

Frequency Synthesizer

KSN-EDR10427

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (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
1920.0	1.88	1.91	1.51	-52.06	-49.47	-44.05	-54.95	-42.76	-52.11	29.08	30.54	31.39	6.87	8.18	9.47
1927.3	1.91	1.93	1.54	-52.44	-49.98	-44.99	-56.30	-41.65	-51.82	29.07	30.54	31.39	6.89	8.24	9.54
1930.0	1.93	1.94	1.55	-52.88	-50.15	-45.05	-54.61	-41.16	-50.40	29.07	30.53	31.39	6.89	8.25	9.56
1934.6	1.96	1.96	1.57	-53.16	-50.17	-45.05	-52.10	-41.06	-50.02	29.06	30.52	31.38	6.92	8.27	9.59
1941.9	1.99	1.99	1.60	-53.29	-50.58	-45.56	-50.96	-41.73	-50.55	29.04	30.50	31.36	6.94	8.29	9.61
1949.2	2.02	2.03	1.64	-54.44	-51.97	-45.97	-52.04	-42.93	-50.72	29.00	30.47	31.34	6.93	8.27	9.60
1956.5	2.05	2.05	1.66	-55.01	-52.74	-46.72	-50.63	-41.62	-48.68	28.97	30.44	31.32	6.93	8.29	9.62
1963.8	2.07	2.08	1.68	-55.25	-52.84	-46.72	-49.29	-41.77	-48.56	28.92	30.41	31.29	6.94	8.30	9.63
1971.1	2.10	2.11	1.71	-55.67	-53.06	-47.36	-48.18	-41.38	-48.30	28.87	30.36	31.26	6.96	8.31	9.65
1978.4	2.12	2.12	1.73	-56.06	-53.35	-47.54	-47.48	-41.89	-49.26	28.83	30.34	31.23	6.94	8.29	9.64
1985.7	2.12	2.12	1.70	-57.50	-55.49	-48.43	-49.57	-43.36	-52.46	28.81	30.30	31.22	6.95	8.30	9.65
1993.0	2.14	2.13	1.71	-58.11	-55.79	-48.48	-47.83	-40.96	-49.87	28.76	30.27	31.19	6.96	8.32	9.66
2000.3	2.17	2.15	1.71	-58.34	-56.18	-49.21	-46.75	-41.84	-49.24	28.72	30.24	31.17	6.95	8.30	9.65
2007.6	2.21	2.18	1.72	-58.03	-56.88	-49.81	-46.39	-42.64	-50.65	28.68	30.20	31.14	6.95	8.32	9.66
2014.9	2.29	2.21	1.73	-58.48	-55.65	-50.37	-48.18	-42.96	-51.27	28.64	30.17	31.11	6.97	8.33	9.68
2020.0	2.32	2.22	1.73	-59.28	-56.26	-49.77	-45.97	-41	-49.3	28.6	30.14	31.1	6.96	8.31	9.67
2022.2	2.32	2.22	1.73	-59.84	-56.92	-50.24	-45.67	-41.09	-48.60	28.59	30.13	31.09	6.98	8.33	9.69
2030.0	2.36	2.25	1.72	-59.61	-57.78	-50.84	-45.98	-42.21	-49.47	28.54	30.1	31.1	7.0	8.33	9.68

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
1920.0	-75.24	-72.75	-89.26	-123.65	-147.52	-74.16	-73.48	-88.87	-123.51	-147.89	-75.71	-73.23	-89.61	-122.66	-147.30
1927.3	-74.42	-73.91	-88.12	-123.83	-147.81	-75.89	-73.35	-89.36	-123.57	-148.04	-76.65	-73.73	-89.07	-122.91	-147.09
1930.0	-74.63	-74.90	-87.63	-124.09	-148.04	-74.65	-73.20	-89.41	-123.64	-147.66	-74.86	-72.95	-89.08	-121.37	-147.05
1934.6	-75.25	-74.20	-87.49	-123.60	-147.96	-75.22	-73.43	-89.21	-123.26	-147.80	-74.00	-72.79	-89.09	-121.16	-147.21
1941.9	-74.75	-74.85	-87.06	-123.26	-148.02	-75.25	-73.01	-88.80	-122.12	-147.84	-76.57	-72.99	-89.19	-120.99	-147.27
1949.2	-75.25	-73.62	-88.37	-124.13	-147.85	-75.19	-73.69	-88.63	-122.99	-147.99	-74.18	-72.62	-88.24	-122.04	-146.23
1956.5	-74.90	-73.31	-88.96	-123.80	-148.28	-74.98	-74.22	-88.18	-122.36	-147.33	-74.20	-73.63	-87.06	-121.40	-146.69
1963.8	-73.49	-73.32	-88.49	-123.47	-147.78	-74.49	-73.78	-86.95	-122.44	-147.63	-74.80	-73.44	-87.03	-122.03	-146.62
1971.1	-76.85	-74.24	-86.39	-122.62	-147.92	-74.99	-73.79	-87.49	-120.59	-147.22	-74.87	-73.12	-87.76	-121.88	-146.58
1978.4	-75.28	-74.42	-85.82	-122.65	-147.88	-75.58	-73.22	-87.95	-122.39	-147.56	-73.08	-73.39	-88.55	-120.00	-146.54
1985.7	-74.65	-74.03	-87.37	-121.51	-147.83	-76.41	-73.43	-88.16	-121.70	-147.33	-74.93	-72.93	-88.22	-121.66	-146.12
1993.0	-75.54	-72.63	-89.04	-121.99	-147.60	-73.78	-72.66	-88.30	-122.12	-147.27	-75.84	-73.24	-87.46	-121.48	-145.68
2000.3	-74.37	-72.40	-88.77	-121.16	-147.46	-74.18	-73.38	-87.84	-122.02	-146.95	-75.14	-73.23	-87.08	-121.31	-146.15
2007.6	-75.6	-74.42	-87.63	-121.43	-146.54	-74.97	-72.87	-87.76	-121.62	-146.79	-75.14	-72.77	-87.05	-121.24	-145.3
2014.9	-73.72	-73.76	-87.00	-121.85	-147.11	-74.60	-72.88	-87.46	-119.83	-146.73	-74.98	-72.95	-87.21	-121.28	-145.16
2020.0	-73.63	-73.37	-87.11	-121.85	-147.02	-74.51	-73.22	-87.47	-121.85	-146.90	-74.36	-72.70	-87.40	-121.23	-145.76
2022.2	-73.64	-73.17	-87.23	-122.48	-146.59	-74.71	-73.21	-87.57	-121.83	-146.66	-73.86	-72.56	-87.71	-121.22	-144.85
2030.0	-74.19	-72.22	-87.91	-121.99	-146.63	-74.61	-72.58	-88.06	-120.08	-146.34	-74.16	-72.91	-87.67	-121.17	-145.50

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



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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 1930 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1975 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 2020 MHz± (n*Fcomparison) (dBc) NOTE 1		
	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C
-5	-108.56	-108.56	-108.56	-109.45	-110.81	-107.14	-110.60	-110.60	-110.60
-4	-110.88	-110.88	-110.88	-107.54	-105.30	-111.56	-111.12	-111.12	-111.12
-3	-103.63	-103.63	-103.63	-97.89	-105.29	-100.15	-106.14	-106.14	-106.14
-2	-97.92	-97.92	-97.92	-98.48	-96.79	-97.62	-99.98	-99.98	-99.98
-1	-87.82	-87.82	-87.82	-84.33	-89.65	-82.11	-89.22	-89.22	-89.22
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-87.19	-87.19	-87.19	-83.78	-88.40	-82.99	-88.69	-88.69	-88.69
+2	-99.57	-99.57	-99.57	-98.51	-98.54	-96.11	-98.15	-98.15	-98.15
+3	-102.85	-102.85	-102.85	-100.41	-105.92	-99.48	-108.43	-108.43	-108.43
+4	-109.32	-109.32	-109.32	-106.85	-104.72	-110.50	-107.73	-107.73	-107.73
+5	-108.62	-108.62	-108.62	-112.07	-111.05	-106.10	-113.51	-113.51	-113.51

Note 1: Comparison frequency 100 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 1930 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1975 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 2020 MHz± (n*Freference) (dBc) NOTE 3		
	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C
-5	-112.60	-112.55	-120.47	-119.39	-116.05	-118.55	-115.97	-115.55	-115.16
-4	-114.59	-121.31	-123.17	-122.69	-118.79	-120.94	-114.40	-115.70	-121.74
-3	-121.28	-116.38	-126.63	-130.47	-115.22	-127.65	-129.99	-120.10	-130.47
-2	-118.67	-119.96	-129.34	-123.56	-118.93	-119.95	-126.69	-116.15	-123.28
-1	-108.93	-105.73	-104.76	-111.77	-105.82	-105.76	-101.40	-106.34	-102.88
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-101.10	-108.71	-102.84	-103.11	-110.73	-102.77	-97.13	-111.45	-102.68
+2	-116.01	-120.23	-129.54	-128.06	-117.62	-117.94	-119.89	-114.65	-117.14
+3	-120.95	-116.13	-127.54	-130.15	-116.55	-126.90	-121.93	-117.48	-123.98
+4	-117.52	-117.18	-130.34	-127.79	-117.76	-122.00	-129.82	-114.07	-126.09
+5	-111.42	-112.53	-117.60	-120.43	-116.66	-117.25	-114.17	-112.78	-117.33

Note 3: Reference frequency 10 MHz

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

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