

Frequency Synthesizer

KSN-EDR7450/1

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS						VCO CURRENT (mA)			PLL CURRENT (mA)		
				(dBc)											
	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	
1650.0	2.26	1.56	1.01	-50.65	-48.90	-47.81	-46.79	-47.77	-51.52	25.49	26.40	27.26	4.31	4.46	4.59
1661.0	2.29	1.70	1.72	-53.16	-51.37	-50.69	-47.00	-47.49	-52.17	25.61	26.54	27.32	4.31	4.47	4.60
1667.0	2.31	1.82	1.89	-55.65	-53.06	-52.30	-46.29	-47.01	-51.82	25.68	26.61	27.36	4.31	4.47	4.60
1672.0	2.33	1.94	2.00	-57.95	-54.98	-53.54	-44.92	-45.68	-50.27	25.73	26.67	27.39	4.32	4.47	4.60
1683.0	2.35	2.18	2.12	-64.22	-58.83	-55.65	-44.07	-44.75	-47.83	25.84	26.77	27.46	4.32	4.48	4.61
1694.0	2.41	2.41	2.23	-59.07	-57.88	-54.31	-43.36	-43.97	-46.62	25.93	26.84	27.53	4.32	4.47	4.61
1705.0	2.51	2.58	2.36	-55.22	-53.59	-51.44	-42.68	-42.92	-45.12	26.01	26.87	27.58	4.32	4.48	4.61
1716.0	2.59	2.60	2.45	-51.16	-50.35	-49.31	-42.31	-42.04	-44.43	26.06	26.88	27.61	4.33	4.49	4.61
1727.0	2.60	2.48	2.47	-50.55	-50.50	-50.75	-41.97	-41.88	-44.56	26.09	26.90	27.64	4.33	4.49	4.62
1738.0	2.59	2.35	2.48	-51.65	-51.85	-52.85	-41.45	-41.17	-43.59	26.13	26.95	27.66	4.34	4.49	4.62
1747.0	2.57	2.27	2.46	-51.89	-52.20	-53.85	-40.07	-39.63	-41.90	26.16	26.99	27.68	4.34	4.50	4.63
1749.0	2.56	2.25	2.45	-52.01	-52.09	-53.77	-40.02	-39.54	-41.79	26.16	27.00	27.69	4.34	4.50	4.63
1760.0	2.59	2.30	2.47	-51.12	-51.33	-52.60	-39.53	-39.49	-41.54	26.18	27.05	27.71	4.23	4.39	4.52

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
1650.0	-72.63	-74.32	-85.13	-114.53	-140.72	-78.84	-75.96	-83.87	-116.46	-141.77	-76.32	-75.55	-85.00	-116.21	-140.07
1661.0	-74.81	-75.57	-85.39	-121.00	-146.08	-74.63	-75.48	-85.67	-121.18	-145.00	-75.06	-74.32	-85.07	-120.43	-142.68
1667.0	-74.83	-75.41	-85.60	-122.95	-147.00	-74.88	-76.45	-86.45	-122.02	-145.74	-73.31	-75.31	-85.49	-119.50	-143.34
1672.0	-73.13	-75.00	-85.88	-122.98	-147.39	-76.76	-76.80	-86.84	-120.24	-146.12	-75.94	-74.98	-85.42	-121.18	-143.79
1683.0	-73.42	-75.78	-86.94	-121.09	-146.01	-75.86	-75.47	-87.26	-122.37	-146.42	-73.99	-75.56	-85.60	-121.88	-144.65
1694.0	-73.63	-75.22	-87.61	-120.24	-147.12	-74.68	-75.10	-87.05	-122.37	-147.19	-74.62	-74.80	-85.71	-122.28	-144.97
1705.0	-74.31	-74.98	-87.87	-124.31	-147.79	-76.04	-76.26	-86.51	-121.74	-146.19	-75.89	-75.21	-86.12	-122.28	-145.48
1716.0	-75.08	-76.67	-87.97	-119.50	-147.16	-73.99	-74.53	-85.63	-122.81	-146.96	-73.87	-75.04	-86.22	-122.22	-145.05
1727.0	-73.40	-75.08	-87.23	-124.18	-148.01	-74.05	-75.00	-85.88	-122.09	-146.70	-73.75	-74.28	-86.14	-119.75	-144.60
1738.0	-71.80	-74.61	-87.14	-124.14	-148.33	-74.96	-73.80	-85.50	-121.70	-145.90	-73.07	-76.32	-86.08	-121.46	-144.68
1747.0	-75.40	-75.34	-87.60	-120.98	-148.07	-74.54	-73.20	-85.73	-117.02	-145.87	-73.85	-74.55	-86.29	-114.88	-143.47
1749.0	-73.54	-74.73	-87.32	-121.84	-145.78	-73.27	-74.38	-85.60	-119.12	-145.60	-74.37	-75.28	-86.21	-117.03	-143.62
1760.0	-70.86	-74.12	-86.47	-121.40	-146.47	-74.09	-74.97	-86.48	-122.25	-147.32	-73.79	-73.17	-86.72	-117.17	-146.01

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 1667 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1707 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 1747 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	-104.30	-106.99	-104.34	-109.03	-109.61	-108.08	-102.16	-96.09	-94.83
-4	-102.68	-106.87	-101.34	-107.12	-108.41	-107.10	-99.50	-94.13	-92.50
-3	-101.13	-106.16	-100.32	-104.36	-106.71	-104.27	-97.65	-91.74	-89.96
-2	-97.85	-104.29	-97.42	-101.45	-103.78	-101.68	-93.73	-88.04	-86.37
-1	-94.37	-96.10	-95.76	-91.17	-91.41	-97.29	-89.50	-82.69	-81.77
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-93.63	-94.60	-94.80	-90.38	-91.07	-96.97	-91.38	-83.09	-82.16
+2	-98.42	-104.33	-98.14	-101.17	-102.74	-101.42	-94.25	-88.00	-86.52
+3	-101.85	-106.43	-100.84	-104.07	-105.77	-106.05	-98.92	-91.82	-90.09
+4	-102.88	-107.77	-102.24	-106.76	-108.09	-107.08	-100.45	-94.49	-92.54
+5	-104.35	-108.04	-105.81	-108.30	-109.71	-108.36	-102.80	-96.54	-94.88

Note 1: Comparison frequency 100 kHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 1667 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1707 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 1747 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	-123.80	-127.56	-122.74	-126.42	-130.89	-128.90	-128.53	-127.75	-131.83
-4	-131.04	-128.32	-131.88	-116.00	-130.88	-131.84	-128.34	-128.66	-130.95
-3	-117.60	-122.58	-120.01	-116.91	-119.66	-119.56	-117.17	-118.20	-119.63
-2	-122.13	-125.74	-127.30	-126.49	-126.40	-130.38	-127.74	-123.21	-129.32
-1	-108.73	-103.55	-108.41	-107.67	-105.57	-103.56	-110.06	-98.48	-102.03
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-111.16	-102.76	-107.08	-112.22	-103.19	-105.46	-114.20	-100.43	-104.51
+2	-123.04	-124.31	-127.21	-126.15	-127.98	-130.02	-123.41	-124.71	-128.74
+3	-129.19	-124.32	-124.49	-123.64	-122.40	-124.14	-124.54	-125.19	-123.82
+4	-131.49	-128.69	-131.44	-127.40	-130.77	-131.17	-130.80	-131.25	-131.06
+5	-126.63	-115.37	-127.43	-127.78	-124.35	-129.39	-128.70	-127.81	-130.80

Note 3: Reference frequency 10 MHz

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

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