

Frequency Synthesizer

KSN-EDR7338

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						
880	2.78	3.21	2.86	-19.90	-19.05	-19.40	-36.82	-37.29	-43.42	16.47	17.51	17.85	6.39	7.52	8.70
890	2.90	3.42	3.12	-19.36	-19.56	-20.44	-36.47	-37.15	-40.74	16.57	17.67	18.11	6.44	7.54	8.71
900	2.96	3.54	3.31	-21.22	-19.93	-20.60	-36.56	-36.59	-39.61	16.67	17.81	18.32	6.42	7.55	8.73
910	2.90	3.64	3.41	-21.26	-19.89	-21.92	-35.71	-35.73	-40.52	16.55	17.94	18.47	6.44	7.57	8.72
920	3.00	3.72	3.45	-20.03	-19.80	-21.76	-35.98	-34.70	-38.91	16.70	18.06	18.52	6.43	7.57	8.72
930	3.08	3.78	3.55	-21.48	-20.59	-20.25	-34.79	-34.74	-39.20	16.73	18.12	18.68	6.45	7.58	8.75
940	3.21	3.81	3.63	-21.03	-21.23	-22.02	-36.37	-36.00	-38.53	16.76	18.11	18.78	6.43	7.59	8.73
950	3.06	3.75	3.65	-21.49	-21.49	-22.24	-32.23	-35.01	-40.25	16.38	18.06	18.82	6.45	7.60	8.76
960	3.02	3.63	3.59	-21.27	-21.99	-23.01	-36.49	-36.61	-37.06	16.44	17.97	18.79	6.43	7.58	8.78
970	3.02	3.51	3.47	-21.86	-22.99	-22.52	-36.51	-38.41	-41.23	16.50	17.88	18.73	6.44	7.59	8.77
980	2.88	3.43	3.45	-23.80	-23.40	-22.82	-36.48	-40.03	-41.13	16.44	17.82	18.72	6.45	7.60	8.76

FREQ. (MHz)	PHASE NOISE (dBc/Hz)											
	@ OFFSETS											
	-45 °C				+25°C				+85 °C			
	1kHz	10kHz	100kHz	1MHz	1kHz	10kHz	100kHz	1MHz	1kHz	10kHz	100kHz	1MHz
880	-80.52	-106.58	-132.83	-152.64	-77.72	-105.91	-129.11	-150.94	-78.37	-104.30	-123.69	-147.59
890	-80.40	-105.66	-132.84	-148.43	-78.33	-105.70	-131.61	-151.36	-76.58	-104.88	-125.61	-149.65
900	-77.38	-104.56	-132.65	-152.32	-77.49	-105.19	-131.22	-152.25	-78.04	-103.70	-122.85	-148.36
910	-78.19	-103.74	-132.41	-152.72	-79.34	-103.70	-130.79	-152.16	-78.57	-102.77	-123.33	-148.38
920	-78.07	-103.14	-132.47	-150.32	-81.49	-103.22	-130.80	-151.84	-78.06	-103.09	-124.28	-148.57
930	-80.75	-102.96	-132.57	-151.87	-78.75	-103.84	-129.99	-150.81	-78.25	-101.89	-124.38	-148.63
940	-77.70	-103.39	-131.23	-152.07	-79.07	-102.77	-126.49	-149.73	-77.53	-101.67	-124.27	-148.88
950	-77.65	-102.80	-130.62	-148.14	-76.85	-102.52	-125.54	-148.20	-76.67	-101.45	-124.55	-146.16
960	-78.94	-101.64	-128.87	-148.75	-77.17	-102.18	-124.76	-146.18	-76.24	-100.77	-123.55	-146.91
970	-76.75	-102.63	-128.65	-148.80	-74.59	-102.50	-122.79	-146.23	-76.44	-100.50	-122.94	-146.21
980	-78.26	-102.41	-127.78	-147.78	-76.29	-102.98	-124.64	-146.57	-78.67	-100.95	-123.56	-146.08

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 900 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 930 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 960 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	-111.82	-112.06	-110.59	-100.34	-104.14	-108.65	-112.09	-110.59	-102.90
-4	-109.71	-112.52	-110.28	-98.23	-101.41	-106.95	-111.63	-109.25	-101.44
-3	-108.81	-112.48	-108.33	-95.68	-99.36	-106.18	-109.77	-105.61	-98.87
-2	-104.54	-108.68	-105.18	-92.03	-96.10	-102.06	-108.68	-102.37	-95.56
-1	-100.45	-103.63	-98.89	-86.21	-90.41	-94.03	-102.56	-96.79	-88.41
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-100.02	-103.75	-98.72	-86.35	-91.30	-94.32	-104.62	-97.46	-88.30
+2	-104.47	-109.30	-105.72	-92.11	-96.07	-102.80	-108.72	-102.81	-95.79
+3	-108.29	-111.79	-108.91	-95.68	-99.45	-106.01	-111.05	-105.66	-99.62
+4	-110.10	-113.07	-110.28	-98.53	-101.77	-106.61	-112.21	-108.95	-101.19
+5	-111.63	-112.32	-111.60	-101.38	-105.20	-109.99	-111.81	-110.75	-103.90

Note 1: Comparison frequency 100 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 900 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 930 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 960 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	-127.10	-127.08	-128.93	-129.27	-129.07	-129.59	-122.50	-123.43	-120.36
-4	-128.38	-129.56	-128.49	-125.92	-124.77	-124.01	-123.45	-121.88	-118.24
-3	-127.72	-129.59	-126.85	-128.31	-128.67	-128.38	-122.97	-122.03	-119.94
-2	-115.84	-116.92	-115.38	-118.48	-118.82	-117.86	-116.22	-116.34	-115.89
-1	-110.66	-112.21	-112.93	-112.42	-112.59	-108.22	-101.03	-100.81	-102.45
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-111.24	-113.08	-112.33	-112.47	-113.01	-116.03	-110.21	-109.31	-108.35
+2	-119.44	-122.96	-120.69	-123.26	-123.08	-123.03	-122.40	-116.33	-114.40
+3	-129.08	-128.55	-129.17	-128.57	-128.34	-125.42	-122.01	-118.92	-119.12
+4	-128.37	-127.50	-127.19	-122.84	-122.98	-122.31	-120.57	-114.96	-115.07
+5	-129.10	-129.64	-130.32	-127.26	-129.08	-128.89	-123.89	-117.64	-120.60

Note 3: Reference frequency 8 MHz

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

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