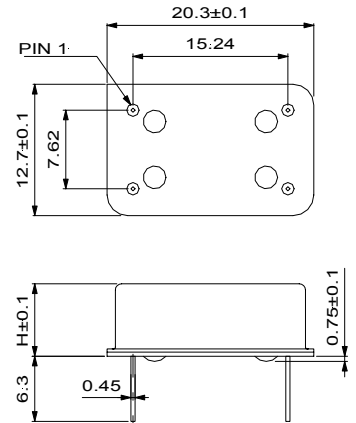


LOW POWER TIGHT SPECIFICATION DIL 14 VCXO DFV 14-KH & DFV 14-MH

KEY FEATURES
<p>1 to 90 MHz</p> <p>Encapsulated crystal</p>
APPLICATIONS
<p>Sonet/SDH/Switching</p>

Function	DFV 14-KH/MH
V control	1
GND	7
Output	8
Vcc	14

H = 7.0 mm (DFV 14-KH type)
H = 8.5 mm (DFV 14-MH type)



TYPE	DFV 14-KH	DFV 14-MH
Frequency Range	1 to 40 MHz	40.1 to 90 MHz

ELECTRICAL SPECIFICATIONS	
supply voltage	5 V ± 5 %
supply current (no load)	≤ 25 MHz : ≤ 10 mA > 25 MHz : ≤ 50 mA
output load (HCMOS)	50 pF up to 25 MHz, 15 pF above
duty cycle	40/60...60/40 % @ 50% level 10 to 90 % : ≤ 10 ns (KH types) : ≤ 5 ns (MH types)
rise/fall times (@ 15 pF load)	: ≤ 5 ns (MH types)
high/low levels	≥ 4.5 V / ≤ 0.5 V
start up	≤ 10 ms @ 4.75 V

FREQUENCY STABILITY			detailed tolerances [ppm]						
type	temperature range	model code	stability versus:				pulling range positive function	control voltage	
			Temp.	@ 25°C	Vcc	load			ageing
all types	0 to 70°C	100B10	$\leq \pm 10$	$\leq \pm 10$	$\leq \pm 3$	$\leq \pm 0.5$	$\leq \pm 2$	$\geq \pm 100$	0.5 to 5.0 V centred @ 2.5 V
		100B15	$\leq \pm 15$						
		100B25	$\leq \pm 25$						
	-40 to 85°C	100E20	$\leq \pm 20$						
		100E25	$\leq \pm 25$						
		100E50	$\leq \pm 50$						
0 to 70°C	250B25	$\leq \pm 25$	$\leq \pm 25$	$\leq \pm 5$	$\leq \pm 1$	$\geq \pm 250$	$\geq \pm 500$	2.5 V ± 2.5 V	
	500B50	$\leq \pm 50$							
	250E75	$\leq \pm 75$							
remarks	model code 100B10 available with DFV 14-KH only								
	input impedance ≥ 10 k Ω								
	modulation bandwidth ≥ 10 kHz @ -3 dB								
	ageing is 1 st year at 25°C								

OPTIONS	CODE	
tight symmetry	R	45/55...55/45 %
control voltage	A	0.5 to 4.5 V, center @ 2.5 V (code placed into the model code : 100"A"B25)
	C	0.5 to 10 V, center @ 4.25 V (code placed into the model code : 250"C"B25)
high load output	DFV 14-KB/MB	HCMOS 50 pF or 10 TTL, Icc ≤ 20 mA up to 25 MHz, ≤ 50 mA above

ORDERING CODE	type + option code + frequency + model code
Example	DFV 14-KHR 34.368 MHz 100E25

LOW VOLTAGE TIGHT SPECIFICATION DIL 14 VCXO DFV 14-LH (3.3 V) & DFV 14-MLH (3.3 V)

KEY FEATURES

2 to 130 MHz

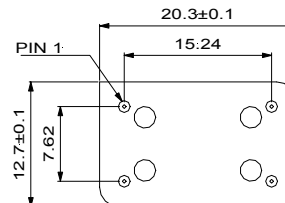
Tight stabilities

Encapsulated crystal

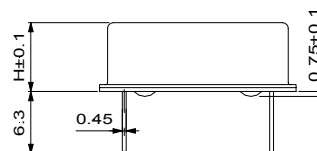
APPLICATIONS

Sonet/SDH/Switching

Function	DFV 14-LH / MLH
V control	1
GND	7
Output	8
Vcc	14



H = 7.0 mm (DFV 14-LH type)
H = 8.5 mm (DFV 14-MLH type)



TYPE	DFV 14-LH	DFV 14-MLH
Frequency Range	2 to 33 MHz	40 to 130 MHz

ELECTRICAL SPECIFICATIONS		
supply voltage	3.3 V ± 5 %	3.3 V ± 5 %
supply current (no load)	≤ 6 mA (F ≤ 25 MHz) ≤ 10 mA (F > 25 MHz)	≤ 50 mA
output load	HCMOS 25 pF (F ≤ 25 MHz) HCMOS 15 pF (F > 25 MHz)	HCMOS 15 pF
duty cycle	45/55...55/45 % @ 50% level	40/60...60/40 % @ 50% level
rise/fall times (@ 15 pF load)	10 to 90 % : ≤ 10 ns	10 to 90 % : ≤ 5 ns
high/low levels	≥ 2.8 V / ≤ 0.5 V	≥ 2.8 V / ≤ 0.5 V
subharmonics and spurious		≤ -40 dBc
start up	≤ 10 ms @ 3.15 V	≤ 10 ms @ 3.15 V

FREQUENCY STABILITY			detailed tolerances [ppm]						
type	temperature range	model code	stability versus:				pulling range positive function	control voltage	
			temp	@ 25°C	Vcc	load			ageing
DFV 14	0 to 70°C	100B15	≤ ± 15	≤ ± 10	≤ ± 3	≤ ± 0.5	≤ ± 2	1.5 V ± 1.5V	
		100B25	≤ ± 25						
		200B50	≤ ± 50	≤ ± 25	≤ ± 5				
	-20 to 70°C	100C20	≤ ± 20	≤ ± 10	≤ ± 3				
		100C30	≤ ± 30						
		200C50	≤ ± 50	≤ ± 25	≤ ± 5				
remarks			input impedance ≥ 10 kΩ						
			modulation bandwidth ≥ 10 kHz @ -3 dB						
			ageing is 1 st year at 25°C						

ORDERING CODE	type + frequency + model code
Example	DFV 14-LH 18.432 MHz 100B15