

RF Modules

QVC10 Series

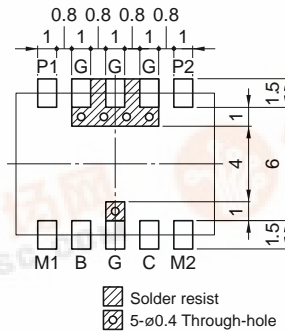
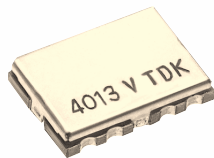
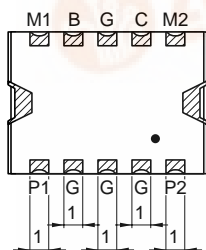
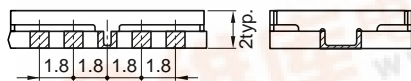
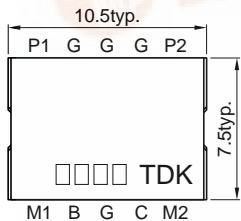
VCOs

For Cellular Phone/Dual Band 10x7

FEATURES

- VCO for mobile communication equipment applications. Roughly 0.7 to 2GHz frequency range, dual mode.
- Area is greatly reduced (18% less area) in comparison to the use of two of the earlier type VCOs (QVC80 series, 8.5×5.5mm).
- Compact, low profile and light weight type (L10.2×W7.5×T1.9mm, 290mg typ.).
- Either single or dual output type for low voltage operation, low power consumption.
- Makes cost reduction possible.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN

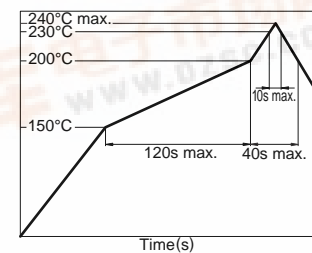


Dimensions in mm

TERMINAL FUNCTIONS

P1	DCS band output
P2	GSM band output
B	Power supply
C	Frequency tuning
M1/M2	Band select
G	GND

RECOMMENDED REFLOW SOLDERING CONDITIONS



ELECTRICAL CHARACTERISTICS

PART NO. : QVC101747RT-4013

APPLICATIONS : GSM/DCS

Measuring conditions : Ta=25±2°C Vcc=2.7V

Application		GSM			DCS		
Parameter	Unit	Min. value	Typical value	Max. value	Min. value	Typical value	Max. value
Oscillation frequency	MHz	880	897.5	915	1710	1747.5	1785
Current consumption	mA	—	10.5	16	—	15	18
Output power[at Fo]	dBm	+3	+4.5	—	+3	+4	—
C/N ratio	dBc/Hz	—	—137	—132	—	—133	—128
[at Fo, Offset frequency=25kHz, B.W.=1Hz]							
Tuning sensitivity [Vt=0.8 to 2.8V]	MHz/V	21	26	31	41	49	57
Frequency pushing [Vcc=3.6±0.2V]	MHz	—	±0.2	±1	—	±0.5	±1.2
Frequency pulling [VSWR=2, all phases]	MHz	—	±0.9	±2	—	±1	±4
Spurious level	dBc	—	—28	—15	—	—15	—10
Operating temperature range	°C	—20	—	+70	—20	—	+70
Storage temperature range	°C	—40	—	+85	—40	—	+85

RF Modules

QVC10 Series

VCOs

For Cellular Phone/Dual Band 10x7

ELECTRICAL CHARACTERISTICS

PART NO. : QVC101615RT-4012

APPLICATIONS : GSM/DCS

Measuring conditions : Ta=25±2°C Vcc=2.5V

Application		GSM			DCS		
Parameter	Unit	Min. value	Typical value	Max. value	Min. value	Typical value	Max. value
Oscillation frequency	MHz	1150	1167.5	1185	1575	1615	1655
Current consumption	mA	—	9	11	—	7	11
Output power[at F ₀]	dBm	−3	0	—	−3	0	—
C/N ratio [at F ₀ , Offset frequency=25kHz, B.W.=1Hz]	dBc/Hz	—	−133	−128	—	−132	−127
Tuning sensitivity [Vt=0.8 to 2.8V]	MHz/V	21	26	31	41	49	57
Frequency pushing [Vcc=3.6±0.2V]	MHz	—	±0.2	±1	—	±0.2	±1
Frequency pulling [VSWR=2, all phases]	MHz	—	±0.6	±2	—	±1.3	±2.5
Spurious level	dBc	—	−30	−15	—	−25	−15
Operating temperature range	°C	−20	—	+70	−20	—	+70
Storage temperature range	°C	−40	—	+85	−40	—	+85

• Company and product names mentioned are registered trademarks.