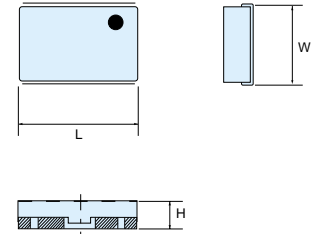




FEATURES

- Compact Package
- Wide Operation Temperature Range(-30℃ ~+80℃)
- Low Power Consumption
- Suitable for Surface Mounted and Reflow Tape-Packaged
- Light Weight
- Low Phase Noise
- Wide Operating Frequency Range



unit: mm

	Length	Width	Height
0.50cc	13.0	10.8	4.1
0.17cc	9.6	9.3	1.8
0.15cc	10.0	7.0	2.5
0.13cc	9.8	7	1.9
0.10cc	8	6	1.8
0.07cc	6	6	1.8
0.05cc	6	5	1.8
0.03cc	TBD	TBD	1.7

*TBD : To Be Discussed

PART NUMBERING SYSTEM

VO U 1635 N 30 XX A

① ② ③ ④ ⑤ ⑥ ⑦

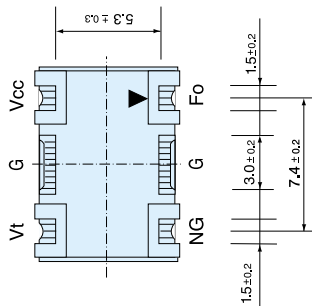
- ①: Abbreviation of Voltage Controlled Oscillator
 ②: Size(N:0.50cc, M:0.15cc, F:0.13cc, U:0.10cc, A:0.07cc, S:0.05cc, E:User spec.)
 ③: Center Frequency(MHz) ex. 1635MHz →1635
 ④: Additional Function { N: No Additional function, M: Modulation, P: Plural band
 H: High power, C: Composite, S: Switching
 ⑤: Operating Voltage(V)
 ⑥: Country Code
 ⑦: Serial Code (A~Z: modification of Design, classification of model and user)

REPRESENTATIVE APPLICATION AND GENERAL ELECTRICAL CHARACTERISTICS

Model	Application	Freq.	Supply Voltage(V)	Output Level	Current	Control Voltage(V)	C/N (Phase Noise)	Harmonics
0.50cc	CLP	457MHz	3.0±0.15	-3±2dBm	≤6mA	0.5~2.5	≤-95dBc/Hz @10KHz offset	≤-15dBc
0.15cc & 0.10cc & 0.05cc	CDMA	967MHz	3.0±0.15	-3±3dBm	≤7mA	0.5~2.5	≤-110dBc/Hz @30KHz offset	≤-10dBc
	US-PCS	1750MHz	3.0±0.15	0±3dBm	≤8mA	0.0~3.0	≤-110dBc/Hz @100KHz offset	≤-10dBc
	K-PCS	1635MHz	3.0±0.15	0±3dBm	≤8mA	0.0~2.5	≤-110dBc/Hz @100KHz offset	≤-15dBc
	DCS1800	1590MHz	2.8±0.15	-3±3dBm	≤7mA	0.5~2.2	≤-110dBc/Hz @100KHz offset	≤-10dBc
	GSM	1166MHz	2.8±0.15	-3±3dBm	≤7mA	0.5~2.2	≤-110dBc/Hz @100KHz offset	≤-10dBc
High Power	GSM	898MHz	2.7±0.1	8±3dBm	≤38mA	0.5~2.2	≤-110dBc/Hz @100KHz offset	≤-10dBc
	DCS1800	1748MHz	2.7±0.1	8±3dBm	≤38mA	0.5~2.2	≤-110dBc/Hz @100KHz offset	≤-10dBc
Dual High Power VCO	Band1 (GSM)	898MHz	2.8±0.1	7±2dBm	≤30mA	0.5~2.2	≤-110dBc/Hz @100KHz offset	≤-15dBc
	Band2 (DCS1800)	1748MHz	2.8±0.1	8±2dBm	≤30mA	0.5~2.2	≤-110dBc/Hz @100KHz offset	≤-15dBc

*All of above characteristics can be modified as per user's request.

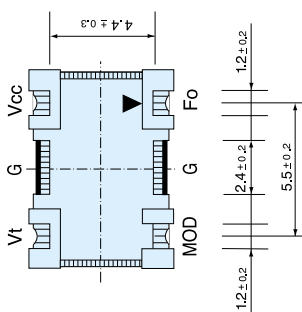
0.15cc VCO



FUNCTIONS

Vt	Tuning Voltage
Vcc	BIAS Voltage
Fo	Output
NC	No Connection
G	Ground

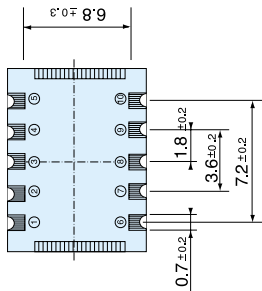
0.10cc High Power VCO



FUNCTIONS

Vt	Control Voltage
Vcc	BIAS Voltage
Fo	Output
MOD	Modulation

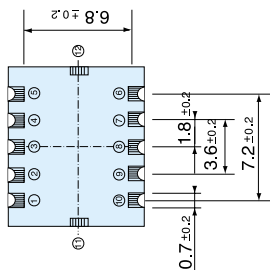
0.17cc Dual Band VCO



FUNCTIONS

①	Control Voltage
②	Ground
③	Ground
④	Ground
⑤	BIAS Voltage
⑥	Ground
⑦	Ground
⑧	Vsw
⑨	Ground
⑩	Output

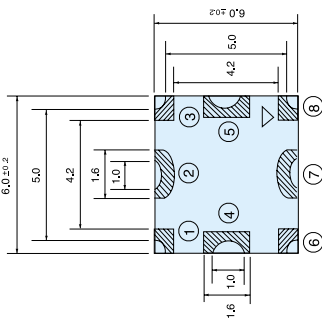
Dual High Power VCO



FUNCTIONS

①	GND
②	GND
③	Control Voltage
④	Power Save
⑤	Power Supply
⑥	Out1(GSM)
⑦	Band Select
⑧	GND
⑨	GND
⑩	Out2(DCS)
⑪	GND
⑫	GND

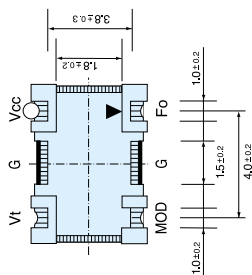
0.07cc VCO



FUNCTIONS

①	Tuning Voltage
②	GND
③	BIAS Voltage
④	GND
⑤	GND
⑥	GND
⑦	GND
⑧	Output

0.05cc VCO



FUNCTIONS

Vt	Tuning Voltage
Vcc	BIAS Voltage
Fo	Output
G	Ground

APPLICATION	SIZE	MODEL	CENTER Freq. (MHz)	OUTPUT LEVEL (dBm)	HARMONICS (dbc)	PIN @100KHz OFFSET	TUNING SENSITIVITY (MHz/V)	Control Voltage (Volt)	Current (mA)	DIMENSION(mm)		
										L	W	H
GSM/DCS	0.13cc	VOF1748C28FRA	898/1748	8±3/10±3	≤-10	≤-162MHz ≤-151MHz	32±8/70±15	0.5-2.3	≤35	9.8	7	1.9
	0.10cc	VOU1483S29FRA	1327/1438	-4±3	≤-10	≤-108MHz	70±15	0.5-2.3	≤10	8	6	1.9
GSM	0.10cc	VOU0898H29KRA	898	8±3	≤-10	≤-110MHz	28±5	0.5-2.5	≤50	8	6	1.9
	0.10cc	VOU1748H29KRB	1748	10±3	≤-10	≤-110MHz	65±15	0.5-2.5	≤50	8	6	1.9
BASE STATION	0.10cc	VOU1722N29USA	1722	-0.5	≤-15	≤-110MHz	50±10	0.5-2.5	≤15	8	6	1.9
	0.10cc	VOU1740N30USA	1740	0±3	≤-10	≤-110MHz	55±10	0.5-2.5	≤8	8	6	1.9
TDMA	0.10cc	VOU1885N30USA	1885	0±3	≤-10	≤-110MHz	55±10	0.5-2.5	≤8	8	6	1.9
	0.05cc	VOA0967N30KRA	967	-1±3	≤-10	≤-110MHz	25±5	0.5-2.5	≤8	6	6	1.8
CDMA	0.10cc	VOU0967N33KRB	967	-2±3	≤-10	≤-110MHz	22±4	0.5-2.5	≤7	8	6	1.9
	0.10cc	VOU2390N30JPA	2390	-6±3	≤-15	≤-100MHz	60±15	0.5-2.5	≤15	8	6	1.9
CLP	0.10cc	VOU0457M30JPA	457	-6±3	≤-15	≤-110MHz	≥7	0.5-2.5	≤10	8	6	1.9
	0.10cc	VOU1221M30JPA	1221	-6±3	≤-15	≤-105MHz	≥20	0.5-2.5	≤12	8	6	1.9