



ROHS-Compliant Product

V-700 Series



1. Specification				
Type:	V-710 LVPECL	V-720 LVDS	V-730 LVHCMOS	V-750 HCMOS
Nom. freq. range; $U_C = 1.65V$, $T = 25^\circ C$:	50.0 ... 170.0 MHz		2.0 MHz ... 170.0MHz	
Nominal frequency toler. after reflow:	< ± 15 ppm			
Temperature stability Option 1 v.s. temp. range $-20^\circ C$ to $+70^\circ C$:	V-711 < ± 20 ppm	V-721 < ± 20 ppm	V-731 < ± 20 ppm	V-751 < ± 20 ppm
Temperature stability Option 2 v.s. temp. range $-40^\circ C$ to $+85^\circ C$:	V-712 < ± 30 ppm	V-722 < ± 30 ppm	V-732 < ± 30 ppm	V-752 < ± 30 ppm
Frequency stability vs. supply voltage changes $U_B \pm 5\%$: vs. load changes $\pm 10\%$:	< ± 3 ppm < ± 1 ppm	< ± 3 ppm < ± 1 ppm	< ± 3 ppm < ± 1 ppm	< ± 3 ppm < ± 1 ppm
Aging @ $25^\circ C$:	< ± 3.0 ppm / first year < ± 2.0 ppm / year thereafter			
Frequency control range:	$\geq \pm 100$ ppm			
Control voltage U_C :	0.3 to 3.0 V			0.5 to 4.5 V
Transfer function / Linearity:	positive / 10 %			
Supply voltage U_B :	$3.3 V \pm 5\%$			$5.0 V \pm 5\%$
Current consumption:	≤ 70 mA	≤ 40 mA	≤ 40 mA	≤ 40 mA
Output voltage : load : duty cycle : rise time, fall time 20% ... 80%:	LVPECL 50 Ohm 45% ... 55% 1 nsec	LVDS 100 Ohm 40% ... 60% 1 nsec	LVHCMOS 1k // 15 pF 45% ... 55% 3 nsec	HCMOS 1k // 15 pF 45% ... 55% 3 nsec
Phase jitter 12 kHz ... 20 MHz:	≤ 0.5 psec. RMS			
Temperature ranges Operating Option 1 Operating Option 2 : Operable: Storage:	$-20^\circ C$... $+70^\circ C$ $-40^\circ C$... $+85^\circ C$ $-45^\circ C$... $+85^\circ C$ $-45^\circ C$... $+95^\circ C$			

6	5V HCMOS Option added (V-750)	12.06.06	M. Zupan	KVG Quartz Crystal Technology GmbH P.O.Box 61 D-74924 Neckarbischofsheim Tel. +49 (0) 7263 / 648-0 Fax. +49 (0) 7263 / 6196
5	Duty cycle V-730 series 45/55%	13.10.03	H.-J. Herzog	
4	Phase jitter	17.05.03	H.-J. Herzog	
3	Duty cycle 45/55% @ V-711,V-712	16.06.03	H. Kuntz	
ED	Description	Date	Name	

2. Environmental conditions

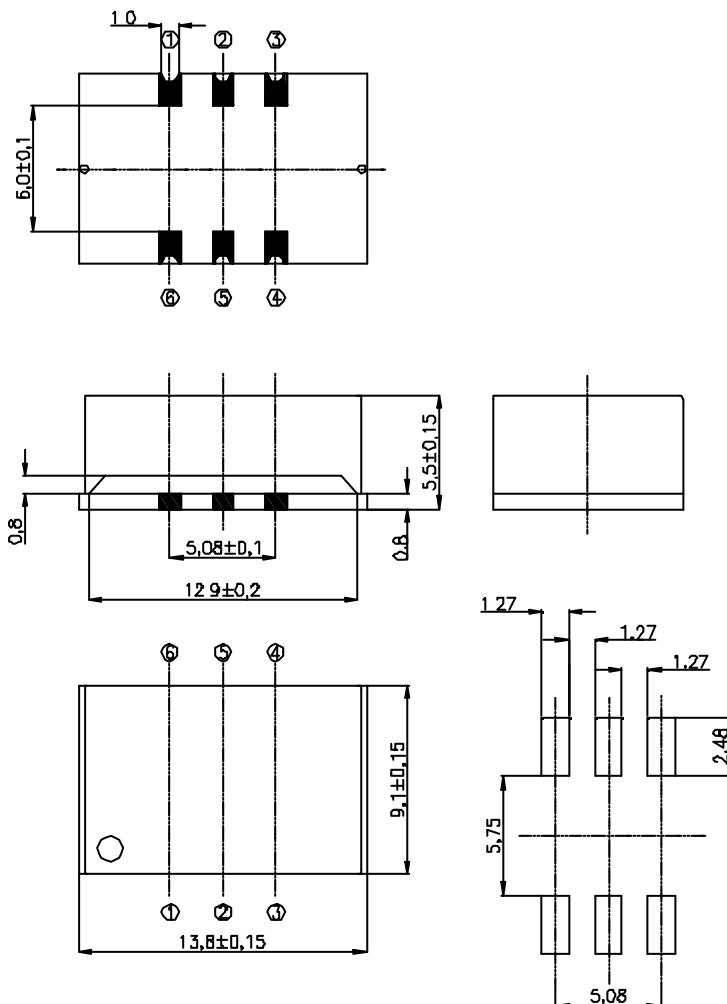
According to KVG Product Qualification Procedure AA-QM-200

3. Marking

Manufacturer's name, date code (week/year); Specification; Nominal frequency

4. Case

Case style: BF -157-5.5D for complement. LVPECL and LVDS



1. Pin configuration

1. Control voltage U_C
2. Output enable/disable
3. Ground case
4. RF-output
5. Complementary RF-output
6. Supply voltage U_B

TriState Function LVPECL:

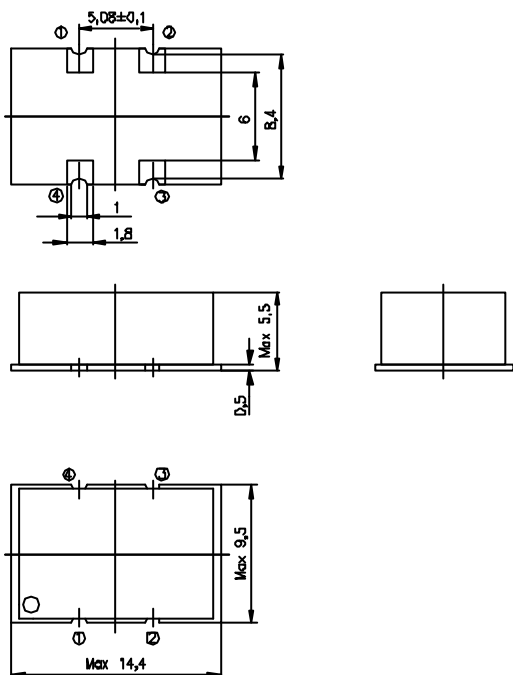
- Pin 2 N.C. or Low : Enable
- Pin 2 High : Disable

TriState Function LVDS:

- Pin 2 N.C. or High : Enable
- Pin 2 Low : Disable

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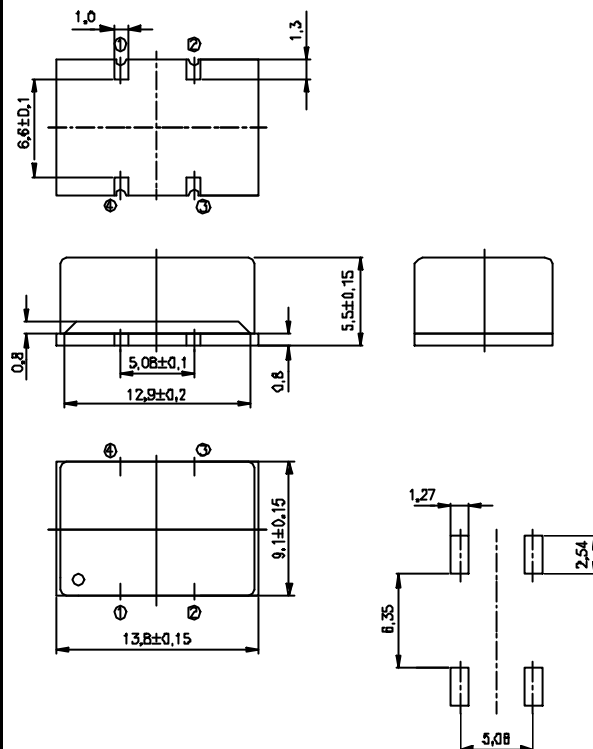
Case style: BF188-5.5
HCMOS / LVHCMOS output 2MHz to 50MHz
(Optional up to 100MHz)



1.Pin configuration

1. Control voltage U_C
2. Ground case
3. RF-output
4. Supply voltage U_B

Case style: BF157-5.5B
HCMOS / LVHCMOS output 50MHz to 170MHz

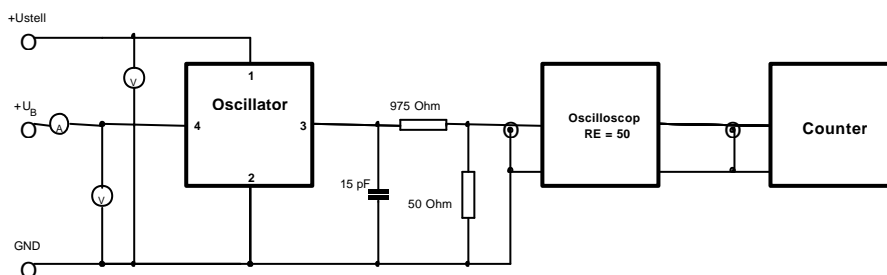


1.Pin configuration

1. Control voltage U_C
2. Ground case
3. RF-output
4. Supply voltage U_B

5. Test circuit

LVHCMOS / HCMOS



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