

Frequency Synthesizer

KSN-EDR11123

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCC CURRENT (mA)		
				(dBc)								
	-30 °C	+25°C	+85 °C	-30 °C	F2 +25°C	+85 °C	-30 °C	F3 +25°C	+85 °C	-30 °C	+25°C	+85 °C
265	-13.72	-12.85	-12.43	-47.84	-49.04	-42.04	-10.57	-10.82	-7.68	108.92	115.49	121.24
270	-13.69	-12.81	-12.40	-45.88	-48.14	-41.42	-10.65	-10.82	-7.68	108.31	114.99	120.60
345	-13.68	-12.80	-12.37	-44.47	-50.50	-47.80	-10.54	-10.72	-7.65	98.25	104.35	109.45
425	-13.67	-12.82	-12.41	-46.60	-48.84	-44.45	-11.35	-11.86	-8.81	100.59	106.92	112.29
505	-13.81	-13.02	-12.64	-42.78	-43.95	-38.31	-12.30	-12.56	-9.57	105.70	112.48	118.19
585	-14.08	-13.26	-12.88	-37.69	-39.19	-35.99	-20.80	-22.36	-19.89	97.95	104.21	109.67
665	-13.74	-12.91	-12.53	-37.69	-38.17	-35.23	-10.17	-10.52	-7.59	94.70	100.59	105.63
745	-13.88	-13.04	-12.68	-36.47	-37.02	-34.29	-9.84	-10.24	-7.39	99.74	106.19	111.78
825	-14.00	-13.19	-12.82	-37.63	-38.37	-36.75	-10.18	-10.98	-8.17	97.00	103.13	108.48
905	-14.02	-13.26	-12.91	-42.69	-43.51	-41.02	-10.41	-10.72	-8.02	94.12	100.00	104.93
985	-14.23	-13.40	-13.05	-31.23	-32.10	-31.04	-10.66	-11.15	-8.40	101.94	108.56	114.18
1065	-14.28	-13.45	-13.11	-29.61	-30.10	-29.34	-10.67	-10.89	-8.22	99.49	105.64	110.91
1145	-14.39	-13.63	-13.31	-27.91	-28.16	-27.89	-10.57	-10.66	-8.14	93.81	99.84	105.10
1220	-14.57	-13.83	-13.49	-27.74	-26.16	-25.13	-10.81	-10.81	-8.28	92.36	98.17	103.32
1225	-14.59	-13.85	-13.51	-28.00	-26.69	-25.22	-10.85	-10.73	-8.20	92.32	98.12	103.30

FREQ. (MHz)	PHASE NOISE (dBc/Hz) @ OFFSETS														
	-30 °C					+25°C					+85 °C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
265	-97.17	-108.30	-111.25	-129.78	-150.90	-100.98	-109.57	-111.05	-128.84	-151.16	-100.55	-108.16	-112.99	-127.69	-150.17
270	-98.20	-107.52	-110.63	-130.13	-149.42	-99.48	-107.76	-110.12	-129.13	-151.42	-100.61	-108.99	-111.48	-128.56	-150.97
345	-99.35	-106.54	-110.25	-125.48	-149.95	-98.83	-106.78	-109.34	-123.65	-150.01	-98.41	-107.90	-111.23	-123.03	-148.68
425	-94.88	-102.38	-107.62	-124.86	-149.43	-98.12	-106.03	-106.82	-123.25	-150.44	-96.35	-104.87	-108.38	-122.23	-149.52
505	-92.39	-102.49	-106.67	-124.48	-148.50	-97.51	-101.65	-106.04	-122.89	-149.35	-95.35	-104.40	-108.02	-121.39	-146.16
585	-90.04	-101.97	-107.01	-122.50	-149.00	-96.24	-100.73	-105.54	-121.04	-147.84	-97.94	-105.49	-107.25	-119.41	-145.53
665	-88.42	-99.17	-102.56	-118.51	-145.76	-94.59	-100.63	-100.93	-116.89	-144.27	-94.36	-101.29	-102.62	-116.23	-143.37
745	-89.03	-99.55	-103.52	-120.22	-147.74	-92.71	-100.64	-101.54	-118.55	-145.71	-93.50	-99.07	-103.41	-116.63	-143.31
825	-87.58	-98.24	-100.84	-119.01	-145.91	-94.49	-97.70	-100.52	-117.76	-144.91	-92.25	-100.49	-101.98	-116.49	-143.21
905	-88.88	-96.04	-100.44	-115.92	-144.97	-91.98	-97.73	-99.50	-114.39	-143.51	-91.55	-98.28	-101.45	-113.77	-142.32
985	-86.37	-95.27	-99.88	-118.87	-145.71	-91.74	-98.05	-98.65	-116.97	-143.44	-89.67	-97.77	-101.30	-115.37	-140.76
1065	-88.15	-96.19	-100.04	-116.69	-143.98	-88.98	-96.51	-98.21	-115.05	-142.64	-90.36	-97.29	-100.40	-114.06	-141.21
1145	-85.27	-96.20	-99.76	-117.01	-144.74	-88.90	-95.84	-98.69	-114.91	-141.86	-89.63	-98.32	-101.23	-113.24	-139.53
1220	-85.59	-97.17	-100.5	-115.21	-143.32	-85.72	-94.23	-96.57	-114.42	-141.19	-86.6	-95.32	-98.74	-113.10	-139.20
1225	-83.88	-94.84	-98.86	-115.72	-143.07	-88.08	-96.84	-97.42	-113.99	-141.13	-87.52	-96.42	-99.57	-112.87	-139.17

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/MCLStore/terms.jsp



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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 270 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 745 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1220 MHz± (n*Fcomparison) (dBc) NOTE 1		
	-30 °C	+25°C	+85 °C	-30 °C	+25°C	+85 °C	-30 °C	+25°C	+85 °C
-5	-109.64	-116.73	-109.64	-107.10	-113.71	-107.10	-106.11	-114.43	-106.11
-4	-109.04	-113.21	-109.04	-108.24	-111.19	-108.24	-104.03	-109.17	-104.03
-3	-102.21	-107.75	-102.21	-102.37	-104.04	-102.37	-103.37	-105.68	-103.37
-2	-98.76	-101.06	-98.76	-94.11	-97.90	-94.11	-94.11	-96.53	-94.11
-1	-84.86	-88.57	-84.86	-82.18	-86.76	-82.18	-81.50	-84.09	-81.50
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-85.13	-89.79	-85.13	-82.93	-85.08	-82.93	-84.40	-82.35	-84.40
+2	-99.80	-103.21	-99.80	-94.07	-98.74	-94.07	-94.55	-97.11	-94.55
+3	-101.88	-106.86	-101.88	-101.79	-105.81	-101.79	-97.64	-104.49	-97.64
+4	-108.61	-112.72	-108.61	-104.97	-109.17	-104.97	-106.43	-110.14	-106.43
+5	-111.11	-116.19	-111.11	-111.19	-114.79	-111.19	-107.61	-110.92	-107.61

Note 1: Comparison frequency 100 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 270 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 745 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1220 MHz± (n*Freference) (dBc) NOTE 3		
	-30 °C	+25°C	+85 °C	-30 °C	+25°C	+85 °C	-30 °C	+25°C	+85 °C
-5	-86.82	-86.36	-86.82	-87.76	-78.86	-87.76	-84.00	-85.07	-87.76
-4	-88.29	-87.63	-88.29	-88.11	-78.74	-88.11	-93.15	-85.53	-88.11
-3	-91.35	-98.14	-91.35	-94.88	-82.13	-94.88	-82.64	-91.36	-94.88
-2	-91.98	-101.61	-91.98	-97.57	-84.86	-97.57	-81.67	-91.22	-97.57
-1	-95.62	-95.71	-95.62	-108.38	-90.39	-108.38	-79.21	-90.20	-108.38
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-100.51	-92.61	-100.51	-97.56	-88.25	-97.56	-82.15	-88.45	-97.56
+2	-105.60	-86.71	-105.60	-90.31	-107.26	-90.31	-78.91	-83.84	-90.31
+3	-94.72	-84.93	-94.72	-89.60	-90.61	-89.60	-79.69	-82.85	-89.60
+4	-97.64	-85.09	-97.64	-91.74	-86.10	-91.74	-82.90	-83.74	-91.74
+5	-92.62	-86.38	-92.62	-95.08	-84.19	-95.08	-95.35	-85.66	-95.08

Note 3: Reference frequency 10 MHz

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

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