

V2F 100 converter

V2F100 is a linear voltage to frequency converter used on beam monitoring. It was developed at the ESRF to operate with a full-scale output frequency of 100MHz which extends the usability of voltage to frequency conversion (VFC) to applications requiring millisecond and sub-millisecond data integration intervals.

The V2F100 implements a conventional synchronous voltage to frequency conversion scheme. The output pulses are synchronous with an internal fixed frequency clock and instead of relying on a fully single-chip analog design, it is based on a mixed mode circuit combining analog and digital components. This allows reaching high, full-scale frequency at the digital output while keeping good signal characteristics determined by the analog input components. This mixed scheme also allows integrating additional outputs and functional modes that are usually not found in similar units.



Features

- Easy configuration using buttons on the front panel.
- Integration time 100x smaller than in common V2F.
- Low noise.
- 4 output frequencies (10, 25, 50, 100 MHz).
- Non-linearity with +/- 100ppm.