

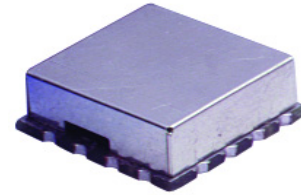
Engineering Development Model

Voltage Controlled Oscillator

ROS-EDR-9668/3RE+

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



CASE STYLE : CK605

Please click "Back", and then click "Contact Us" for Applications support.

ELECTRICAL SPECIFICATIONS 50Ω				
Parameter	Min.	Typ.	Max.	Units
Frequency	1800		1803	MHz
Tuning Voltage		0.5-5		V
Power Output		+3		dBm
Phase Noise				
at 1 kHz offset		-92		dBc/Hz
at 10 KHz offset		-119		dBc/Hz
at 100 KHz offset		-141		dBc/Hz
at 1000 kHz offset		-160		dBc/Hz
Pulling at 12 dBr PK-PK all phases		0.2		MHz
Pushing at Vcc ± 5%		0.1		MHz/V
Tuning Sensitivity		7 - 7		MHz/V
Harmonic Suppression		-18		dBc
3 dB Modulation Bandwidth				kHz
Supply Voltage		5		V
Supply Current			32	mA

MAXIMUM RATINGS	
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 105°C
Absolute Supply Voltage (Vcc)	+6V
Absolute Tuning Voltage (Vtune)	+6V

PIN CONNECTIONS	
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

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Typical Performance Data

V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			HARMONICS (dBc)		FREQ. PUSH (MHz/V)	FREQ OFFSET (KHz)	PHASE NOISE (dBc/Hz)
		-45°C	+25°C	+85°C	-45°C	+25°C	+85°C	F2	F3			
0.0	8.63	1785.29	1783.83	1781.11	2.06	2.67	2.96	-23.10	-17.40	0.19	1	-68
0.3	7.75	1787.36	1785.99	1783.41	2.11	2.72	3.04	-23.01	-17.47	0.15	10	-96
0.5	7.25	1789.25	1787.93	1785.42	2.15	2.77	3.09	-22.94	-17.58	0.13	100	-118
0.8	6.94	1791.03	1789.74	1787.27	2.19	2.81	3.14	-22.93	-17.65	0.11	1000	-138
1.0	6.74	1792.75	1791.47	1789.02	2.22	2.85	3.18	-22.93	-17.71	0.10		
1.3	6.61	1794.42	1793.16	1790.72	2.25	2.88	3.21	-22.95	-17.71	0.09		
1.5	6.54	1796.07	1794.81	1792.38	2.28	2.92	3.25	-22.97	-17.72	0.09		
1.8	6.51	1797.71	1796.44	1794.02	2.31	2.95	3.28	-23.00	-17.70	0.08		
2.0	6.51	1799.34	1798.07	1795.64	2.33	2.98	3.31	-23.04	-17.66	0.08		
2.3	6.54	1800.97	1799.70	1797.27	2.36	3.00	3.34	-22.53	-17.58	0.08		
2.5	6.58	1802.62	1801.34	1798.90	2.37	3.02	3.36	-22.56	-17.48	0.07		
2.8	6.64	1804.27	1802.98	1800.53	2.38	3.04	3.39	-22.58	-17.33	0.07		
3.0	6.72	1805.95	1804.64	1802.18	2.39	3.06	3.40	-22.58	-17.18	0.06		
3.3	6.80	1807.64	1806.32	1803.85	2.40	3.07	3.42	-22.59	-17.02	0.06		
3.5	6.89	1809.35	1808.02	1805.54	2.40	3.09	3.44	-22.56	-16.93	0.06		
3.8	6.98	1811.09	1809.74	1807.24	2.40	3.09	3.45	-22.53	-16.88	0.06		
4.0	7.06	1812.85	1811.49	1808.97	2.39	3.09	3.46	-22.44	-17.02	0.05		
4.3	7.14	1814.64	1813.25	1810.72	2.38	3.09	3.47	-22.35	-17.04	0.05		
4.5	7.21	1816.45	1815.04	1812.49	2.37	3.08	3.47	-22.24	-17.25	0.05		
4.8	7.25	1818.28	1816.84	1814.27	2.35	3.07	3.46	-22.11	-17.51	0.06		
5.0	7.26	1820.13	1818.65	1816.07	2.32	3.06	3.46	-21.96	-17.93	0.06		
5.3	7.21	1821.97	1820.47	1817.86	2.28	3.03	3.44	-21.80	-18.01	0.08		
5.5	7.10	1823.81	1822.27	1819.64	2.22	3.00	3.42	-21.61	-18.62	0.09		
5.8	6.86	1825.60	1824.04	1821.40	2.13	2.95	3.39	-21.41	-18.33	0.11		
6.0	6.38	1827.27	1825.76	1823.12	2.02	2.88	3.35	-21.21	-18.80	0.13		
6.3	5.70	1828.73	1827.35	1824.76	1.97	2.80	3.30	-21.13	-19.03	0.15		
6.5	5.28	1830.07	1828.78	1826.27	2.02	2.77	3.25	-21.16	-18.60	0.19		
6.8	5.22	1831.42	1830.10	1827.65	2.12	2.81	3.24	-21.22	-18.70	0.26		
7.0	5.22	1832.79	1831.40	1828.95	2.20	2.88	3.27	-21.27	-18.46	0.34		



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For detailed performance specs
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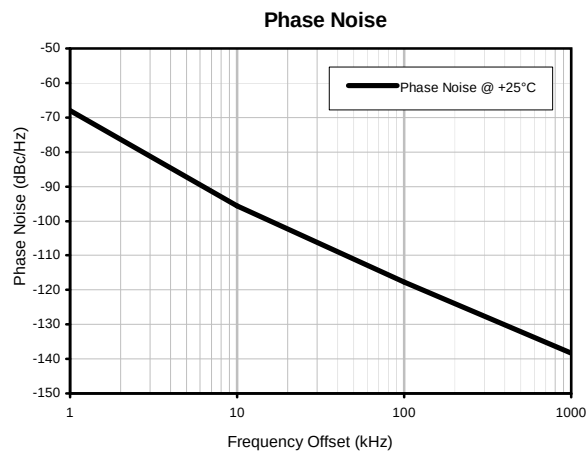
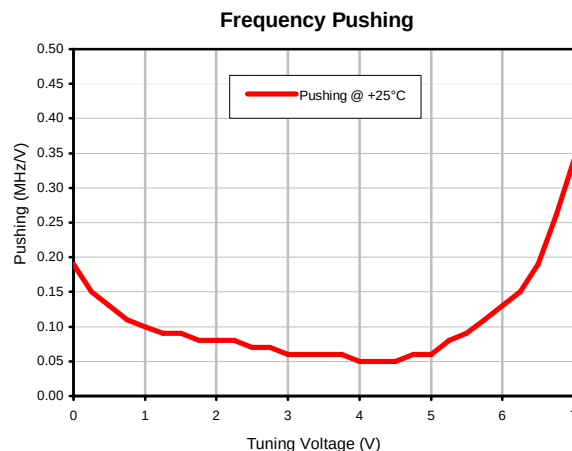
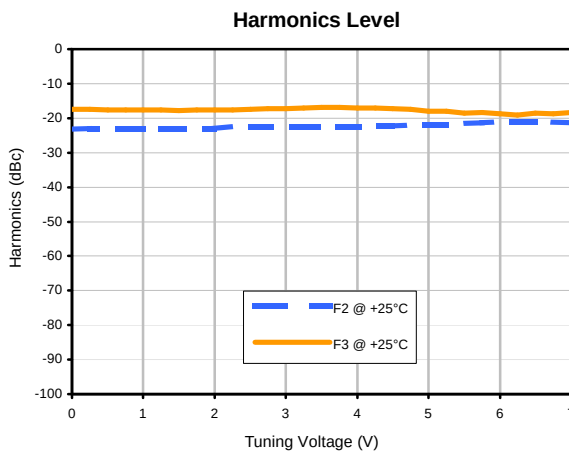
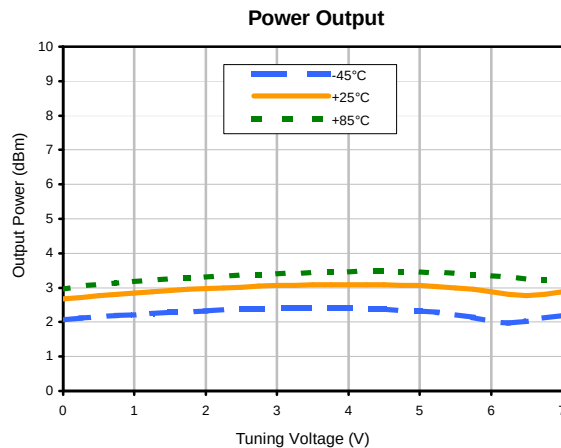
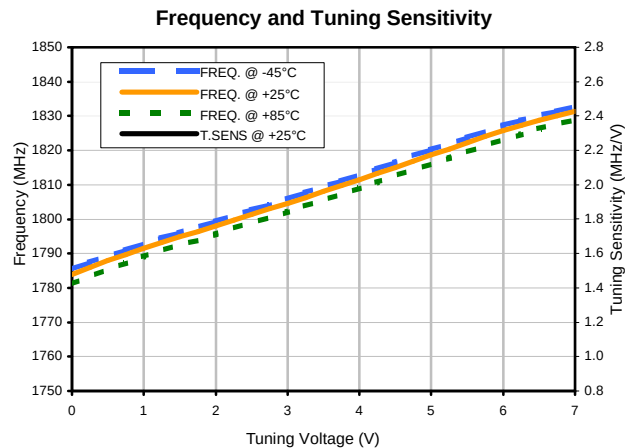
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Typical Performance Data



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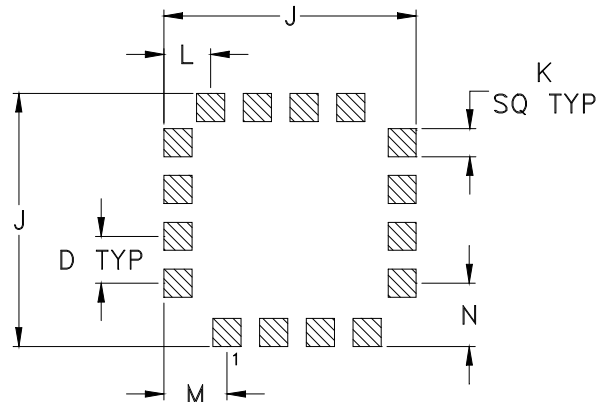
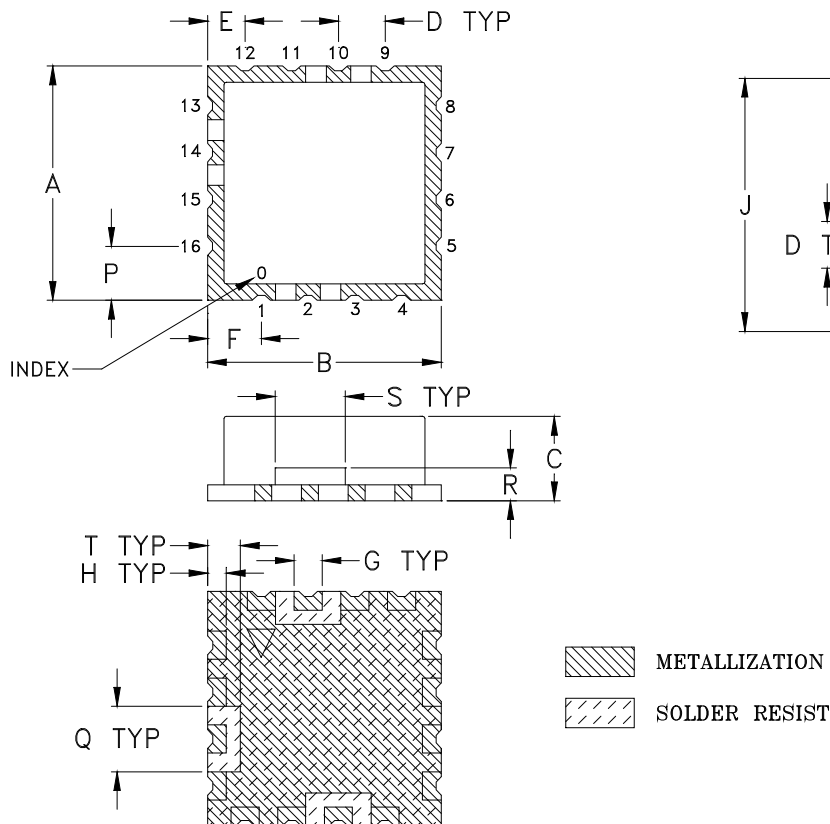
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Outline Dimensions

CK605

PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

CASE #	A	B	C	D	E	F	G	H	J	K
CK605	.500 (12.70)	.500 (12.70)	.180 (4.57)	.100 (2.54)	.080 (2.03)	.115 (2.92)	.060 (1.52)	.040 (1.02)	.540 (13.72)	.060 (1.52)

CASE #	L	M	N	P	Q	R	S	T	WT. GRAM
CK605	.100 (2.54)	.135 (3.43)	.135 (3.43)	.115 (2.92)	.140 (3.56)	.070 (1.78)	.150 (3.81)	.070 (1.78)	1.2 +0.5 -0.0

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3Pl. $\pm .015$

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
For RoHS Case Styles: 3-5 μ inch (.08-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
All models, (+) suffix.

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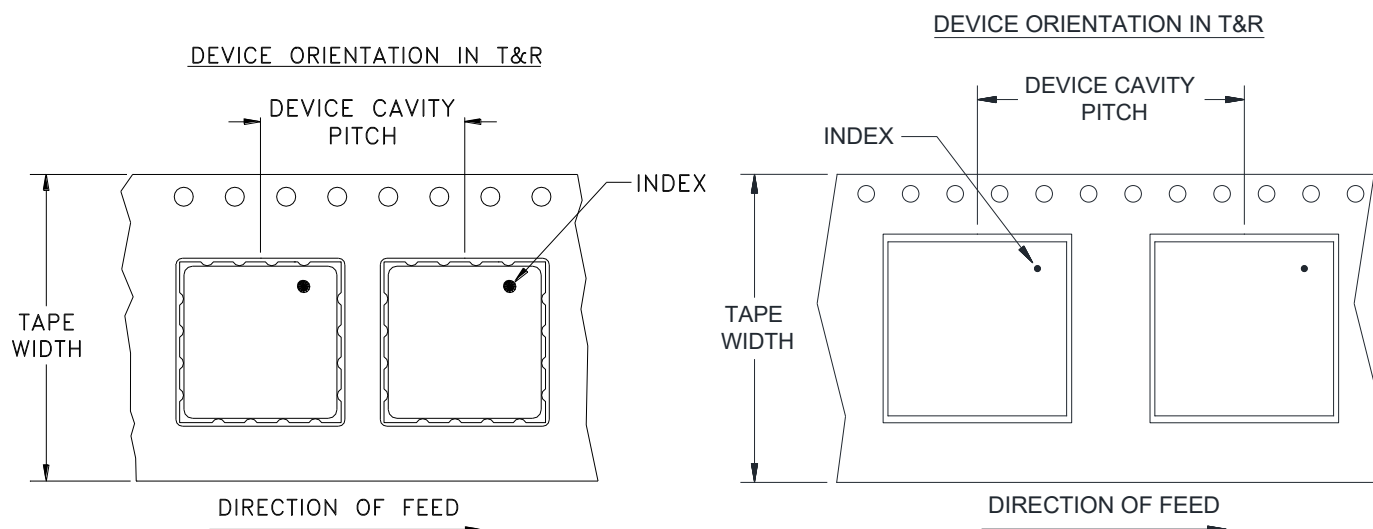
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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F37



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel	
24	16	7	Small quantity standards (see note)	10
				20
				50
				100
		13	Standard	200
				500

Note: Please consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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