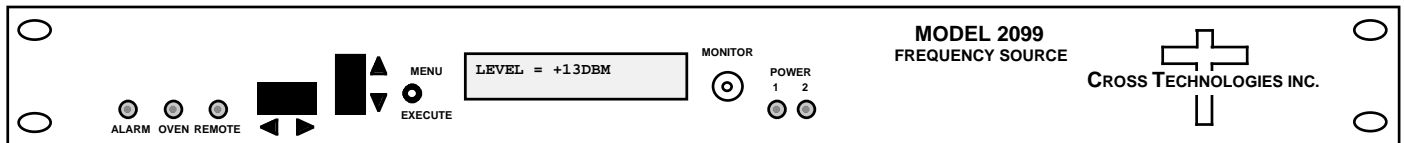


2099-25XX Frequency Source

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.



2099-25XX

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
Harmonics	< -30 dBC, < -40 typ.
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

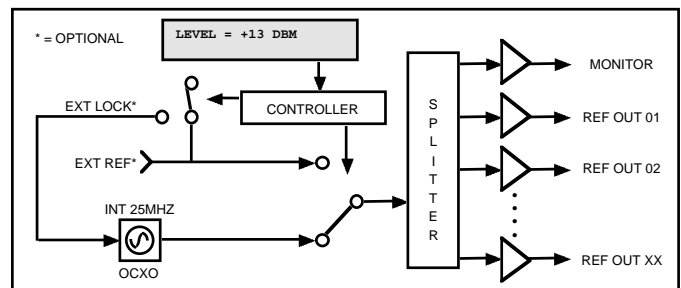
Output Level Adjust	direct readout LCD; push-button switches or remote selection
Power	Green LEDs
Remote	Yellow LED, RS232C/422/485
Oven Warm-Up	Yellow LED
Alarm	Red LED, External contact closure

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)
---	---



2099-25XX BLOCK DIAGRAM

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

