

Frequency Synthesizer

DSN-EDR9496/3MP

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (mA)		
				F2			F3								
	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C
53.0	6.67	6.69	6.05	-30.67	-33.59	-32.09	-63.77	-71.40	-64.73	11.68	12.21	12.82	7.82	8.07	8.27
56.3	6.69	6.75	6.12	-32.91	-35.89	-34.37	-64.40	-72.62	-65.86	11.52	12.12	12.74	7.82	8.07	8.27
58.2	6.68	6.76	6.12	-34.57	-36.92	-35.53	-63.32	-75.57	-69.33	11.46	12.08	12.69	7.82	8.07	8.27
63.4	6.72	6.72	5.99	-39.53	-40.02	-38.64	-62.93	-80.96	-68.89	11.35	11.99	12.60	7.82	8.07	8.27
68.6	6.79	6.60	5.80	-45.18	-44.91	-43.82	-64.10	-69.89	-63.73	11.30	11.94	12.55	7.82	8.07	8.27
73.8	6.82	6.44	5.60	-53.35	-52.28	-51.43	-66.61	-65.17	-60.15	11.32	11.95	12.53	7.82	8.07	8.27
79.0	6.77	6.31	5.45	-68.63	-65.98	-64.91	-65.06	-62.67	-57.81	11.37	11.98	12.53	7.82	8.07	8.27
84.2	6.70	6.22	5.36	-60.98	-59.92	-57.90	-61.08	-60.96	-56.21	11.44	12.03	12.55	7.82	8.07	8.27
89.4	6.62	6.18	5.28	-56.89	-55.53	-53.96	-57.95	-60.77	-57.58	11.49	12.09	12.58	7.82	8.07	8.27
94.6	6.52	6.06	5.00	-54.90	-53.44	-52.11	-57.13	-62.96	-62.36	11.51	12.11	12.60	7.82	8.07	8.27
99.8	6.27	5.35	3.95	-52.62	-51.10	-49.94	-60.13	-71.15	-71.26	11.44	12.10	12.61	7.82	8.06	8.26
100.0	6.25	5.30	3.89	-52.44	-51.01	-49.83	-60.09	-71.63	-70.60	11.44	12.10	12.60	7.83	8.08	8.28
105.0	5.04	3.37	1.65	-49.16	-47.78	-46.73	-67.22	-63.03	-58.84	11.35	12.09	12.61	7.81	8.06	8.26

FREQ. (MHz)	PHASE NOISE (dBc/Hz)														
	@ OFFSETS														
	-29 °C					+25°C					+60 °C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
53.0	-57.17	-91.29	-112.41	-132.89	-153.82	-53.63	-86.98	-110.34	-131.70	-154.08	-47.82	-83.48	-106.71	-128.81	-151.60
56.3	-55.26	-86.68	-111.63	-132.03	-152.36	-55.68	-86.75	-110.02	-131.45	-153.20	-49.73	-81.03	-106.08	-128.04	-150.40
58.2	-54.57	-83.91	-110.99	-131.26	-151.74	-55.27	-87.78	-109.85	-131.15	-152.90	-47.33	-81.82	-106.57	-127.74	-150.03
63.4	-53.87	-83.13	-108.38	-129.02	-149.47	-58.53	-89.09	-110.11	-130.67	-151.70	-48.84	-81.11	-105.99	-127.17	-149.07
68.6	-52.15	-82.65	-106.53	-127.39	-147.99	-57.14	-88.04	-110.13	-129.91	-150.24	-50.86	-81.22	-105.03	-126.22	-147.83
73.8	-51.53	-80.52	-105.83	-126.28	-146.70	-54.40	-85.92	-108.50	-128.64	-148.44	-50.65	-85.59	-107.34	-127.70	-148.65
79.0	-51.58	-81.60	-104.80	-125.55	-145.91	-48.46	-83.69	-106.35	-126.66	-146.41	-52.02	-85.18	-106.91	-127.62	-147.66
84.2	-50.67	-80.71	-105.18	-125.60	-145.80	-46.76	-78.89	-104.85	-125.54	-145.69	-50.38	-83.16	-106.21	-126.71	-147.06
89.4	-50.28	-81.33	-105.08	-125.89	-146.09	-47.66	-80.72	-104.25	-124.96	-145.22	-48.83	-80.69	-106.03	-125.89	-146.10
94.6	-55.13	-84.57	-106.98	-127.08	-146.93	-49.18	-79.03	-104.47	-125.21	-145.54	-47.29	-80.35	-105.31	-125.74	-145.95
99.8	-56.89	-84.89	-108.37	-127.97	-147.96	-48.45	-79.37	-105.38	-125.76	-145.82	-48.94	-80.99	-104.87	-125.77	-145.93
100.0	-58.01	-85.17	-108.36	-127.70	-147.91	-49.33	-83.30	-104.65	-125.68	-145.78	-46.31	-79.31	-105.30	-125.86	-146.00
105.0	-55.71	-84.16	-107.71	-128.06	-147.96	-49.24	-81.96	-105.42	-125.82	-145.77	-48.81	-79.17	-104.53	-125.40	-145.30

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



Frequency Synthesizer

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Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 56.25 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 72 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 99.99375 MHz± (n*Fcomparison) (dBc) NOTE 1		
	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C
-5	-89.13	-87.14	-88.36	-85.29	-83.54	-86.60	-86.51	-85.21	-85.90
-4	-88.70	-90.07	-87.36	-89.95	-87.86	-84.27	-87.95	-88.92	-85.13
-3	-86.57	-87.82	-88.93	-89.99	-87.59	-88.07	-86.80	-84.80	-88.02
-2	-88.65	-85.12	-88.97	-83.68	-85.48	-86.42	-87.05	-87.32	-83.07
-1	-89.63	-90.04	-86.97	-78.08	-81.48	-87.98	-84.35	-84.96	-83.30
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-89.46	-90.40	-86.00	-76.60	-79.43	-87.36	-84.25	-85.31	-83.74
+2	-88.89	-88.46	-86.19	-81.09	-85.81	-88.79	-86.49	-82.69	-88.57
+3	-86.92	-86.68	-84.32	-88.50	-85.31	-87.44	-87.65	-84.77	-86.88
+4	-89.25	-90.66	-86.69	-85.16	-88.23	-86.22	-86.36	-85.80	-83.99
+5	-84.18	-88.89	-85.94	-85.76	-85.97	-83.33	-89.11	-88.61	-85.41

Note 1: Comparison frequency 6.25 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 56.25 MHz± (n*Freffence) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 72 MHz± (n*Freffence) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 99.99375 MHz± (n*Freffence) (dBc) NOTE 3		
	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C	-29 °C	+25°C	+60 °C
-5	-	-	-	-	-	-	-	-	-
-4	-	-	-	-	-	-	-	-	-
-3	-	-	-	-	-	-	-	-	-
-2	-	-	-	-	-	-	-	-	-
-1	-129.30	-129.30	-128.94	-110.87	-107.61	-107.16	-109.04	-104.23	-102.23
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-123.93	-123.93	-126.55	-123.50	-123.46	-126.87	-128.40	-123.95	-126.34
+2	-129.04	-129.04	-127.73	-128.04	-124.02	-128.16	-126.95	-127.88	-127.54
+3	-128.63	-128.63	-128.15	-126.69	-129.69	-123.25	-128.98	-130.42	-130.96
+4	-128.38	-128.38	-128.34	-128.36	-128.03	-128.63	-127.40	-126.71	-129.36
+5	-123.66	-123.66	-124.03	-123.29	-124.94	-123.50	-123.25	-121.80	-124.80

Note 3: Reference frequency 52 MHz

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

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