

Voltage-Controlled Oscillator

CURRENT SOURCE

$$V_c + V_{ref} - I_{src}R_{sense} = V_{ref} + \Delta V_c$$
$$I_{src} = (V_c - \Delta V_c)/R_{sense}$$

0.51Vc
RV1 10k
-0.51Vc
SW1 CAL

SYMMETRY OFFSET CALCULATOR

CURRENT SINK

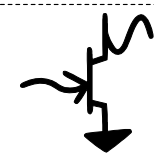
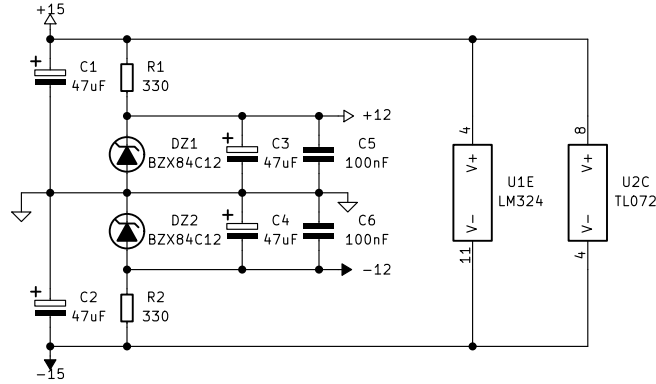
$$V_c - V_{ref} = I_{sink}R_{sense} - V_{ref} - \Delta V_c$$
$$I_{sink} = (V_c + \Delta V_c)/R_{sense}$$

CURRENT BRIDGE

BUFFER

INTEGRATING CAPACITOR

U3
COMPARATOR
V+
V-
GND



c4757p.com/projects/fungen		
Chris Pavlina		
File: VCO.sch		
Sheet: /VCO/		
Title: FG-1 VCO		
Size: USLegal	Date: 4 oct 2013	Rev:
KiCad E.D.A.		Id: 2/3