

### Features

- Low phase noise
- Frequency range 25-6000MHz
- Linear tuning
- Standard SMT package
- 50W Impedance
- RoHS compliant



### Applications

- CDMA, WCDMA, TD-SCDMA Base stations
- CDMA, WCDMA, TD-SCDMA Repeaters
- GSM, EDGE wireless base stations
- Point to point radio

To order

**MVCO 1050**

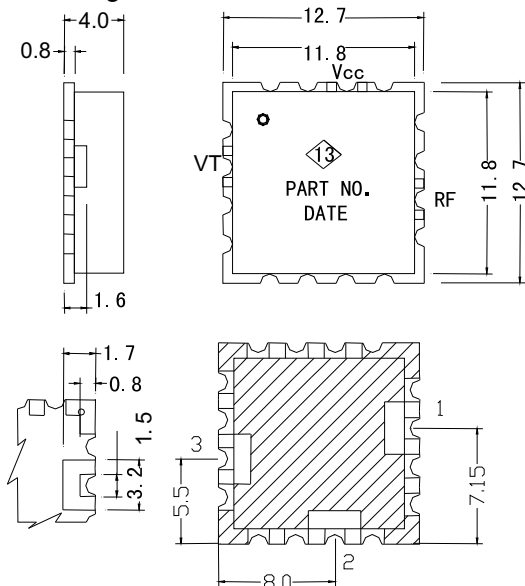
① ②

①: Series name, SMT VCO

②: Centre frequency

### Package

Outline drawing



Pin functions

Pin No .	Function
1	Output RF
2	Power supply V <sub>CC</sub>
3	Tuning port V <sub>T</sub>
Others are ground	

### Absolute Maximum Rating

Parameter	Absolute limit
Supply voltage V <sub>CC</sub>	+6.5V
Min tuning voltage V	0.7V
Max tuning voltage V	+8.0V
Max reflowing temp (10S)	+230°C
Storage Temperature	-45°C ~ +100°C

Notes 1. Operation of device above any one of these parameters may cause permanent damage

2. Electrostatic sensitive device

## MVCO SMT narrow band VCO

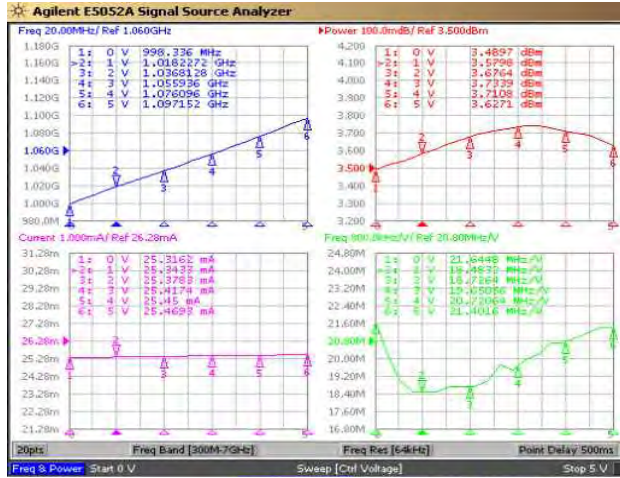


Part number	Frequency range f(MHz)	Output power P <sub>o</sub> (dBm)	Tuning voltage VT(V)	Tuning sensitivity (MHz/V)	Harmonic (dB) Typ	Phase noise S <sub>j</sub> ( dBc/Hz) f <sub>m</sub> = 10KHz Typ	Phase noise S <sub>j</sub> ( dBc/Hz) f <sub>m</sub> =1MHz Typ	Tuning port capacitance C <sub>p</sub> (pF) Typ	Power supply V <sub>cc</sub> (V)	Current I <sub>cc</sub> (mA) max
MVCO070	67—73	0±2	0.5—4.5	3	-10	-120	-162	400	5	15
MVCO150	140—160	0±2	0.5—4.5	6	-12	-118	-162	400	5	15
MVCO190	185—195	0±2	0—5	3	-17	-118	-162	400	5	15
MVCO233	223—243	0±2	0.5—4.5	6	-16	-115	-160	250	3	15
MVCO348	305—392	8±2	0—5	20	-10	-100	-145	200	5	15
MVCO385	360—410	3±3	0.5—4.5	14	-15	-113	-153	200	5	15
MVCO385W	360—410	3±3	0.5—4.5	14	-15	-110	-150	200	5	15
MVCO395A	385—405	0±2	0.5—4.5	9	-10	-118	-156	330	5	13
MVCO460	450—470	4±2	0.5—3.0	13	-16	-110	-150	100	3.3	13
MVCO500D	485—515	0±2	0.5—4.5	13.5	-25	-117	-155	51	5	15
MVCO600D	585—615	0±2	0.5—4.5	12.5	-25	-116	-155	51	5	15
MVCO700D	680—720	0±2	0.5—4.5	15	-25	-116	-155	51	5	20
MVCO760	740—780	0±2	0.5—4.5	12	-15	-113	-155	50	5	15
MVCO825A	780—844	0±2	0.5—4.5	23	-25	-113	-153	51	5	25
MVCO830	810—850	0±2	0.5—4.5	12	-15	-110	-151	50	5	15
MVCO940	920—960	0±2	0.5—4.5	12	-15	-110	-150	50	5	15
MVCO944	921—967	0±2	0.5—4.5	26	-25	-110	-150	51	5	25
MVCO1000D	980—1020	0±2	0.5—4.5	15	-20	-113	-151	51	5	15
MVCO1050	1030—1070	3±2	0.5—4.5	20	-25	-115	-155	51	5	30
MVCO1100D	1080—1120	0±2	0.5—4.5	15	-20	-112	-151	51	5	25
MVCO1200D	1180—1220	0±2	0.5—4.5	18	-25	-112	-151	51	5	25
MVCO1250	1200—1300	0±2	0.5—4.5	30	-15	-105	-145	40	5	15
MVCO1300D	1280—1320	0±2	0.5—4.5	20	-25	-110	-149	51	5	25
MVCO1500	1450—1550	0±2	0.5—4.5	32	-20	-102	-142	40	5	15
MVCO1556	1511—1586	3±2	1.8—4.5	47	-13	-105	-145	51	5	30
MVCO1600	1550—1650	0±2	0.5—4.5	32	-25	-100	-140	40	5	15
MVCO1632	1594—1669	3±2	1.8—4.5	45	-13	-105	-145	51	5	30
MVCO1660	1630—1690	0±2	0.5—4.5	32	-25	-100	-140	30	3.3	15
MVCO1749	1719—1779	3±2	1.8—4.5	39	-13	-107	-147	51	5	30
MVCO1850	1800—1900	0±2	0.5—4.5	32	-25	-100	-140	30	5	15
MVCO1880	1830—1930	3±2	0.5—4.5	39	-15	-105	-145	51	5	35
MVCO1960C	1930—1990	3±2	1.8—4.5	42	-13	-105	-145	51	5	30
MVCO2000A	1867—2131	0±2	0—5	85	-18	-100	-140	20	5	20
MVCO2050	2030—2070	0±1.5	0—3.3	30	-30	-95	-138	20	3	12
MVCO2100	2060—2140	0±2	0.5—4.5	24	-13	-105	-140	25	5	15
MVCO2150	2100—2200	0±2	0.5—4.5	33	-30	-98	-140	25	5	15
MVCO2250	2200—2300	0±3	0.5—4.5	35	-30	-98	-140	25	5	15
MVCO2350	2300—2400	0±2	0.5—4.5	35	-30	-95	-136	25	5	15
MVCO2425W	2360—2480	0±2	0—5	43	-20	-105	-145	50	5	25
MVCO2600W	2530—2670	0±2	0—5	49	-25	-104	-144	50	5	25
MVCO2600	2400—2600	6±2	0.5—4.5	60	-30	-100	-140	20	12	30
MVCO2700	2640—2760	0±2	0—5	36	-15	-103	-143	51	5	30
MVCO3000	2900—3150	0±3	0.5—4.5	80	-25	-95	-135	20	5	25
MVCO3070	3010—3130	0±2	0—5	36	-15	-102	-142	51	5	30
MVCO3180	3080—3280	3±2	0—5	60	-20	-95	-135	20	5	30
MVCO3850	3800—3900	3±2	0—5	38	-20	-95	-135	20	8	30
MVCO4650	4450—4550	0±3	0—5	45	-20	-88	-132	20	8	30
MVCO5200	5080—5160	0±3	0—5	30	-20	-88	-132	20	8	30
MVCO6090	6000—6180	2±2	0—5	65	-20	-86	-130	20	8	30

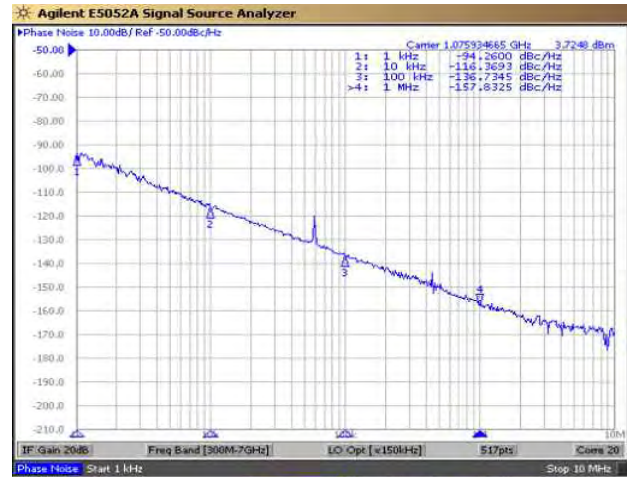
## MVCO Series narrow band VCO



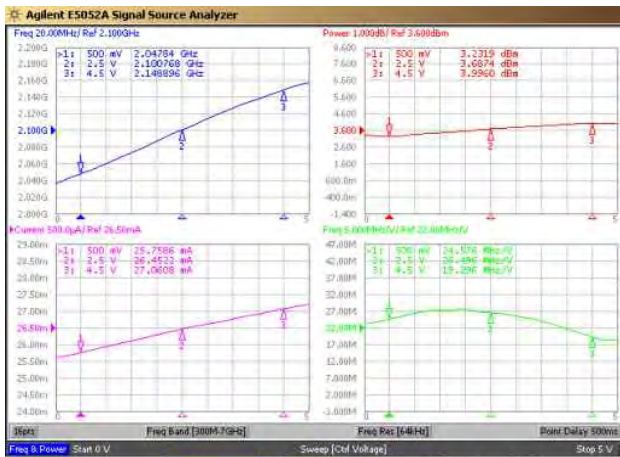
### Typical performance (Measured by Agilent E5052A)



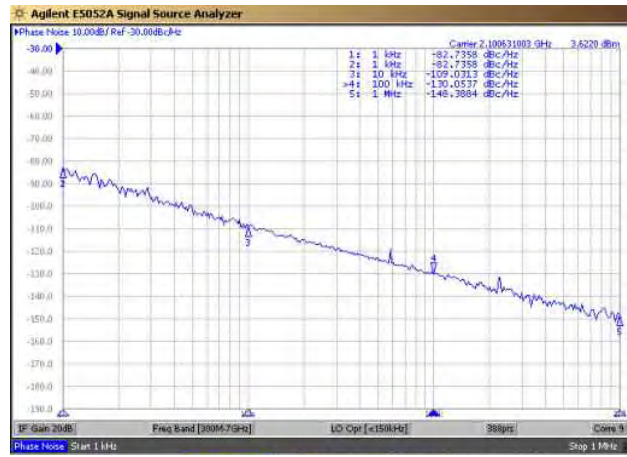
**MVCO1050** Frequency , tuning sensitivity  
Output power and current vs. Tuning voltage



Phase noise of MVCO1050



**MVCO2100** Frequency, tuning sensitivity  
Output power and current vs. Tuning voltage

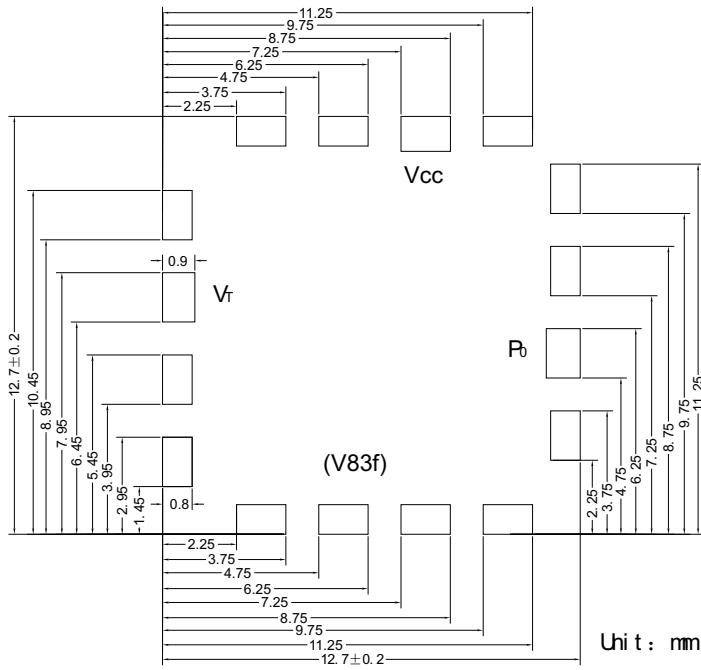


Phase noise of MVCO2100

#### Notes :

1. Custom design available, frequency cover **25~6000MHz**, relative bandwidth **5~30%**.
2. Operating temperature range **-20°C~+70°C**, (**-40°C~+85°C** Available ).
3. SMT package, **12.7×12.7×4.0mm<sup>3</sup>**

PCB land pattern



Recommend reflow profile

