

## DF-660 Full Spectrum OES



### Introduction

- 1) Czerny-Turner optical system is applied for a better plane CCD collection for all elemental wavelength that falls into 130-800nm.
- 2) Self-developed DF-IV collection device is able to collect all elemental wavelength between 130nm and 800nm.
- 3) Several matrices can be analyzed such as Fe, Cu, Al, Zn, Ni, Sn, Ti, etc.
- 4) Module design for independent light collection, data processing and data optimization. With the help of high-performance ARM processor and real-time operational system, analytical time is largely shortened and accuracy is further improved.
- 5) 3G thermostatic system improves the energy efficiency to a great extent. The temperature fluctuation range of  $\pm 0.2^{\circ}\text{C}$  makes the DF-400 perform more stable.
- 6) The DF II-S digital-controlled light source increases the elemental analytical range

and accuracy.

7) Plane grating allows smaller number of CCD, further improving the accuracy and stability. It also occupies smaller space and makes set-up and movement a lot easier.

8) The multipurpose operational software can meet various needs by displaying elemental data in a flexible way and supporting various printing formats.

## Specifications

optical system	structure	Czerny-Turner
	curvature radius	450mm
	IV holographic original grating with aberration correction function	3600 ruled lines/mm
	wavelength range	130-800nm
	pixel resolution	@200nm:7pm
	vacuum optical chamber with auto thermostatic system	30±0.2°C vacuum range: 1.2-2.5 Pa
light source system	light source	digital controlled spark pulse
	control technique	PWM
	discharge current	10-500A
	excitation frequency	100-1000Hz
	discharge duration	10-10000µs
spark stand	excitation chamber with minimum argon use	
	easily-changeable foundation(lid)	
	mobile fixing pin	
data collection and control system	CCD detector with high resolution	
	linear CCD: Toshiba	
	high-speed 16-bit A/D conversion	
	resolution: 3648 pixel	
	real-time control on temperature and vacuum state	
others	ethernet	
	matrices	Fe, Cu, Al, Ni, Zn, Sn, Ti, etc.
	dimensions(mm)	946*412*627
	environmental requirement	T 10°C-35°C H 20%-80%
	weight	90Kg (net weight) 120Kg (gross weight)
	V/F	AC220V±10%/50Hz

**DFAIC<sup>®</sup>**  
S p e c t r o m e t e r

	power	max 800VA standby 100VA
	argon	purity $\geq$ 99.994% press $\geq$ 0.3MPa