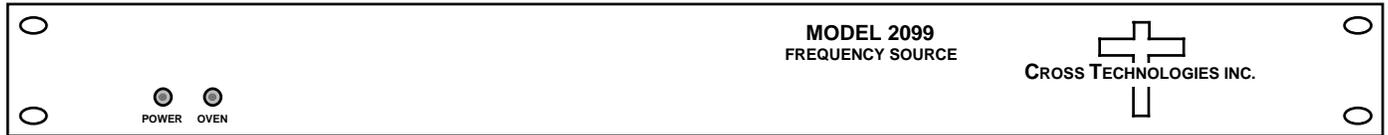




2099-100 100MHz Reference

The 2099-100 100 MHz Reference provides two 100 MHz outputs from a ± 0.1 ppm high stability oven controlled crystal oscillator. Front panel LEDs provide indication of DC power and oven warm-up. The level is +9 dBm and the 2099-100 works into either a 75 or 50 ohm load. Connectors are BNC female. A relay contact closure or open indicates when the oscillator oven is stabilized. The unit is powered by a **100-240 $\pm 10\%$ VAC** power supply; and housed in a 1 3/4" X 19" X 14" rack mount chassis.



Front Panel

EQUIPMENT SPECIFICATIONS*

Output Characteristics

Number of outputs 2
 Impedance 50 Ω or 75 Ω
 Return Loss >18 dB
 Frequency 100.0000 MHz
 Output Level +9 \pm 1 dBm
 Harmonics < -30 dBC, < -40 typ.
 Spurious < -75 dBC

Oscillator Stability

Over temperature ± 0.1 ppm max 0 $^{\circ}$ C to +50 $^{\circ}$ C
 Aging, per day ± 0.01 ppm
 Aging, per year ± 0.5 ppm
 Warm up, in 4 minutes ± 1.0 ppm
 Warm up, in 1 hour ± 0.1 ppm
 Mechanical adjustment ± 1 ppm

Oscillator Phase Noise

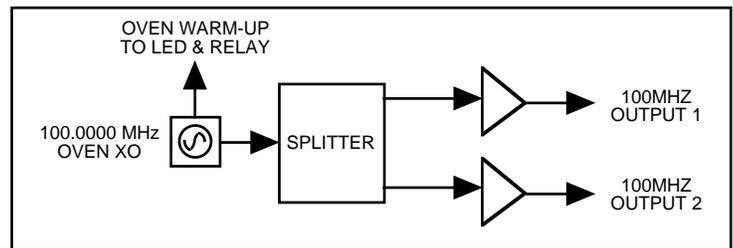
Phase Noise @ Freq	10Hz	100Hz	1kHz	10 kHz
dBC/Hz	-90	-125	-145	-155

Controls, Indicators

Power Green LED
 Oven Warm Up Yellow LED, External contact closure

Other

100 MHz Connectors BNC (female)
 Connector, Alarm DB9 - NO or NC contact closure on Alarm
 Size 19 inch standard chassis 1.75" high X 14.0" deep
 Power 100-240 $\pm 10\%$ VAC, 47 - 63 Hz, 20 watts max.



Block Diagram

*10 $^{\circ}$ C to 40 $^{\circ}$ C; Specifications subject to change without notice