

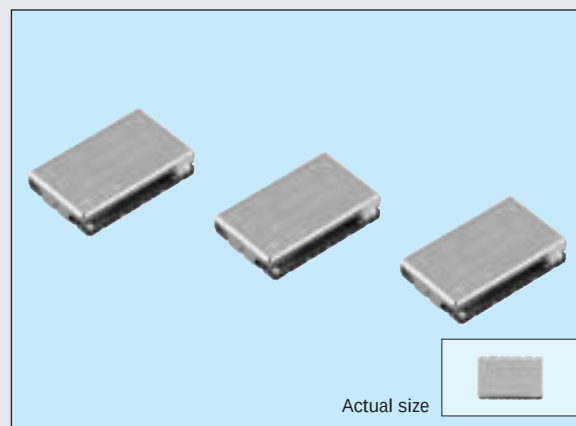
600 MHz band Voltage Controlled SAW Oscillator

EV-3101TA series

Product number (please refer to page 2)

Q3821TA0xxxxx00

- Differential LV-PECL output.
- Very low jitter / low phase noise.
- 10 G or 2.5 G SONET / SDH clock smoothing and Frequency Translation.

**Specifications (characteristics)**

Item	Symbol	Specifications	Remarks
Output frequency range	f_0	600 MHz to 700 MHz	Please contact us for inquiries about the available frequency.
Power Source voltage	Max. Supply Voltage	$V_{CC} - GND$	0 V to 8 V
	Operating voltage	V_{CC}	3.3 V ± 0.165
	Control voltage	V_C	0.15 V to 3.15 V VC pin, 0.15 V to 3.15 V
Temperature range	Storage Temperature	T_{STG}	-40 °C to +85 °C
	Operating Temperature	T_{OPR}	0 °C to +85 °C
Current consumption	I_{OP}	60 mA Typ.	50 Ω to $V_{CC} - 2$ V
Absolute pull range	APR	G : $\pm 50 \times 10^{-6}$ Min. H : $\pm 100 \times 10^{-6}$ Min. *1	
Modulation Characteristics	BW	40 kHz Typ.	Flat to ± 2 dB typical
Input resistance		10 k Ω Typ.	V_C pin
Duty	t_w/t	45 % to 55 %	At outputs crossing point
Output Voltage	V_{OH}	2.28 V Typ.	0 °C to +85 °C
	V_{OL}	1.60 V Typ.	0 °C to +85 °C
Output load	R_L	50 Ω	
Output rise time	t_{RLH}	80 ps Min.	20 % $\rightarrow$ 80% ($V_{OH} - V_{OL}$)
Output fall time	t_{RHL}	350 ps Max.	80 % $\rightarrow$ 20% ($V_{OH} - V_{OL}$)
Phase Jitter	t_{PJ}	0.112×10^{-3} UI Typ.	offset from carrier = 12 kHz to 20 MHz
		0.218×10^{-3} UI Typ.	offset from carrier = 50 kHz to 80 MHz

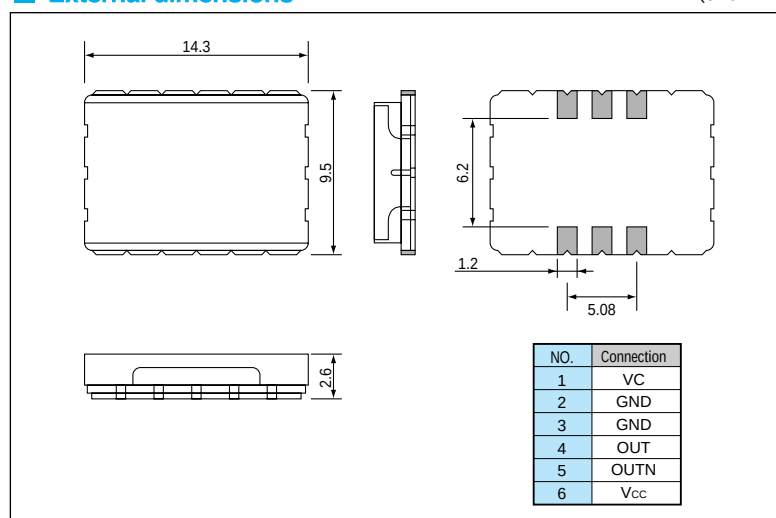
*1 This includes initial frequency tolerance, temperature, supply voltage variation, loading variation and Aging (10 years).

Typical Single Side-Band Phase Noise

Offset from Carrier	100 Hz	1 kHz	10 kHz	100 kHz	Unit	
622.08 MHz	-70	-94	-117	-139	dBc/Hz	$V_C = 1.65$ V

External dimensions

(Unit: mm)

**Recommended soldering pattern**

(Unit: mm)

