KETEK NEWS

X-ray Silicon Drift Detector Systems for
XRF – EDX – TXRF Applications

08.2016

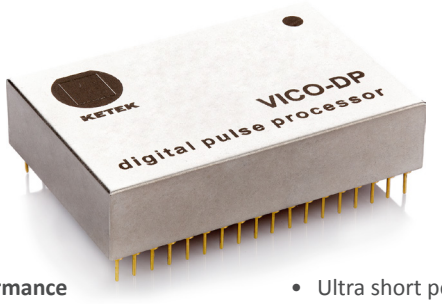
KETEK

KETEK presents its new set of digital electronics for XRF spectrometers.
Compact components offering an unprecedented performance with regards to FWHM and Peak-to-Background at ultra short Peaking Times down to 0.1 µs as well as input count rates up to 1 Mcps.
Optimized for the fast VITUS CUBE SDDs.

VITUS CUBE with DPP2

- ultra short peaking times ≥ 0.1 µs
- energy resolution down to 123 eV

DP VICO

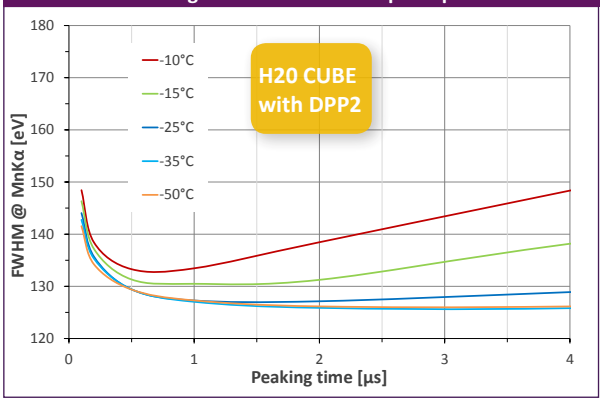


New High Performance Digital Pulse Processor DPP2

The DPP2 is optimized for KETEKs CUBE based SDDs to take full advantage of the fast sensors. Extremely short peaking times down to 100 ns can be applied for high throughput at low deadtimes.

- Ultra short peaking times ≥ 0.1 µs
- Energy resolution down to 123 eV
- < 1.5 W power consumption
- Very small dimensions: 46.55 x 31.3 x 11 mm³
- High speed USB 2.0 and RS-232 interface
- Acquisition software incl. DLL

FWHM vs. Peaking Time at different chip temperatures



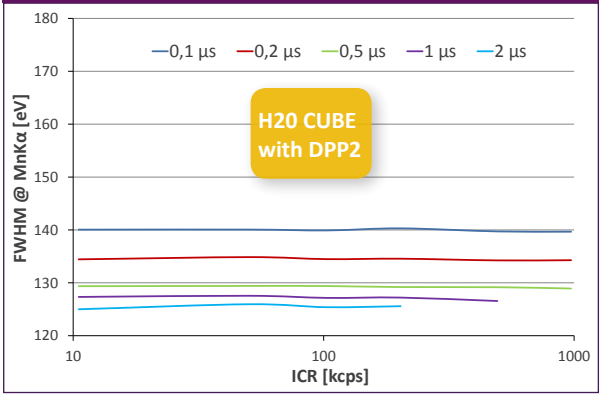
KB VIAMP

New VIAMP-KB

The VITUS Amplifier module is a combination of a VITUS SDD and a low-noise preamplifier, encapsulated in a compact aluminum housing, functioning as an appropriate heat sink.
A FFC flex cable connector is integrated, various cable lengths are available.

- VITUS CUBE SDDs from 7 mm² – 50 mm²
- Ultra-low-noise preamplifier
- FFC cable lengths from 30 to 200 mm
- 50 Ω signal output termination
- Ramped reset type output signal
- RoHS compliant
- Customized housing available on request

FWHM vs. Input Count Rate (ICR) for various Peaking Times

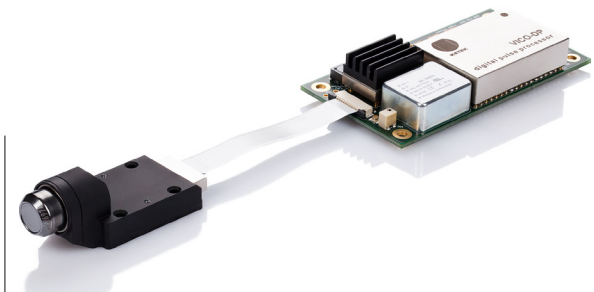


DV VICO

New VICO-DV

The highly integrated digital OEM system for a combination with the VIAMP module comprises the VICO-DP, temperature controller and high voltage supply. The small dimensions of the VICO-DV guarantee flexible integration into your system.

- Complete electronics kit incl. DPP2 for a combination with the VIAMP module
- High speed USB 2.0 and RS-232 interface
- Small dimensions 95 x 50 x 19 mm³
- Available also as analog version without DPP2 (VICO-AV)



VIAMP KB with VICO-DV
Compact digital OEM solution for XRF spectrometers

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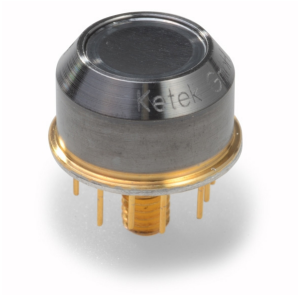
TÜV SÜD
ISO 9001:2008 Certified

PRODUCT PORTFOLIO

VITUS



VITUS
Silicon Drift Detectors

VITUS Type	Active Area	Window	★★★★☆ Premium Class FWHM @ 5.9 keV	P/B	★★★☆☆ Standard Class FWHM @ 5.9 keV	P/B	NEW ★★★★★ CUBE Class (values at 1 µs Peaking Time) FWHM @ 5.9 keV	P/B
H7	7 mm²	Be 8 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H7LE	7 mm²	AP3.3 low-energy	≤ 133 eV	> 15,000	≤ 139 eV	> 6,000	≤ 133 eV	> 15,000
H18LE	18 mm²	AP3.3 low-energy	≤ 136 eV	> 15,000	≤ 144 eV	> 6,000	≤ 133 eV	> 15,000
H20	20 mm²	Be 8 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H30	30 mm²	Be 8 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H50	50 mm²	Be 12.5 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H80	80 mm²	Be 25 µm	≤ 136 eV	> 15,000	≤ 160 eV	> 6,000	≤ 136 eV	> 15,000
H150	150 mm²	Be 25 µm	≤ 136 eV	> 15,000	≤ 160 eV	> 6,000	≤ 136 eV	> 15,000

KB VIAMP

VIAMP MODULE
with VITUS SDD & preamplifier in Al housing

VIAMP Type	Active Area	Window	★★★★☆ Premium Class FWHM @ 5.9 keV	P/B	★★★☆☆ Standard Class FWHM @ 5.9 keV	P/B	NEW ★★★★★ CUBE Class (values at 1 µs Peaking Time) FWHM @ 5.9 keV	P/B
H7	7 mm²	Be 8 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H7LE	7 mm²	AP3.3 low-energy	≤ 133 eV	> 10000	≤ 139 eV	> 6,000	≤ 133 eV	> 15,000
H18LE	18 mm²	AP3.3 low-energy	≤ 136 eV	> 10000	≤ 144 eV	> 6,000	≤ 133 eV	> 15,000
H20	20 mm²	Be 8 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H30	30 mm²	Be 8 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000
H50	50 mm²	Be 12.5 µm	≤ 129 eV	> 15,000	≤ 139 eV	> 6,000	≤ 129 eV	> 15,000

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