

# Integration Layer Device

## BACnet Building Controller

# GC-RB21

### 【Description】

GC-RB21 is a BTL listed operation independently BACnet B-BC class LAN communication integration building controller with router function. It is a communication bridge between workstation and field controller. Therefore It has a 10/100M Bases-TX Ethernet port that can communicate with operated workstation or other global controller through BACnet Ethernet or BACnet/IP communication protocol. In addition, it has an MS/TP ports can connect up to 32 sets DAC or DSC series controller and hundreds of expansion modules to form a BACnet network backbone. GC-RB21 has programmable logic function and support standard BACnet object function such as calendar, schedule, notification class, event enrollment, trend-logs, etc. GC-RB21 device in conformity with international BACnet network communication and fully compatible with any BACnet system. It is absolutely the best product for your building.



### 【Features】

- BACnet Building Controller (B-BC) level listed device.
- Has a Peer to Peer peer to peer data transfer and sharing of functions and programmable, independent operation, alarm and event management, calendar, schedule, record trend, devices and network management function
- Built-in 32-bit microprocessor 96K SRAM and 512K Flash memory space and 32MB SDRAM and 512K FRAM for power-off parameter memory.
- Built-in 10/ 100M Ethernet communication interface, you can select the BACnet Ethernet or BACnet / IP communication.
- Built-in MS/TP master servant-type communication interface with 2 , 5 00V rms anti-interference potential isolation design , can connect 32 field controllers .
- Built-in RS-232 communication interface, through the AD-Linker cable and HyperTerminal program , device initial value setting or parameter modification.
- With editing, debugging, online firmware update program download and online function online program.
- Having enthalpy, dew point temperature, PID control operation and other HVAC functions and common functions logarithmic, trigonometric functions, square root function other advanced mathematical functions.
- Has a calendar (Calendar), schedule (Schedule), notice category (Notification Class), an alarm event Log (Event enrollment), trend recording (Trend-log) standards such as BACnet objects; schedule, trend logs and alarm event log on support External object access function.
- Having a 1,000 digits software site (BV) and 1,000 analog software point (the AV), BV point support 16-bit order of priority function.
- Built-in real time clock and a gold capacitor backup power.

### 【Specification】

Model	DDC QT*Y	Calendars	Schedules	Notification	Event	Trend-logs	BV Points	AV Points
GC-RB21	32	20	200	20	200	200	1,000	1,000

**Power Supply** : 24VAC/DC, 4VA.

**Microprocessor** : 32-bit high-speed microprocessor (MCU) with 96K S RAM and 512K Flash memory

**Memory** : 32MB SDRAM random access memory and 512K FRAM for power-down parameter memory.

**Ethernet Port** : 10/100M Ethernet interface, can be either BACnet Ethernet or BACnet IP communication protocol.

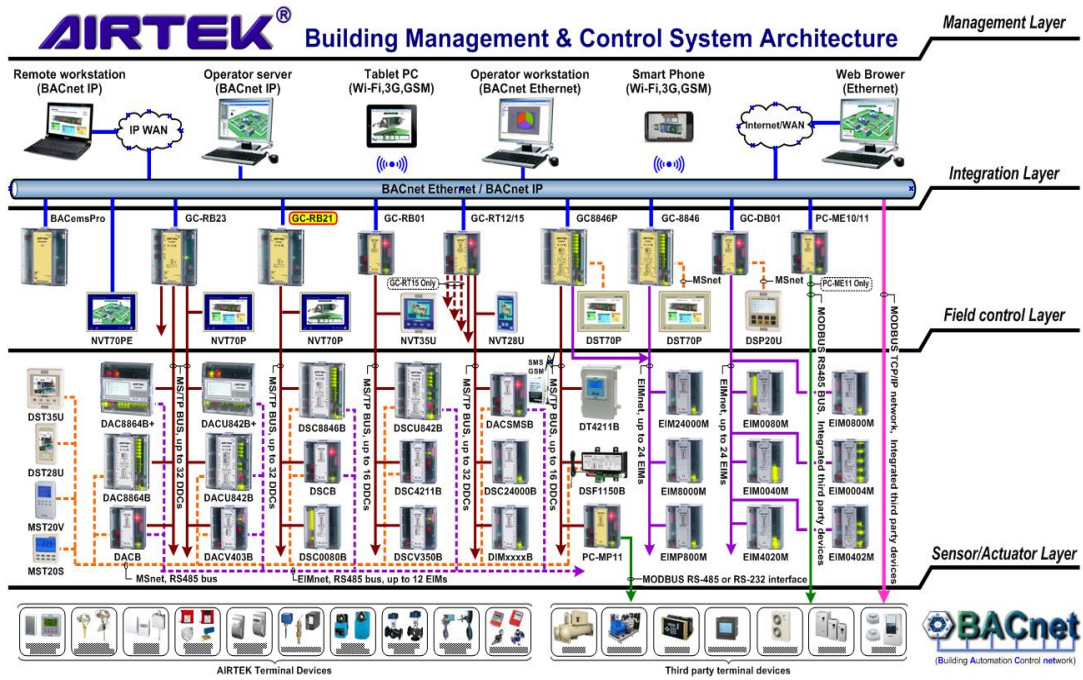
**MS/TP Port** : RS-485 communication interface, built- in anti-interference isolators with rated isolation voltage of 2,500Vrms and maximum working insulation voltage of 560 Vpeak. Can be connected to controller 32 controllers, communication rate of 9,600 / 19,200 / 38,400 / 76,800 BPS, transmission distance of 1,200 meters.

**Clock** : Built-in real time clock and gold capacitor backup power.

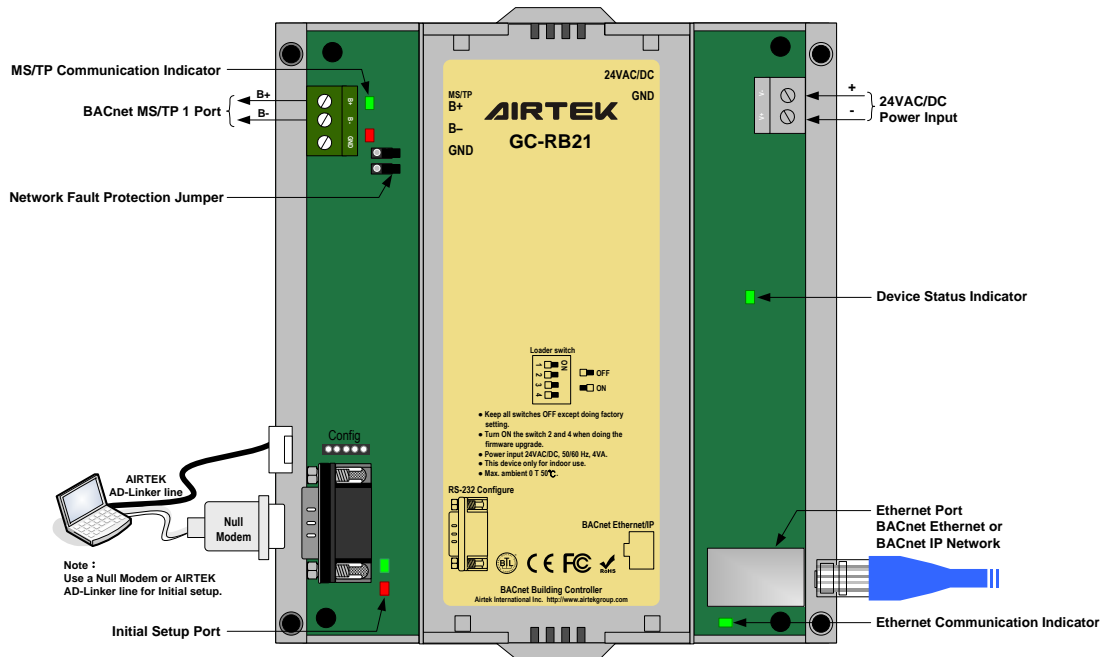
**Environment** : 0~50°C, 20~90%RH, non-condensing.

**Certificate** : BTL (B- BC), CE, FCC, and RoHS.

# [Network Architecture]



# [Wiring Diagram]



# [Dimension] Unit : mm

