

RF Modules

QVC12 Series

VCOs

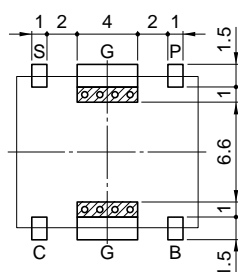
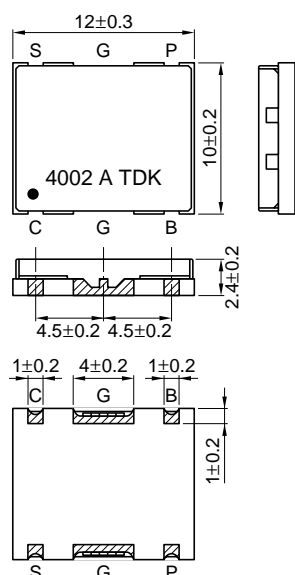
For Cellular Phone/Dual Band 12x10

High Power Type

FEATURES

- VCO for mobile communication equipment TX (sending) applications. Roughly 0.7 to 2GHz frequency range, high power, dual mode.
- Area is greatly reduced (20% less area) in comparison to the use of two of the earlier type VCOs (QVC10 series, 10×7.5mm).
- External switch is not needed because of built-in band switch.
- Compact, low profile and light weight (L12×W10× T2.4mm, 480 mg typ.).
- Single output, low voltage operation type with built-in band switch.
- Makes cost reduction possible.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN(REFLOW)



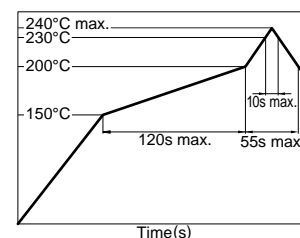
Solder resist
 8-ø0.4 Through-hole

Dimensions in mm

TERMINAL FUNCTIONS

P	Output
B	Power supply
C	Frequency tuning
S	Band select
G	GND

RECOMMENDED REFLOW SOLDERING CONDITIONS



ELECTRICAL CHARACTERISTICS

PART NO. : QVC121747RT-4002

APPLICATIONS : GSM/DCS

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

Application	Parameter	Unit	GSM			DCS		
			Min. value	Typical value	Max. value	Min. value	Typical value	Max. value
	Oscillation frequency	MHz	890	902.5	915	1710	1747.5	1785
	Current consumption	mA	—	33	60	—	36	45
	Output power[at Fo]	dBm	+9	+11	+13	+9	+11	+13
	C/N ratio [at Fo, Offset frequency=25kHz, B.W.=1Hz]	dBc/Hz	—	-108	-104	—	-105	-99
	Tuning sensitivity[Vt=0.8 to 2.8V]	MHz/V	45	50	55	40	50	60
	Frequency pushing[Vcc=3.6±0.2V]	MHz	—	±0.6	±1	—	±0.6	±1
	Frequency pulling[VSWR=2, all phases]	MHz	—	±1.2	±2	—	±1.5	±3
	Spurious level	dBc	—	-20	-15	—	-20	-15
	Operating temperature range	°C	-20	—	+70	-20	—	+70
	Storage temperature range	°C	-40	—	+85	-40	—	+85

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