

Frequency Synthesizer

KSN-EDR10536

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
675	3.42	3.78	3.71	-30.13	-30.86	-31.46	-53.03	-54.44	-55.84	21.97	23.27	24.22	13.68	15.12	17.89
680	3.41	3.77	3.71	-30.70	-31.38	-31.97	-52.63	-54.10	-55.77	21.99	23.29	24.23	13.72	15.25	17.94
684	3.39	3.76	3.70	-31.21	-31.91	-32.45	-53.02	-54.75	-56.86	21.99	23.30	24.23	13.94	15.51	18.20
700	3.32	3.69	3.65	-32.66	-33.39	-33.99	-52.25	-53.93	-55.46	22.03	23.33	24.24	13.74	15.31	17.97
710	3.30	3.66	3.62	-33.92	-34.60	-35.15	-52.97	-54.16	-56.06	22.04	23.33	24.23	13.96	15.55	18.18
720	3.27	3.62	3.57	-34.54	-35.26	-35.98	-53.75	-54.95	-57.20	22.04	23.32	24.21	13.62	15.18	17.82
730	3.18	3.54	3.48	-34.61	-35.44	-36.16	-53.85	-55.06	-57.10	22.04	23.31	24.19	13.96	15.56	18.21
740	3.04	3.40	3.34	-34.97	-35.82	-36.58	-52.97	-53.95	-57.77	22.02	23.28	24.16	13.65	15.24	17.87
750	2.84	3.21	3.15	-36.11	-37.02	-37.93	-52.22	-53.54	-56.46	22.01	23.26	24.14	13.96	15.56	18.21
760	2.66	3.02	2.92	-37.12	-38.38	-39.33	-51.65	-52.58	-55.26	21.98	23.21	24.11	13.59	15.17	17.80
770	2.53	2.85	2.70	-38.31	-39.68	-40.45	-51.94	-53.91	-57.13	21.96	23.17	24.10	13.99	15.60	18.24
780	2.43	2.69	2.48	-39.67	-40.92	-41.69	-50.89	-53.53	-56.85	21.88	23.11	24.07	13.63	15.21	17.84
790	2.32	2.50	2.26	-40.99	-42.18	-42.50	-52.35	-54.53	-58.37	21.78	23.06	24.05	14.00	15.60	18.25
800	2.12	2.28	2.02	-41.61	-42.49	-43.23	-53.01	-55.49	-59.61	21.69	23.03	24.02	13.41	14.98	17.60
810	1.84	2.00	1.73	-42.10	-43.17	-43.92	-53.38	-55.85	-60.01	21.65	23.01	24.01	13.98	15.58	18.22
820	1.54	1.71	1.43	-42.23	-43.33	-44.97	-55.42	-58.38	-59.16	21.62	22.99	24.00	13.53	15.10	17.72

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
675	3.42	3.78	3.71	-30.13	-30.86	-31.46	-53.03	-54.44	-55.84	21.97	23.27	24.22	13.68	15.12	17.89
680	3.41	3.77	3.71	-30.70	-31.38	-31.97	-52.63	-54.10	-55.77	21.99	23.29	24.23	13.72	15.25	17.94
684	3.39	3.76	3.70	-31.21	-31.91	-32.45	-53.02	-54.75	-56.86	21.99	23.30	24.23	13.94	15.51	18.20
700	3.32	3.69	3.65	-32.66	-33.39	-33.99	-52.25	-53.93	-55.46	22.03	23.33	24.24	13.74	15.31	17.97
710	3.30	3.66	3.62	-33.92	-34.60	-35.15	-52.97	-54.16	-56.06	22.04	23.33	24.23	13.96	15.55	18.18
720	3.27	3.62	3.57	-34.54	-35.26	-35.98	-53.75	-54.95	-57.20	22.04	23.32	24.21	13.62	15.18	17.82
730	3.18	3.54	3.48	-34.61	-35.44	-36.16	-53.85	-55.06	-57.10	22.04	23.31	24.19	13.96	15.56	18.21
740	3.04	3.40	3.34	-34.97	-35.82	-36.58	-52.97	-53.95	-57.77	22.02	23.28	24.16	13.65	15.24	17.87
750	2.84	3.21	3.15	-36.11	-37.02	-37.93	-52.22	-53.54	-56.46	22.01	23.26	24.14	13.96	15.56	18.21
760	2.66	3.02	2.92	-37.12	-38.38	-39.33	-51.65	-52.58	-55.26	21.98	23.21	24.11	13.59	15.17	17.80
770	2.53	2.85	2.70	-38.31	-39.68	-40.45	-51.94	-53.91	-57.13	21.96	23.17	24.10	13.99	15.60	18.24
780	2.43	2.69	2.48	-39.67	-40.92	-41.69	-50.89	-53.53	-56.85	21.88	23.11	24.07	13.63	15.21	17.84
790	2.32	2.50	2.26	-40.99	-42.18	-42.50	-52.35	-54.53	-58.37	21.78	23.06	24.05	14.00	15.60	18.25
800	2.12	2.28	2.02	-41.61	-42.49	-43.23	-53.01	-55.49	-59.61	21.69	23.03	24.02	13.41	14.98	17.60
810	1.84	2.00	1.73	-42.10	-43.17	-43.92	-53.38	-55.85	-60.01	21.65	23.01	24.01	13.98	15.58	18.22
820	1.54	1.71	1.43	-42.23	-43.33	-44.97	-55.42	-58.38	-59.16	21.62	22.99	24.00	13.53	15.10	17.72

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.
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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 684 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 742 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 800 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	-88.67	-109.24	-94.91	-93.13	-99.02	-98.23	-98.47	-103.61	-95.87
-4	-99.51	-94.15	-102.09	-95.05	-96.57	-98.64	-91.88	-95.22	-97.39
-3	-92.94	-96.84	-92.49	-89.41	-91.70	-95.24	-87.19	-96.31	-95.58
-2	-95.46	-96.07	-97.89	-108.24	-96.66	-96.04	-96.36	-99.92	-96.43
-1	-94.68	-93.89	-92.79	-89.29	-91.09	-99.67	-89.82	-100.73	-107.89
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-97.90	-91.67	-93.42	-91.51	-89.90	-94.68	-88.40	-97.81	-101.66
+2	-107.28	-93.29	-97.85	-93.89	-91.96	-106.77	-94.52	-98.85	-103.30
+3	-84.18	-88.88	-88.61	-83.46	-88.42	-93.62	-83.80	-91.25	-94.02
+4	-99.37	-98.33	-92.85	-90.25	-91.73	-94.73	-89.07	-91.78	-99.06
+5	-95.58	-100.55	-114.76	-94.93	-97.29	-98.10	-100.03	-96.90	-96.65

Note 1: Comparison frequency 20.48 MHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 684 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 742 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 800 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	-77.75	-94.57	-77.08	-80.21	-84.34	-82.06	-86.89	-79.14	-83.20
-4	-86.75	-82.77	-84.33	-81.24	-86.59	-90.81	-81.25	-80.97	-84.52
-3	-87.77	-96.02	-90.18	-91.65	-91.23	-86.34	-91.60	-88.96	-87.93
-2	-98.43	-94.22	-98.92	-86.31	-91.88	-97.03	-82.48	-84.30	-87.16
-1	-92.43	-96.07	-92.95	-89.07	-91.71	-94.49	-87.48	-96.15	-95.80
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-84.30	-88.51	-88.60	-83.80	-88.17	-93.10	-84.30	-91.45	-94.80
+2	-96.95	-96.33	-97.13	-86.72	-88.51	-95.48	-91.58	-96.72	-94.47
+3	-97.02	-94.54	-93.99	-95.40	-93.84	-96.31	-97.67	-105.04	-98.63
+4	-86.66	-89.31	-107.36	-93.14	-93.17	-100.75	-88.07	-91.69	-100.44
+5	-104.46	-89.56	-97.72	-97.87	-93.42	-95.89	-95.67	-94.81	-97.15

Note 3: Reference frequency 61.44 MHz

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

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 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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