

VICO-DP Digital Pulse Processor

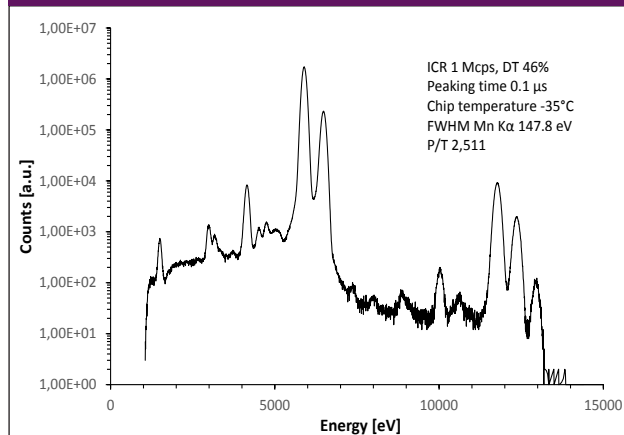
- ultra short peaking times $\geq 0.1 \mu\text{s}$
- energy resolution down to 123 eV

DP
VICO

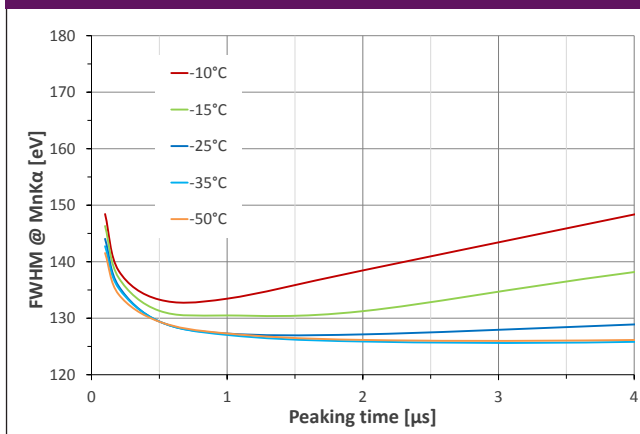
VICO-DP High-Performance Digital Pulse Processor DPP2

- FWHM $< 125 \text{ eV Mn-K}\alpha$ @ $1 \mu\text{s}$ Peaking Time with premium VITUS CUBE SDD
- FWHM $< 140 \text{ eV Mn-K}\alpha$ @ $0.1 \mu\text{s}$ Peaking Time with premium VITUS CUBE SDD
- Peak-to-Background Ratio > 20.000 (Def.: Mn-K α peak to average between 900 eV and 1100 eV)
- High count rate capability of up to 1 Mcps in combination with excellent energy resolution
- Extremely small dimensions: $46.55 \times 31.3 \times 11 \text{ mm}^3$
- High-speed USB 2.0 and RS-232 interfaces
- Acquisition software for Windows XP, Vista, 7 and newer (32 and 64 bit)
- DLL for Windows, LabView (32 and 64 bit); LINUX also supported

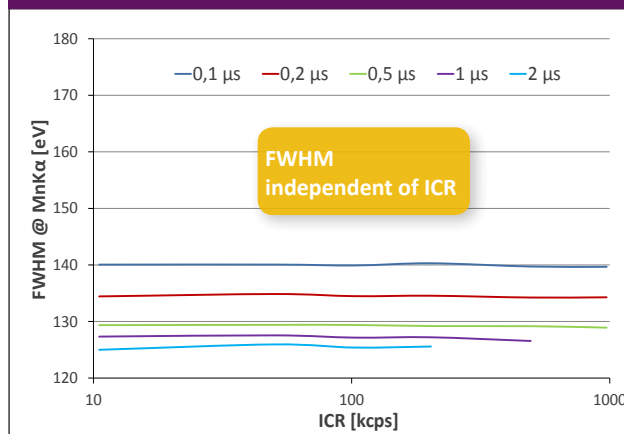
Typical spectrum CUBE SDD @ -35°C and 1 Mcps



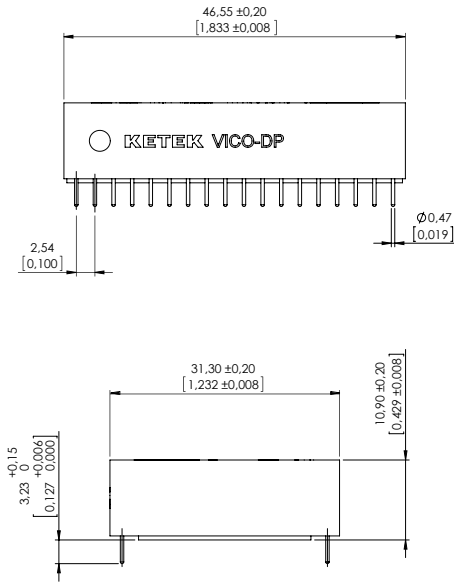
FWHM vs. Peaking Time at different chip temperatures



FWHM vs. Input Count Rate for various Peaking Times



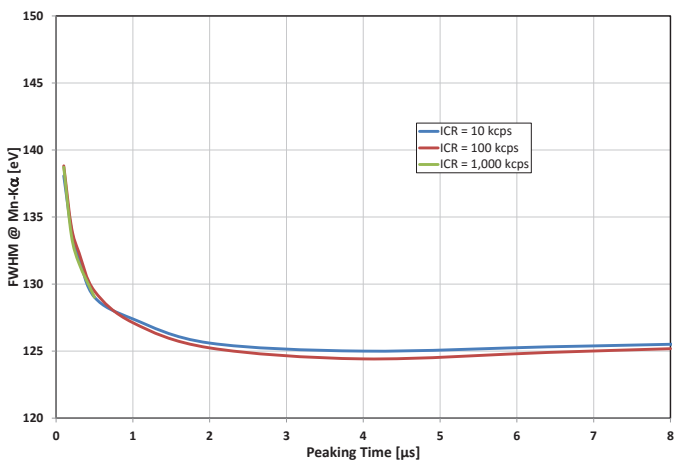
DPP2 technical drawing



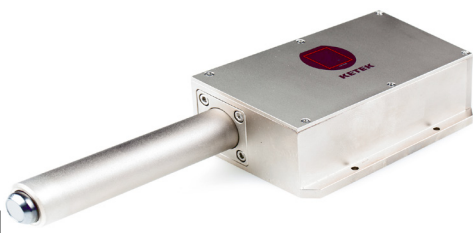
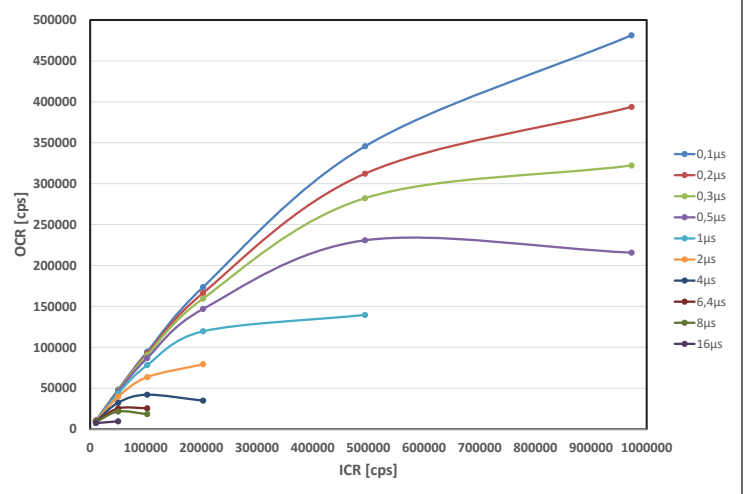
Specifications

Clock Frequency:	40 MHz
ADC:	14 bit
Number of channels:	max. 8192
Channel depth:	24 bit
Operating temperature range:	0 to +50 °C
Storage temperature range:	-25 to +80 °C
Peaking Time range:	0.1 to 24 µs in 24 steps
Maximum readout speed:	13 ms (@1024 channels)
Dimensions:	46.5 mm x 31.3 mm x 11.0 mm ³
Power Requirement:	Typ. 1 W

FWHM vs. Peaking Time at different Input Count Rates



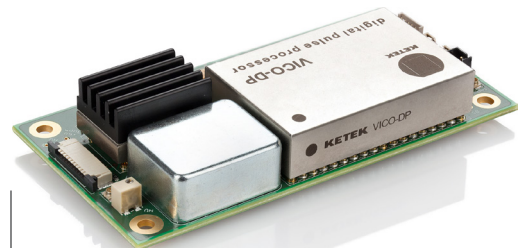
DPP2 throughput - Output to Input count rate



AXAS-D



AXAS-C



VICO-DV