

Frequency Synthesizer

SSN-EDR11130SA

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (mA)		
				F2			F3								
	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C
1180.0	4.26	4.48	4.96	-38.39	-40.12	-42.19	-50.89	-51.44	-51.89	43.59	44.25	45.15	9.03	9.72	10.90
1200.0	4.51	4.68	4.97	-38.06	-39.78	-41.52	-52.49	-52.42	-52.20	43.61	44.29	45.22	9.02	9.74	10.92
1220.0	4.47	4.59	4.95	-35.94	-37.12	-39.08	-50.17	-48.91	-51.19	43.64	44.34	45.27	9.04	9.76	10.96
1240.0	4.62	4.68	4.92	-37.06	-37.72	-39.41	-63.24	-68.40	-63.62	43.68	44.39	45.35	9.04	9.75	10.96
1260.0	5.04	5.10	5.20	-35.20	-36.17	-37.87	-54.62	-54.54	-53.37	43.71	44.53	45.38	9.07	9.78	11.00
1280.0	5.37	5.40	5.46	-36.62	-37.46	-39.00	-52.15	-53.00	-51.82	43.74	44.57	45.43	9.05	9.78	11.00
1300.0	5.45	5.47	5.42	-35.12	-35.88	-37.32	-49.38	-49.83	-48.53	43.78	44.61	45.49	9.08	9.80	11.03
1320.0	5.44	5.41	5.43	-35.94	-36.52	-38.08	-49.19	-48.48	-48.30	43.82	44.52	45.49	9.07	9.79	11.02
1340.0	5.66	5.60	5.53	-36.62	-37.06	-38.47	-56.38	-54.01	-52.37	43.84	44.58	45.48	9.09	9.82	11.05
1360.0	6.08	5.98	5.88	-35.72	-36.23	-37.84	-47.15	-47.76	-46.02	43.82	44.44	45.40	9.08	9.81	11.05
1380.0	6.29	6.20	6.09	-39.69	-39.85	-40.90	-45.88	-46.64	-45.08	43.80	44.40	45.36	9.11	9.84	11.08
1400.0	6.16	6.09	5.92	-36.34	-36.83	-38.38	-41.99	-43.30	-41.75	43.64	44.39	45.24	9.10	9.83	11.08
1420.0	6.14	6.09	5.99	-40.26	-40.32	-42.08	-38.66	-40.58	-40.95	43.44	44.19	45.03	9.13	9.85	11.11

FREQ. (MHz)	PHASE NOISE (dBc/Hz) @ OFFSETS														
	-40 °C					+25°C					+85 °C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
1180.0	-89.96	-93.39	-92.46	-96.20	-135.90	-91.85	-94.34	-91.86	-99.84	-136.55	-88.94	-92.02	-92.27	-96.23	-135.23
1200.0	-91.20	-94.52	-92.10	-94.19	-135.40	-89.16	-92.78	-92.67	-94.87	-135.20	-91.96	-93.89	-93.16	-91.65	-133.93
1220.0	-88.51	-94.04	-92.60	-91.36	-134.02	-89.52	-94.61	-92.71	-92.13	-133.92	-90.47	-92.86	-93.25	-89.19	-131.33
1240.0	-89.92	-91.74	-92.49	-90.63	-133.68	-92.36	-92.95	-92.21	-91.90	-133.59	-89.77	-92.72	-92.73	-89.45	-131.61
1260.0	-91.56	-93.83	-92.39	-91.01	-132.94	-88.92	-95.23	-92.83	-92.22	-133.00	-89.62	-92.96	-92.86	-89.83	-131.59
1280.0	-89.41	-93.10	-92.39	-91.29	-133.06	-89.32	-93.13	-93.07	-92.72	-133.23	-90.72	-93.70	-92.28	-90.39	-131.74
1300.0	-88.78	-91.41	-92.10	-92.28	-133.67	-89.84	-92.12	-92.40	-93.27	-133.60	-89.23	-90.69	-92.14	-91.45	-133.09
1320.0	-86.19	-92.22	-92.04	-94.02	-134.05	-91.71	-92.61	-92.70	-93.53	-133.95	-88.78	-94.68	-92.23	-91.50	-132.94
1340.0	-90.40	-91.70	-92.10	-92.77	-133.81	-88.97	-91.70	-92.09	-93.71	-133.94	-91.60	-92.75	-92.06	-91.88	-132.78
1360.0	-89.23	-91.60	-92.24	-93.04	-133.52	-90.59	-92.15	-92.09	-93.60	-133.31	-89.80	-92.98	-92.21	-91.49	-131.35
1380.0	-89.49	-92.10	-92.09	-93.44	-133.41	-88.91	-93.04	-92.09	-93.95	-132.53	-90.97	-93.25	-92.36	-92.10	-130.02
1400.0	-89.19	-92.33	-92.14	-94.78	-133.63	-92.17	-91.91	-92.17	-95.68	-133.15	-87.84	-91.76	-92.33	-94.04	-130.97
1420.0	-88.19	-92.78	-91.53	-96.05	-132.62	-89.61	-92.77	-91.95	-97.71	-132.94	-87.86	-91.72	-91.85	-97.25	-130.83

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 1200 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1300 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1400 MHz± (n*Fcomparison) (dBc) NOTE 1		
	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C
-5	-89.10	-89.29	-89.66	-92.61	-91.28	-86.40	-95.24	-86.09	-104.58
-4	-85.09	-85.19	-85.84	-90.47	-90.09	-83.65	-93.07	-83.81	-104.41
-3	-80.18	-80.51	-81.02	-86.05	-86.07	-80.05	-91.01	-81.69	-103.20
-2	-73.60	-74.01	-74.82	-80.47	-80.69	-75.07	-84.27	-77.69	-96.28
-1	-64.88	-65.34	-65.45	-70.66	-71.42	-66.43	-72.99	-70.20	-82.38
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-64.58	-65.05	-65.16	-70.10	-70.93	-66.17	-72.39	-69.74	-82.66
+2	-73.21	-73.73	-74.43	-79.61	-80.10	-74.73	-83.11	-77.28	-94.28
+3	-79.66	-80.03	-80.55	-85.36	-85.55	-79.82	-89.30	-81.09	-99.92
+4	-84.48	-84.76	-85.39	-89.54	-89.12	-83.41	-91.58	-83.41	-104.05
+5	-87.75	-88.16	-88.72	-91.53	-90.36	-85.68	-93.36	-85.47	-100.44

Note 1: Comparison frequency 500 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 1200 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1300 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1400 MHz± (n*Freference) (dBc) NOTE 3		
	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C	-40 °C	+25°C	+85 °C
-5	-114.81	-112.35	-107.54	-112.66	-114.53	-113.63	-113.75	-112.37	-111.74
-4	-111.71	-111.03	-117.00	-115.28	-115.94	-113.86	-116.34	-108.09	-111.05
-3	-119.87	-113.86	-108.21	-115.89	< -121.50	-107.52	-111.74	-104.00	-105.93
-2	-111.41	-103.94	-106.81	-114.27	-112.85	-104.84	-101.29	-98.66	-102.12
-1	-110.94	-108.69	-106.33	-111.36	-109.52	-99.06	-90.39	-84.99	-87.96
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-106.34	-104.82	-112.44	-119.02	-106.61	-100.13	-90.35	-84.68	-87.90
+2	-119.54	-115.31	-110.22	-110.24	-108.85	-107.45	-98.55	-96.00	-100.09
+3	-115.01	-114.88	-118.97	-117.33	-111.61	-107.54	-112.01	-101.41	-107.38
+4	-118.41	-116.26	-117.29	-113.84	-113.83	-110.00	-110.15	-106.51	-116.89
+5	-114.52	-113.80	-109.83	-114.82	-113.25	-105.88	-108.26	-110.78	-108.63

Note 3: Reference frequency 10 MHz

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

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