

Frequency Synthesizer

SSN-EDR9433/1

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
5900	0.94	1.27	2.02	-19.46	-23.79	-24.04	-37.37	-39.69	-37.31	64.92	67.34	68.49	7.72	9.39	10.88
5920	0.96	1.46	2.04	-18.85	-24.34	-25.39	-36.81	-40.32	-38.61	64.99	67.39	68.49	7.67	9.34	10.83
5940	1.46	1.83	2.30	-20.80	-25.50	-26.07	-36.17	-40.13	-37.33	65.09	67.46	68.52	7.69	9.37	10.85
5960	1.72	2.05	2.43	-20.55	-24.77	-25.62	-37.34	-40.20	-36.87	65.18	67.49	68.53	7.71	9.39	10.87
5980	2.11	2.14	2.35	-22.64	-26.29	-26.33	-36.57	-42.03	-36.49	65.13	67.50	68.53	7.74	9.42	10.90
6000	2.30	2.56	2.76	-21.11	-25.53	-26.07	-36.96	-42.93	-36.07	65.18	67.50	68.43	7.68	9.36	10.85
6010	2.33	2.69	2.84	-21.95	-25.66	-25.10	-36.55	-44.67	-36.38	65.16	67.49	68.38	7.74	9.41	10.90
6020	2.44	2.74	2.93	-22.24	-26.90	-25.72	-36.15	-44.99	-37.04	65.13	67.45	68.36	7.71	9.39	10.88
6040	2.41	2.79	2.86	-21.27	-25.74	-26.06	-35.95	-45.05	-36.20	64.99	67.30	68.21	7.73	9.41	10.90
6060	2.76	2.87	2.77	-21.84	-26.37	-25.65	-36.63	-47.10	-35.71	64.98	67.20	68.00	7.76	9.43	10.93
6080	2.94	2.87	2.52	-22.32	-26.36	-25.26	-37.81	-45.56	-35.21	65.01	67.22	67.88	7.71	9.38	10.87
6100	2.90	3.00	2.83	-22.45	-26.73	-26.94	-36.71	-43.57	-35.24	65.06	67.22	67.89	7.73	9.41	10.90

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
5900	-69.80	-69.79	-76.84	-111.09	-132.82	-74.14	-68.39	-75.16	-109.65	-130.07	-68.15	-67.72	-75.05	-107.73	-128.94
5920	-71.26	-70.10	-76.08	-111.09	-132.19	-71.94	-68.67	-75.20	-109.64	-130.44	-69.23	-67.68	-74.87	-107.67	-128.97
5940	-71.27	-68.15	-75.84	-111.00	-132.03	-71.92	-68.34	-76.45	-109.66	-129.77	-69.66	-67.96	-76.14	-107.66	-128.57
5960	-69.04	-68.39	-76.66	-111.10	-132.17	-70.27	-67.98	-76.99	-109.65	-129.23	-69.66	-65.14	-76.56	-107.51	-128.31
5980	-70.32	-68.80	-77.91	-111.43	-132.71	-68.89	-65.92	-77.14	-109.70	-129.33	-68.43	-66.94	-76.53	-107.53	-128.40
6000	-69.57	-67.86	-78.10	-111.35	-132.38	-70.11	-66.49	-78.32	-109.78	-129.65	-70.27	-64.26	-77.80	-107.43	-128.33
6010	-71.89	-67.86	-78.37	-111.45	-133.31	-68.31	-65.34	-77.79	-109.60	-130.96	-70.26	-63.41	-77.50	-107.43	-127.97
6020	-69.81	-69.45	-79.31	-111.47	-132.57	-70.50	-66.41	-79.11	-109.73	-128.92	-72.16	-66.01	-77.77	-107.28	-127.97
6040	-70.45	-68.86	-79.79	-111.19	-132.62	-66.01	-67.97	-79.14	-109.28	-130.56	-71.31	-62.44	-78.19	-107.40	-127.67
6060	-72.41	-66.32	-78.06	-110.25	-131.83	-70.95	-64.43	-78.12	-108.58	-129.74	-71.47	-62.83	-77.36	-106.78	-126.72
6080	-69.85	-66.53	-78.81	-111.04	-132.41	-70.50	-63.68	-78.78	-109.03	-128.35	-68.81	-63.55	-77.29	-106.09	-126.48
6100	-70.32	-68.66	-79.24	-111.15	-131.93	-69.91	-63.94	-78.99	-109.16	-130.22	-68.21	-64.27	-77.93	-107.03	-127.25

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 5960 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 6010 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 6060 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	-94.81	-95.77	-96.25	-93.17	-99.56	-92.57	-93.99	-96.80	-91.82
-4	-91.19	-93.29	-92.86	-90.95	-95.43	-90.01	-91.36	-94.95	-91.18
-3	-88.69	-90.71	-90.60	-86.79	-92.09	-87.89	-90.44	-91.88	-88.63
-2	-84.81	-86.89	-85.77	-82.09	-87.62	-85.94	-85.21	-89.23	-84.76
-1	-73.93	-79.57	-77.82	-72.93	-79.92	-80.85	-74.71	-81.63	-79.22
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-74.19	-78.72	-77.89	-72.53	-78.51	-79.86	-74.33	-80.77	-78.73
+2	-84.08	-85.85	-84.25	-81.82	-86.04	-85.09	-85.06	-88.52	-84.21
+3	-88.77	-88.96	-89.48	-86.86	-89.98	-87.21	-90.26	-90.80	-87.54
+4	-91.31	-90.76	-90.85	-91.16	-92.10	-89.24	-90.74	-91.79	-89.78
+5	-94.37	-93.26	-93.25	-93.68	-95.16	-90.93	-94.49	-93.98	-91.11

Note 1: Comparison frequency 500 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 5960 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 6010 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 6060 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	-105.69	-103.43	-103.55	-107.41	-104.06	-106.99	-104.87	-102.63	-104.43
-4	-96.29	-96.03	-95.85	-96.92	-96.13	-97.71	-95.73	-94.85	-95.69
-3	-105.24	-101.48	-103.09	-104.82	-103.30	-106.82	-101.29	-99.09	-101.38
-2	-93.99	-92.70	-94.09	-96.58	-97.21	-100.66	-92.93	-91.87	-93.80
-1	-93.52	-94.87	-95.16	-87.92	-87.45	-85.68	-94.33	-96.29	-95.22
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-91.19	-89.58	-89.98	-90.17	-88.54	-87.43	-93.43	-93.00	-93.07
+2	-93.82	-95.27	-96.03	-94.96	-97.38	-99.35	-94.12	-94.93	-96.53
+3	-103.35	-102.64	-109.57	-103.89	-106.69	-110.27	-103.13	-104.70	-107.55
+4	-95.54	-99.14	-97.42	-96.05	-97.46	-97.36	-97.00	-99.09	-98.20
+5	-104.98	-112.55	-107.63	-104.47	-109.74	-107.49	-107.09	-110.86	-108.13

Note 3: Reference frequency 10 MHz

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

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