

# EKI-1321

# EKI-1322

## 1-port RS-232/422/485 to GPRS IP Gateway

## 2-port RS-232/422/485 to GPRS IP Gateway



### Features

- Universal quad-band GSM/GPRS 850/900/1800/1900 MHz
- Dual SIM for telecom redundancy
- Supports SDHC SD Card for Data Buffering
- Connects Ethernet and Serial Devices over VPN
- Various operation modes: COM port redirector, RVCOM, TCP, UDP, SMS tunnel, and pair connection
- Any baud rate setting for easy configuration
- Built-in 15 KV ESD protection for all serial signals
- 1.5 KV isolation protection (EKI-1321)
- 2 digital inputs (EKI-1321)
- Multiple configuration methods: Windows utility, Telnet, and Web console

### Introduction

EKI-1321 and EKI-1322 cellular gateways can transparently bring RS-232/422/485 or Ethernet devices to a cellular network. They allow nearly any device with serial or Ethernet ports to connect and share a cellular network with easy and simple configuration. EKI-1321 and EKI-1322 GPRS IP Gateway's are compact, and can be DIN-rail or wall mounted and with both front panel and side panel LED displays for easy identification. They come with dual DC power input from 12 to 48 V<sub>DC</sub> and have 2 KV EFT/Surge protection to prevent damage from various type of power resources. The serial ports are also protected by 15 KV ESD line protection to keep your system safe from unexpected electrical discharges. Both models support dual SIM slots to support GPRS signal redundancy to switch to an available channel automatically while the existing one is disconnected, and SD card slot for data buffering to prevent loss of serial data while the communication is interrupted.

### Specifications

#### LAN Interface

- Ethernet 10/100 Mbps, auto MDI/MDIX
- Connector RJ45
- Protection 1.5 KV built-in magnetic isolation protection

#### Cellular Interface

- Standards GSM/GPRS
- Band Option Quad-band 850/900 and 1800/1900 MHz
- GPRS Multi-Slot Class 10
- GPRS Terminal Device Class B
- GPRS Coding Schemes CS1 ~ CS4
- Tx Power 1 W for GSM 1800/1900, 2 W for EGSM 850/900
- No. of SIM 2
- SIM Control 3 V

#### Serial Communications

- Port Type RS-232/422/485, software selectable
- No. of Ports EKI-1321: 1, 2 KV isolation protection  
EKI-1322: 2
- Port Connector DB9 male
- Data Bits 5, 6, 7, 8
- Stop Bits 1, 1.5, 2
- Parity None, Odd, Even, Space, Mark
- Baud Rates 75 bps to 921.6 kbps, any baud rate setting
- Serial Signals RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND  
RS-422: TxD+, TxD-, RxD+, RxD-, GND  
RS-485: Data+, Data-, GND
- Protection 15 KV ESD for all signals

#### Relay Output

- Channel 1
- Contact Rating 0.5 A @ 120 V<sub>AC</sub>  
0.25 A @ 240 V<sub>AC</sub>; 2 A @ 30 V<sub>DC</sub>
- Relay off Time(Typ.) 4 ms
- Relay on Time(Typ.) 3 ms

#### Digital Input (EKI-1321)

- Channel 2
- Input Level Logic level 0: 1 V Maximum  
Logic level 1: 3 ~ 30 V

#### General

- LED Indicators System: Power, Status  
GPRS: Quality, ready  
Serial: Tx, Rx  
Ethernet: Speed, Link/Active  
Built-in WDT (watchdog timer)
- Reboot Trigger

#### Software

- Driver Support 32-bit/64-bit Windows XP/Vista/7/8, Windows Server 2003/2008/2008 R2/2012, Windows CE 5.0, and Linux
- Utility Software Advantech EKI Device Configuration Utility
- Operating Modes Virtual COM, Reverse Virtual COM, TCP/UDP server mode, TCP/UDP client mode, Pair connection mode (Serial Tunnel), RFC2217, SMS Tunnel, IP Gateway w/ VPN
- Configuration Windows utility, Telnet console, Web Browser
- Protocols ARP, ICMP, IPv4, IPv6, TCP, UDP, BOOTP, DHCP Client, Auto IP, Telnet, DNS, SNMP, HTTP, HTTPS, SMTP, SNT, SSL
- Router/Firewall NAT, port forwarding

#### Mechanics

- Dimensions (W x H x D) 27 x 120 x 85 mm (1.06" x 4.72" x 3.35")
- Enclosure Metal with solid mounting hardware
- Mounting DIN-rail, Wall
- Weight 0.49 Kg

#### Power Requirements

- Power Input 12 ~ 48 V<sub>DC</sub>, redundant dual inputs
- Power Connector Terminal block
- Power Consumption EKI-1321: 8W, EKI-1322: 8.5W
- Power EFT/Surge Prot. 2 KV

#### Environment

- Operating Temperature -30 ~ 65°C (-22 ~ 149°F)
- Storage Temperature -40 ~ 75°C (-40 ~ 167°F)
- Operating Humidity 5 ~ 95% RH

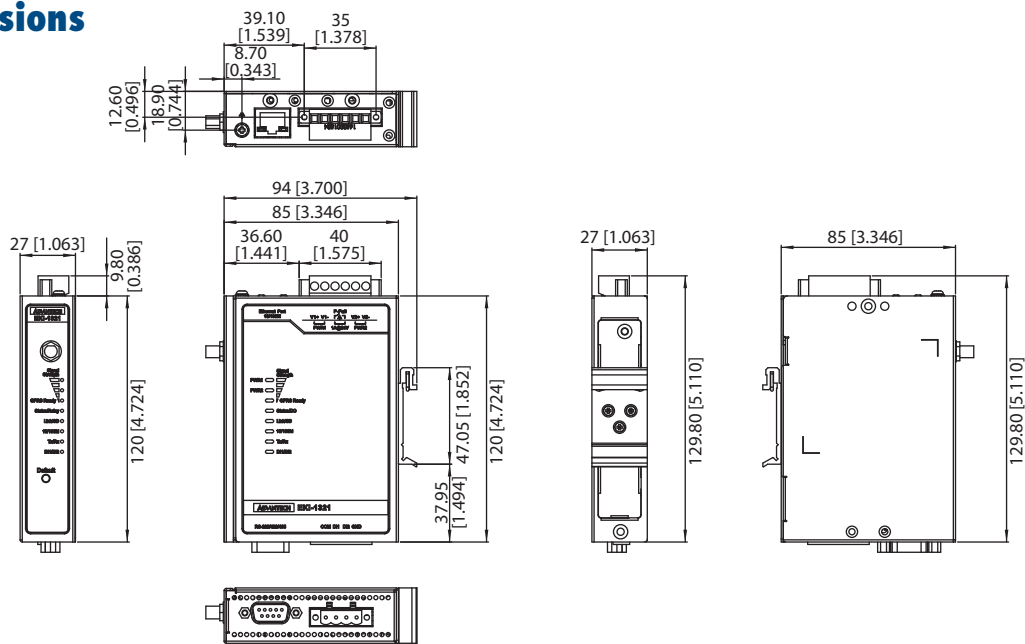
#### Regulatory Approvals

- EMC CE: EN55022/EN55024, Class A  
FCC: FCC part 15 subpart B, Class A  
FCC Part22H/Part24E, EN301 489-1, EN301 489-7, EN301 511
- RF

## Dimensions

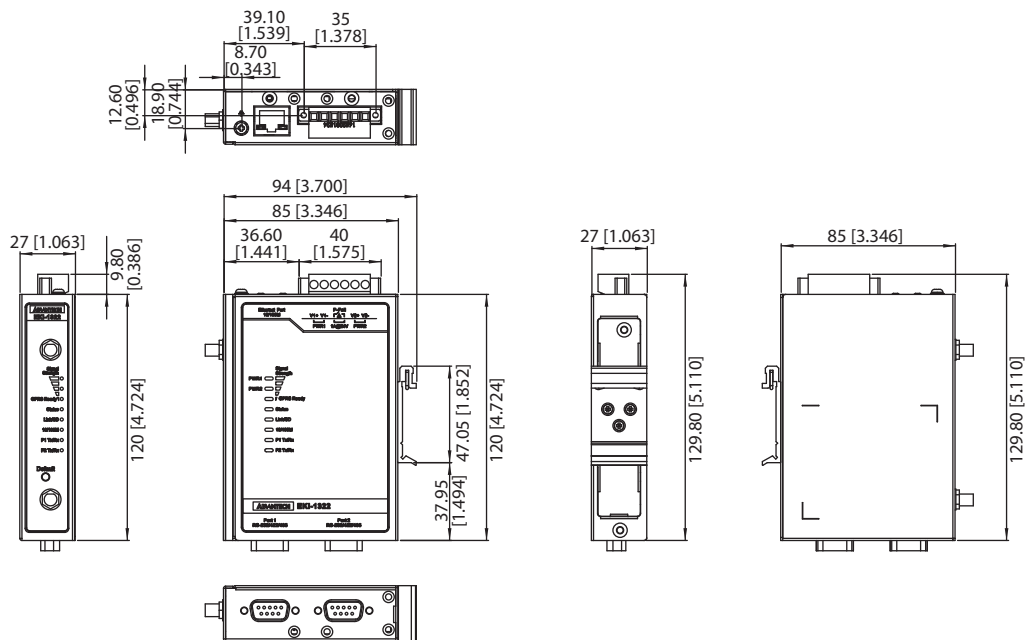
Unit: mm [inch]

### EKI-1321



Panel Cut-out Dimensions: 94 x 120 x 27 mm (3.700" x 4.724" x 1.063")

### EKI-1322



Panel Cut-out Dimensions: 94 x 120 x 27 mm (3.700" x 4.724" x 1.063")

## Ordering Information

- EKI-1321 1-port GPRS IP Gateway
- EKI-1322 2-port GPRS IP Gateway
- OPT1-DB9 D-Sub 9 to Terminal Converter