

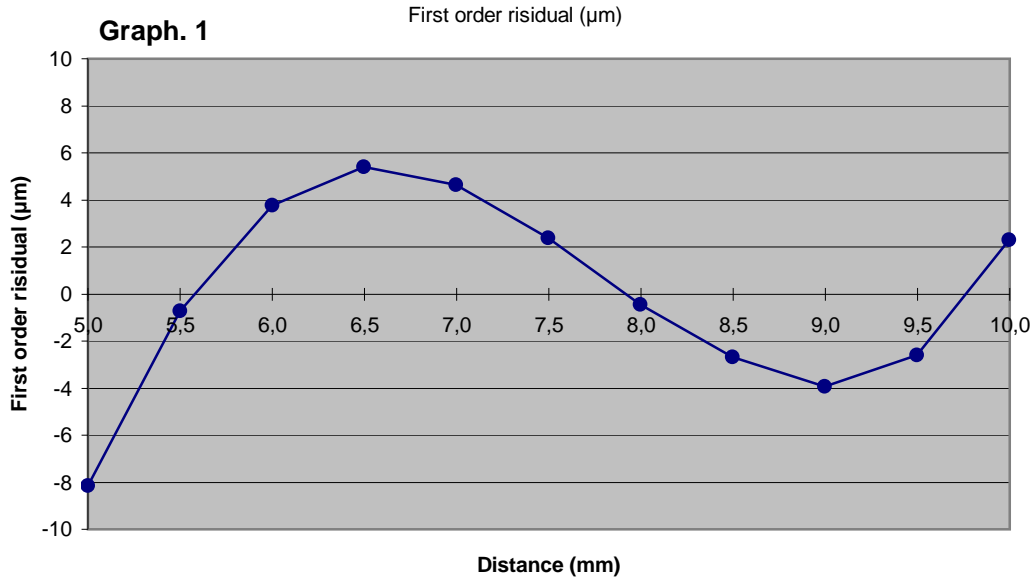
# H7DC-034

Date : 19/12/2012

## First order linearization

First order regression coefficients

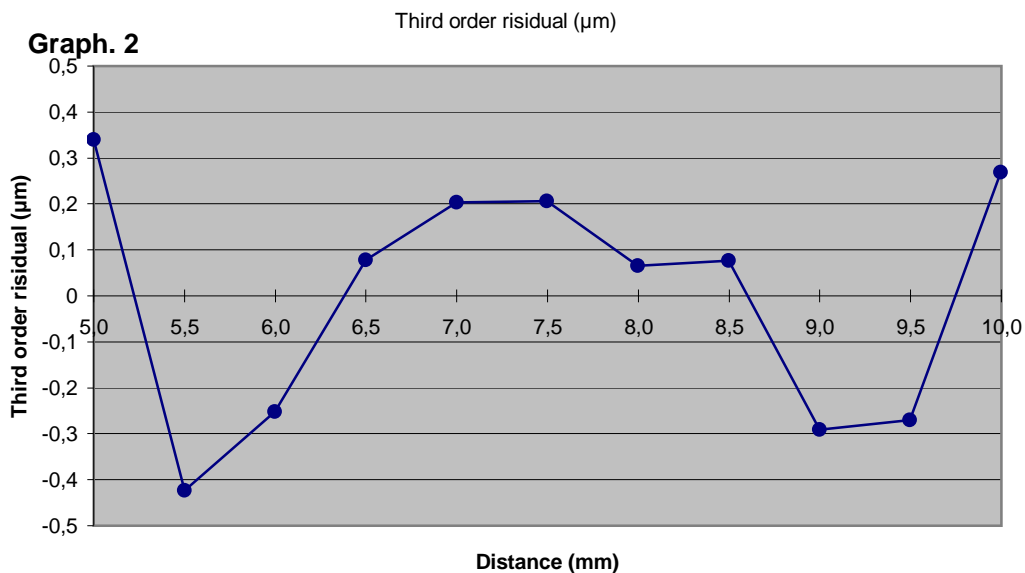
$$d = 5,0078 + 0,49949 V$$



## Third order linearization

Third order regression coefficients

$$d = 4,9994 + 0,51002 V - 0,002416 V^2 + 0,0001469 V^3$$



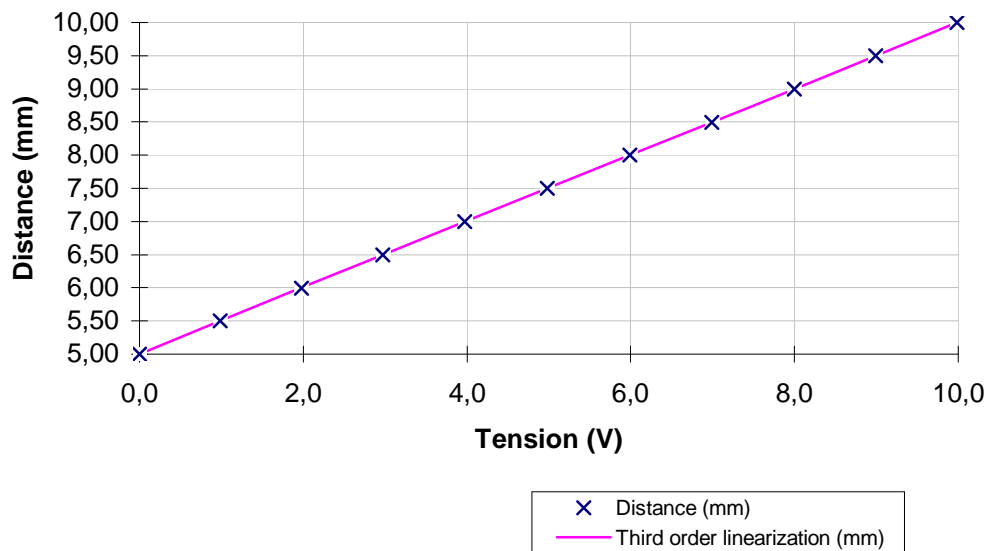
Legend : Linearization polynoms express distance  $d$  as a fonction of voltage  $V$

- Distance is in mm
- Voltage is in V

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## Sensor linearization



## Résults

Distance (mm)	Voltage (V)
4,9993	-0,0008
5,4990	0,9848
5,9990	1,9768
6,4975	2,9716
6,9981	3,9753
7,4973	4,9792
7,9981	5,9876
8,4972	6,9912
8,9980	7,9964
9,4973	8,9933
9,9980	9,9859