

# FMVC47 SERIES

5.0 Vdc VCXO

14 PIN DIP



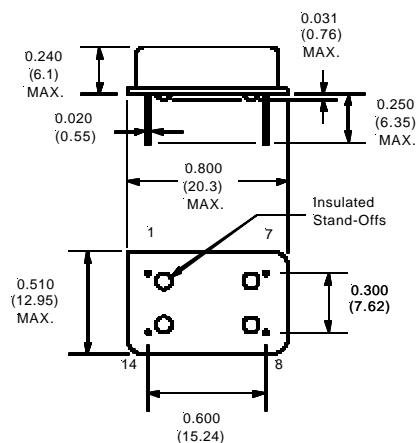
- High Frequency via Multiplier\*
- 5.0 Vdc Supply Voltage
- HCMOS/TTL Compatible
- Lower Cost\*

## SPECIFICATIONS

Parameter	Specification												
Frequency Range	40.0 to 160.0 MHz												
Overall Frequency Tolerance	±20 ppm to ±100 ppm (Inclusive of Operating Temp., Supply Voltage, & Load.)												
Operating Temperature Range	0 to +70 °C Std.												
Storage Temperature	-55 to +125 °C												
Supply Voltage (Vdd)	+5.0 Vdc (±0.5 Vdc)												
Supply Current (Icc)	30 mA max. @ 60.0 to 99.9 MHz 50 mA max. @ 100.0 to 160.0 MHz												
Symmetry (Duty Cycle)	40/60% Std., 45/55% Available. (See Spec. Option S)												
Output "0" Level (Vol)	0.4 Vdc max. (TTL) 0.5 Vdc max. (HCMOS)												
Output "1" Level (Voh)	2.4 Vdc min. (TTL) 4.5 Vdc min. (HCMOS)												
Rise and Fall Time	10 ns max. < 5 ns typical												
Linearity	±20% max. Std. , ±10% Available (See Spec. Option L)												
Output Load	10 TTL / 15 pF HCMOS												
Pullability	±100 to ±150 ppm typical, ±75 to ±300 ppm Available. (Select a min. and max. pullability from part number.) Voltage Control Pin 1 Nom. 2.5 Vdc, Range 0.5 to 4.5 Vdc												
Jitter (typical)	< 25 pico seconds, one sigma												
Phase Noise (typical)	<table> <tr> <td>10 Hz</td><td>-75dBc/Hz</td></tr> <tr> <td>100 Hz</td><td>-105dBc/Hz</td></tr> <tr> <td>1kHz</td><td>-100dBc/Hz</td></tr> <tr> <td>10kHz</td><td>-90dBc/Hz</td></tr> <tr> <td>100kHz</td><td>-95dBc/Hz</td></tr> <tr> <td>1MHz</td><td>-120dBc/Hz</td></tr> </table>	10 Hz	-75dBc/Hz	100 Hz	-105dBc/Hz	1kHz	-100dBc/Hz	10kHz	-90dBc/Hz	100kHz	-95dBc/Hz	1MHz	-120dBc/Hz
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Control Voltage (Vc)	Nominal 2.5 Vdc, Range 0.5-4.5 Vdc, Positive Transfer												
Aging @ 25 °C	±3 ppm max first year												

All specifications subject to change without notice.

FULL SIZE 14 PIN DIP



PIN FUNCTION TABLE

Pin	Function
1	Control Voltage (Vc)
7	Case Ground
8	Output
14	Supply Voltage (Vdd)

NOTE : Waveforms & Test Circuits on pages 48, 49

Standard Specifications for product indicated in color

Dimensions:  $\frac{\text{Inches}}{\text{(mm)}}$

## PART NUMBERING SYSTEM

MARKING: See Page 57, Format G

<b>Product Family</b> HCMOS/TTL Compatible 5.0 Vdc VCXO via Multiplier Full-Size 14 Pin DIP	<b>FMVC47 50 C G A S / L - XXX.XXXXXXM - CM</b>	<b>Options</b> GW- Gull Wing PD - Parameter Data CM - Custom Mark BLANK - None Req'd.
<b>Overall Frequency Tol.</b> 00 - ± 100 ppm 50 - ± 50 ppm 25 - ± 25 ppm 20 - ± 20 ppm nn - ± Custom Value	<b>Min. Pullability</b> B - ± 75 ppm C - ± 100 ppm D - ± 125 ppm E - ± 150 ppm X - Custom Z - No Spec.	<b>Temp. Range</b> A 0 to 70 °C B -20 to 70 °C C -40 to 85 °C D -10 to 50 °C E -10 to 60 °C F -30 to 60 °C J 0 to 50 °C X - Custom
	<b>Max. Pullability</b> C - ± 100 ppm D - ± 125 ppm E - ± 150 ppm F - ± 175 ppm G - ± 200 ppm X - Custom Z - No Spec.	<b>Frequency (MHz)</b> S - Tight Symmetry (45/55%) Duty Cycle L - Linearity ±10% Max. BLANK None Required (Std.)



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