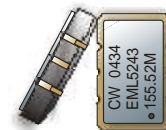


# CRYSTAL CONTROLLED OSCILLATORS

## SURFACE MOUNT 3.3V PECL CLOCK



### EML5243

#### ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-55	-	125	°C	
Supply Voltage	(Vcc)	-0.5	-	7.0	Vdc	

#### OPERATING SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Center Frequency	(Fo)	19.44	-	200	MHz	
Total Frequency Tolerance		-50	-	50	ppm	1
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vcc)	3.135	3.3	3.465	Vdc	
Supply Current	(Icc)	-	-	60	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	
SSB Phase Noise at 10Hz offset		-	-60	-	dBc/Hz	
SSB Phase Noise at 100Hz offset		-	-90	-	dBc/Hz	
SSB Phase Noise at 1KHz offset		-	-100	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-125	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-135	-	dBc/Hz	

#### PECL OUTPUT CHARACTERISTICS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	50	Ohms	2
Voltage (High)	(Voh)	2.275	-	-	Vdc	
Voltage (Low)	(Vol)	-	-	1.68	Vdc	
Duty Cycle		45	50	55	%	3
Rise / Fall Time 20% to 80%		-	-	1	nS	

#### PACKAGE CHARACTERISTICS

TABLE 4.0

Package	Hermetically sealed, ceramic package with gold plated J leads.
---------	--

#### Notes

- 1) Includes calibration, stability vs. temperature, supply and load variations, shock, vibration and aging (10 years).
- 2) Output must be terminated into 50 ohms to Vcc - 2V or Thevenin equivalent.
- 3) Duty Cycle measured at 1.977V

#### DESCRIPTION

The Connor-Winfield EML5243 is a fixed frequency surface mount Crystal Controlled Oscillator (XO) designed for applications requiring low jitter and tight Frequency stability. Operating at 3.3V supply voltage, the EML5243 provides LVPECL compatible outputs.

#### FEATURES

3.3V OPERATION

LVPECL DIFFERENTIAL OUTPUTS

LOW JITTER <1pS RMS

OVERALL FREQUENCY TOLERANCE:  
±50ppm

TEMPERATURE RANGE:  
0 to 70°C

SURFACE MOUNT PACKAGE

TAPE AND REEL PACKAGING

#### ORDERING INFORMATION

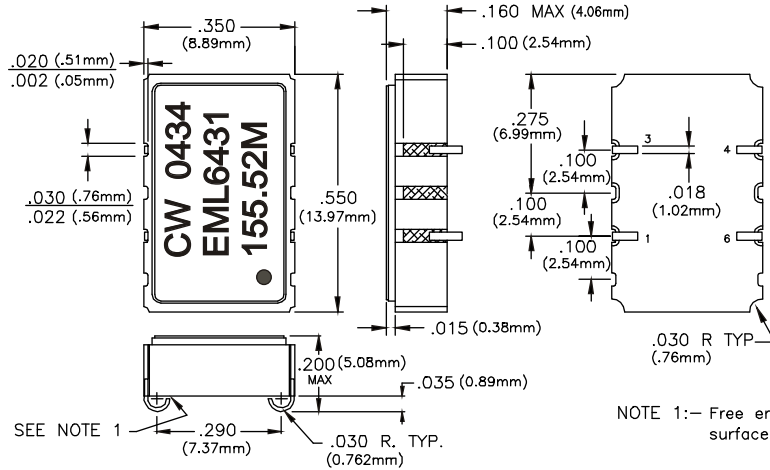
EML5243 - 155.52MHz

PECL  
SERIES

CENTER  
FREQUENCY

Specifications subject to change without notice.

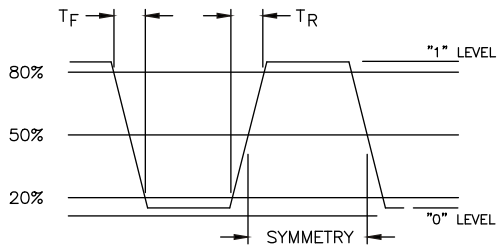
CRYSTAL CONTROLLED OSCILLATORS



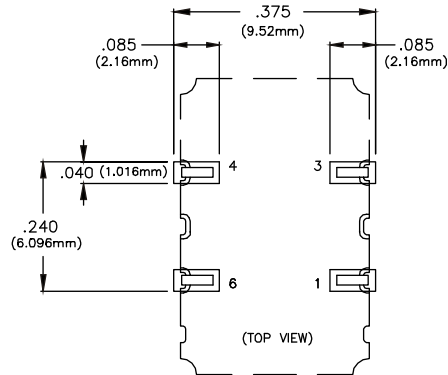
**TABLE 5.0**

Pin	Connection
1	Q Output (comp)
2	Ground
3	Q Output
4	Vcc

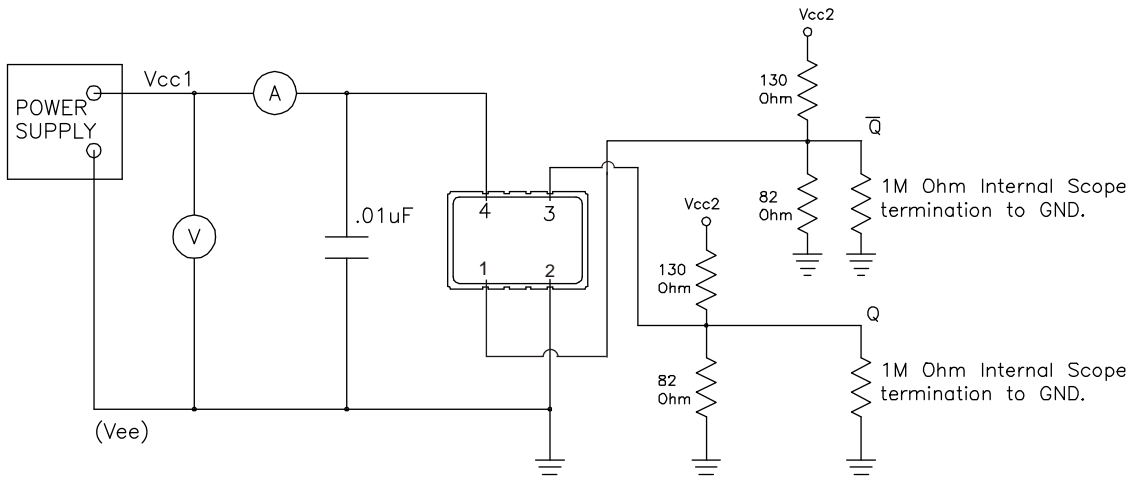
OUTPUT WAVEFORM



SUGGESTED PAD LAYOUT



TEST CIRCUIT



Specifications subject to change without notice.