



Variable Frequency Driver Specification

The VFE-XX-YY-DSP1kHz-B2-F7-X is a variable frequency driver operating from 40 MHz to 60 MHz. The frequency adjustment is done via front panel switches with a 1 KHz step size. The output RF power is ~7 Watts optimized for maximum performance of the AO device. A TTL-compatible modulation input is provided to turn "off" the mode-locking function. Also, using the "return voltage read-out" output can identify the resonant or non-resonant frequencies. At resonant frequency, most of the RF energy entering the crystal is absorbed and the minimal back reflection is monitored using this port.



Driver Model #	VFE-XX-YY-DSP1kHz-B2-F7-X
Frequency Range	XX MHz (compatible with the AO device)
Frequency Resolution	1 - 2 KHz
Harmonic Content	≤ - 20 dBc
Frequency Stability	15 minute warm-up, temperature stabilized, Crystal Oscillator referenced
Output Power (Watt)	Power is optimized for peak efficiency with supplied A-O device.
Output Protection	Power amplifiers used will tolerate an infinite V.S.W.R. without damage. Rated power is available only when a proper RF load is connected.
Rise/Fall Time	To match AO Frequency Shifter requirements
Modulation Input	To match AO Frequency Shifter requirements
Modulation Input	Analog amplitude modulation 50 Ω; 0-1 V or TTL-compatible 330 Ω; 0-5 V
Operating Power	90-240 VAC, 50-60 Hz, 55 Watts max.
Enclosure	The unit will be packaged in a 190 mm (7.5 inch) wide by 100 mm (4 inch) high by 220 mm (8.75 inch) deep instrument case. The rear panel heat sink increases the depth to a maximum of 270 mm (10.5 inches). The size is exclusive of connectors.
Environmental	Nominal Laboratory Conditions: The maximum temperature is +35° C. The unit is not sealed against moisture or condensing humidity.