



- ✓ 100 pF - 100.00  $\mu$ F
- ✓ Basic Accuracy 0.25%
- ✓ Maximum voltage applied 50V<sub>p-p</sub>
- ✓ Customized Flow
- ✓ RS232, USB, IEEE488, LAN
- ✓ Internal Calibration Procedure

### Models

OCM525-V1xxx	RS232
OCM525-V2XXX	RS232, UBS, LAN, GPIB
OCM525-Vxx0x	Standalone cabinet
OCM525-Vxx1x	19" Front

**OCM525** is high precision capacitance decade with basic accuracy of 0.25%, programmable from 100pF to 100  $\mu$ F.

The smallest resolution in the low capacitance range is 1pF. According to the selected value, the internal microcontroller calculates the combination of capacitors for highest accuracy and switches them to the output terminals by using special high current relays.

The controller permits correction OPEN of the terminals, grounding of the L terminal and the generation of customized sequences.

The capacitance value will be entered from the keyboard or remotely via RS232. Interfaces USB, LAN or GPIB are optionally available.

Die Decade contains internal software calibration procedure which permits overall calibration and correction of inaccuracies without using mechanical adjusting elements.

OCM525 is used in production field for checking of parameters, calibration of multimeters and RLC bridges and simulation of large range capacitances in design laboratories.

Range-Resolution	Accuracy @ 1kHz	Loss Coefficient @ 1kHz	Accuracy 40Hz-1kHz	Loss Coefficient 40Hz-1kHz	Temperature Coefficient
	(%)		(%)		ppm/ $^{\circ}$ C
0.100 nF - 10.000 nF	0.25 $\pm$ 3pF	< 0.05	0.5 $\pm$ 3pF	< 0.05	< 270
10.001 nF - 100.00 nF	0.25	< 0.005	0.5	< 0.005	< 270
100.01 nF - 1.0000 $\mu$ F	0.25	< 0.005	0.5	< 0.005	< 270
1.0001 $\mu$ F - 10.000 $\mu$ F	0.25	< 0.05	0.5	< 0.05	< 270
10.001 $\mu$ F - 100.00 $\mu$ F	0.25*	< 0.2 *	0.5	< 0.2 **	< 270

- \* for Frequency 100Hz
- \*\* from 40Hz to 100Hz

The capacitance is defined at the output terminals with or without grounding of the terminals. The capacitance is specified in *Correction Open OFF* relativ to the value *OPEN*. The capacitance with *Correction Open ON* is an absolut value.

# SPECIFICATIONS OCM525

(Reference Temperature 21°C ... 25°C)

Maximum applied voltage	50V p-p
Temperature Coefficient	< 270 ppm/°C
Response Time	< 200 ms
Response Time TIMING	min. 500 ms
Terminals	gold plated 4mm Terminals
Remote Control	RS232. Options: USB, GPIB-IEEE488, LAN
Supply	90-260VAC, 45-65Hz
Reference Temperature	23°C ± 2°C
Working Temperature	5°C ... 40°C
Storing Temperature	-10°C ... 50°C
Dimensions	390 x 128 x 310mm (B x H x T)
Weight	4 kg

### Capacity

The screenshot shows the 'CAPACITANCE' screen with a timestamp of 13:59:20. It features a 'Function' button on the right. The main display shows '10.000 nF'. Below this, there are settings for 'Output' (Open), frequency selection (1 kHz and 40 Hz ... 1 kHz), and 'Specification' (0.25 % and 0.50 %). At the bottom, it shows 'Loss Coefficient < 0.005' and a 'Menu' button.

### Calibration

The screenshot shows the 'CALIBRATION' screen with a timestamp of 16 / 35. It includes a 'Previous' button on the right. A note says 'Use "OPER" button to perform Open correction STAGE1'. The 'Etalon' is set to 'C16'. Other parameters include 'Nominal capacitance 2.35 nF', 'Requested accuracy 1.2 pF', and 'Last calibrated 11.02.2013'. The main display shows '2.367010 nF' with a hat symbol above it. There are 'Next', 'Save', and 'Close' buttons on the right.

### Function TIMING

The screenshot shows the 'TIMING' screen with a timestamp of 14:00:54. It features a 'Function' button on the right. The main display shows 'TIME 1'. Below this, there are settings for 'Output' (1.0000 uF), frequency selection (1 kHz and 40 Hz ... 1 kHz), and 'Specification' (0.25 % and 0.50 %). At the bottom, it shows 'Loss Coefficient < 0.005' and a 'Menu' button.