

Frequency Synthesizer

KSN-EDR8009/4

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCO CURRENT (mA)			PLL CURRENT (mA)		
				(dBc)											
	-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
1490	1.07	1.83	1.60	-20.94	-23.06	-25.82	-29.48	-30.82	-32.98	32.97	37.09	39.79	4.72	4.80	4.90
1501	1.41	2.13	1.90	-21.56	-24.14	-27.15	-30.31	-31.97	-34.45	33.02	37.13	39.83	4.73	4.81	4.90
1511	1.77	2.46	2.23	-21.08	-23.50	-26.35	-31.52	-32.81	-35.47	33.06	37.15	39.86	4.74	4.82	4.90
1512	1.81	2.50	2.26	-21.05	-23.43	-26.22	-31.68	-32.99	-35.56	33.06	37.16	39.87	4.73	4.82	4.91
1523	2.21	2.94	2.71	-20.56	-22.79	-25.31	-35.12	-36.22	-38.35	33.10	37.19	39.90	4.73	4.81	4.90
1534	2.48	3.29	3.06	-20.06	-22.29	-24.93	-33.54	-35.13	-37.75	33.13	37.22	39.92	4.74	4.82	4.91
1545	2.54	3.36	3.12	-19.63	-21.89	-24.62	-32.28	-34.06	-36.81	33.16	37.25	39.94	4.74	4.82	4.91
1556	2.44	3.19	2.92	-20.32	-22.55	-25.30	-34.27	-36.66	-39.19	33.18	37.27	39.96	4.75	4.83	4.92
1567	2.32	2.98	2.68	-20.27	-22.58	-25.39	-38.72	-40.98	-43.40	33.21	37.30	39.98	4.75	4.83	4.92
1578	2.29	2.91	2.57	-19.22	-21.14	-23.65	-36.54	-39.41	-42.71	33.23	37.31	40.00	4.76	4.84	4.92
1586	2.36	3.00	2.64	-19.62	-21.25	-23.33	-36.86	-39.25	-41.90	33.24	37.33	40.01	4.75	4.84	4.93
1589	2.40	3.05	2.69	-19.74	-21.47	-23.51	-37.31	-39.97	-42.61	33.25	37.33	40.01	4.76	4.84	4.93
1600	2.61	3.28	2.90	-19.27	-21.51	-23.69	-35.89	-38.69	-41.69	33.26	37.34	40.01	4.66	4.74	4.83

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
1490	-77.40	-81.08	-80.27	-115.28	-142.06	-78.52	-81.65	-80.36	-114.56	-141.05	-75.08	-80.08	-79.70	-113.57	-138.99
1501	-77.69	-80.99	-80.62	-115.24	-140.74	-77.04	-80.98	-80.47	-114.62	-142.03	-74.13	-79.44	-79.30	-113.63	-139.19
1511	-79.43	-81.30	-80.07	-115.27	-142.27	-79.63	-80.81	-80.20	-114.49	-141.18	-74.17	-79.58	-79.19	-113.51	-139.44
1512	-77.31	-81.66	-80.37	-115.18	-142.39	-80.59	-81.13	-80.25	-114.49	-141.36	-74.58	-79.76	-79.09	-113.43	-139.42
1523	-76.04	-80.86	-80.17	-115.00	-142.48	-77.33	-81.46	-80.20	-114.47	-141.62	-76.52	-80.97	-78.96	-113.37	-139.72
1534	-77.59	-81.80	-79.92	-114.81	-142.68	-77.15	-82.24	-80.45	-114.39	-141.83	-74.69	-81.00	-78.70	-113.29	-140.03
1545	-75.57	-80.68	-79.50	-114.69	-141.90	-78.25	-81.82	-80.02	-114.26	-141.39	-75.69	-80.44	-78.74	-113.04	-139.89
1556	-73.94	-79.87	-79.37	-114.40	-142.18	-80.09	-80.74	-79.70	-114.03	-141.66	-75.52	-78.24	-78.55	-113.00	-140.15
1567	-74.22	-80.44	-79.52	-114.35	-142.47	-79.22	-81.52	-79.71	-113.95	-142.71	-74.96	-80.81	-78.37	-112.85	-140.45
1578	-76.25	-80.71	-79.72	-114.30	-142.84	-77.60	-79.40	-79.53	-113.66	-141.98	-72.96	-79.72	-78.62	-112.83	-140.48
1586	-74.60	-80.36	-79.52	-114.27	-143.42	-77.10	-80.04	-79.41	-113.81	-142.40	-73.45	-78.40	-78.48	-112.77	-140.79
1589	-75.36	-81.54	-79.65	-114.30	-143.12	-77.46	-80.31	-79.62	-113.76	-142.54	-76.12	-79.53	-78.43	-112.84	-140.67
1600	-76.98	-79.94	-79.46	-114.30	-143.26	-78.39	-81.35	-79.50	-113.81	-142.46	-77.10	-79.75	-78.62	-112.89	-141.19

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 1511 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1549 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1586 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	-103.84	-103.60	-102.64	-104.14	-103.98	-103.96	-107.97	-106.56	-104.35
-4	-99.84	-99.97	-98.81	-100.01	-100.10	-99.68	-102.87	-102.20	-101.03
-3	-94.36	-94.75	-93.73	-94.92	-95.18	-95.13	-96.99	-97.07	-96.04
-2	-87.23	-87.87	-87.33	-88.20	-88.64	-88.22	-89.79	-90.09	-89.46
-1	-74.60	-76.45	-75.81	-75.59	-77.15	-76.83	-77.19	-78.87	-78.10
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-73.30	-75.28	-74.96	-74.12	-76.16	-75.87	-75.29	-77.60	-77.00
+2	-85.04	-86.08	-85.98	-85.78	-87.01	-86.59	-86.97	-88.41	-87.71
+3	-91.42	-92.38	-91.98	-91.99	-93.13	-92.76	-92.97	-94.72	-93.68
+4	-95.51	-96.33	-96.12	-96.22	-97.35	-96.69	-97.30	-98.75	-98.25
+5	-98.83	-99.95	-98.92	-99.10	-100.14	-100.54	-100.06	-101.97	-100.47

Note 1: Comparison frequency 200 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 1511 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1549 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1586 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	-108.46	-112.98	-117.50	-109.55	-112.23	-114.64	-105.30	-111.69	-109.57
-4	-109.28	-113.92	-115.12	-110.82	-114.29	-116.18	-105.27	-102.81	-108.44
-3	-111.51	-113.16	-118.41	-117.21	-120.12	-121.53	-104.28	-113.80	-108.29
-2	-115.16	-113.89	-117.58	-111.34	-114.99	-115.68	-101.17	-101.15	-106.62
-1	-116.39	-119.80	-115.52	-112.99	-117.00	-111.38	-102.08	-109.14	-111.28
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-114.04	-117.96	-110.87	-113.84	-109.49	-106.86	-102.89	-104.98	-103.74
+2	-114.48	-112.03	-109.21	-111.76	-110.46	-110.50	-107.35	-104.31	-105.39
+3	-112.45	-113.41	-113.82	-113.44	-114.21	-112.90	-101.98	-108.07	-114.18
+4	-108.00	-111.24	-110.99	-108.28	-110.50	-111.13	-107.41	-106.12	-108.07
+5	-105.36	-106.84	-108.33	-106.78	-107.98	-109.79	-101.40	-105.61	-110.53

Note 3: Reference frequency 26 MHz

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

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