

Frequency Synthesizer

KSN-EDR7427

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
700.0	-0.93	-0.43	-0.28	-26.55	-27.16	-27.60	-39.05	-41.44	-43.72	14.56	15.88	16.63	6.25	7.74	8.78
706.7	-0.81	-0.31	-0.16	-26.83	-27.49	-27.93	-38.42	-40.66	-42.85	14.69	16.02	16.76	6.25	7.75	8.81
713.3	-0.70	-0.20	-0.06	-26.85	-27.53	-27.94	-38.17	-40.28	-42.47	14.82	16.16	16.90	6.27	7.77	8.84
720.0	-0.64	-0.11	0.02	-27.00	-27.66	-28.06	-37.72	-39.69	-41.77	14.90	16.29	17.02	6.28	7.79	8.86
720.0	-0.61	-0.11	0.03	-27.10	-27.65	-28.08	-37.51	-39.69	-41.76	14.94	16.29	17.03	6.29	7.78	8.85
726.6	-0.52	-0.03	0.10	-27.13	-27.87	-28.25	-37.48	-39.28	-41.28	15.05	16.41	17.14	6.30	7.79	8.87
733.3	-0.44	0.06	0.19	-26.67	-27.50	-27.88	-37.75	-39.55	-41.47	15.13	16.51	17.24	6.30	7.80	8.88
740.0	-0.38	0.13	0.24	-26.95	-27.31	-27.71	-37.71	-39.59	-41.51	15.20	16.60	17.33	6.30	7.80	8.88
746.6	-0.35	0.16	0.27	-27.48	-27.92	-28.27	-37.11	-39.21	-41.08	15.25	16.66	17.39	6.31	7.80	8.89
753.3	-0.34	0.18	0.27	-27.35	-28.03	-28.38	-36.93	-38.84	-40.72	15.27	16.70	17.43	6.31	7.80	8.89
759.9	-0.35	0.17	0.26	-27.23	-27.78	-28.15	-36.92	-38.84	-40.74	15.27	16.71	17.45	6.32	7.81	8.89
760.0	-0.36	0.17	0.26	-27.25	-27.79	-28.15	-36.89	-38.83	-40.73	15.27	16.71	17.45	6.32	7.81	8.90
766.6	-0.41	0.13	0.21	-27.47	-27.95	-28.33	-37.07	-38.96	-40.89	15.24	16.70	17.45	6.32	7.81	8.91
773.3	-0.50	0.06	0.12	-27.26	-27.98	-28.34	-36.87	-38.99	-40.93	15.19	16.67	17.42	6.33	7.81	8.91
780.0	-0.63	-0.05	0.01	-27.23	-27.70	-28.10	-37.12	-38.96	-41.09	15.09	16.60	17.36	6.33	7.82	8.91

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
700.0	-73.68	-80.86	-110.62	-132.79	-152.62	-72.52	-77.91	-109.42	-131.05	-151.03	-73.92	-78.04	-107.66	-129.33	-149.34
706.7	-75.09	-77.53	-111.21	-133.26	-153.14	-73.58	-79.08	-109.86	-131.56	-151.72	-74.07	-79.16	-108.33	-129.78	-149.77
713.3	-74.66	-78.85	-111.46	-133.35	-153.31	-75.29	-78.21	-110.30	-131.80	-151.65	-75.74	-79.12	-108.66	-130.14	-150.00
720.0	-74.39	-79.14	-111.51	-133.42	-153.66	-72.60	-79.12	-110.42	-132.09	-151.98	-72.85	-78.75	-108.98	-130.23	-150.45
720.0	-75.25	-79.60	-111.45	-133.50	-153.29	-73.82	-80.92	-110.54	-132.08	-151.87	-72.58	-79.86	-108.80	-130.35	-150.42
726.6	-75.76	-79.83	-111.30	-133.41	-153.42	-73.76	-80.08	-110.56	-132.02	-152.15	-73.17	-79.34	-108.99	-130.42	-150.44
733.3	-74.93	-79.78	-111.36	-133.39	-153.54	-72.45	-80.19	-110.49	-132.12	-151.89	-74.69	-79.30	-109.06	-130.53	-150.52
740.0	-78.02	-78.70	-111.04	-133.16	-153.13	-72.86	-78.87	-110.46	-131.99	-152.07	-75.22	-78.87	-109.06	-130.41	-150.35
746.6	-75.90	-79.89	-111.01	-132.89	-153.23	-72.05	-79.02	-110.23	-131.87	-152.04	-72.53	-78.93	-108.86	-130.31	-150.30
753.3	-72.02	-80.24	-110.77	-132.73	-152.61	-71.07	-78.80	-110.37	-131.66	-151.57	-71.47	-78.65	-108.54	-130.08	-150.20
759.9	-74.04	-79.75	-110.75	-132.52	-152.69	-71.18	-78.63	-109.95	-131.53	-151.49	-73.33	-79.74	-108.44	-129.76	-149.91
760.0	-74.22	-79.28	-110.55	-132.49	-152.50	-71.73	-79.37	-109.78	-131.30	-151.58	-72.18	-80.19	-108.26	-129.82	-149.78
766.6	-73.48	-80.67	-110.60	-132.08	-152.05	-71.94	-78.92	-109.77	-131.12	-151.32	-72.62	-79.05	-108.21	-129.43	-149.61
773.3	-72.7	-80.11	-110.09	-131.57	-151.65	-71.81	-79.94	-109.54	-130.74	-150.72	-72.55	-79.38	-107.95	-128.96	-149.24
780.0	-72.52	-81.5	-110.12	-130.96	-151.3	-70.57	-81.02	-109.14	-130.20	-150.39	-66.25	-79.84	-107.58	-128.7	-148.82

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 720 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 740.01 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 760.02 MHz± (n*Fcomparison) (dBc) NOTE 1		
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
-5	-111.16	-103.76	-108.52	-104.69	-107.02	-110.02	-98.91	-110.44	-110.71
-4	-109.28	-103.36	-107.47	-107.06	-105.09	-110.77	-89.16	-97.40	-103.08
-3	-107.55	-99.83	-105.88	-103.01	-102.97	-105.48	-95.18	-102.11	-106.83
-2	-104.56	-95.12	-101.26	-102.19	-97.53	-103.01	-89.90	-96.59	-94.52
-1	-97.53	-89.33	-96.43	-98.30	-90.01	-97.51	-86.08	-93.83	-93.29
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-98.36	-88.10	-96.61	-97.52	-89.42	-97.84	-87.24	-93.79	-92.41
+2	-105.43	-94.90	-100.73	-102.91	-101.03	-103.59	-90.40	-96.60	-95.47
+3	-108.22	-98.90	-105.27	-102.60	-99.80	-108.12	-94.85	-101.94	-105.98
+4	-108.67	-101.38	-106.91	-106.96	-104.05	-108.97	-89.07	-98.46	-106.55
+5	-110.63	-103.93	-108.67	-106.06	-107.90	-110.95	-100.38	-110.33	-110.11

Note 1: Comparison frequency 30 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 720 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 740.01 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 760.02 MHz± (n*Freference) (dBc) NOTE 3		
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
-5	-124.83	-124.68	-122.47	-129.37	-128.04	-130.42	-128.52	-129.33	-126.89
-4	-114.48	-113.19	-111.33	-115.23	-116.73	-114.37	-105.09	-107.33	-103.84
-3	-118.95	-123.84	-123.53	-128.63	-129.82	-129.30	-129.34	-127.97	-131.76
-2	-126.38	-117.23	-116.82	-125.83	-128.02	-124.97	-124.36	-126.59	-129.43
-1	-106.35	-105.82	-106.01	-106.83	-106.82	-107.72	-105.87	-106.53	-107.15
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-109.47	-107.63	-107.73	-110.88	-112.20	-112.48	-112.45	-112.15	-113.68
+2	-113.03	-116.53	-119.34	-122.42	-125.11	-120.64	-123.73	-128.71	-123.31
+3	-119.23	-115.79	-114.52	-127.00	-127.59	-126.85	-129.26	-124.63	-124.59
+4	-108.84	-110.46	-111.39	-115.07	-119.62	-116.89	-104.19	-107.04	-104.96
+5	-109.63	-111.48	-111.72	-129.36	-129.35	-130.47	-127.33	-129.38	-128.59

Note 3: Reference frequency 19.2 MHz

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

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