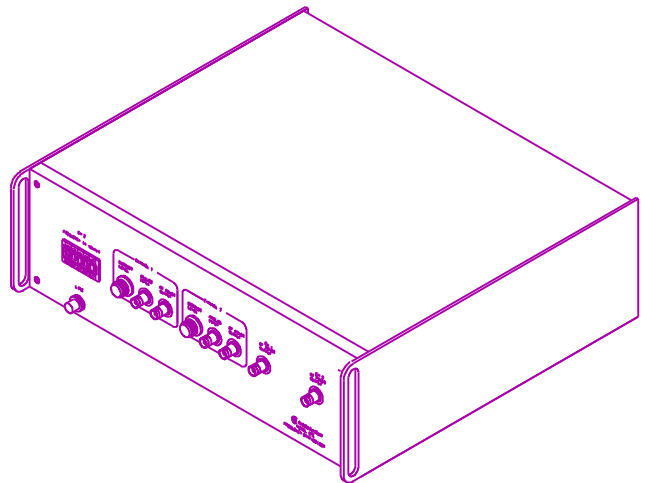


## MODEL DFE-A4 SERIES DUAL FREQUENCY SOURCE

### DESCRIPTION

The DFE Dual Frequency Source series are two-channel frequency generators capable of delivering up to four watts of RF power from each channel into a 50 ohm load. The DFE is used in applications where a very stable frequency difference is required. The fixed frequency and the variable frequency channels are both synthesized from the same temperature compensated crystal oscillator (TCXO). The variable frequency is set via front panel thumbwheel switches with a setting resolution of 10 kHz. Additional variable frequency control is available with optional parallel and serial port computer interfaces. Software is provided with the computer interface although instrument control software such as LabVIEW can be used. CW RF output is obtained by adjusting the front panel Carrier Level control. Amplitude modulation is electronically controlled with a 0 to 1 volt signal applied to the Video Input. A fixed +10 dBm RF reference output is also provided from each channel.



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### SPECIFICATIONS

Variable Frequency Setting Resolution	10 kHz
Frequency Stability (0 to 50°C)	1 ppm (TCXO stability)
CW RF Output Power Capability	4 watts (0-4 watts for level control 0 - maximum)
Amplitude Modulation <sup>2</sup>	Analog (0-2 watts RF output for 0-1 volt input)
Harmonics at 4 Watts	- 20 dBc
Extinction Ratio (on/off)	40 dB
RF Reference Output	+10 dBm
Input / Output Impedance	50 ohms
RF Connectors	BNC
Line Power	115/230 Vac, 50-60 Hz
Size	5.5 H x 17.0 W x 13.5 D inches 14.0 H x 43.2 W x 34.3 D cm

MODEL	<u>DFE-404A4</u>	<u>DFE-604A4</u>	<u>DFE-804A4</u>	<u>DFE-1004A4</u>	<u>DFE-1504A4</u>
Fixed Frequency <sup>1</sup>	40 MHz	60 MHz	80 MHz	100 MHz	150 MHz
Variable Frequency	30-50 MHz	40-80 MHz	60-100 MHz	75-125 MHz	100-200 MHz

<sup>1</sup> The fixed frequency can be specified as any fixed frequency within the variable frequency range.

<sup>2</sup> Optional digital modulation capability is also available. Input impedance is 50 ohms.