

Frequency Synthesizer

KSN-2170A-219+

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURENT (mA)		
				F2			F3								
	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C
2110	2.72	2.58	2.17	-51.50	-57.50	-47.07	-36.71	-38.14	-41.62	26.19	27.48	28.41	22.26	23.67	24.96
2120	2.71	2.57	2.15	-52.99	-56.90	-46.96	-35.59	-35.83	-40.10	26.13	27.43	28.37	22.27	23.68	24.97
2130	2.71	2.56	2.13	-56.20	-52.42	-46.54	-35.22	-36.66	-40.82	26.07	27.38	28.34	22.27	23.68	24.98
2140	2.74	2.58	2.14	-57.82	-51.01	-46.13	-33.11	-35.18	-40.45	26.00	27.32	28.30	22.27	23.69	24.99
2150	2.81	2.65	2.19	-54.57	-51.04	-46.46	-34.61	-37.21	-41.20	25.95	27.27	28.26	22.28	23.69	24.99
2160	2.80	2.65	2.17	-51.21	-53.34	-47.75	-35.01	-38.27	-42.80	25.90	27.23	28.23	22.28	23.69	24.99
2170	2.77	2.62	2.14	-50.26	-57.75	-49.23	-35.73	-39.62	-43.62	25.85	27.19	28.20	22.28	23.69	24.99

FREQ. (MHz)	PHASE NOISE (dBc/Hz)														
	@ OFFSETS														
	-40°C					+25°C					+85°C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
2110	-72.41	-73.40	-101.56	-125.69	-146.15	-67.92	-74.99	-101.09	-125.68	-145.94	-73.24	-74.80	-100.85	-125.07	-145.16
2120	-73.01	-72.94	-101.10	-125.73	-145.78	-67.74	-74.28	-100.93	-125.77	-144.67	-75.15	-75.06	-101.23	-124.76	-144.51
2130	-70.08	-74.77	-101.07	-125.68	-146.08	-74.87	-74.52	-100.99	-125.58	-145.74	-68.17	-74.38	-100.64	-124.73	-145.07
2140	-70.54	-73.18	-100.70	-125.38	-145.65	-66.70	-74.87	-101.02	-125.34	-145.56	-73.68	-74.06	-100.26	-124.58	-144.70
2150	-73.70	-74.35	-100.20	-125.30	-145.55	-63.84	-73.42	-101.05	-125.03	-145.36	-78.09	-73.65	-100.57	-124.36	-144.48
2160	-72.31	-74.46	-100.32	-125.17	-145.57	-66.49	-72.62	-100.73	-124.82	-145.19	-71.83	-75.71	-100.11	-124.16	-144.44
2170	-74.00	-72.55	-100.32	-125.11	-145.45	-74.88	-72.69	-100.91	-124.74	-145.34	-71.56	-73.63	-100.52	-124.25	-144.62

REV. X1

KSN-2170A-219+

091224

Page 1 of 2



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 2110MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2140MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2170MHz± (n*Fcomparison) (dBc) NOTE 1		
	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C
-5	-111.98	-101.50	-103.14	-97.21	-105.94	-109.99	-100.07	-103.64	-107.48
-4	-106.91	-103.55	-95.98	-99.54	-95.62	-96.80	-96.65	-100.64	-106.36
-3	-100.88	-99.32	-100.32	-103.95	-98.04	-99.05	-104.64	-106.53	-103.92
-2	-96.99	-97.12	-97.82	-101.63	-94.20	-93.33	-83.24	-80.77	-84.35
-1	-88.45	-88.15	-87.12	-88.56	-87.51	-83.21	-86.89	-89.50	-79.51
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-88.22	-88.52	-81.85	-88.69	-91.24	-83.35	-88.45	-89.87	-79.67
+2	-95.98	-97.24	-95.11	-101.28	-95.56	-92.05	-82.92	-81.24	-82.76
+3	-100.13	-100.51	-101.16	-103.32	-96.42	-98.03	-105.46	-108.91	-104.34
+4	-103.38	-104.65	-93.38	-97.72	-96.62	-92.66	-99.78	-101.33	-108.76
+5	-106.96	-101.36	-100.45	-99.02	-102.54	-106.88	-102.00	-106.01	-108.98

Note 1: Comparison frequency 40 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 2140MHz± (n*Reference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 2170MHz± (n*Reference) (dBc) NOTE 3		
	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C
-5	-131.76	-131.25	-127.08	-122.43	-128.52	-130.08	-131.55	-130.47	-128.11
-4	-121.21	-123.09	-121.94	-122.53	-126.14	-122.60	-115.91	-118.75	-118.98
-3	-124.05	-130.61	-130.54	-125.04	-131.11	-130.06	-120.38	-127.63	-129.28
-2	-120.26	-124.00	-120.29	-109.08	-109.99	-114.58	-119.67	-118.00	-121.71
-1	-100.56	-100.51	-98.57	-101.90	-98.21	-92.15	-94.80	-94.82	-115.55
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-93.78	-93.70	-91.93	-92.15	-91.11	-94.45	-110.83	-107.13	-102.39
+2	-117.40	-120.24	-126.62	-119.58	-120.36	-121.21	-112.52	-109.80	-116.98
+3	-112.60	-117.36	-121.38	-114.96	-120.56	-122.73	-116.11	-123.09	-127.14
+4	-112.69	-114.06	-113.70	-112.20	-114.17	-116.34	-116.95	-116.45	-114.78
+5	-120.00	-123.64	-122.75	-115.32	-122.42	-125.39	-126.71	-131.30	-127.36

Note 3: Reference frequency 15.84 MHz

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