



## CUSTOMER PRODUCT SPECIFICATION

Z-COMM Part Number CRO1877A-LF Page 1/2

CPS Number 2523 Revision Level A

0.546" x 0.866 VCO, FR= 1835 -1920 MHz, Vt= 0.5 -4.5 Vdc

### Description

The following details the **preliminary specification** for a Voltage Controlled Oscillator centered at 1877.5 MHz with 85 MHz nominal tuning range.

The part number will be referred to as CRO1877A-LF

### Application Notes

1. Please refer to application notes AN-101, AN-102 and AN-107 for additional information on proper layout, grounding and soldering of Z-COMM VCOs.
- 2.
- 3.

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### Specifications

Unless otherwise stated, test conditions are at ambient operation conditions and under a 50 ohm load

Parameter	Test Condition	Units	Min.	Typ.	Max.
Frequency Range	FR>=Fmin@VT(min) FR<=Fmax@VT(max)	MHz	1835		1920
Tuning Voltage	All operating conditions	Vdc	0.5		4.5
Output Power	1835 MHz < Fout < 1920 MHz, 50 Ω load	dBm	3	5	7
Tuning Sensitivity (Kvco)	1835 MHz < Fout < 1920 MHz	MHz/V		25	
Harmonics	1835 MHz < Fout < 1920 MHz	dBc		-15	
Non-Harmonics	0 MHz < Fout < 3000 MHz	dBc			-90
Pulling	VSWR= 1.7 :1, 0 to 2II (shorted line)	MHz			5
Pushing	4.7 Vdc < Vcc < 5.3 Vdc	MHz/V			5
Control Line Capacitance	0.5 Vdc < Vtune < 4.5 Vdc	pF			50
Phase Noise	1 kHz offset, all operating conditions, 1 Hz bandwidth	dBc/Hz		-87	
Phase Noise	10 kHz offset, all operating conditions, 1 Hz bandwidth	dBc/Hz		-112	
Phase Noise	kHz offset, all operating conditions, 1 Hz bandwidth	dBc/Hz			
Phase Noise	kHz offset, all operating conditions, 1 Hz bandwidth	dBc/Hz			
Phase Noise	MHz offset, all operating conditions, 1 Hz bandwidth	dBc/Hz			
Supply Voltage	All operating conditions	Vdc	4.75	5	5.25
Supply Current	Vcc= 5 Vdc	mA		25	
Operating Temperature	Ambient Case Temperature	°C	-40		+85

### Notes

Base off of CRO1940A. Lead free version.  
Special bigger size.

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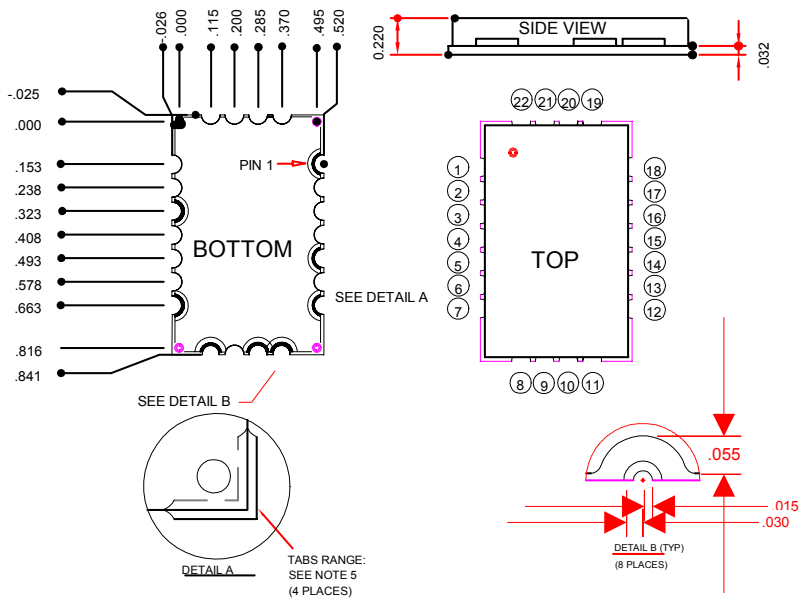
**CPS Number 2523**

**Revision Level A**

0.546" x VCO, FR= 1835-1920MHz, Vt= 0.5- 4.5Vdc

**Mechanical**

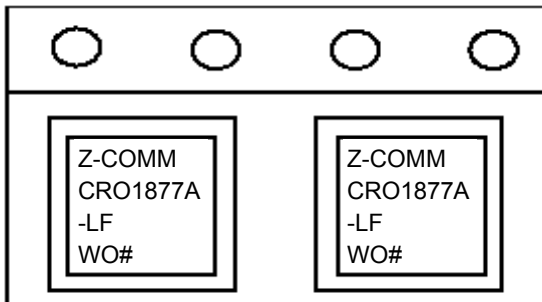
Package Style: 0.546" x 0.866



1. The inside radius of all 24 half holes at the perimeter of the board are plated to provide a surface for the attachment of the PLL Module to the PCB. 16 pads are for grounding, 8 pads are for signal interface.
2. The surface of the shield is tin-plated and may be soldered to. The shield's base metal is cold-rolled steel.
3. The ground plane on the bottom side is ground and attaches to a ground track on the top side of the board as well as to the shield.
4. Unless otherwise noted all dimensions are in inches.
5. Unless otherwise noted all tolerances are as follows: .xxx = ± .010.

Orientation, Marking & Placement of the VCO into Tape

**Package Footprint**



**Packaging**

*This device shall be available in tape/reel or bulk packaging: please consult factory for minimum order and other details on mechanical dimensions for reels.*

Customer	Daito Electron Co., LTD.	Customer Approval	<input type="text"/>
Contact	Masahito Kimura	Customer SCD	R & K
Date of Origin	November 1, 2005	Last Revised	1/9/2006
Originator	Ajay Saini	Z-COMM Eng. Review	<input type="text"/>