

Frequency Synthesizer

KSN-EDR8380

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCO CURRENT (mA)			PLL CURRENT (mA)		
				(dBc)											
	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	-45 °C	+25°C	+85 °C	
538.0	-0.17	0.07	0.14	-20.01	-20.65	-20.98	-35.54	-36.05	-36.73	29.18	31.06	32.82	3.76	3.92	4.03
545.8	-0.15	0.09	0.16	-20.18	-20.88	-21.24	-35.94	-36.44	-37.13	29.21	31.15	32.89	3.76	3.92	4.03
550.0	-0.15	0.10	0.16	-20.39	-21.18	-21.53	-35.87	-36.44	-37.15	29.22	31.18	32.93	3.76	3.92	4.03
553.6	-0.18	0.07	0.15	-21.28	-21.72	-22.07	-35.30	-36.08	-36.73	29.25	31.20	32.96	3.76	3.90	4.01
561.4	-0.24	0.03	0.12	-21.73	-22.41	-22.72	-35.20	-35.87	-36.52	29.30	31.27	33.03	3.77	3.92	4.04
569.2	-0.31	-0.03	0.07	-22.04	-22.61	-22.89	-35.49	-35.86	-36.46	29.36	31.34	33.12	3.76	3.92	4.03
577.0	-0.36	-0.07	0.04	-22.47	-23.14	-23.41	-36.17	-36.57	-37.05	29.43	31.41	33.19	3.77	3.92	4.04
584.8	-0.39	-0.09	0.03	-22.84	-23.38	-23.63	-35.97	-36.55	-36.92	29.50	31.49	33.28	3.77	3.93	4.04
592.6	-0.41	-0.11	0.02	-23.36	-23.91	-24.10	-35.47	-36.12	-36.39	29.59	31.58	33.37	3.77	3.93	4.04
600.0	-0.41	-0.11	0.01	-23.34	-23.98	-24.15	-35.59	-35.97	-36.17	29.64	31.66	33.45	3.77	3.93	4.04
600.4	-0.40	-0.11	0.02	-23.31	-23.99	-24.14	-35.77	-35.93	-36.19	29.67	31.67	33.45	3.77	3.93	4.04
608.2	-0.38	-0.11	0.01	-23.98	-24.19	-24.28	-36.13	-36.13	-36.16	29.76	31.74	33.52	3.78	3.93	4.04
616.0	-0.37	-0.09	0.03	-24.34	-24.88	-24.99	-35.97	-36.21	-36.13	29.82	31.80	33.59	3.78	3.93	4.05

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
538.0	-69.29	-74.96	-108.55	-131.53	-151.06	-70.45	-74.53	-107.70	-130.25	-150.11	-69.74	-73.78	-106.63	-129.44	-149.11
545.8	-70.98	-76.43	-108.94	-131.94	-151.39	-70.45	-76.78	-108.22	-130.79	-150.32	-69.55	-74.99	-107.14	-129.49	-149.36
550.0	-72.38	-77.91	-108.96	-132.00	-151.34	-70.70	-76.64	-108.21	-130.92	-150.31	-71.02	-75.94	-107.13	-129.62	-149.22
553.6	-68.86	-76.65	-108.94	-131.87	-151.21	-70.43	-76.99	-108.17	-130.75	-150.33	-72.33	-75.30	-106.89	-129.70	-149.24
561.4	-70.70	-77.65	-109.21	-131.85	-151.40	-68.61	-77.11	-108.11	-130.84	-150.45	-68.04	-74.49	-107.37	-129.70	-149.23
569.2	-71.42	-78.84	-109.31	-132.01	-151.59	-69.03	-76.75	-108.42	-130.92	-150.48	-70.37	-75.78	-107.44	-129.78	-149.52
577.0	-70.00	-78.93	-108.87	-131.90	-151.34	-68.71	-76.81	-108.00	-130.73	-150.31	-67.27	-75.55	-107.05	-129.53	-149.36
584.8	-70.04	-77.21	-109.05	-131.72	-151.36	-70.20	-77.08	-108.12	-130.70	-150.31	-68.48	-75.53	-107.22	-129.59	-149.38
592.6	-68.69	-78.04	-108.83	-131.56	-151.15	-66.34	-77.44	-108.18	-130.74	-150.42	-68.96	-76.95	-107.16	-129.68	-149.35
600.0	-68.60	-78.04	-108.76	-131.70	-151.14	-67.95	-77.61	-108.19	-130.58	-150.24	-69.29	-76.60	-107.06	-129.55	-149.26
600.4	-65.81	-76.91	-109.13	-131.59	-151.27	-67.28	-77.53	-108.05	-130.54	-150.26	-66.98	-75.93	-107.27	-129.37	-149.16
608.2	-67.51	-77.03	-108.87	-131.31	-150.99	-66.68	-79.86	-107.91	-130.12	-149.72	-64.55	-77.69	-106.93	-128.89	-148.55
616.0	-61.24	-79.30	-108.54	-130.53	-150.30	-57.66	-78.81	-107.91	-129.88	-149.61	-61.03	-79.62	-106.86	-128.65	-148.67

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 550 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 575 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 600 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	-108.97	-107.46	-107.45	-109.18	-108.67	-108.08	-108.84	-108.35	-108.49
-4	-106.18	-105.91	-105.95	-107.81	-107.34	-106.95	-107.15	-106.56	-106.44
-3	-102.16	-102.31	-102.12	-104.84	-103.88	-104.85	-104.13	-102.92	-101.73
-2	-95.52	-97.13	-98.33	-100.47	-100.25	-99.95	-96.80	-96.80	-96.17
-1	-83.81	-83.91	-83.86	-90.85	-92.87	-92.23	-84.36	-84.51	-82.93
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-84.51	-85.24	-85.08	-89.53	-91.25	-90.84	-83.12	-83.46	-82.06
+2	-98.40	-98.41	-99.09	-99.61	-100.59	-99.79	-94.82	-96.10	-95.05
+3	-102.91	-103.81	-103.68	-103.36	-104.19	-103.63	-101.73	-101.05	-101.04
+4	-106.98	-106.03	-105.64	-107.22	-107.14	-106.32	-106.88	-105.78	-105.49
+5	-109.59	-108.38	-107.90	-108.55	-108.35	-108.49	-108.98	-107.36	-108.72

Note 1: Comparison frequency 20 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 550 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 575 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 600 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	-124.51	-121.67	-126.77	-121.86	-124.50	-126.49	-110.07	-116.72	-111.17
-4	-121.35	-119.72	-119.45	-123.95	-119.59	-121.92	-112.53	-110.80	-112.29
-3	-107.52	-109.09	-110.93	-118.46	-116.12	-119.45	-119.61	-118.28	-120.93
-2	-115.95	-118.74	-118.59	-116.22	-119.67	-118.45	-119.04	-117.47	-119.31
-1	-121.08	-121.94	-121.37	-120.59	-123.07	-122.70	-121.22	-121.15	-122.36
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-127.19	-126.40	-125.84	-127.12	-124.98	-125.80	-125.92	-126.97	-127.76
+2	-128.26	-129.53	-128.79	-128.05	-128.80	-129.43	-121.38	-127.20	-128.97
+3	-105.28	-108.72	-111.53	-125.02	-126.30	-127.96	-126.36	-126.65	-125.46
+4	-119.41	-118.21	-118.60	-114.45	-114.35	-115.58	-105.54	-106.02	-108.04
+5	-122.99	-126.05	-128.08	-119.83	-124.81	-128.36	-108.83	-113.17	-122.64

Note 3: Reference frequency 30 MHz

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

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