18
2134	2.70	2.35	1.62	-60.48	-53.46	-49.84	-41.91	-43.42	-49.98	25.22	26.25	27.14	7.28	8.56	10.18
2140	2.66	2.31	1.57	-59.32	-53.17	-49.43	-40.94	-42.75	-49.10	25.19	26.23	27.13	7.27	8.57	10.18
2146	2.62	2.27	1.48	-57.99	-51.80	-48.64	-40.13	-42.66	-48.68	25.17	26.21	27.12	7.27	8.58	10.18
2152	2.54	2.20	1.37	-55.84	-50.41	-47.66	-40.10	-42.67	-48.49	25.14	26.19	27.11	7.28	8.58	10.18
2158	2.46	2.10	1.22	-54.01	-48.97	-47.08	-40.41	-42.86	-49.27	25.12	26.18	27.10	7.29	8.56	10.19
2160	2.42	2.06	1.16	-53.63	-48.49	-46.96	-40.73	-42.93	-49.69	25.11	26.17	27.10	7.29	8.56	10.19

FREQ. (MHz)	PHASE NOISE (dBc/Hz)														
	@ OFFSETS														
	-45°C					+25°C					+85°C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
2110	-75.81	-72.45	-96.55	-126.57	-148.33	-75.77	-74.56	-96.94	-125.88	-147.44	-77.79	-74.22	-95.18	-125.17	-146.42
2116	-76.71	-72.67	-96.53	-126.35	-148.22	-76.48	-75.60	-96.22	-126.04	-147.45	-75.90	-76.36	-95.21	-125.05	-145.99
2122	-75.60	-73.00	-96.27	-125.26	-147.94	-77.20	-76.15	-95.35	-126.02	-147.48	-76.99	-75.39	-94.92	-124.94	-145.32
2128	-74.54	-73.19	-95.67	-125.46	-147.98	-76.10	-76.03	-95.43	-126.03	-147.53	-76.78	-74.42	-94.83	-124.84	-145.30
2134	-73.49	-73.31	-94.90	-126.29	-148.19	-74.09	-75.56	-95.98	-126.06	-147.60	-75.91	-73.44	-94.83	-124.75	-145.61
2140	-73.92	-73.31	-94.97	-126.36	-148.12	-75.20	-75.13	-95.87	-125.74	-147.28	-76.28	-73.33	-94.72	-124.58	-145.71
2146	-74.65	-73.29	-95.21	-126.28	-148.00	-76.95	-74.72	-95.64	-125.34	-146.89	-76.89	-73.40	-94.59	-124.39	-145.76
2152	-74.84	-73.38	-95.04	-125.85	-147.63	-75.09	-75.03	-95.48	-125.26	-146.79	-77.10	-74.14	-94.56	-124.32	-145.69
2158	-75.08	-73.37	-94.87	-125.39	-147.28	-73.69	-75.30	-95.32	-125.17	-146.67	-77.36	-74.78	-94.48	-124.25	-145.60
2160	-75.25	-73.19	-94.82	-125.20	-147.20	-74.00	-75.32	-95.25	-125.11	-146.58	-77.52	-74.83	-94.37	-124.21	-145.55

REV. X2

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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 2110MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2135MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2160MHz± (n*Fcomparison) (dBc) NOTE 1			
	n	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C
	-5	-104.70	-109.00	-107.50	-111.66	-107.41	-107.11	-107.92	-109.20	-107.59
-4	-108.89	-105.18	-104.33	-104.66	-105.84	-105.34	-104.34	-108.62	-104.15	
-3	-102.79	-100.70	-100.11	-104.78	-100.41	-101.94	-103.09	-102.92	-102.48	
-2	-97.53	-95.79	-96.88	-98.48	-92.17	-97.66	-97.74	-96.08	-96.94	
-1	-87.97	-83.63	-83.18	-85.39	-86.13	-85.94	-85.90	-83.95	-84.31	
0 ^{note 2}	-	-	-	-	-	-	-	-	-	
+1	-87.11	-87.33	-85.67	-88.16	-84.31	-86.86	-86.07	-84.69	-84.92	
+2	-97.02	-92.84	-97.61	-97.61	-93.44	-96.69	-97.75	-95.68	-93.96	
+3	-103.18	-98.25	-101.19	-99.91	-102.14	-101.85	-101.44	-102.57	-103.73	
+4	-106.61	-106.23	-104.34	-104.56	-105.93	-105.42	-107.61	-106.13	-104.59	
+5	-110.39	-110.08	-105.38	-108.02	-107.89	-102.90	-107.10	-106.68	-110.69	

Note 1: Comparison frequency 100 kHz

Note 2: All spurs are referenced to carrier signal (n=0).

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 2110MHz± (n*Reference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 2135MHz± (n*Reference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 2160MHz± (n*Reference) (dBc) NOTE 3			
	n	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C
	-5	-115.50	-116.34	-115.85	-112.22	-111.96	-112.80	-110.71	-114.34	-113.88
-4	-114.88	-112.89	-112.68	-115.32	-111.83	-114.35	-115.30	-116.74	-108.33	
-3	-111.98	-113.80	-115.28	-111.18	-112.06	-115.55	-113.41	-110.46	-114.71	
-2	-112.15	-115.75	-114.03	-112.69	-113.99	-114.79	-109.70	-115.73	-110.87	
-1	-103.40	-100.32	-98.88	-102.43	-101.41	-99.48	-102.61	-99.48	-98.96	
0 ^{note 4}	-	-	-	-	-	-	-	-	-	
+1	-98.50	-100.11	-98.99	-99.33	-99.98	-99.50	-99.11	-98.43	-98.05	
+2	-115.92	-111.69	-115.35	-112.60	-116.05	-116.03	-107.00	-113.54	-113.18	
+3	-113.41	-114.85	-111.63	-109.91	-114.27	-111.78	-114.60	-116.79	-112.19	
+4	-111.62	-110.72	-112.69	-113.35	-114.76	-113.91	-112.52	-116.44	-114.61	
+5	-112.55	-113.81	-113.45	-116.75	-114.10	-112.12	-114.23	-115.87	-112.48	

Note 3: Reference frequency 10 MHz

Note 4: All spurs are referenced to carrier signal (n=0).