

Time-saving embedded tools

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V to Hz 3 Click





PID: MIKROE-5250

V to Hz 3 Click is a compact add-on board that converts an analog voltage input signal into a specific frequency pulse wave signal. This board features the AD7740, an ultrasmall synchronous voltage-to-frequency converter from <u>Analog Devices</u>. The AD7740 has a linear response, so applying a voltage from 3V up to 5V on its VIN terminal will generate the pulse with a frequency linearly proportional to the input voltage. It contains an integrated 2.5V bandgap reference defining the span of the VFC and can be overdriven using an external reference. The full-scale output frequency is synchronous with the input clock signal provided by the LTC6903 programmable oscillator, with a maximum input frequency of 1MHz. Based on the analog input value, the output frequency goes from 10% to 90% of the input frequency. This Click board[™] is the most suitable for low-cost analog-to-digital conversion, linear frequency modulation, voltage-to-frequency conversion, and as a variable clock signal generator.

V to Hz 3 Click is supported by a <u>mikroSDK</u> compliant library, which includes functions that simplify software development. This <u>Click board</u> comes as a fully tested product, ready to be used on a system equipped with the <u>mikroBUS</u> socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system. ISO 14001: 2015 certification of environmental management system. OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).



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Specifications

Туре	Mixed signal
Applications	Can be used for low-cost analog-to-digital conversion, linear frequency modulation, voltage-to-frequency conversion, and as a variable clock signal generator
On-board modules	AD7740 - voltage-to-frequency converter from Analog Devices LTC6903 - programmable oscillator from Analog Devices
Key Features	Synchronous operation, output frequency provided by programmable oscillator, low power consumption, internal 2.5V reference, 1MHz maximum input frequency, selectable high impedance buffered input, and more
Interface	SPI
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V or 5V,External

Resources

<u>mikroBUS</u>™

<u>mikroSDK</u>

Click board[™] Catalog

Click Boards[™]

Downloads

LTC6903 datasheet

V to Hz 3 click 2D and 3D files

V to Hz 3 click example on Libstock

AD7740 datasheet

V to Hz 3 click schematic

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