Moxtek is a manufacturer of miniature x-ray sources and PIN diode x-ray detectors which are used in portable and handheld XRF applications. We will report on the capabilities of this equipment with reference to XRF; showing metrics such as minimal detection limits and data collection times with respect to the type of Moxtek mini x-ray source, the type Moxtek x-ray detector and the geometry used in making measurements. The new OptiMAG (30% more flux) miniature tube performance will be compared with standard Magnum tube.