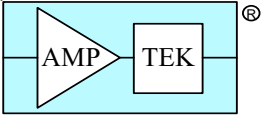


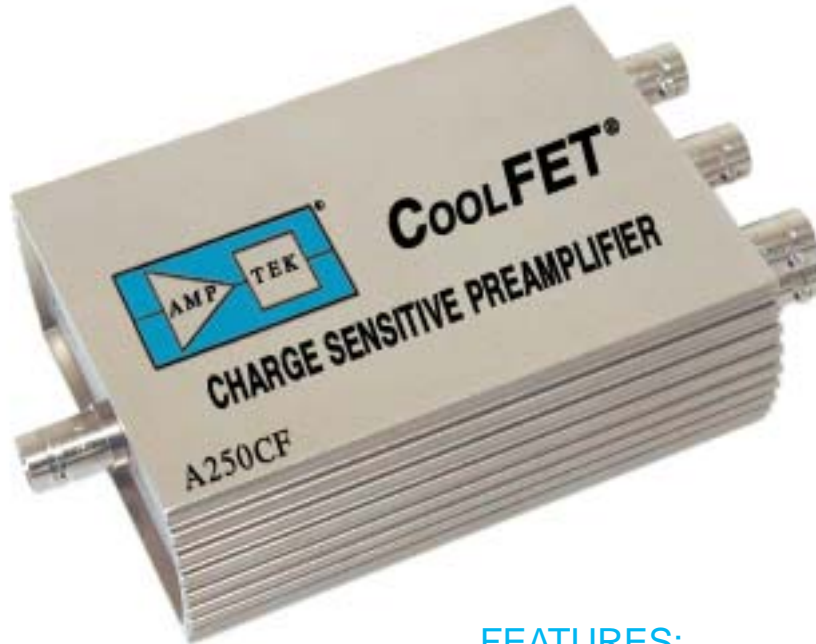
ADVANCED PRODUCT INFORMATION



**“CoolFET”
CHARGE SENSITIVE PREAMPLIFIER**

A250CF

**AMPTEK Sets the New State-of-the-Art ... again!
With **Cooled** FET**



Noise: 700 eV FWHM (Si)
79 electrons RMS

Noise Slope: 12 eV/pF

Fast Rise Time: 2.5 ns

FEATURES:

- Thermoelectrically **Cooled** FET
- Choice of 1 to 3 FETs to match detector
- Lowest Noise and Noise Slope
- AC or DC coupling to the detector
- Easy to use
- Both Energy and Timing outputs
- Optional input protection

The Amptek A250CF CoolFET Charge Sensitive Preamplifier is the lowest noise, general purpose, preamplifier available. It is designed to give the ultimate performance when used with either low or high detector capacitance detectors and is a direct replacement for other higher noise charge sensitive preamplifiers.

The A250CF CoolFET technology uses a Peltier cooler to keep the input FET(s) at -50°C . Cooling is totally transparent to the user. Hence, the A250CF CoolFET operates like a room temperature preamplifier. Based on the successful A250 preamp designed for high performance satellite instrumentation, the A250CF CoolFET re-defines the new state-of-the-art.

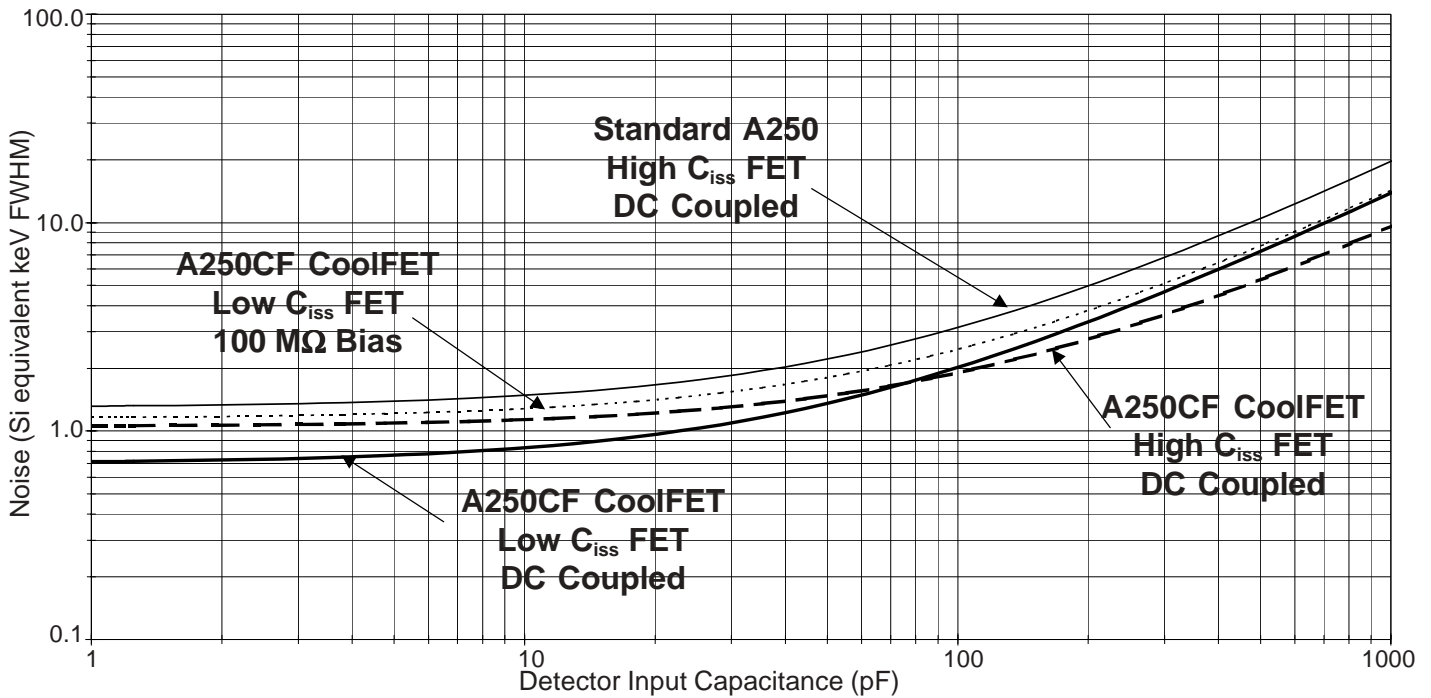
Power to the A250CF CoolFET is provided by an external stable power supply (included). Detector bias can be applied via an SHV connector. Input, E-Output, T-Output and Test are provided via BNC connectors.

RUN SILENT...RUN FAST...RUN **COOL!**

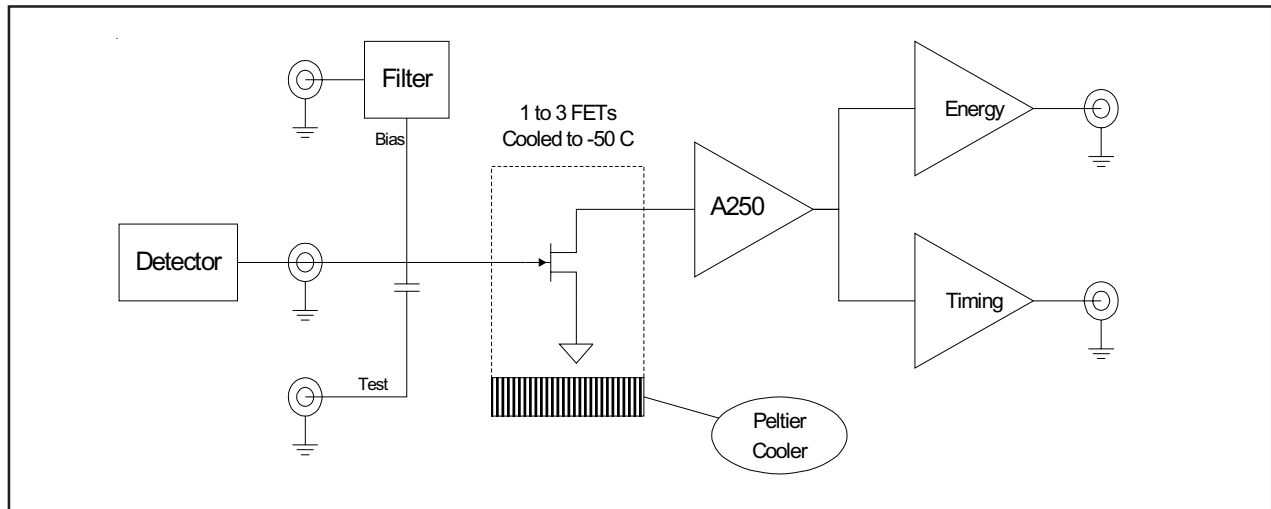
AMPTEK INC. 6 De ANGELO DRIVE, BEDFORD, MA 01730-2204 U.S.A.

Tel: +1 (781) 275-2242 **Fax:** +1 (781) 275-3470 **email:** sales@amptek.com **www.amptek.com**

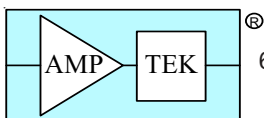
A250CF "CoolFET" Noise as a Function of Detector Input Capacitance (2 μ s Shaping Time Constant)



A250CF "CoolFET" Diagram



A250CF "CoolFET" RUN SILENT...RUN FAST...RUN **COOL!**



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