

## UVC3120, UVC3130 High-Speed A/D-D/A-Converters (40-Pin Plastic Package)

VLSI circuits in CI technology, featuring the following circuits:

- a high-speed flash type 8-bit A/D converter
- a high-speed low-glitch 10-bit D/A converter, designed as an R-2R network with switched current sources
- various auxiliary circuits, as reference voltage sources, preamplifier, input clamping circuit, and feed-in output amplifier.

UVC3130 has been developed for use in all applications which call for a high-speed A/D-D/A converter. It can be used to decode television signals in Pay-TV converters or for D2-MAC converters used in direct satellite broadcast. Other applications can be seen in industrial electronics, e.g. in conjunction with digital signal processing. Although UVC3130 was initially designed as high-speed codec for the video range, it can be used with equal benefits for lower frequencies, even down to zero.

The auxiliary circuits contained on-chip provide versatile potential applications needing a minimum of external components. An impedance converter is connected upstream of the A/D converter to provide a high-impedance signal input, in spite of the high input capacitance of the A/D converter. The reference voltage for the A/D converter is generated on-chip, but both the ground of that circuit and the reference voltage are fed to pins, so that an external filter capacitor

may be connected. Further, the input is equipped with switches which optionally provide operation with keyed clamping or peak clamping or without clamping. Also the D/A converter's reference voltage is generated on-chip, and a gated amplifier is arranged at the output of the D/A converter so that an external analog signal can be fed-in instead of the signal delivered by the D/A converter.

Separate clock inputs are provided for the A/D converter and the D/A converter thus enabling the application of time compression procedures. All inputs and outputs are TTL compatible.

UVC3120 is generally identical to the UVC3130, except that the input amplifier, voltage reference and clamping circuitry of the A/D section have been omitted.

To meet different application requirements these converters are classified into four groups with respect to the linearity of the D/A converter:

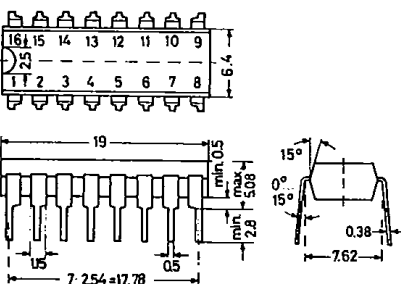
Marking	Linearity D/A
UVC3130-10; UVC3120-10	10 Bit
UVC3130-09; UVC3120-09	9 Bit
UVC3130-08; UVC3120-08	8 Bit
UVC3130-07; UVC3120-07	7 Bit

## PACKAGE OUTLINES

All Dimensions in mm

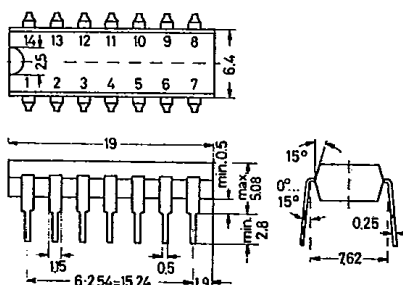
### 16-Pin Plastic Package

Weight approx. 1.1 g



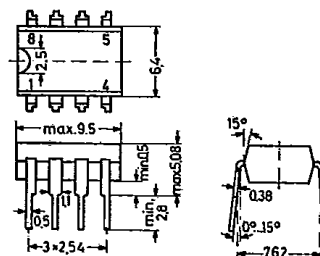
### 14-Pin Plastic Package TO-116

Weight approx. 1 g



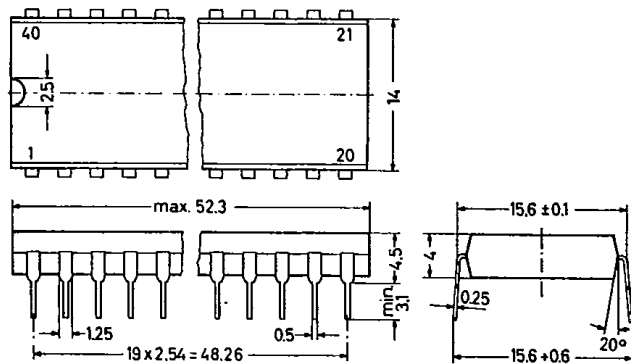
### 8-Pin Plastic Package

Weight approx. 0.5 g



### 40-Pin Plastic Package

Weight approx. 6 g



### 24-Pin Plastic Package

Weight approx. 4.5 g

