

Frequency Synthesizer

KSN-EDR8050

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (mA)		
				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
630.0	-0.03	-0.02	-0.05	-18.96	-19.83	-20.80	-40.51	-42.32	-41.64	12.03	12.44	12.70	4.42	4.30	4.42
632.5	-0.01	0.00	-0.03	-19.05	-19.90	-20.86	-40.88	-42.30	-41.28	12.04	12.46	12.72	4.42	4.31	4.42
635.0	0.00	0.01	-0.02	-19.14	-19.97	-20.92	-41.10	-42.09	-40.88	12.06	12.47	12.74	4.43	4.31	4.43
637.5	0.02	0.02	0.00	-19.32	-20.16	-21.07	-41.09	-41.79	-40.37	12.07	12.49	12.76	4.43	4.30	4.43
639.0	0.03	0.03	0.01	-19.47	-20.31	-21.24	-41.12	-41.53	-40.06	12.12	12.50	12.77	4.43	4.30	4.43
640.0	0.03	0.03	0.02	-19.63	-20.47	-21.37	-41.08	-41.36	-39.80	12.09	12.49	12.78	4.39	4.27	4.39
642.5	0.05	0.05	0.04	-20.00	-20.86	-21.75	-41.09	-41.00	-39.25	12.15	12.51	12.79	4.44	4.31	4.44
645.0	0.07	0.07	0.06	-20.38	-21.22	-22.13	-41.03	-40.58	-38.82	12.16	12.54	12.81	4.44	4.31	4.44
647.5	0.09	0.09	0.08	-20.65	-21.50	-22.45	-41.03	-40.35	-38.46	12.17	12.55	12.82	4.44	4.31	4.44
650.0	0.11	0.11	0.11	-20.79	-21.66	-22.62	-40.96	-40.14	-38.21	12.18	12.57	12.84	4.44	4.31	4.44
652.5	0.12	0.12	0.12	-20.85	-21.72	-22.71	-40.94	-39.92	-38.00	12.19	12.58	12.85	4.44	4.31	4.44
655.0	0.13	0.14	0.14	-20.81	-21.68	-22.68	-40.84	-39.65	-37.77	12.16	12.59	12.86	4.44	4.32	4.44

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
630.0	-73.68	-78.86	-111.54	-137.88	-158.71	-74.05	-77.52	-111.61	-138.00	-158.86	-74.35	-78.72	-110.59	-136.88	-156.88
632.5	-73.84	-78.70	-111.56	-138.14	-159.25	-73.33	-78.65	-111.67	-138.11	-159.06	-72.86	-78.15	-110.90	-137.01	-157.38
635.0	-74.24	-77.88	-111.85	-138.34	-158.64	-75.37	-79.08	-111.61	-137.95	-158.29	-72.74	-77.77	-110.83	-136.97	-157.70
637.5	-74.02	-79.32	-111.84	-138.52	-158.97	-73.96	-78.68	-111.92	-138.37	-159.07	-71.49	-77.30	-110.81	-137.13	-156.91
639.0	-74.68	-78.29	-112.03	-138.22	-159.55	-74.32	-80.42	-111.76	-138.01	-158.69	-73.77	-78.00	-110.77	-136.84	-156.68
640.0	-74.92	-80.55	-112.14	-138.83	-159.59	-76.46	-78.92	-111.91	-138.20	-158.66	-72.43	-77.66	-110.94	-137.03	-156.82
642.5	-75.31	-79.30	-111.92	-138.47	-159.48	-75.27	-79.96	-112.11	-138.24	-159.13	-70.90	-77.74	-110.85	-137.11	-156.42
645.0	-74.40	-79.30	-112.41	-138.50	-159.27	-74.00	-78.57	-111.97	-138.16	-158.72	-73.51	-77.15	-110.83	-136.98	-157.44
647.5	-73.82	-78.60	-112.26	-138.63	-159.60	-73.45	-79.62	-112.19	-138.29	-158.84	-73.79	-78.40	-111.25	-136.97	-157.03
650.0	-72.48	-79.63	-112.27	-138.50	-159.47	-73.57	-79.97	-112.01	-137.77	-158.57	-71.65	-79.75	-111.22	-136.74	-157.07
652.5	-74.01	-79.73	-112.54	-138.04	-159.25	-73.10	-79.62	-112.10	-138.00	-158.22	-71.65	-79.55	-111.42	-136.61	-157.02
655.0	-72.68	-79.82	-112.84	-137.72	-159.02	-71.57	-79.33	-112.14	-137.63	-158.27	-70.06	-78.18	-111.42	-136.58	-156.99

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 639 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 642 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 645 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	-108.08	-108.22	-107.56	-108.80	-108.50	-108.43	-108.31	-108.27	-108.42
-4	-107.20	-107.69	-106.75	-106.66	-107.02	-106.73	-106.96	-106.68	-107.32
-3	-103.80	-104.96	-104.69	-105.69	-104.90	-104.52	-104.62	-104.68	-104.78
-2	-100.34	-101.51	-99.11	-99.67	-101.39	-99.69	-100.26	-101.30	-99.11
-1	-87.68	-91.93	-85.88	-88.18	-92.04	-85.92	-89.91	-91.70	-84.99
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-89.96	-91.98	-86.44	-89.89	-92.66	-86.30	-89.93	-93.73	-85.46
+2	-99.96	-101.24	-100.23	-100.66	-100.80	-99.50	-100.84	-100.43	-100.26
+3	-104.55	-105.75	-104.58	-104.58	-105.48	-103.98	-105.00	-105.37	-104.95
+4	-106.82	-106.68	-107.04	-107.39	-107.05	-106.45	-107.18	-107.47	-106.72
+5	-109.37	-107.93	-107.87	-107.99	-108.35	-108.29	-108.85	-108.33	-108.95

Note 1: Comparison frequency 20 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 639 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 642 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 645 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	-124.11	-121.46	-123.70	-123.28	-121.95	-124.41	-122.65	-123.55	-123.45
-4	-126.09	-126.77	-126.70	-124.40	-124.73	-126.27	-125.68	-125.55	-127.44
-3	-128.57	-129.21	-127.62	-129.83	-128.86	-128.20	-128.74	-128.60	-127.82
-2	-114.28	-116.38	-114.99	-118.27	-117.94	-116.62	-118.46	-117.66	-117.55
-1	-105.02	-103.46	-102.46	-105.18	-103.57	-102.74	-105.26	-103.56	-102.85
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-104.65	-102.77	-102.35	-104.74	-103.40	-102.76	-105.08	-103.33	-102.72
+2	-121.66	-116.48	-118.52	-120.13	-120.45	-120.09	-121.77	-121.95	-122.65
+3	-126.46	-127.64	-128.77	-127.77	-126.32	-127.74	-126.74	-125.74	-127.58
+4	-126.82	-126.94	-129.03	-126.52	-124.08	-129.37	-128.78	-125.78	-129.13
+5	-129.16	-124.81	-129.05	-128.76	-124.97	-128.97	-128.05	-124.41	-128.91

Note 3: Reference frequency 10 MHz

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

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