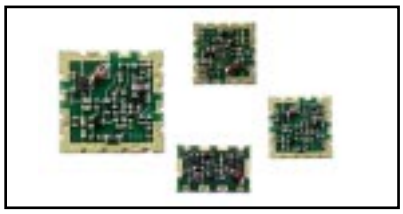
LOW NOISE VCO

Features

This series proposes low noise VCO up to 2.5 GHz

- phase noise: as low as -115 dBc @ 10 kHz from carrier
- frequency range: 70 MHz up to 2250 MHz
- bandwidth: up to 15 %



Description

The high density spectrum with the need of more and more channels in same frequency bandwidth, requires pure signal oscillators. Low noise VCO brings the solution to this problem.

Temex uses different design to lower the noise to the desired performances. Either tuning coils or dielectric resonators are used. Radio links, Base station and military radio are the main applications.

All our parts are manufactured with lead free technology

Electrical characteristics @ 25° C

P/N	Frequency range	Tuning voltage	Phase noise @ 10kHz	Phase noise @ 100kHz	2nd harmonic	RF output power	Power supply	Case type	Pushing	Pulling	Input capa-citance
	MHz min. - max.	V min. - max.	dBc/Hz max.	dBc/Hz max.	dBc max.	dBm typ.	V/mA typ.		MHz/V max.	MHz max.	pF
VLB68	68 - 72	0.5 - 4.5	-115	-133	-15	5	5 @ 25	SM1	±0.20	1.0 @ 2:1	220
VLB70	70	0.5 -4.5	-110	-130	-15	4	5 @ 30	SM1	±0.40	1.0 @ 2:1	15
VLB151	150	0.5 - 4.5	-110	-130	-10	4	5 @ 30	SM1	±0.30	1.0 @ 2:1	200
VLB190	190 - 215	1- 14	-110	-130	-6	4	12 @ 20	SM1	±0.10	2.0 @ 2:1	100
VLB241	240 - 280	1 - 4	-105	-140 @ 1000kHz	-10	3	5 @ 15	SM1	±4.00	6.0 @ 2:1	200
VLB364	364	1 - 4	-112	-150 @ 800kHz	-15	2.5	5 @ 10	SM1	±0.30	0.5 @ 2:1	250
VLB380	380	1 - 4	-110	-148 @ 800kHz	-12	1	5 @ 15	SM1	±0.40	0.6 @ 2:1	220
VLB381	380 - 400	0 - 5	-117	-137	-12	0	5 @ 25	SM1	±0.50	0.6 @ 2:1	220
VLB402	400 - 470	1 - 8	-110	-120 @ 25kHz	-13	0	8 @ 10	SM1	±0.30	1.5 @ 2:1	1000
VLB440	440 - 490	0 - 12	-113	-127	-18	9	12 @ 30	SM1	±0.50	4.0 @ 2:1	120
VLB531	530 - 600	0 - 5	-105	-125	-15	0	5 @20	SM1	±0.50	2.0 @ 2:1	200
VLB580	580 - 642	0 - 5	-105	-125	-15	0	5 @ 20	SM1	±0.40	1.3 @ 2:1	200
VLB610	610 - 620	0.5 - 4.5	-110	-125	-15	4	5 @ 30	SM1	±0.30	2.0 @ 2 :1	150
VBL631	630 - 654	1 - 4	-107	-127	-10	0	5 @ 15	SM1	±0.35	1.5 @ 2:1	47
VLB660	660 - 685	1 - 4	-107	-127	-10	0	5 @ 15	SM1	±0.35	1.5 @ 2:1	47
VLB681	680 - 715	1 - 8	-115	-135	-15	0	8 @ 20	SM1	±0.35	1.5 @ 2:1	47
VLB703	700 - 724	1 - 4	-107	-127	-10	0	5 @ 15	SM1	±0.20	1.5 @ 2:1	150
VLB720	720 - 760	2 - 8	-112	-153 @ 800kHz	-17	3	5 @ 30	SM1	±0.35	0.1 @ 2:1	150
VLB741	740 - 780	0.5 - 4.5	-112	-132 @ 90kHz	-25	3	5 @ 25	SM1	±1.50	2.5 @ 2:1	47
VLB752	750 - 820	1 - 5	-107	-127	-15	-0.5	5 @ 15	SM1	±0.70	0.7 @ 2:1	56
VLB770	770 - 775	1 - 4	-107	-127	-10	0	5 @ 15	SM1	±0.40	2.5 @ 2:1	47
VLR780	780 - 378	1 - 4	-105	-148 @ 800kHz	-15	0	5 @ 30	SM4	±1.00	0.5 @ 2:1	39
VLB790	790 - 815	1 - 4	-107	-127	-10	0	5 @ 15	SM1	±0.50	1.8 @ 2:1	47
VLB841	840 - 864	1 - 4	-107	-127	-10	0	5 @ 15	SM1	±0.25	3.0 @ 2:1	47
VLB870	870 - 893	0.4 - 4.5	-110	-132 @ 125kHz	-20	0	5 @ 25	SM1	±0.20	1.0 @ 2:1	70
VLB930	930 - 956	0.4 - 4.5	-108	-132 @ 125kHz	-20	0	5 @ 25	SM1	±0.30	1.0 @ 2:1	70
VLB961	960 - 982	0.5 - 4.5	-112 @ 25kHz	-130	-12	0	5 @ 22	SM1	±0.30	1.0 @ 2:1	100
VLB1011	1010 - 1045	1 - 8	-106	-145 @ 600kHz	-10	0	5 @ 30	SM1	±0.40	1.0 @ 2:1	150
VLB1081	1080 - 1115	1 - 8	-106	-145 @ 600kHz	-10	0	5 @ 30	SM1	±0.50	1.5 @ 2:1	100
VLB1130	1130 - 1165	1 - 8	-106	-145 @ 600kHz	-10	0	5 @ 30	SM1	±0.50	1.5 @ 2:1	100
VL2-1632	1630 - 1635	0.5 - 4.5	-110	-130	-12	2.5	5 @ 35	SM2	±1.50	2.0 @ 2:1	68
VLB2220	2220 - 2280	1 - 5	-105	-125	-15	8	5 @ 35	SM1	±0.30	7.0 @ 2:1	100
VLB2500	2500 - 2550	1 - 5	-105	-125	-15	8	5 @ 35	SM1	±0.40	10.0 @ 2:1	100

Typical performances @ 1.7 GHz