

VCO PRODUCT SPECIFICATIONS

PVF Series Small Footprint VCOs:

Part No. PVF	Frequency (MHz)	Output (dBm)	Tuning (V dc)	Pushing (MHz/V)	Pulling 1.75 VSWR (MHz)	Ph. Noise @ 10 K (dBc/Hz)	Ph. Noise @ 100 K (dBc/Hz)	Harmonics (dBc)	Ave. Gain (MHz/V)	Vcc, mA
-251	240-272	6+/-3	0-5	7	10	-93	-112	-10	12	5, <25
-401	400-452	7+/-3	0.5-4.5	10	20	-93	-112	-9	16	5, <25
-451	480-500	8+/-3	0.5-5	15	20	-93	-112	-10	10	5, <25
-601	600-615	6+/-2	0.5-4.5	15	20	-93	-112	-9	16	5, <25
-651	652-668	6+/-2	0.5-4.5	15	15	-93	-112	-9	20	5, <25
-700	700-752	8+/-3	0.5-4.5	15	30	-93	-111	-9	20	5, <25
-800	800-860	7+/-3	0.5-5	10	40	-90	-110	-7	20	5, <25
-861	860-925	7+/-3	0.5-5	15	30	-90	-110	-10	21	5, <25

PV Series Miniature VCOs:

Part No. PV	Frequency (MHz)	Output (dBm)	Tuning (V dc)	Pushing (MHz/V)	Pulling 1.75 VSWR (MHz)	Ph. Noise @ 10 K (dBc/Hz)	Ph. Noise @ 100 K (dBc/Hz)	Harmonics (dBc)	Ave. Gain (MHz/V)	Vcc, mA
-140	130-150	6+/-2	0.5-8.5	2	4	-98	-118	-10	4	9, <25
-200	190-210	4+/-2	0.5-5	4	5	-100	-120	-7	7	5, <25
-210	200-290	2+/-2	0.5-5	5	4	-95	-115	-7	25	5, <21
-431	430-445	4+/-1.5	0.5-5	4	5	-95	-115	-15	6.5	5, <25
-460	445-485	4.5+/-2	0.5-5	5	8	-95	-114	-15	16	5, <25
-501	500-600	4.5+/-1.5	0.5-5	5	15	-95	-115	-15	27	5, <22
-601	600-700	4.5+/-1.5	0.5-5	4	15	-95	-115	-15	28	5, <21
-700	700-800	4+/-1.5	0.5-5	4	20	-93	-113	-20	31	5, <25
-702	650-820	6+/-2	0.5-8	4	23	-96	-114	-10	35	8.4, <25
-730	715-745	5.5+/-1.5	0.5-5	5	7	-94	-113	-15	10	5, <25
-800	800-920	6+/-2	0.5-5	5	20	-92	-113	-15	35	5, <25
-810c	810-850	2+/-2	0.5-5	2	10	-103	-123	-15	12	5, <25
-830	815-845	5+/-2	0.5-5	4	10	-93	-113	-15	9	5, <25
-851	850-875	5.5+/-3	0.5-5	5	12	-93	-113	-10	9	5, <25
-852	815-885	5+/-2	0.5-15	7	15	-93	-113	-10	9	5, <25
-860	840-970	6+/-2.5	0.5-5	4	25	-92	-110	-15	36	5, <25
-900	900-1025	6+/-2	0.5-5	6	25	-91	-110	-15	32	5, <25
-1050	1025-1100	5+/-2	0.5-5	5	20	-90	-110	-15	21	5, <25
-1100	1060-1160	5+/-2	0.5-5	5	23	-90	-110	-15	28	5, <25
-1125	1125-1640	7+/-2	0.1-5	6	25	-92	-111	-15	55	15, <25
-1140	1100-1175	3.5+/-1.5	0.5-5	4	18	-92	-110	-15	22	5, <20
-1200	1200-1440	5+/-2	0.5-6	9	15	-91	-110	-15	60	5, <25
-1350	1300-1430	6+/-2	0.5-5	14	25	-90	-110	-15	52	5, <25
-1400	1350-1500	4+/-1.5	0.5-5	7	25	-90	-110	-12	45	5, <25
-1435	1400-1450	2+/-2	0.5-5	2	5	-96	-116	-12	15	5, <20
-1440	1400-1550	6+/-2	0.5-5	9	20	-90	-110	-10	54	5, <25
-1501	1565-1720	5.5+/-1.5	0.5-5	5	25	-90	-110	-15	55	5, <25
-1502	1525-1575	2.5+/-1	0.5-5	2	15	-90	-108	-15	16	5, <25
-1503	1500-1675	5+/-3	0.5-5	9	20	-90	-108	-15	52	5, <25
-1550	1525-1575	1+/-1	0.5-3	5	15	-87	-105	-15	28	3, <15
-1595	1595-1670	2+/-2	0-8	5	12	-93	-110	-15	10	5, <25
-1651	1625-1660	1.5+/-1	0.5-3	8	18	-87	-105	-15	30	3, <15
-1700	1700-1860	4+/-1.5	0.5-5	5	20	-90	-108	-10	52	5, <25
-1701	1700-1760	1+/-1	0-7	5	15	-96	-114	-20	10	5, <25
-1751	1740-1800	2+/-1	0-7	3.5	8	-95	-113	-15	15	5, <20
-1850	1850-1975	5+/-1.5	0.5-5	5	25	-90	-108	-15	35	5, <25
-1880c	1800-1960	5+/-2	0.5-5	5	8	-100	-120	-14	50	5, <20
-1901	1900-2100	4+/-1.5	0.2-7	7	25	-90	-108	-15	38	5, <25
-1902	1900-2100	4+/-1.5	0.5-5	5	20	-90	-108	-15	52	5, <25
-2001	2000-2200	6+/-1.5	0.5-5	5	20	-92	-110	-15	60	5, <25
-2050	2000-2400	5+/-2	0.5-5	5	20	-86	-104	-15	100	5, <25
-2052	2150-2610	4+/-2	0-5	7	30	-87	-104	-15	113	5, <25
-2100	2100-2300	2+/-1	0.3-5	4	15	-92	-109	-18	49	5, <25
-2152	2125-2275	3+/-1.5	0.5-5	4	20	-92	-109	-18	44	5, <25
-2200	2200-2300	3+/-1.5	0.5-5	7	20	-92	-109	-15	40	5, <25
-2201	2100-2550	2.5+/-1	0.1-0	3	15	-90	-108	-10	50	5, <21
-2300	2250-2380	2+/-1	0.5-5	6	20	-90	-108	-15	29	5, <25
-2350	2350-2600	0+/-1	0.3-5	6	15	-87	-107	-10	53	5, <25
-2401	2400-2500	8+/-2	0.5-5	4	18	-90	-108	-15	35	12, <25
-2402	2400-2500	3+/-1.5	0.5-5	4	15	-92	-111	-15	36	5, <25
-2520	2500-2720	7.5+/-2.5	0.5-10	4	20	-92	-111	-10	37	11, <25
-2600	2600-2750	0+/-1	0.5-5	6	20	-83	-103	-15	44	5, <25
-2920	2925-2975	1+/-2	0.5-4.5	7	20	-88	-108	-15	17	5, <25

Footprint and Mechanical Detail on next page

VOLTAGE CONTROLLED OSCILLATORS

Princeton Electronic Systems, Inc. has three series of low cost Voltage Controlled Oscillators (VCOs). The PVS series includes the VCOs shown below in a subminiature, surface mount package 0.3" x 0.3" x 0.08". The PVF series has the same footprint with a slightly taller package. The miniature PV series is our original line of VCOs at 0.5" x 0.5" x 0.205" with a variety of supply voltages and operating ranges.

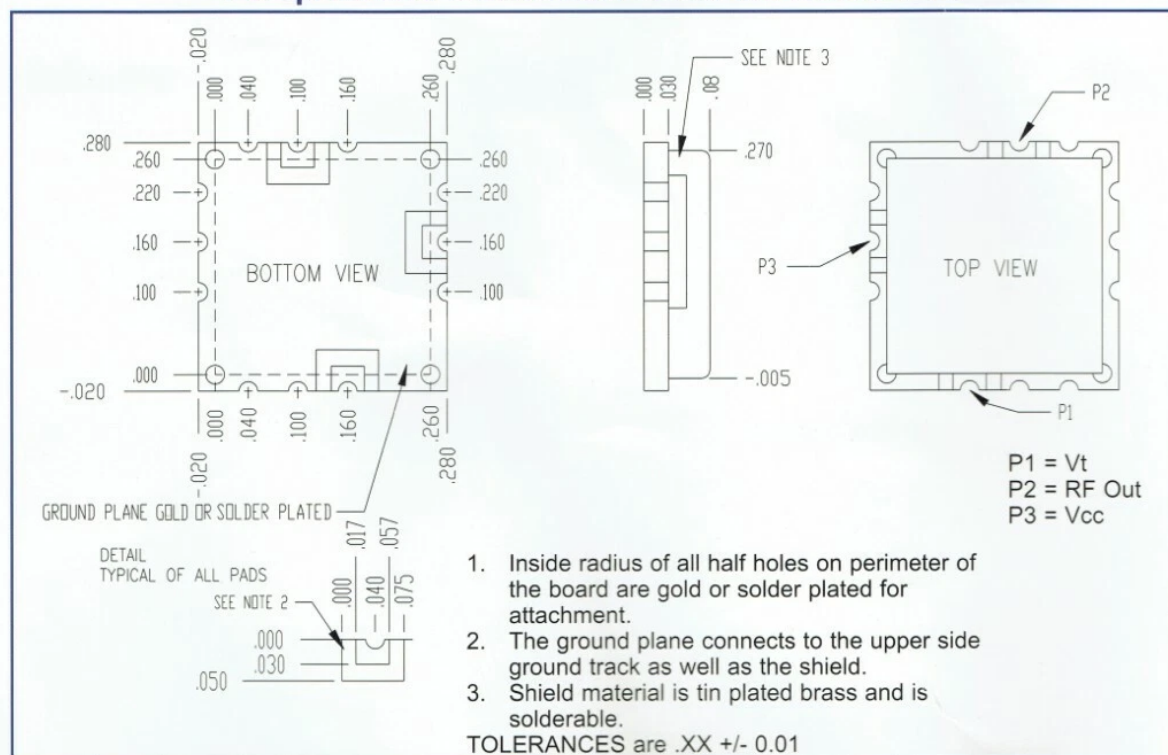
In addition to the standard models listed in this catalog, we provide custom VCOs to your specifications.

VCO PRODUCT SPECIFICATIONS

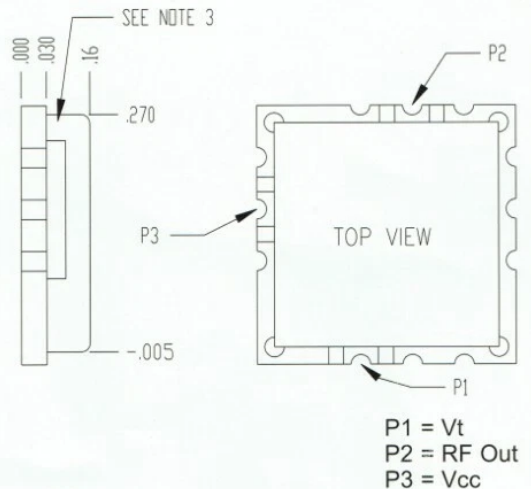
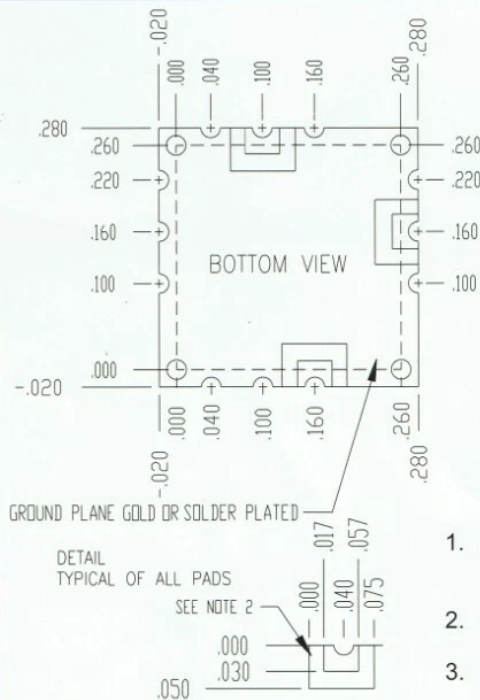
PVS Series Subminiature VCOs:

Part No. PVS	Frequency (MHz)	Output (dBm)	Tuning (V dc)	Pushing (MHz/V)	Pulling 1.75 VSWR (MHz)	Ph. Noise @ 10 K (dBc/Hz)	Ph. Noise @ 100 K (dBc/Hz)	Harmonics (dBc)	Ave. Gain (MHz/V)	Vcc, mA
-1500	1500-1700	6+/-2	0.5-5	12	40	-86	-105	-10	84	3,<18
-1600	1600-1800	6+/-2	0.5-4.5	12	40	-86	-105	-10	80	5,<20
-1700	1700-1900	5+/-2	0.5-5	10	40	-86	-105	-10	80	3,<18
-1701	1700-1900	5+/-2	0.5-4.5	5	30	-88	-106	-10	80	5,<20
-1702	1700-1990	5+/-2	0-5	10	40	-88	-106	-10	85	5,<20
-1900	1900-2100	5+/-2	0.3-4.5	10	40	-84	-102	-10	80	3,<18
-1950	1950-2250	2+/-2	0-3	10	35	-86	-106	-10	155	3,<11
-2101	2050-2250	6+/-2	0.5-4.5	10	30	-85	-103	-15	75	3,<17
-2250A	2210-2600	6+/-2	0.3-3.3	5	10	-85	-105	-18	130	3,<18
-2300	2250-2450	5+/-2	0-5	10	40	-84	-102	-10	65	3,<18
-2351	2320-2500	0+/-2	0.5-2.5	15	35	-84	-103	-10	152	3,<12
-2352	2320-2500	1+/-2	0.5-2.5	15	20	-78	-97	-15	130	3,<20
-2400	2400-2550	4+/-2	0.5-5	10	36	-84	-104	-10	62	3,<18
-2401	2350-2485	7+/-2	0.3-4	22	38	-86	-104	-10	65	3,<18

Footprint and Mechanical Detail for Series PVS

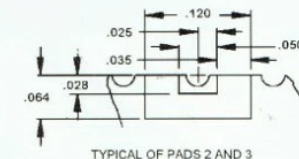
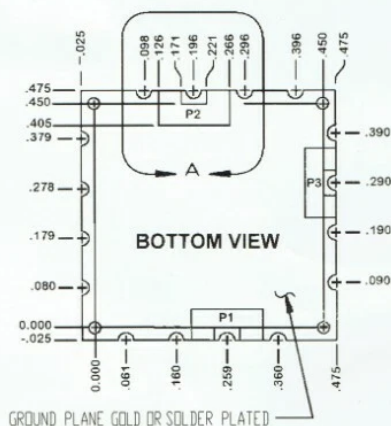


Footprint and Mechanical Detail for Series PVF

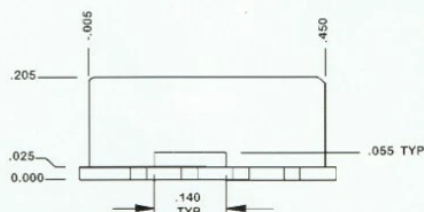
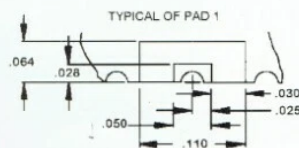


1. Inside radius of all half holes on perimeter of the board are gold or solder plated for attachment.
 2. The ground plane connects to the upper side ground track as well as the shield.
 3. Shield material is tin plated brass and is solderable.
- TOLERANCES are .XX +/- 0.01

Footprint and Mechanical Detail for Series PV



P1 = Vt
P2 = RF Out
P3 = Vcc



1. Inside radius of all half holes on perimeter of the board are gold or solder plated for attachment.
 2. The ground plane connects to the upper side ground track as well as the shield.
 3. Shield material is tin plated brass and is solderable.
- TOLERANCES are .XX +/- 0.01