VOLTAGE CONTROLLED OSCILLATORS

Click package to view outline drawing

124SL

SURFACE-MOUNT PACKAGE

FREQUENCY RANGE (MHz)	NOMINAL TUNING VOLTAGE (Volts)	DC BIAS REQUIREMENTS VOLTAGE (Volts)	DC BIAS REQUIREMENTS CURRENT (mA)	OUTPUT POWER dBm	OUTPUT POWER Tolerance (dB)	AVERAGE TUNING SENSITIVITY MHz/Volt	TYPICAL PHASE NOISE dBc/Hz Offset at 10 KHz/100 KHz	TYPICAL HARMONIC SUPPRESSION (dBc)	PUSHING (MHz/Volt) (Typ)	PULLING (@ 1.75:1 VSWR) MHz (Typ)	MODEL
170 - 220	0 - 10	+7	<13	+3	±3	5 - 8	-95/-115	10	5	15	**VCO-S-A12**
180 - 220	0 - 5	+7	<35	0	±1	9 - 14	-95/-115	10	5	15	**VCO-S-A17**
200 - 400	0 - 17	+12	<35	+14	±2.5	10 - 20	-90/-115	10	5	15	**VCO-S-200**
210 - 270	1 - 12	+12	<35	+10	±3	5 - 6	-94/-118	10	5	15	**VCO210SA**
225 - 450	1 - 17	+7	<13	+4	±2.5	20 - 30	-95/-115	9	5	15	**VCO225SA**
250 - 500	2 - 22	+12	<35	+14	±2.5	10 - 20	-95/-120	10	5	15	**VCO-S-250**
350 - 410	2 - 10	+8	<35	+7	±2	7.5 - 15	-100/-125	10	1	15	**VCO-S-A23**
400 - 450	2 - 10	+8	<35	+7	±2	6.0 - 15	-98/-120	10	1	15	**VCO-S-A22**
400 - 650	0.5 - 5	+5	<20	+7	±3.5	50 - 80	-95/-120	10	5	15	**VCO400SA**
400 - 800	0.5 - 15	+12	<35	+15	±2.5	20 - 30	-95/-120	10	1	15	**VCO-S-400**
470 - 650	1 - 11	+12	<35	+12	±2.5	20 - 30	-97/-112	10	1	15	**VCO470SA**
500 - 600	0 - 5	+7	<35	0	±1	20 - 30	-90/-115	10	5	15	**VCO-S-A18**
500 - 1000	0.5 - 30	+12	<35	+14	±2.5	25 - 50	-95/-120	10	1	15	**VCO-S-500**
550 - 890	1 - 18	+12	<35	+14	±2.5	25 - 50	-95/-120	10	1	15	**VCO550SA**
600 - 1200	0.5 - 25	+12	<35	+12	±2.5	25 - 45	-95/-120	10	1	15	**VCO-S-600**
700 - 1400	0.5 - 25	+12	<35	+15	±3	35 - 60	-95/-120	10	5	15	**VCO-S-700**
750 - 830	1 - 4	+12	<30	+14.5	±1.5	35 - 45	-90/-117	10	5	15	**VCO-S-A06**
800 - 1600	0 - 25	+12	<35	+14	±3.5	40 - 60	-95/-120	10	1	15	**VCO-S-800**
844 - 919	1 - 4	+12	<35	+14	±1.5	25 - 40	-85/-110	18	2	4.5	**VCO844SA**
900 - 1800	0.5 - 20	+12	<35	+11	±3	40 - 60	-95/-120	10	5	15	**VCO-S-900**
900 - 2200	0 - 25	+12	<35	+12	±2.5	55 - 80	-85/-110	10	8	15	**VCO900SA**
950 - 1175	4 - 15	+12	<35	+13	±3	21 - 27	-95/-118	10	1	15	**VCO-S-A27**
1000 - 2000	0.5 - 22	+12	<35	+11	±3	40 - 60	-95/-120	10	5	15	**VCO-S-1000**
1000 - 2000	0.5 - 22	+12	<35	+6	±2.5	50 - 70	-98/-126	10	5	15	**VCO1000SA**
1100 - 2200	0.5 - 25	+12	<35	+13	±3	40 - 60	-95/-120	10	5	15	**VCO-S-1100**
1200 - 2400	0 - 26	+5	<35	+10	±3	40 - 100	-90/-110	10	5	15	**VCO1200SA**
1500 - 2100	1 - 12	+12	<35	+10	±3	40 - 60	-88/-115	10	5	15	**VCO1500SA**
1600 - 2000	0 - 5	+5	<35	+10	±3	80 - 100	-90/-115	10	13	10	**VCO1600SA**
1600 - 2600	0 - 26	+5	<35	+10	±3	40 - 60	-90/-120	10	5	15	**VCO-S-A24**
1750 - 2000	1 - 9	+9.6	<30	+10	±3	35 - 60	-82/-110	10	8	30	**VCO1750SA**
2000 - 3000	0 - 25	+12	<35	+9	±2	40 - 70	-88/-116	10	8	15	**VCO-S-2000**

COMMON SPECIFICATIONS

Output Impedance: 50 ohms
VSWR: 1.5:1 (Typ)
Specifications are at +25°C

Operating Temperature: -30°C to +70°C
Contact the factory for more stringent operating temperature range

For pin location and package outline drawings, see back pages.

PIN-OUT TABLE

RF OUT	V_{cc}	V_{tune}	CASE GND
1	4	16	ALL OTHERS

201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com

SYNERGY® MICROWAVE CORPORATION

VOLTAGE CONTROLLED OSCILLATORS

PLUG-IN PACKAGE

124

FREQUENCY RANGE (MHz)	NOMINAL TUNING VOLTAGE (Volts)	DC BIAS REQUIREMENTS VOLTAGE (Volts)	DC BIAS REQUIREMENTS CURRENT (mA)	OUTPUT POWER dBm	OUTPUT POWER Tolerance (dB)	AVERAGE TUNING SENSITIVITY MHz/Volt	TYPICAL PHASE NOISE dBc/Hz Offset at 10 KHz/100 KHz	TYPICAL HARMONIC SUPPRESSION (dBc)	PUSHING (MHz/Volt) (Typ)	PULLING (@ 1.75:1 VSWR) MHz (Typ)	MODEL
180 - 220	0 - 5	+7	<35	0	+1	9 - 14	-95/-115	10	5	15	**VCO-P-A17**
200 - 400	0 - 17	+12	<35	+14	+2.5	10 - 20	-90/-115	10	5	15	**VCO-P-200**
210 - 270	1 - 12	+12	<35	+10	+3	5 - 6	-94/-118	10	5	15	**VCO210PA**
225 - 450	1 - 17	+7	<13	+4	+2.5	20 - 30	-95/-115	9	5	15	**VCO225PA**
250 - 500	2 - 22	+12	<35	+14	+2.5	10 - 20	-95/-120	10	5	15	**VCO-P-250**
350 - 410	2 - 10	+8	<35	+7	+2	7.5 - 15	-100/-125	10	1	15	**VCO-P-A23**
400 - 450	2 - 10	+8	<35	+7	+2	6.0 - 15	-98/-120	10	1	15	**VCO-P-A22**
400 - 650	0.5 - 5	+5	<20	+7	+3.5	50 - 80	-95/-120	10	5	15	**VCO400PA**
400 - 800	0.5 - 15	+12	<35	+15	+2.5	20 - 30	-95/-120	10	1	15	**VCO-P-400**
470 - 650	1 - 11	+12	<35	+12	+2.5	20 - 30	-97/-112	10	1	15	**VCO470PA**
500 - 600	0 - 5	+7	<35	0	+1	20 - 30	-90/-115	10	5	15	**VCO-P-A18**
500 - 1000	0.5 - 30	+12	<35	+14	+2.5	25 - 50	-95/-120	10	1	15	**VCO-P-500**
550 - 890	1 - 18	+12	<35	+14	+2.5	25 - 50	-95/-120	10	1	15	**VCO550PA**
600 - 1200	0.5 - 25	+12	<35	+12	+2.5	25 - 45	-95/-120	10	1	15	**VCO-P-600**
650 - 700	0.5 - 11	+12	<35	+10	+1	4 - 7	-100/-120	10	5	15	**VCO-P-A12**
700 - 1400	0.5 - 25	+12	<35	+15	+3	35 - 60	-95/-120	10	5	15	**VCO-P-700**
800 - 1600	0 - 25	+12	<35	+14	+3.5	40 - 60	-95/-120	10	1	15	**VCO-P-800**
844 - 919	1 - 4	+12	<35	+14	+1.5	25 - 40	-85/-110	18	2	4.5	**VCO844PA**
900 - 1800	0.5 - 20	+12	<35	+11	+3	40 - 60	-95/-120	10	5	15	**VCO-P-900**
900 - 2200	0 - 25	+12	<35	+12	+2.5	55 - 80	-85/-110	10	8	15	**VCO900PA**
950 - 1175	4 - 15	+12	<35	+13	+3	21 - 27	-95/-118	10	1	15	**VCO-P-A27**
1000 - 2000	0.5 - 22	+12	<35	+11	+3	40 - 60	-95/-120	10	5	15	**VCO-P-1000**
1000 - 2000	0.5 - 22	+12	<35	+6	+2.5	50 - 70	-98/-126	10	5	15	**VCO1000PA**
1100 - 2200	0.5 - 22	+12	<35	+13	+3	40 - 60	-95/-120	10	5	15	**VCO-P-1100**
1200 - 2400	0 - 26	+5	<35	+10	+3	40 - 100	-90/-110	10	5	15	**VCO1200PA**
1425 - 2535	0 - 24	+8	<25	+7	+2	30 - 100	-80/-100	10	5	25	**VCO-P-A06**
1500 - 2100	1 - 12	+12	<35	+10	+3	40 - 60	-88/-115	10	5	15	**VCO1500PA**
1600 - 2000	0 - 5	+5	<35	+10	+3	80 - 100	-90/-115	10	13	10	**VCO1600PA**
1600 - 2600	0 - 26	+5	<35	+10	+3	40 - 60	-90/-120	10	5	15	**VCO-P-A24**
1750 - 2000	1 - 9	+9.6	<30	+10	+3	35 - 60	-82/-110	10	8	30	**VCO1750PA**
2000 - 3000	0 - 25	+12	<35	+9	+2.0	40 - 70	-88/-116	10	8	15	**VCO-P-2000**

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