

Frequency Synthesizer

TSN-EDR10936/2

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCO CURRENT (mA)			PLL CURRENT (mA)		
				(dBc)											
	-45 °C	+25°C	+85 °C	F2			F3								
-45 °C				+25°C	+85 °C	-45 °C	+25°C	+85 °C							
2240	13.12	13.07	12.96	-27.10	-28.32	-30.07	-26.99	-27.94	-30.72	57.39	58.51	59.21	9.41	10.60	12.19
2250	13.13	13.04	12.96	-29.83	-26.14	-27.96	-27.58	-27.44	-29.62	57.33	58.45	59.15	9.43	10.63	12.22
2260	13.21	13.14	13.05	-29.03	-28.46	-29.59	-29.80	-30.25	-32.36	57.23	58.38	59.07	9.51	10.73	12.31
2280	13.38	13.27	13.16	-26.59	-27.46	-29.63	-31.10	-29.16	-31.08	57.10	58.22	58.92	9.57	10.80	12.39
2300	13.49	13.39	13.26	-29.22	-29.67	-30.68	-27.91	-27.67	-30.36	56.86	57.99	58.73	9.64	10.87	12.46
2320	13.50	13.41	13.27	-25.19	-26.88	-28.43	-27.30	-27.53	-30.46	56.74	57.87	58.61	9.46	10.68	12.25
2340	13.47	13.32	13.17	-28.95	-29.84	-31.11	-29.92	-29.46	-33.27	56.59	57.73	58.49	9.56	10.79	12.37
2360	13.51	13.34	13.15	-27.11	-26.94	-28.84	-31.40	-32.84	-35.62	56.27	57.43	58.23	9.63	10.86	12.44
2380	13.41	13.26	13.05	-28.19	-28.98	-30.51	-32.08	-33.79	-37.73	56.09	57.23	58.10	9.69	10.92	12.51
2400	13.32	13.18	12.96	-27.88	-28.47	-29.59	-36.68	-36.96	-39.11	55.98	57.18	58.07	9.53	10.76	12.34
2420	13.38	13.22	12.94	-28.83	-27.48	-29.87	-41.43	-39.60	-38.57	55.69	56.91	57.94	9.31	10.67	12.40
2440	13.56	13.36	12.97	-29.47	-30.72	-32.99	-42.59	-40.32	-38.72	55.27	56.59	57.84	9.38	10.73	12.46
2460	13.66	13.46	13.00	-28.20	-28.62	-31.14	-39.25	-38.85	-37.60	55.08	56.46	57.84	9.44	10.79	12.53
2480	13.70	13.53	13.09	-30.08	-31.57	-34.28	-38.28	-39.48	-38.90	55.03	56.44	57.85	9.50	10.85	12.60
2500	13.69	13.5	13.03	-29.51	-29.91	-33.1	-40.94	-41.75	-40.93	54.91	56.38	57.86	9.56	10.92	12.66
2520	13.56	13.3	12.71	-29.94	-30.92	-34.07	-39.37	-41.23	-41.85	54.75	56.3	57.91	9.62	10.98	12.72
2540	13.45	13.16	12.48	-31.43	-32.57	-36.23	-43.83	-44.10	-42.92	54.81	56.37	58.00	9.67	11.03	12.78
2560	13.41	13.12	12.47	-31.62	-31.56	-35.68	-45.70	-44.20	-42.54	54.92	56.45	58.05	9.29	10.63	12.36
2580	13.44	13.12	12.50	-31.45	-33.44	-37.65	-46.00	-45.14	-43.10	54.94	56.50	58.12	9.39	10.74	12.47

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
2240	-88.50	-95.71	-98.74	-122.70	-147.41	-84.47	-97.24	-97.90	-122.75	-146.59	-87.36	-97.35	-97.66	-121.81	-145.23
2250	-87.15	-95.23	-98.51	-121.55	-146.98	-91.03	-98.03	-98.06	-122.25	-146.42	-88.03	-97.09	-97.29	-121.46	-145.41
2260	-87.16	-97.04	-98.82	-121.07	-146.78	-87.56	-96.84	-98.00	-122.02	-146.39	-87.55	-97.12	-96.89	-121.24	-144.80
2280	-87.55	-97.87	-98.64	-120.40	-146.54	-88.02	-96.16	-97.69	-121.68	-146.32	-86.49	-98.10	-97.08	-120.98	-144.76
2300	-87.92	-95.91	-98.53	-119.87	-146.37	-88.75	-98.14	-96.82	-120.90	-145.78	-90.04	-96.92	-96.70	-120.34	-144.34
2320	-86.43	-95.88	-99.05	-119.40	-146.40	-87.72	-96.49	-97.00	-120.85	-146.06	-87.40	-95.39	-96.15	-120.09	-144.13
2340	-86.42	-97.46	-98.19	-119.22	-145.62	-88.26	-95.96	-96.59	-120.38	-144.87	-88.51	-97.50	-96.08	-119.40	-143.74
2360	-88.52	-95.80	-97.79	-119.40	-146.17	-85.87	-96.64	-95.99	-120.34	-145.16	-85.91	-96.37	-96.02	-118.95	-143.47
2380	-88.14	-95.01	-97.02	-119.62	-146.15	-90.94	-95.44	-95.79	-120.05	-145.12	-85.53	-97.10	-96.36	-118.61	-142.95
2400	-85.03	-93.24	-96.34	-119.62	-146.07	-85.69	-96.77	-95.92	-120.01	-145.04	-86.61	-98.85	-96.02	-118.14	-142.76
2420	-86.89	-94.97	-98.03	-118.27	-145.72	-86.94	-98.68	-97.68	-118.66	-144.37	-88.60	-98.91	-96.73	-117.26	-142.27
2440	-87.55	-98.24	-97.91	-118.01	-145.59	-88.45	-97.54	-97.74	-118.36	-144.07	-84.55	-98.21	-96.66	-117.30	-142.02
2460	-89.86	-95.92	-97.47	-117.89	-145.21	-87.39	-97.48	-97.33	-118.48	-144.06	-88.15	-96.12	-97.08	-117.39	-142.06
2480	-88.87	-96.16	-97.01	-118.24	-145.19	-85.35	-95.94	-96.94	-118.53	-143.78	-85.47	-96.66	-96.97	-117.15	-141.77
2500	-86.74	-95.49	-97.00	-118.62	-145.26	-87.59	-96.48	-97.17	-118.65	-143.87	-91.57	-98.38	-96.99	-117.04	-141.68
2520	-85.77	-97.33	-97.25	-119.01	-145.59	-87.26	-97.71	-97.60	-118.91	-144.08	-87.74	-96.24	-97.84	-117.50	-142.12
2540	-82.87	-95.48	-97.51	-119.29	-145.31	-87.08	-97.81	-97.74	-119.18	-143.87	-86.87	-99.36	-97.07	-118.22	-142.04
2560	-86.41	-94.59	-97.08	-119.87	-145.01	-86.30	-96.69	-97.12	-119.65	-143.91	-86.66	-95.40	-95.92	-119.39	-142.11
2580	-85.59	-95.15	-97.49	-119.74	-144.39	-86.36	-95.93	-96.00	-120.78	-143.77	-87.08	-95.88	-96.30	-119.41	-141.90

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 & Reference SPURIOUS @Fcarrier 2250 MHz± (n*Fcomparison) (dBc) NOTE 1			Comparison & Reference SPURIOUS @Fcarrier 2410 MHz± (n*Fcomparison) (dBc) NOTE 1			Comparison & Reference SPURIOUS @Fcarrier 2560 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	-99.02	-105.81	-104.11	-99.76	-102.60	-102.38	-99.57	-105.94	-102.69
-4	-97.19	-108.44	-104.85	-98.31	-104.16	-104.89	-102.52	-115.01	-104.51
-3	-96.69	-111.58	-105.01	-97.94	-104.19	-104.79	-105.49	-114.85	-103.38
-2	-94.27	-114.39	-110.27	-101.18	-100.37	-105.09	-103.73	-107.33	-104.93
-1	-90.51	-104.61	-102.55	-100.74	-91.57	-105.98	-105.79	-99.40	-111.51
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-91.24	-106.62	-102.88	-97.53	-92.12	-99.05	-100.50	-114.20	-101.71
+2	-99.03	-103.59	-111.68	-98.23	-100.63	-99.37	-101.34	-103.45	-105.32
+3	-98.35	-101.52	-106.12	-97.51	-108.78	-101.52	-102.30	-104.85	-104.37
+4	-96.11	-101.28	-103.46	-96.85	-106.61	-100.50	-101.99	-102.53	-102.61
+5	-94.82	-100.22	-101.63	-96.16	-105.75	-101.23	-101.10	-101.16	-104.27

Note 1: Comparison & Reference frequency 10 MHz

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

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