## SPECIFICATIONS

| Frequency | Range: | 0.100 000 MHz to 309.999999 MHz |
| :---: | :---: | :---: |
|  | Resolution: | 1 Hz |
|  | Accuracy: | same as frequency standard |
|  | Control: | manual by 10-position dial; remote by TTL-level parallel entry BCD or GPIB (optional) |
| Switching Time |  | (to within 0.1 radian at new frequency) |
|  | $100 \mathrm{MHz}-10 \mathrm{MHz}$ digit: | $20 \mu$ seconds |
|  | 1 MHz digit: | $5 \mu$ seconds |
|  | $100 \mathrm{KHz}-1 \mathrm{~Hz}$ digit: | $<1 \mu$ second transient, $2 \mu$ second delay, phase-continuous |
| Output | Level: | +3 to $+13 \mathrm{dBm}(1 \mathrm{~V}$ max, $50 \Omega$ ), metered in dBm and volts (rms) |
|  | Flatness: | $\pm 0.5 \mathrm{~dB}$ |
|  | Impedence: | $50 \Omega$ |
|  | Control: | manual by front panel control; remote by analog voltage |
| Spurious |  | (at full power output, +13 dBm ) |
| Outputs |  | Type $1 \quad$ Type 2 |
|  | Discrete: | $-65 \mathrm{dBc} \quad-60 \mathrm{dBc}$ |
|  | Harmonics: | $-30 \mathrm{dBc} \quad-30 \mathrm{dBc}$ |
|  | Phase Noise: | -68 dBc $\quad-63 \mathrm{dBc}$ |
|  |  | ( 0.5 Hz to 15 KHz ) including the effects of internal standard |
|  | £ (1Hz): | $100 \mathrm{~Hz} /-105 \mathrm{dBc}, 1 \mathrm{KHz} /-115 \mathrm{dBc}, 10 \mathrm{KHz} /-123 \mathrm{dBc}, 100 \mathrm{KHz} /-127$ dBc |
|  | Noise Floor: | $-135 \mathrm{dBc} / \mathrm{Hz}$ |
|  | Optional Phase Rotation: | $0^{\circ}, 90^{\circ}, 180^{\circ}, 270^{\circ}$ in $90^{\circ} 0-360^{\circ}$ in $.225^{\circ}$ steps steps |
| Frequency Standard | Internal: | OCXO or TCXO |
|  |  | $3 \times 10^{-9} /$ day $\quad 1 \times 10^{-8} /$ day |
|  |  | $\pm 1 \times 10^{-8} / 0-50^{\circ} \mathrm{C} \quad \pm 1 \times 10^{-6} / 0-50^{\circ} \mathrm{C}$ |
|  |  | $1 \times 10^{-6} /$ year $2 \times 10^{-6} /$ year |
|  | External Drive: | $10 \mathrm{MHz}, 0.4 \mathrm{Vrms}$ into $50 \Omega$; $5 \mathrm{MHz}, 0.5 \mathrm{Vrms}$ into $50 \Omega$ |
|  | Aux. Output: | $10.000 \mathrm{MHz}, 0.4 \mathrm{Vrms}$ into $50 \Omega$ <br> (Note: internal or external standard required for operation) |
| General | Operating Ambient: | 0-55 ${ }^{\circ} \mathrm{C}, 95 \%$ R.H. |
|  | Power: | 105-125V, 50-400 Hz, 40W (100, 220, 240V optional) |
|  | Dimensions: | $19 \times 3.5 \times 17.5$ inches (relay rack or bench cabinet) |
|  | Weight: | 20 lbs . |
| Pricing (USA domestic) |  | \$5,875 (Type 1) or \$5,300 (Type 2) plus any other options |



