

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

FLUKE

Fluke PM6685R / 776 Universal Frequency Counter / Calibrator. Rubidium Timebase, 4.5 GHz C Channel, GPIB

Fluke Frequency Counters. Resolution: 10 digits per second, Sensitivity: 10 mV rms to 10 V rms (variable).



MODEL

Fluke PM6685R / 776

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

PM6685R / 776

LISTING

<https://aumictechlabs.com/products/pm6685r-776-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fluke PM6685R / 776 is a universal frequency counter and calibrator built around a rubidium atomic timebase for precision measurement and calibration work. It delivers 10 digits per second measurement speed across Input A (10 Hz to 300 MHz) and an extended C channel reaching 4.5 GHz with optional modules. The rubidium reference provides exceptional short-term stability of $< 2.5 \times 10^{-11}$ (Root Allan Variance) and long-term aging of 1×10^{-9} per 10 years, locking within 5 minutes to operational specification. Technical Specifications Timebase & Reference Rubidium atomic reference with 10 MHz buffered output Short-term stability: $< 2.5 \times 10^{-11}$ (Root Allan Variance) Stability within 10 minutes: 4×10^{-10} Aging rate: 1×10^{-9} per 10 years or 2×10^{-10} per year Warm-up to lock: approximately 5 minutes Warm-up to 5×10^{-9} of final value: 10 minutes Frequency Measurement Input A range: 10 Hz to 300 MHz Input C range: 4.5 GHz (with applicable

option) Burst frequency A range: 100 Hz to 80 MHz Measurement resolution: 10 digits per second Display capability: 11th and 12th digits on overflow Period, ratio (A/E, C/A), pulse width, duty factor, and event totalization functions Input Specifications Input impedance: 1 M Ω // 25 pF or 50 Ω (VSWR < 2:1) Manual trigger sensitivity: 10 mV rms to 10 V rms (variable) Trigger slope: positive or negative selection Low pass filter: 100 kHz nominal 3 dB point Auto trigger with intelligent input optimization Input A damage level: 350 V (DC + AC peak) at 1 M Ω Display & Control Analog bar graph indicator for input level or sensitivity Digit blanking function available Nulling capability for reference-based measurements Key Features Intelligent AUTO trigger mode eliminates manual setup iterations Rubidium timebase enables calibration of any application-specific frequency standard Extended C-channel frequency coverage to 4.5 GHz 10 digits per second measurement throughput Typical Applications Frequency calibration and verification, precision frequency analysis, frequency standard characterization, automated test integration in calibration laboratories and metrology environments. Compatibility & Integration IEEE-488 (GPIB / SCPI) optional interface with front-panel-readable, rear-panel-selectable GPIB address assignment.

PM6685R776 Characteristics / Specifications

PARAMETER	VALUE
Instrument Family	Fluke PM6685R
Timebase	rubidium class
Measurement Functions	frequency period time interval class
Channel Count Class	multi channel
Frequency Range Class	DC to hundreds of MHz with GHz options class
Resolution Class	high resolution reciprocal counting
Remote Interface	GPIB class
Display	digital counter display
Form Factor	benchtop
AC Powered	yes
Input Sensitivity Class	mV rms class
Trigger Level	adjustable class
Statistics	yes class on family
Series Family	Fluke PM6685
Related Counters	PM6680B PM6681 class
Stability Class	rubidium reference class
Warmup	rubidium lock time class
Input Impedance Class	1 MOhm / 50 ohm selectable class
Arming	internal external class
Manufacturer	per instrument faceplate branding
Documentation Basis	OEM datasheet or operating manual family
Specification Ambient Class	23 C class unless otherwise stated

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Instrument Family	Fluke PM6685R
Timebase	rubidium class
Measurement Functions	frequency period time interval class
Channel Count Class	multi channel
Frequency Range Class	DC to hundreds of MHz with GHz options class
Resolution Class	high resolution reciprocal counting
Remote Interface	GPIO class
Display	digital counter display
Form Factor	benchtop
AC Powered	yes
Input Sensitivity Class	mV rms class
Trigger Level	adjustable class
Statistics	yes class on family
Series Family	Fluke PM6685
Related Counters	PM6680B PM6681 class
Stability Class	rubidium reference class
Warmup	rubidium lock time class
Input Impedance Class	1 MOhm / 50 ohm selectable class
Arming	internal external class
Manufacturer	per instrument faceplate branding
Documentation Basis	OEM datasheet or operating manual family
Specification Ambient Class	23 C class unless otherwise stated
Notes	
Identity and capability rows from Fluke PM6685R rubidium counter literature. Confirm exact frequency range options and rubidium stability figures on the unit datasheet and calibration certificate.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.