

Frequency Synthesizer

KSN-EDR101771MP

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (mA)		
	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C
890	3.56	3.36	3.05	-15.57	-18.15	-20.97	-29.36	-30.31	-31.80	29.99	30.96	31.32	6.23	7.79	8.95
930	3.79	3.59	3.26	-14.90	-17.21	-19.64	-30.76	-31.31	-32.12	30.12	31.08	31.42	6.28	7.83	8.99
970	3.96	3.75	3.44	-14.49	-16.51	-18.63	-32.58	-32.61	-33.01	30.28	31.20	31.51	6.33	7.89	9.05
1010	4.12	3.90	3.61	-14.36	-16.35	-18.41	-34.70	-34.01	-34.27	30.40	31.30	31.56	6.37	7.93	9.09
1050	4.09	3.84	3.52	-14.26	-16.27	-18.26	-36.21	-35.21	-35.05	30.53	31.37	31.62	6.44	7.99	9.16
1090	4.15	3.85	3.51	-14.72	-16.96	-19.22	-37.25	-35.70	-35.52	30.55	31.36	31.57	6.48	8.04	9.20
1130	3.99	3.63	3.18	-15.22	-17.75	-20.38	-37.12	-35.83	-36.03	30.51	31.29	31.51	6.54	8.10	9.26
1170	3.63	3.21	2.78	-16.08	-18.82	-21.89	-36.04	-35.35	-35.88	30.38	31.17	31.41	6.58	8.14	9.29
1210	3.42	3.00	2.52	-17.01	-19.89	-23.17	-35.79	-35.03	-36.37	30.26	31.09	31.37	6.64	8.20	9.36
1250	3.19	2.81	2.35	-17.81	-20.75	-24.16	-35.18	-35.04	-36.26	30.20	31.06	31.36	6.68	8.24	9.41
1290	3.01	2.70	2.28	-18.14	-20.84	-23.69	-34.29	-33.83	-34.91	30.24	31.10	31.39	6.75	8.31	9.47
1330	2.93	2.62	2.27	-18.23	-20.66	-23.15	-34.28	-33.86	-34.33	30.29	31.16	31.46	6.78	8.34	9.52
1370	2.81	2.59	2.31	-18.35	-20.48	-22.49	-33.90	-33.73	-33.56	30.40	31.26	31.54	6.85	8.41	9.58
1410	2.61	2.38	2.17	-18.68	-20.65	-22.23	-34.72	-33.76	-33.63	30.52	31.38	31.65	6.89	8.45	9.62
1470	2.47	2.29	2.07	-18.98	-20.78	-22.14	-34.72	-33.85	-32.9	30.77	31.61	31.84	7.07	8.64	9.81
1500	2.35	2.14	1.96	-19.16	-20.83	-22.19	-34.12	-33.56	-32.6	30.89	31.71	31.94	7.06	8.62	9.79
1510	2.29	2.09	1.92	-19.31	-21.02	-22.19	-33.64	-33.41	-32.63	30.94	31.76	31.99	7.12	8.68	9.85

FREQ. (MHz)	PHASE NOISE (dBc/Hz)														
	@ OFFSETS														
	-45 °C					+25°C					+75 °C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
890	-89.40	-97.17	-100.37	-99.04	-128.03	-91.73	-97.61	-101.08	-98.61	-127.44	-89.37	-97.39	-101.30	-98.56	-127.14
930	-89.22	-97.88	-100.12	-98.12	-127.45	-91.02	-98.17	-101.34	-98.56	-127.23	-87.58	-96.59	-100.99	-98.49	-126.88
970	-90.12	-97.62	-99.55	-98.05	-127.49	-89.36	-99.48	-100.75	-98.28	-127.16	-88.06	-95.95	-100.63	-98.30	-126.99
1010	-87.29	-96.14	-99.70	-98.02	-127.07	-87.41	-99.10	-100.82	-98.17	-126.92	-86.78	-95.81	-100.41	-98.10	-126.56
1050	-88.62	-97.03	-99.86	-97.70	-126.53	-88.00	-98.67	-100.16	-98.09	-126.43	-86.45	-96.47	-100.23	-97.75	-126.34
1090	-86.78	-96.42	-99.56	-97.46	-125.66	-86.71	-97.57	-99.81	-97.70	-125.70	-86.87	-95.69	-99.83	-97.59	-125.82
1130	-87.71	-98.34	-99.30	-97.28	-124.70	-87.46	-97.94	-99.53	-97.25	-125.35	-86.95	-95.02	-99.13	-96.89	-125.72
1170	-85.43	-98.15	-99.04	-96.85	-124.78	-88.38	-97.51	-98.82	-97.03	-125.66	-87.62	-94.27	-98.79	-96.69	-125.98
1210	-87.46	-95.85	-98.54	-96.81	-125.01	-89.14	-97.06	-98.34	-96.75	-126.08	-88.07	-94.93	-98.27	-96.43	-126.13
1250	-86.20	-96.96	-98.92	-96.68	-125.93	-87.42	-97.53	-98.36	-96.59	-126.37	-87.05	-95.17	-97.89	-96.85	-127.30
1290	-87.97	-95.69	-98.05	-96.83	-126.59	-89.54	-96.56	-97.53	-97.81	-128.05	-87.62	-94.40	-96.93	-98.46	-128.66
1330	-88.53	-95.64	-97.18	-98.52	-128.28	-89.67	-97.07	-96.95	-99.75	-129.26	-87.23	-93.32	-96.64	-99.57	-129.38
1370	-86.14	-94.05	-96.52	-100.24	-129.43	-88.07	-96.32	-96.47	-100.35	-129.74	-87.45	-93.41	-96.83	-99.62	-129.49
1410	-88.1	-95.87	-95.87	-100.39	-129.56	-90.57	-96.03	-96.1	-100.51	-130.12	-86.76	-93.61	-96.60	-99.43	-129.59
1470	-87.57	-94.3	-95.02	-100.70	-129.81	-88.58	-95.48	-96.12	-99.60	-129.68	-87.86	-93.01	-96.75	-98.33	-129.04
1500	-90.95	-94.78	-94.37	-100.39	-129.80	-90.13	-95.29	-96.28	-99.82	-129.91	-85.67	-92.60	-96.72	-99.46	-129.95
1510	-86.1	-94.70	-94.59	-100.58	-129.86	-90.47	-94.69	-96.32	-100.01	-130.09	-90.55	-92.45	-96.56	-100.48	-130.44

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 930 MHz± (n°Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1200 MHz± (n°Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1740 MHz± (n°Fcomparison) (dBc) NOTE 1			
	n	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C
-5	-110.15	-105.90	-114.70	-112.54	-106.90	-112.98	-113.27	-106.93	-108.64	
-4	-110.15	-110.42	-112.83	-110.64	-108.23	-111.03	-111.99	-107.10	-108.15	
-3	-110.35	-117.05	-113.17	-112.39	-109.98	-116.02	-111.25	-107.60	-111.76	
-2	-110.29	-120.29	-112.43	-105.72	-107.63	-111.61	-103.50	-103.86	-109.43	
-1	-96.81	-94.11	-97.00	-86.98	-88.64	-90.70	-85.72	-85.81	-86.24	
0 ^{note 2}	-	-	-	-	-	-	-	-	-	
+1	-97.49	-98.16	-94.14	-106.28	-101.25	-98.91	-98.39	-102.61	-101.45	
+2	-109.52	-108.10	-106.77	-106.90	-114.13	-107.78	-104.71	-115.86	-108.64	
+3	-105.70	-113.39	-110.00	-104.08	-110.75	-109.35	-104.10	-110.69	-107.84	
+4	-103.07	-111.77	-109.82	-103.91	-111.34	-110.19	-103.69	-109.46	-107.88	
+5	-105.06	-110.79	-110.70	-104.26	-112.55	-108.20	-105.73	-112.01	-108.29	

Note 1: Comparison frequency 5 MHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 930 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1200 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1740 MHz± (n*Freference) (dBc) NOTE 3			
	n	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C	-45 °C	+25°C	+75 °C
-5	-84.62	-87.07	-94.80	-91.52	-97.07	-96.92	-90.64	-101.43	-91.72	
-4	-84.50	-87.08	-92.76	-89.93	-97.73	-92.71	-90.83	-98.20	-91.05	
-3	-84.75	-87.23	-96.23	-92.18	-94.75	-101.86	-89.66	-105.93	-91.82	
-2	-84.21	-85.47	-94.53	-92.94	-92.21	-103.31	-91.75	-102.55	-95.56	
-1	-79.92	-81.07	-85.76	-100.63	-93.03	-93.55	-91.62	-84.28	-87.96	
0 ^{note 4}	-	-	-	-	-	-	-	-	-	
+1	-81.62	-81.53	-84.41	-97.75	-98.72	-93.51	-88.20	-83.77	-86.54	
+2	-86.30	-85.67	-92.24	-93.65	-94.94	-102.32	-98.47	-100.58	-98.10	
+3	-87.84	-87.56	-95.68	-96.39	-94.51	-101.27	-94.65	-114.71	-92.63	
+4	-85.13	-85.07	-93.68	-90.54	-92.50	-94.49	-92.50	-101.82	-90.86	
+5	-86.80	-86.04	-98.64	-94.05	-94.41	-97.73	-94.28	-106.25	-92.55	

Note 3: Reference frequency 10 MHz

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

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 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/MCULStore/terms.jsp

