

Frequency Synthesizer

KSN-EDR8461/2

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCO CURRENT (mA)			PLL CURRENT (mA)		
				(dBc)											
	-45 °C	+25°C	+85 °C	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							
2000	6.21	6.02	5.38	-24.93	-26.68	-23.70	-24.93	-26.68	-23.70	41.93	44.05	45.91	8.43	10.24	12.34
2014	6.07	5.79	5.13	-27.02	-28.20	-24.55	-27.02	-28.20	-24.55	41.89	44.08	45.91	8.43	10.28	12.35
2022	6.09	5.80	5.12	-26.88	-26.89	-23.70	-26.88	-26.89	-23.70	41.89	44.06	45.90	8.44	10.30	12.35
2028	6.15	5.86	5.16	-25.84	-25.92	-23.20	-25.84	-25.92	-23.20	41.88	44.05	45.89	8.43	10.31	12.35
2042	6.29	5.98	5.26	-26.66	-26.48	-23.23	-26.66	-26.48	-23.23	41.80	43.99	45.84	8.43	10.32	12.35
2052	6.33	5.98	5.26	-28.27	-25.98	-22.99	-28.27	-25.98	-22.99	41.76	43.97	45.83	8.43	10.33	12.35
2070	6.21	5.82	5.09	-28.81	-26.48	-24.05	-28.81	-26.48	-24.05	41.71	43.92	45.78	8.44	10.34	12.36
2084	5.94	5.61	4.88	-27.85	-24.11	-21.77	-27.85	-24.11	-21.77	41.69	43.89	45.76	8.44	10.35	12.36
2098	5.71	5.41	4.68	-25.80	-22.65	-20.52	-25.80	-22.65	-20.52	41.66	43.85	45.72	8.44	10.35	12.36
2112	5.63	5.23	4.48	-27.56	-24.66	-22.09	-27.56	-24.66	-22.09	41.59	43.81	45.69	8.44	10.35	12.36
2123	5.69	5.23	4.45	-26.73	-23.31	-20.99	-26.73	-23.31	-20.99	41.52	43.77	45.67	8.45	10.37	12.37
2126	5.71	5.25	4.47	-26.36	-22.76	-20.80	-26.36	-22.76	-20.80	41.50	43.76	45.66	8.45	10.37	12.38
2140	5.78	5.33	4.52	-26.88	-22.65	-20.66	-26.88	-22.65	-20.66	41.40	43.69	45.60	8.45	10.37	12.38

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
2000	-60.21	-73.47	-101.29	-124.01	-143.24	-70.15	-74.18	-102.28	-123.86	-144.39	-70.01	-73.89	-101.40	-123.37	-142.99
2014	-70.34	-73.22	-101.02	-124.05	-141.63	-66.32	-73.49	-101.37	-123.97	-143.79	-70.84	-74.36	-100.95	-123.03	-141.90
2022	-67.16	-72.16	-100.75	-123.95	-141.11	-67.79	-72.86	-100.79	-123.79	-143.27	-70.41	-73.09	-100.14	-122.79	-141.90
2028	-68.35	-75.58	-100.42	-123.82	-141.24	-71.30	-74.48	-100.81	-123.64	-142.88	-70.79	-73.85	-99.92	-122.70	-141.94
2042	-73.10	-69.56	-99.49	-123.45	-142.31	-69.17	-72.91	-100.25	-123.11	-142.46	-71.10	-72.46	-99.10	-122.28	-142.50
2052	-70.66	-70.75	-99.11	-123.14	-142.39	-70.21	-73.54	-99.96	-122.82	-142.46	-68.26	-72.03	-99.06	-121.31	-142.30
2070	-66.57	-72.38	-98.87	-122.33	-142.91	-65.57	-72.20	-98.72	-121.31	-142.38	-71.88	-72.35	-98.40	-121.61	-142.27
2084	-66.04	-73.11	-98.02	-121.94	-141.63	-64.42	-71.84	-98.12	-121.67	-142.20	-71.31	-73.18	-98.47	-121.12	-142.17
2098	-65.66	-70.60	-97.49	-121.47	-141.02	-70.29	-69.61	-98.25	-121.38	-141.86	-70.42	-71.69	-98.45	-121.92	-142.02
2112	-68.48	-73.55	-96.66	-121.06	-140.73	-65.16	-67.56	-98.09	-121.39	-141.83	-70.02	-75.22	-98.24	-121.89	-142.12
2123	-67.52	-70.98	-96.59	-119.52	-140.22	-62.06	-71.95	-98.34	-120.95	-141.20	-68.92	-71.82	-98.02	-121.94	-141.61
2126	-66.34	-70.83	-96.65	-119.74	-141.44	-63.78	-70.67	-97.66	-121.07	-141.64	-71.79	-72.53	-98.29	-121.98	-142.15
2140	-64.42	-68.45	-96.33	-120.48	-141.04	-63.54	-69.68	-97.56	-121.14	-141.06	-72.13	-73.43	-97.94	-122.08	-142.28

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/MCLStore/terms.jsp



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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 2022 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2073 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2123 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	-92.18	-95.82	-92.52	-109.03	-109.29	-104.82	-109.03	-104.88	-99.01
-4	-89.26	-93.62	-90.48	-105.19	-106.12	-104.89	-105.19	-105.41	-96.33
-3	-86.36	-88.84	-87.60	-101.80	-100.24	-99.91	-101.80	-101.01	-94.34
-2	-84.09	-86.53	-84.26	-97.47	-99.42	-97.46	-97.47	-96.93	-88.39
-1	-79.42	-83.10	-80.95	-96.65	-93.43	-87.35	-96.65	-85.95	-74.46
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-78.67	-83.63	-80.57	-98.50	-93.34	-92.86	-98.50	-85.99	-74.68
+2	-83.64	-87.13	-83.96	-98.75	-99.24	-100.55	-98.75	-100.28	-88.65
+3	-86.67	-89.25	-87.95	-99.86	-100.18	-100.54	-99.86	-100.77	-94.19
+4	-89.74	-93.91	-90.29	-103.50	-104.73	-103.21	-103.50	-104.17	-99.04
+5	-91.93	-96.09	-91.99	-107.76	-110.18	-104.94	-107.76	-106.61	-101.31

Note 1: Comparison frequency 50 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 2022 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 2073 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 2123 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	-110.35	-108.69	-106.00	-106.86	-108.66	-111.01	-109.18	-111.54	-113.67
-4	-102.07	-103.54	-105.06	-103.85	-105.07	-106.24	-103.88	-104.98	-106.16
-3	-115.46	-117.23	-119.56	-117.42	-119.16	-120.32	-114.71	-116.74	-115.94
-2	-109.60	-107.29	-106.43	-109.82	-107.68	-109.53	-107.34	-108.59	-115.34
-1	-111.88	-104.79	-101.82	-104.62	-99.14	-99.61	-101.00	-98.14	-96.81
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-115.81	-115.65	-106.61	-109.42	-101.86	-99.49	-101.87	-97.77	-95.05
+2	-113.38	-112.13	-107.66	-111.00	-107.66	-104.55	-108.04	-106.47	-106.84
+3	-119.24	-121.95	-120.85	-117.76	-119.75	-118.75	-117.01	-116.71	-116.58
+4	-104.03	-106.07	-107.14	-106.99	-107.82	-107.48	-106.63	-108.23	-108.16
+5	-110.64	-108.82	-107.04	-108.95	-111.37	-113.16	-111.14	-112.97	-115.40

Note 3: Reference frequency 24 MHz

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

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