

Frequency Synthesizer

KSN-EDR8066

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCO CURRENT (mA)			PLL CURRENT (mA)		
				(dBc)											
				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	
404.0	-0.29	-0.10	-0.15	-16.61	-17.27	-18.49	-41.79	-40.51	-40.51	17.56	18.44	18.68	11.95	13.14	14.02
405.6	-0.31	-0.11	-0.17	-16.86	-17.77	-18.82	-41.22	-40.45	-40.45	17.56	18.44	18.71	11.96	13.15	14.03
407.2	-0.32	-0.12	-0.18	-17.02	-18.19	-19.03	-40.59	-40.21	-40.21	17.57	18.46	18.73	11.96	13.15	14.03
408.8	-0.33	-0.13	-0.19	-17.04	-18.48	-19.11	-39.88	-39.87	-39.87	17.57	18.47	18.75	11.96	13.16	14.03
409.0	-0.33	-0.13	-0.19	-17.05	-18.51	-19.11	-39.86	-39.71	-39.71	17.57	18.47	18.75	11.96	13.16	14.04
410.4	-0.34	-0.14	-0.20	-17.01	-18.65	-19.14	-39.33	-39.28	-39.28	17.57	18.48	18.77	11.96	13.16	14.03
412.0	-0.36	-0.15	-0.21	-16.97	-18.70	-19.10	-39.06	-38.67	-38.67	17.57	18.49	18.79	11.97	13.16	14.04
413.6	-0.38	-0.16	-0.23	-16.99	-18.71	-19.15	-39.12	-38.12	-38.12	17.57	18.51	18.81	11.97	13.16	14.04
415.0	-0.39	-0.18	-0.24	-17.14	-18.67	-19.30	-39.22	-37.94	-37.94	17.57	18.52	18.83	11.97	13.16	14.04
415.2	-0.40	-0.18	-0.25	-17.16	-18.67	-19.33	-39.24	-37.92	-37.92	17.57	18.52	18.83	11.97	13.16	14.04
416.8	-0.42	-0.20	-0.27	-17.53	-18.72	-19.67	-39.26	-37.95	-37.95	17.57	18.53	18.85	11.97	13.16	14.04
418.4	-0.44	-0.22	-0.29	-18.04	-18.92	-20.17	-39.11	-38.18	-38.18	17.58	18.55	18.87	11.97	13.16	14.04
420.0	-0.47	-0.24	-0.32	-18.64	-19.28	-20.77	-38.65	-38.42	-38.42	17.58	18.56	18.89	11.97	13.16	14.04

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
404.0	-76.99	-75.47	-110.36	-135.60	-155.58	-80.47	-76.65	-110.71	-137.95	-157.79	-83.17	-76.26	-110.13	-137.45	-158.45
405.6	-79.09	-75.73	-110.35	-135.67	-155.81	-82.01	-77.62	-110.80	-138.06	-160.01	-78.37	-77.30	-110.23	-137.40	-158.42
407.2	-78.36	-75.86	-110.56	-135.84	-156.10	-79.82	-79.77	-111.11	-138.66	-159.82	-78.02	-77.89	-109.96	-137.87	-158.38
408.8	-77.38	-75.90	-110.83	-135.81	-156.54	-79.38	-78.71	-111.45	-139.19	-159.21	-75.62	-77.73	-110.29	-138.07	-159.24
409.0	-77.27	-76.76	-110.95	-136.09	-149.83	-80.64	-78.25	-110.99	-139.56	-151.86	-78.80	-78.66	-110.37	-138.08	-153.96
410.4	-80.18	-76.69	-110.73	-136.14	-156.30	-81.03	-79.14	-111.03	-139.50	-160.10	-75.50	-77.95	-110.48	-138.12	-159.05
412.0	-74.83	-78.54	-111.18	-136.47	-157.05	-77.94	-78.22	-111.67	-139.91	-159.77	-75.67	-77.72	-109.96	-137.69	-159.42
413.6	-74.59	-78.10	-111.28	-136.72	-157.84	-78.13	-79.60	-111.57	-140.14	-159.97	-74.88	-77.71	-110.21	-137.85	-158.11
415.0	-76.78	-79.62	-111.36	-137.00	-157.00	-76.17	-80.64	-111.79	-140.01	-160.21	-74.29	-77.95	-110.34	-137.85	-159.56
415.2	-76.93	-78.93	-111.23	-136.87	-157.78	-75.80	-79.46	-111.57	-139.94	-162.11	-75.26	-78.11	-110.46	-137.69	-159.02
416.8	-76.90	-77.95	-111.91	-137.41	-158.04	-77.23	-78.63	-111.45	-140.36	-160.99	-77.38	-78.46	-110.48	-137.96	-158.76
418.4	-77.01	-76.14	-111.94	-137.64	-158.19	-76.25	-79.94	-111.70	-140.22	-159.72	-75.88	-77.73	-110.80	-137.94	-159.23
420.0	-78.66	-79.40	-111.99	-138.48	-158.82	-77.27	-78.61	-111.57	-140.40	-160.47	-79.81	-78.93	-111.08	-138.06	-159.85

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-Circuits' 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/MCStore/terms.jsp



Frequency Synthesizer

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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 409 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 412 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 415 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	-107.32	-109.65	-108.85	-109.55	-109.53	-109.33	-108.05	-108.99	-108.60
-4	-106.92	-105.95	-107.02	-106.58	-106.84	-106.88	-107.05	-106.76	-105.59
-3	-103.65	-103.69	-104.11	-103.93	-103.67	-100.93	-103.63	-104.12	-103.54
-2	-99.17	-102.12	-98.31	-97.81	-100.40	-100.60	-101.17	-100.63	-95.82
-1	-92.16	-92.02	-87.36	-92.04	-92.54	-86.16	-92.54	-94.29	-83.83
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-92.86	-94.58	-87.15	-93.25	-92.53	-85.30	-92.95	-93.78	-84.30
+2	-100.89	-97.91	-99.43	-99.82	-100.68	-96.99	-100.94	-100.49	-96.58
+3	-103.65	-102.93	-105.29	-104.59	-104.97	-101.32	-104.65	-103.50	-103.09
+4	-107.18	-106.48	-107.80	-107.32	-107.84	-107.59	-106.68	-107.56	-106.84
+5	-108.42	-109.15	-107.87	-107.75	-109.55	-107.40	-108.68	-109.67	-107.22

Note 1: Comparison frequency 20 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 409 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 412 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 415 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	-116.66	-118.74	-120.27	-115.07	-114.41	-116.81	-111.75	-114.71	-115.37
-4	-120.33	-117.75	-115.70	-119.31	-116.99	-114.04	-109.36	-113.80	-113.64
-3	-122.24	-118.86	-119.55	-123.21	-118.69	-120.46	-112.64	-114.86	-116.50
-2	-111.55	-107.66	-108.50	-113.73	-107.23	-108.18	-108.61	-107.93	-108.41
-1	-103.62	-101.85	-103.09	-103.67	-101.73	-103.02	-102.43	-101.69	-102.89
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-104.71	-102.89	-104.19	-104.41	-102.86	-104.16	-101.65	-100.84	-102.33
+2	-113.17	-108.16	-109.22	-114.03	-108.64	-109.92	-108.28	-106.06	-107.29
+3	-125.31	-123.59	-122.78	-124.57	-123.92	-123.49	-112.00	-113.03	-115.69
+4	-118.58	-115.57	-113.98	-116.53	-115.38	-114.25	-110.56	-110.41	-110.40
+5	-126.59	-126.79	-126.25	-126.73	-124.17	-124.66	-114.00	-116.09	-117.47

Note 3: Reference frequency 10 MHz

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

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