

Frequency Synthesizer

KSN-EDR9941MP

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			
1766.4	1.37	1.26	1.12	-32.56	-35.83	-38.52	-46.65	-32.56	-48.37	23.28	24.15	24.64	14.36	15.66	16.54
1774.1	1.39	1.29	1.16	-33.26	-36.85	-39.01	-45.68	-33.28	-47.74	23.26	24.14	24.63	14.41	15.69	16.57
1779.2	1.39	1.30	1.17	-33.58	-37.61	-39.14	-45.98	-33.73	-47.55	23.24	24.13	24.62	14.43	15.70	16.59
1781.8	1.39	1.30	1.18	-33.76	-37.84	-39.32	-45.56	-33.87	-47.02	23.23	24.12	24.62	14.45	15.72	16.61
1789.4	1.39	1.32	1.19	-34.80	-38.67	-39.92	-45.02	-34.18	-47.49	23.21	24.10	24.61	14.49	15.75	16.63
1797.1	1.41	1.35	1.22	-36.03	-39.34	-40.67	-46.22	-34.55	-45.77	23.19	24.09	24.61	14.52	15.78	16.67
1804.8	1.41	1.37	1.24	-36.84	-39.70	-41.59	-45.32	-35.59	-46.01	23.18	24.06	24.60	14.39	15.66	16.55
1812.5	1.41	1.38	1.24	-37.31	-40.34	-41.77	-45.63	-36.29	-48.83	23.16	24.04	24.59	14.42	15.69	16.58
1820.2	1.42	1.40	1.25	-37.67	-41.16	-41.85	-43.63	-35.12	-46.15	23.14	24.03	24.59	14.45	15.72	16.61
1827.8	1.43	1.42	1.26	-38.39	-41.58	-42.28	-42.35	-35.35	-44.37	23.13	24.01	24.58	14.49	15.75	16.65
1830.4	1.44	1.43	1.27	-38.50	-41.54	-42.40	-42.74	-35.66	-45.20	23.12	24.00	24.58	14.50	15.76	16.66
1835.5	1.45	1.44	1.28	-38.73	-41.60	-42.59	-43.51	-36.57	-47.08	23.11	23.99	24.58	14.52	15.78	16.68
1843.2	1.45	1.46	1.29	-38.61	-41.65	-42.37	-41.94	-35.62	-45.05	23.07	23.98	24.56	14.38	15.65	16.56

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
1766.4	-87.42	-89.80	-93.90	-126.03	-149.13	-85.15	-90.95	-92.82	-125.13	-148.13	-84.38	-88.22	-91.73	-124.13	-146.83
1774.1	-86.01	-89.87	-92.71	-125.61	-149.09	-88.61	-88.89	-91.72	-124.89	-147.92	-89.22	-89.50	-91.55	-123.72	-146.81
1779.2	-86.71	-90.51	-91.68	-125.01	-149.16	-84.91	-89.45	-90.87	-124.60	-148.16	-85.70	-87.98	-90.53	-123.75	-146.85
1781.8	-87.78	-90.33	-90.47	-124.86	-148.97	-82.77	-87.05	-90.40	-124.62	-147.93	-86.68	-89.04	-90.21	-123.32	-146.70
1789.4	-88.70	-89.24	-90.18	-124.17	-149.03	-85.56	-91.33	-90.96	-124.52	-147.76	-85.75	-88.91	-89.27	-123.08	-146.62
1797.1	-86.86	-89.59	-90.46	-124.13	-148.83	-87.12	-92.04	-90.89	-124.11	-147.83	-85.02	-91.28	-91.66	-123.98	-146.49
1804.8	-88.31	-90.67	-91.05	-124.41	-148.69	-85.79	-87.29	-92.50	-125.12	-147.82	-87.43	-88.46	-92.58	-124.16	-146.48
1812.5	-86.78	-88.72	-92.23	-125.34	-148.33	-84.97	-88.87	-92.89	-125.12	-147.44	-85.93	-89.21	-91.51	-123.94	-146.37
1820.2	-87.22	-88.31	-93.44	-125.46	-148.23	-85.85	-88.73	-92.29	-124.68	-147.26	-88.83	-87.74	-91.13	-123.66	-146.31
1827.8	-86.83	-88.25	-93.14	-125.07	-148.26	-85.92	-88.79	-91.63	-124.53	-147.15	-84.71	-89.12	-90.63	-123.57	-146.24
1830.4	-88.50	-88.33	-92.65	-125.07	-147.92	-84.95	-87.89	-91.98	-124.42	-146.70	-89.72	-88.60	-90.64	-123.48	-146.43
1835.5	-85.20	-88.52	-92.31	-124.94	-147.55	-84.12	-88.50	-91.57	-124.21	-146.97	-84.94	-89.59	-90.28	-123.29	-146.26
1843.2	-86.01	-88.41	-92.01	-124.41	-147.57	-84.38	-88.66	-91.11	-124.03	-146.98	-84.78	-88.73	-90.83	-123.15	-145.77

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 1779.2 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1804.8 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1830.4 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	-109.67	-111.44	-114.78	-117.76	-116.11	-101.82	-110.89	-109.48	-102.65
-4	-102.66	-109.42	-109.43	-102.89	-112.86	-100.07	-101.75	-117.31	-102.57
-3	-107.27	-106.03	-104.94	-101.27	-106.79	-97.64	-96.97	-103.28	-99.29
-2	-109.86	-106.59	-98.75	-100.72	-105.14	-92.42	-93.88	-99.55	-94.81
-1	-103.54	-107.65	-94.18	-99.13	-102.03	-87.12	-90.32	-93.43	-89.29
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-96.83	-98.45	-93.75	-103.16	-103.91	-87.51	-90.73	-95.41	-89.55
+2	-102.00	-108.38	-99.70	-110.65	-110.43	-93.39	-97.52	-103.86	-95.93
+3	-104.34	-119.10	-105.12	-114.84	-114.27	-97.03	-100.77	-105.42	-98.74
+4	-108.13	-116.95	-109.75	-108.23	-124.25	-99.31	-101.26	-111.21	-101.84
+5	-122.43	-110.66	-115.90	-116.51	-124.77	-101.64	-103.36	-111.12	-103.56

Note 1: Comparison frequency 1.28 MHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 1779.2 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1804.8 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1830.4 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	-106.16	-108.63	-108.56	-106.85	-110.12	-111.02	-108.45	-111.45	-109.48
-4	-106.07	-107.57	-108.08	-105.99	-108.46	-108.12	-107.51	-108.98	-109.73
-3	-107.97	-107.63	-106.44	-107.61	-108.22	-107.33	-106.68	-106.90	-107.57
-2	-105.85	-107.30	-105.38	-105.94	-106.95	-105.41	-105.10	-108.57	-105.79
-1	-101.28	-102.64	-102.55	-100.09	-103.06	-104.91	-104.07	-101.82	-104.91
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-106.70	-103.93	-104.85	-106.06	-103.93	-103.07	-106.66	-109.30	-103.46
+2	-114.75	-110.61	-111.07	-108.15	-111.40	-113.02	-111.88	-119.42	-109.36
+3	-112.55	-109.69	-111.75	-111.21	-106.72	-108.09	-123.56	-107.87	-111.26
+4	-113.92	-109.69	-112.21	-116.46	-116.18	-115.75	-114.29	-120.86	-113.15
+5	-109.20	-108.92	-110.52	-112.16	-110.51	-113.91	-113.16	-119.49	-113.42

Note 3: Reference frequency 19.2 MHz

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

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 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

