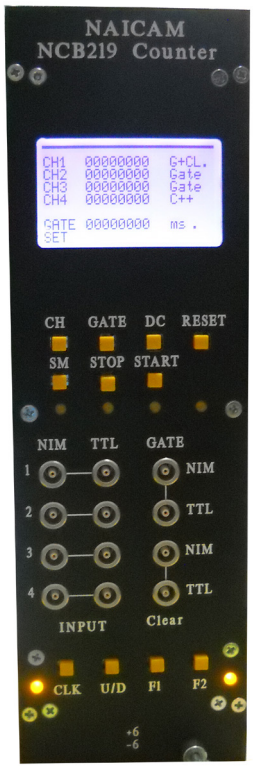
NCB219 - COUNTER

The two wide NIM module NCB219 has 4 channels counter housed in two units width NIM module. Each channel has one NIM level and one TTL level inputs. All information displayed by one graphic LCD 128x64 pixel on the front panel. Maximum frequency is 120 MHz.

- Up to 120 MHz counting rate - NIM and TTL inputs;
- 8-digits decimal up-counters;
- 8 digit up-counter timer.
- External GATE, CLEAR signal.
- Manual or self triggered RESET.

PERFORMANCE

Inputs	**NIM**: Inputs accept NIM standard pulses. **TTL**: Inputs accept TTL pulses (2,5 V minimum high Level, 50 Ω termination).
Gate	**NIM**: Inputs accept NIM standard pulses. **TTL**: Inputs accept TTL pulses (2,5 V minimum high Level, 50 Ω termination).
Clear	**NIM**: Inputs accept NIM standard pulses. **TTL**: Inputs accept TTL pulses (2,5 V minimum high Level, 50 Ω termination).



POWER SUPPLY REQUIREMENTS

The module has NIM standard power supply.

P. Voltage (V)	Current/ch (mA)
+6	440
-6	100

DIMENSIONS

dimensions	3,43x22,13 cm per DOE/ER-0457T
weight	1,0 kg

USER MANUAL

Front panel controls:

CH	select channel
GATE	set gate
DC	optional button
START	start counter
STOP	manual stop
SM	select mode of counter
RESET	reset counters and timer

Under LEMO connectors controls:

CH	clock to set
GATE	select UP or DOWN timer symbol
DC	optional button
START	optional button

LCD display 128x64 pixel:

QUICK START

Press CH to select channel:

Symbol **<--** indicate selected channel
Symbol **<>** selected all channels.

Channel working mode indicated on the right part of LCD.

Press **SM** to select working mode of a counter:

- **GATE** Counter count input hits during internal GATE time.
- **G.Cl.** Counter count input hits during internal GATE time and Clear counter after 1 sec. after end GATE time.
- **C++** Counter count input hits in continues.
- **Ex.G.** Counter count inputs hits during external gate and can be reset by external CLEAR pulse.

After power on all set up of these values will be read from the internal memory.

Press **RESET** to clear selected counter or all counters and timer.

Press **GATE** to set timer:

The value of internal register is displayed on row GATE.

On row SET under GATE digits select by X cursor one of 8 digit of timer.
The value of timer counter is measured in msec.

GATE 0 0 0 0 1 0 0 0
SET - - - - x - - -

For example, 00001000 corresponds 1 second time

Press **CLK** to decrease value
Press **U/D** and **CLK** to increase value.

The value automatically is written to memory and will used by timer.
After power on this value will be read from the internal memory.
Return to timer counter if digits on the SET row disappeared.

Press **START** a timer.
On the bottom part there are to yellow LED that indicate timer start period and stop signal of timer.
Left LED corresponds to measured time. Right LED corresponds to stop pulse.

Press **STOP** to stop timer.

Note: External GATE input pulse width have set less then internal timer time. In other case counter counts only partial input hits.