

Frequency Synthesizer

DSN-EDR10553

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
3680	8.26	7.75	6.84	-30.92	-31.79	-36.53	-41.98	-43.86	-47.49	46.09	46.93	47.56	23.96	26.06	29.12
3700	8.30	7.77	6.89	-30.27	-31.43	-35.94	-42.96	-43.88	-48.58	46.11	46.94	47.58	24.08	26.23	29.30
3740	8.32	7.77	6.93	-31.69	-31.46	-35.92	-45.41	-45.87	-49.59	46.13	46.96	47.58	24.23	26.40	29.47
3800	8.39	7.86	7.02	-32.54	-32.92	-38.15	-48.87	-48.76	-53.46	46.16	46.99	47.61	24.43	26.63	29.70
3860	8.41	7.90	7.06	-32.65	-34.05	-39.51	-50.65	-50.17	-53.86	46.19	47.01	47.62	24.15	26.34	29.39
3920	8.53	8.04	7.14	-35.29	-35.95	-42.22	-50.06	-49.87	-51.79	46.19	47.03	47.63	24.37	26.57	29.63
3980	8.52	8.01	7.18	-34.61	-35.72	-40.38	-48.45	-47.57	-49.50	46.22	47.05	47.64	24.57	26.79	29.86
4040	8.69	8.21	7.31	-36.58	-36.88	-40.67	-46.97	-45.22	-47.46	46.18	47.03	47.63	24.27	26.48	29.53
4100	8.65	8.12	7.29	-38.07	-37.25	-41.22	-43.79	-44.41	-45.92	46.20	47.06	47.66	24.48	26.70	29.76
4160	8.63	8.22	7.34	-40.03	-40.05	-43.48	-43.31	-45.57	-45.81	46.18	47.05	47.64	24.15	26.36	29.40
4220	8.62	8.22	7.40	-40.13	-40.63	-44.94	-43.92	-47.22	-46.46	46.18	47.06	47.65	24.41	26.64	29.69
4300	8.50	8.09	7.32	-41.11	-42.12	-46.44	-42.47	-45.46	-45.31	46.19	47.07	47.67	24.69	26.92	29.99
4320	8.51	8.13	7.35	-42.41	-43.07	-46.96	-42.80	-45.56	-45.21	46.19	47.06	47.66	24.19	26.41	29.45

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
3680	-87.12	-93.44	-94.75	-101.34	-135.74	-86.12	-95.20	-93.66	-102.42	-134.53	-88.15	-93.50	-95.07	-102.16	-133.05
3700	-89.02	-96.11	-95.50	-101.92	-135.45	-85.25	-92.28	-93.36	-103.27	-134.85	-89.58	-94.43	-95.63	-102.64	-133.41
3740	-88.50	-94.76	-96.77	-102.36	-136.25	-86.05	-94.57	-94.86	-103.64	-134.96	-88.27	-95.25	-96.27	-103.02	-133.49
3800	-84.98	-92.14	-94.28	-104.26	-136.63	-89.94	-94.15	-96.33	-103.78	-135.45	-84.53	-94.26	-94.28	-104.14	-134.01
3860	-84.67	-91.27	-92.13	-105.08	-136.41	-87.05	-92.40	-91.56	-104.86	-135.12	-86.40	-94.51	-94.24	-103.79	-133.71
3920	-89.41	-96.59	-96.38	-103.75	-135.44	-85.51	-94.00	-95.41	-104.38	-135.39	-86.24	-94.57	-95.44	-103.40	-133.87
3980	-84.25	-94.84	-94.20	-104.49	-136.29	-87.22	-94.80	-95.78	-103.93	-135.43	-87.47	-96.01	-94.75	-103.83	-134.09
4040	-84.77	-92.68	-92.38	-104.12	-134.56	-85.97	-91.79	-92.93	-104.14	-134.87	-85.97	-92.23	-94.28	-103.40	-133.36
4100	-86.98	-94.19	-94.79	-104.47	-136.46	-88.57	-94.55	-94.60	-104.41	-135.40	-86.57	-94.28	-93.92	-104.08	-133.85
4160	-85.83	-92.13	-94.16	-103.73	-135.49	-87.63	-93.23	-93.65	-103.67	-134.66	-83.54	-96.38	-94.33	-103.02	-133.16
4220	-86.53	-90.63	-91.59	-104.68	-136.17	-85.96	-92.71	-93.31	-104.59	-135.30	-85.45	-93.92	-94.12	-103.60	-133.72
4300	-87.09	-91.52	-93.03	-104.01	-135.89	-87.81	-92.63	-93.49	-104.50	-135.25	-89.18	-92.94	-93.63	-103.63	-133.63
4320	-87.90	-94.25	-94.12	-103.91	-135.66	-86.23	-93.35	-92.48	-104.83	-135.12	-84.18	-93.58	-94.05	-103.91	-133.63

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



Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @F _{carrier} 3700 MHz± (n*F _{comparison}) (dBc) NOTE 1			COMPARISON SPURIOUS @F _{carrier} 4000 MHz± (n*F _{comparison}) (dBc) NOTE 1			COMPARISON SPURIOUS @F _{carrier} 4300 MHz± (n*F _{comparison}) (dBc) NOTE 1		
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
-5	-96.05	-95.74	-91.59	-101.55	-105.51	-97.27	-105.83	-103.37	-104.66
-4	-93.81	-93.61	-89.49	-100.35	-104.17	-94.85	-93.64	-102.04	-98.24
-3	-90.91	-91.96	-86.84	-100.69	-105.21	-95.76	-101.93	-99.16	-101.78
-2	-88.40	-88.07	-83.37	-101.03	-104.40	-94.98	-98.23	-97.20	-99.52
-1	-80.76	-82.74	-77.20	-100.62	-99.39	-90.48	-92.60	-90.17	-94.58
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-80.55	-83.32	-77.40	-103.37	-95.42	-93.28	-91.71	-89.42	-96.01
+2	-88.45	-90.48	-84.71	-102.33	-97.79	-99.13	-96.59	-95.58	-102.44
+3	-90.08	-93.50	-87.72	-101.44	-99.64	-99.43	-100.28	-98.12	-105.15
+4	-92.50	-95.89	-90.88	-103.99	-101.50	-100.06	-91.36	-109.92	-98.64
+5	-94.33	-97.83	-93.33	-103.56	-102.19	-99.81	-103.23	-101.83	-109.70

Note 1: Comparison frequency 10 MHz

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

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @F _{carrier} 3700 MHz± (n*F _{reference}) (dBc) NOTE 3			REFERENCE SPURIOUS @F _{carrier} 4000 MHz± (n*F _{reference}) (dBc) NOTE 3			REFERENCE SPURIOUS @F _{carrier} 4300 MHz± (n*F _{reference}) (dBc) NOTE 3		
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
-5	-	-	-	-	-	-	-	-	-
-4	-	-	-	-	-	-	-	-	-
-3	-103.89	-88.64	-103.06	-94.13	-107.35	-88.27	-91.18	-101.73	-100.34
-2	-98.55	-109.54	-102.46	-98.69	-98.19	-100.02	-94.94	-99.50	-101.71
-1	-91.69	-85.96	-94.44	-76.80	-92.96	-94.78	-84.69	-90.47	-96.46
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-76.12	-81.13	-84.21	-76.13	-81.35	-83.90	-79.97	-86.32	-87.93
+2	-97.90	-106.09	-117.33	-99.29	-110.71	-120.84	-109.67	-117.91	-118.19
+3	-101.08	-110.32	-119.98	-98.92	-105.38	-111.38	-103.88	-105.39	-116.09
+4	-96.63	-104.15	-116.61	-101.74	-106.40	-115.03	-103.74	-106.78	-108.96
+5	-86.55	-100.07	-108.50	-87.75	-98.55	-103.35	-99.14	-106.34	-108.78

Note 3: Reference frequency 960 MHz

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

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