

# TH0470 Precision Wideband Buffer



## 1. Summary

TH0470 is a precision buffer that converts high internal resistance signals into low-impedance outputs, with good AC/DC difference and phase displacement performance, suitable for precision measurement of voltage, current, phase, power and other electrical parameters in wideband.

## 2. Features

- Typical AC/DC difference: 3 ppm
- Typical phase displacement: 3 ppm
- Maximum operating frequency: 100 kHz/1 MHz
- Input impedance: 10 MΩ // 20 pF
- Input voltage: 7 V
- Gain: 1
- Battery powered, longer than 7 hours
- Small size, light weight, easy to carry to the field

## 3. Applications

- Verification buffered outputs of coaxial current shunt, V/V converters, I/V converters, etc.
- Wideband voltage, current, phase, power and other precision measurements.
- Phase shift measurement of transformer.
- Analyze power quality.
- Measurement at low power factor.

## 4. Specifications


Model	Frequency	50 Hz	400 Hz	1 kHz	10 kHz	100 kHz	1 MHz
TH0470-100kHz	AC/DC Difference (ppm)	3	4	4	10	60	—
	Phase Displacement ( $\mu$ rad)	3	5	5	10	60	—
TH0470-1MHz	AC/DC Difference (ppm)	3	4	4	10	60	2500
	Phase Displacement ( $\mu$ rad)	3	5	5	10	90	2500

- Input voltage: 7  $V_{pk}$
- Input impedance: 10  $M\Omega$  // 20 pF

## 5. General Specifications

<b>Power supply</b>	Battery powered, continuous working time after full charge > 7 hours
<b>Temperature performance</b>	Operating temperature: 13 °C ~ 33 °C; Storage temperature: 5 °C ~ 45 °C;
<b>Humidity Performance</b>	Operating humidity: 50% R·H, non-condensing; Storage humidity: (15% ~ 80%) R·H, non-condensing.
<b>Weight</b>	Approx. 1.5 kg
<b>I/O connectors</b>	Input: 50 $\Omega$ -N female Output: 50 $\Omega$ -N male
<b>Dimensions</b>	215 mm (W) × 130 mm (D) × 62 mm (H)

## 6. Ordering Information

**TH0470** – 

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Maximum Operating Frequency	
Code	Note
<b>100kHz</b>	<b>100 kHz</b>
<b>1MHz</b>	<b>1 MHz</b>

e.g.: **TH0470-100 kHz** note for Maximum Operating Frequency 100kHz.