2099-25XX Frequency Source

The Model 2099-25XX Frequency Source provides four (xx=04), eight (xx=08) or twelve (xx=12) 25 MHz reference outputs from a 0.03 ppm high stability oven controlled crystal oscillator (OCXO). Front panel LEDs indicate alarm (red), oven warm-up (yellow), remote (yellow), and power from the two redundant power supplies (green). The output level is +13 dBm (max), and the 2099-25XX works into either a 75Ω or 50Ω load. An available External Reference option (Option E) provides an external reference input which can be used to lock the internal 25 MHz source to a high stability external reference. An LCD display shows the 25 MHz output level (or pass-through gain, mode setting and lock reference frequency (Option E)). Connectors are 50/75 Ohm BNC female. A relay contact closure or open indicates when an alarm occurs. The 2099-25XX is housed in a 1RU rack mountable chassis, and is powered by redundant power supplies fed by separate fused 100-240 ±10% VAC AC input connectors. An RS232/422/485 (selectable) M&C interface provides remote control of the unit.

EQUIPMENT SPECIFICATIONS*

Output Characteristics
- Number of outputs: 4, 8 or 12 (including monitor)
- Impedance: 50Ω/75Ω
- Return Loss: >18dB
- Frequency: 25.0000 MHz
- Level, adjustable (int ref): -7 dBm to +13 dBm
- Spurious: < -75 dBC

External Reference Input Characteristics
- Impedance: 50Ω/75Ω
- Return Loss: >18dB
- Level: +3 dBm ± 3 dB

Oscillator Characteristics
- Over temperature: ± 0.03 ppm max 0°C to +50°C
- Aging: ± 0.001 ppm per day; ±0.1 ppm per year
- Warm up: ± 0.1 ppm in 4 minutes; ±0.01 ppm in 1 hour
- Tuning Adjustment: ± 1 ppm
- Phase Noise (dBC/Hz): ≤ -110 @ 10Hz; ≤ -140 @ 100Hz; ≤ -155 @ 1kHz; ≤ -160 @ 10kHz

Controls, Indicators
- Output Level Adjust: direct readout LCD; push-button switches or remote selection
- Power: Green LEDs
- Remote: Yellow LED, RS232C/422/485
- Oven Warm-Up: Yellow LED
- Alarm: Red LED, External contact closure

Other
- 10 MHz Connectors: BNC (female), 50Ω/75Ω impedance
- Alarm/Remote Connector: DB9 (female) - NO or NC contact closure on Alarm
- Size: 19 inch standard chassis 1.75” high X 12.0” deep
- Power: Redundant 100-240 ±10% VAC, 47 - 63 Hz, 45 W max. power supplies

Options
- E: External Reference Input (includes INTERNAL, EXTERNAL LOCK, and EXTERNAL LOCK-AUTO modes)

*10°C to 40°C; Specifications subject to change without notice