

Frequency Synthesizer

KSN-780A-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
729.99	-0.03	0.31	0.49	-25.89	-26.54	-27.02	-38.13	-39.94	-41.93	14.69	16.03	16.77	6.32	7.62	9.01
735.0	0.00	0.35	0.53	-25.53	-25.96	-26.51	-37.67	-39.49	-41.47	14.75	16.10	16.85	6.32	7.63	9.03
741.6	0.04	0.38	0.55	-26.12	-26.57	-26.84	-37.69	-39.27	-41.16	14.83	16.20	16.94	6.32	7.63	9.05
748.3	0.06	0.40	0.56	-26.25	-26.95	-27.22	-37.67	-39.61	-41.45	14.89	16.27	17.02	6.33	7.64	9.06
755.0	0.06	0.40	0.56	-25.85	-26.28	-26.83	-37.47	-39.07	-41.20	14.92	16.32	17.07	6.34	7.64	9.07
761.6	0.04	0.38	0.53	-25.98	-26.49	-26.89	-37.22	-39.22	-41.06	14.93	16.34	17.10	6.34	7.64	9.08
768.3	-0.02	0.32	0.45	-26.20	-27.02	-27.22	-37.18	-38.67	-40.97	14.92	16.34	17.11	6.33	7.65	9.09
774.9	-0.13	0.21	0.34	-25.84	-26.36	-26.82	-37.23	-39.26	-41.19	14.89	16.31	17.10	6.34	7.65	9.10
780.0	-0.23	0.11	0.24	-25.50	-26.10	-26.49	-37.05	-39.01	-41.16	14.85	16.28	17.09	6.34	7.65	9.10

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
729.99	-76.10	-79.24	-111.64	-133.13	-153.27	-74.71	-79.88	-110.19	-131.76	-151.66	-72.91	-78.68	-108.70	-130.06	-150.13
735.0	-75.05	-79.88	-111.55	-133.18	-153.35	-71.68	-80.26	-110.08	-131.75	-151.63	-73.06	-77.73	-109.14	-130.12	-150.16
741.6	-75.68	-79.06	-111.64	-133.02	-152.65	-72.65	-81.34	-110.11	-131.76	-151.52	-74.17	-77.77	-109.12	-130.13	-150.19
748.3	-75.97	-78.72	-111.55	-132.84	-152.71	-75.53	-79.47	-109.94	-131.66	-151.48	-75.26	-77.87	-109.15	-130.11	-150.00
755.0	-76.18	-78.51	-111.18	-132.60	-152.55	-75.60	-79.27	-109.94	-131.44	-151.65	-73.44	-78.49	-108.73	-129.93	-149.84
761.6	-75.44	-78.91	-110.99	-132.33	-152.26	-73.62	-80.36	-109.71	-131.23	-151.49	-71.84	-77.61	-108.49	-129.66	-149.64
768.3	-74.11	-79.58	-110.86	-132.06	-152.09	-74.32	-80.54	-109.39	-131.01	-150.86	-71.31	-77.93	-108.25	-129.34	-149.44
774.9	-72.89	-79.41	-110.49	-131.76	-151.84	-72.95	-80.41	-109.20	-130.57	-150.73	-72.70	-77.71	-107.78	-128.99	-149.11
780.0	-75.61	-78.28	-110.28	-131.44	-151.48	-72.43	-78.79	-109.07	-130.30	-150.26	-71.93	-77.66	-107.27	-128.74	-148.97

Frequency Synthesizer

KSN-780A-119+

Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 729.99MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 755.01MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 780MHz± (n*Fcomparison) (dBc) NOTE 1		
	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C
-5	-94.04	-94.37	-96.13	-94.41	-97.05	-96.68	-93.55	-96.51	-95.23
-4	-87.91	-91.92	-92.88	-93.24	-93.78	-94.12	-91.44	-90.55	-91.48
-3	-91.13	-89.75	-90.06	-89.93	-87.70	-86.74	-89.72	-87.38	-88.61
-2	-90.95	-89.51	-87.89	-90.58	-90.15	-84.49	-88.07	-90.46	-88.90
-1	-90.85	-91.80	-87.62	-87.45	-89.22	-90.38	-89.57	-90.61	-91.10
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-91.63	-88.19	-87.54	-85.70	-89.80	-89.70	-87.15	-89.17	-87.72
+2	-85.20	-91.81	-90.40	-86.98	-83.30	-87.37	-90.20	-87.62	-90.45
+3	-89.27	-90.78	-87.40	-88.74	-89.99	-91.01	-91.31	-91.36	-90.21
+4	-87.94	-94.75	-88.18	-89.76	-92.84	-89.30	-87.24	-92.47	-93.42
+5	-95.01	-92.83	-92.00	-95.21	-97.29	-92.46	-93.06	-95.18	-96.04

Note 1: Comparison frequency 30 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 729.99MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 755.01MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 780MHz± (n*Freference) (dBc) NOTE 3		
	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	-45°C	+25°C	+85°C
-5	-94.10	-96.78	-98.97	-106.59	-108.65	-108.75	-94.65	-102.55	-111.83
-4	-117.02	-116.74	-119.26	-116.07	-119.79	-119.55	-98.36	-107.17	-110.46
-3	-108.51	-110.95	-109.55	-108.47	-108.66	-110.65	-93.36	-101.82	-108.99
-2	-117.61	-118.96	-120.43	-115.88	-118.73	-115.06	-102.48	-108.14	-118.95
-1	-106.39	-105.91	-106.66	-105.76	-107.76	-106.57	-95.22	-104.68	-103.11
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-107.53	-110.11	-108.08	-112.83	-108.55	-112.86	-89.96	-118.01	-98.38
+2	-116.84	-119.81	-121.12	-118.99	-120.32	-117.54	-103.36	-101.56	-99.76
+3	-112.68	-110.49	-109.79	-113.17	-110.87	-112.39	-97.57	-106.07	-101.21
+4	-117.67	-117.22	-115.16	-112.33	-115.97	-120.50	-102.22	-102.67	-99.27
+5	-90.54	-93.69	-96.03	-108.64	-110.46	-109.39	-93.60	-104.06	-102.25

Note 3: Reference frequency 12 MHz

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

REV. X1
KSN-780A-119+
101017
Page 2 of 2



Mini-Circuits®
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

