

# VE-PG3



## Converter Mode

- Interconnect between IP phone, analog phone and radio networks
- Phone calls can be initiated by radio users

## Bridge Mode

- Site-to-site radio communication over an IP network
- Site-to-multisite radio communication
- Cross band, cross category connection

## Common Features

- Optional RC-FS10 software for virtual PC dispatch station
- Public address, siren, warning light and external equipment connection





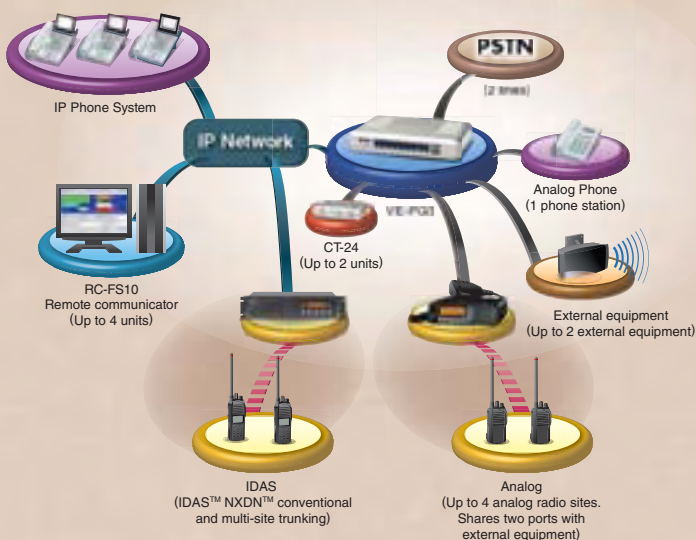
# Versatile Radio Over IP Gateway

The VE-PG3 is designed to enhance the communication coverage of a radio network and the convenience of radio usage by leveraging IP networking technology with ease of implementation.

The VE-PG3 has two modes; converter mode and bridge mode. The converter mode converts radio audio into VoIP/analog phone calls and allows interconnection between connected equipment.

The bridge mode connects two or more radio sites over an IP network and received radio audio is bridged to opposing radio sites of the network. The bridge mode can connect dispersed radio sites over the network and can provide cross band, cross category communication.

## Converter Mode



### Converter Mode

The VE-PG3 has built-in RoIP, SIP gateway, IP router and IP PBX functions all in one box. As shown in the above figure, the VE-PG3 integrates digital/analog radio sites into SIP and analog phone systems and interconnects calls between the connected users. The CT-24 digital voice converter converts analog audio and G.711 $\mu$  IP phone codec to the AMBE+2™ codec for the IDAS™ radio system. The CT-24 is required to connect an IDAS™ radio site with other system users.

### Telephone Interconnect

A radio user (both IDAS™ and analog\* radio user) can initiate phone calls using DTMF code and can connect to other users via an IP phone or PSTN line\*\*. Phone users can make individual calling and group calling to the IDAS™ radio site. In the analog radio site, called users are subject to the fixed calling configuration of the connected radio.

\* Limited to radios with DTMF encoder/decoder capability. \*\*Connection maintained by VOX.

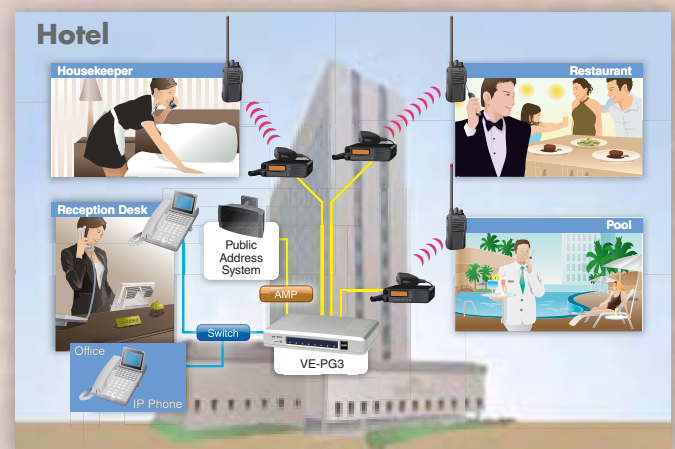
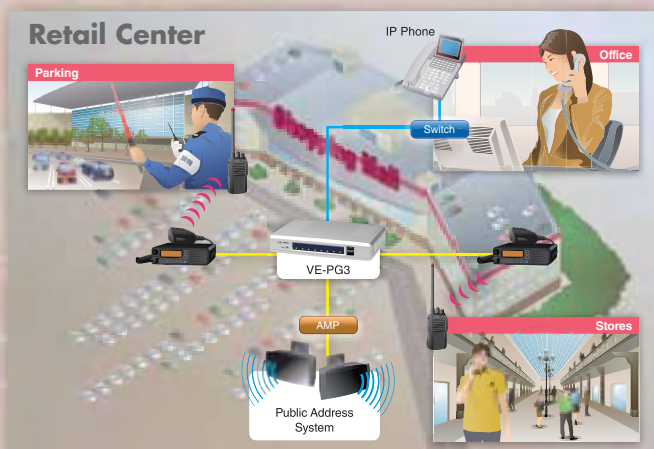
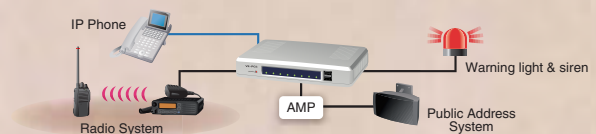
### Remote Communicator Software, RC-FS10 (Common to converter and bridge mode)

The optional RC-FS10 remote communicator creates an IP-based virtual radio on a PC and works as simple dispatch station. The RC-FS10 can be used with an IDAS™ NXDN™ system and analog radio system via the VE-PG3.



### External Equipment Connection (Common to converter and bridge mode)

The VE-PG3 has two external equipment connectors for audio input/output and other switching. Public address system, siren, warning light and other external equipment can be connected to the VE-PG3.





## RoIP GATEWAY VE-PG3

## Bridge Mode

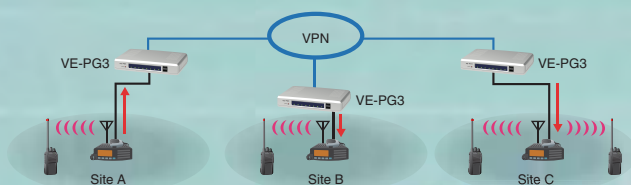


### Bridge Mode

The bridge mode bridges between radio sites over an IP network. The above figure is an example of bridge mode configuration, the Site A radio user can talk to the Site B radio user.

### Site-to-multisite Radio Communication

When the IP network system is compatible with IP multicast routing, three or more VE-PG3s can be connected in the bridge mode and provide site-to-multisite radio communication. As shown in the figure below, the Site A radio users can talk to the Site B and Site C users simultaneously.



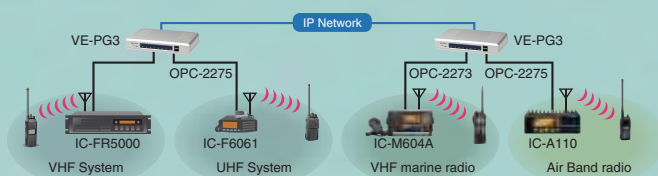
### Mixing Function

The mixing function mixes the bridged audio to the other bridges. It can provide site-to-multisite type communication even on a network which does not support IP multicast routing.

### Cross Band/Cross Category Connection\*

Cross band/cross category connection is possible between VHF/UHF land mobile, marine VHF and air band frequencies. Optional audio connection cables allow you to connect a transceiver or repeater easily.

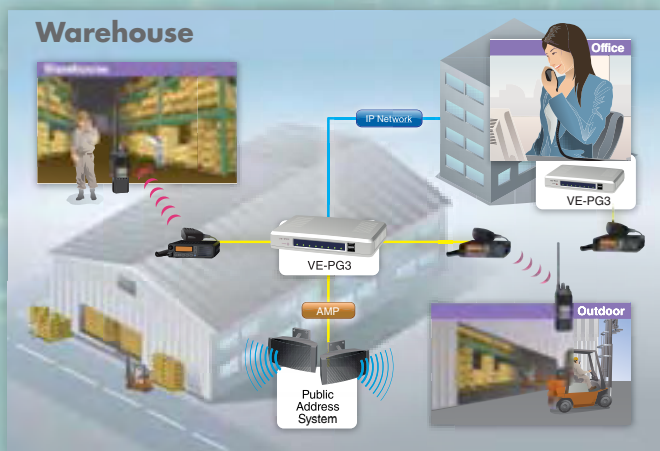
\* Cross band/cross category operation may be prohibited in some countries. Please confirm legal requirements in your country before installation.



### Other Features

(Common to bridge and converter mode)

- Web-based configuration
- IP router function: PPPoE/IPv6 bridge, NAT, Dynamic DNS, VPN pass through, IP filter, SNMP and SYSLOG
- USB flash drive connection for firmware update and data backup and restore





## SPECIFICATIONS

## GENERAL

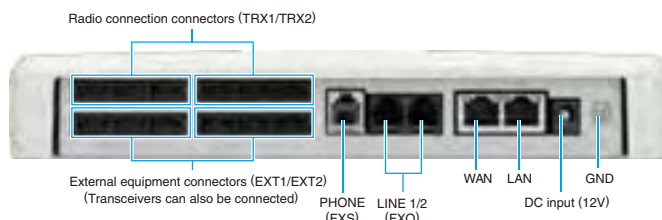
- Power supply : 12V DC  $\pm 10\%$ , max. 1.1A (main unit)  
16W Max. (with supplied AC adapter)
- Operating temperature range : 0°C to +40°C; 32°F to +104°F
- Operating humidity : 5% to 95% RH
- Dimensions (W×H×D) : 232×38×168 mm;  
(Projections are not included) 9.13×1.5×6.61 in
- Weight (main unit only) : 800 g; 1.76 lb (approx.)
- Regulatory compliance : FCC (Part 15 Class B/Part 68), TIA 868-B  
ICES-003, ICCS-03  
CE Mark, ETSI ES 203 021,  
ETSI EG 201 121 (Advisory Note)

## INTERFACE

- LAN/WAN : RJ-45 connectors ×2  
10BASE-T/100BASE-TX
- Telephone set : RJ-11 connector ×1
- Telephone line : RJ-11 connectors ×2
- Transceiver/repeater : Quick connectors ×2
- External equipment : Quick connectors ×2
- USB : Standard A receptacle ×2

All stated specifications are subject to change without notice or obligation.

## REAR PANEL VIEW



## Supplied accessories : (May differ according to version)

- AC adapter, BC-207S
- Ferrite core
- Quick connectors (Spare)
- Virtual serial port software CD

## OPTIONS

## Audio Connection Cables



OPC-2275: 5m (16.4ft) cable for a mobile transceiver. RJ-45 modular plug connector with speaker plug.  
OPC-2273: 5m (16.4ft) cable for the IC-M604A VHF marine transceiver. Waterproof 8-pin connector.

## AC Adapter



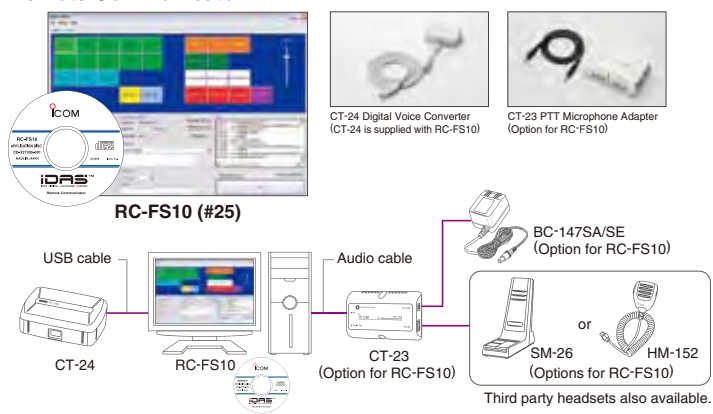
Provides 12V DC, 3.5A output. Same as supplied.

## Digital Voice Converter



Converts analog audio and G.711μ IP phone codec to the AMBE+2™ codec. Required for connection with IDAS™ multi-site trunking /conventional.

## Remote Communicator



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**Icom Inc.** 1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

[www.icom.co.jp/world](http://www.icom.co.jp/world)

**Count on us!**

**Icom America Inc.**

2380 116th Avenue NE,  
Bellevue, WA 98004, U.S.A.  
Phone : +1 (425) 454-8155  
Fax : +1 (425) 454-1509  
E-mail : [sales@icomamerica.com](mailto:sales@icomamerica.com)  
URL : <http://www.icomamerica.com>

**Icom Canada**

Glenwood Centre #150-6165 Highway 17,  
Delta, B.C., V4K 5B8, Canada  
Phone : +1 (604) 952-4266  
Fax : +1 (604) 952-0090  
E-mail : [info@icomcanada.com](mailto:info@icomcanada.com)  
URL : <http://www.icomcanada.com>

**Icom Brazil**

Rua Pernambuco, 353 - Sala 901  
Belo Horizonte, M.G.  
30130-150, Brazil  
Phone : +55 (31) 3582 8847  
Fax : +55 (31) 3582 8987  
E-mail : [sales@icombrazil.com](mailto:sales@icombrazil.com)

**Icom (Europe) GmbH**

Communication Equipment  
Auf der Krautweide 24  
65812 Bad Soden am Taunus, Germany  
Phone : +49 (6196) 76685-0  
Fax : +49 (6196) 76685-50  
E-mail : [info@icomeurope.com](mailto:info@icomeurope.com)  
URL : <http://www.icomeurope.com>

**Icom Spain S.L.**

Ctra. Rubi, No. 88 "Edificio Can Castanyer"  
Bajos A 08174, Sant Cugat del Valles,  
Barcelona, Spain  
Phone : +34 (93) 590 26 70  
Fax : +34 (93) 589 04 46  
E-mail : [icom@icomspain.com](mailto:icom@icomspain.com)  
URL : <http://www.icomspain.com>

**Icom Polska**

81-850 Sopot, ul. 3 Maja 54, Poland  
Phone : +48 (58) 550 7135  
Fax : +48 (58) 551 0484  
E-mail : [icompolska@icompolska.com.pl](mailto:icompolska@icompolska.com.pl)  
URL : <http://www.icompolska.com.pl>

**Icom (UK) Ltd.**

Blacksole House, Altira Park,  
Herne Bay, Kent, CT6 6GZ, U.K.  
Phone : +44 (0) 1227 741741  
Fax : +44 (0) 1227 741742  
E-mail : [info@icomuk.co.uk](mailto:info@icomuk.co.uk)  
URL : <http://www.icomuk.co.uk>

**Icom France s.a.s.**

Zac de la Plaine,  
1 Rue Brindejone des Moulinais, BP 45804,  
31505 Toulouse Cedex 5, France  
Phone : +33 (5) 61 36 03 03  
Fax : +33 (5) 61 36 03 00  
E-mail : [icom@icom-france.com](mailto:icom@icom-france.com)  
URL : <http://www.icom-france.com>

**Icom (Australia) Pty. Ltd.**

Unit 1 / 103 Garden Road,  
Clayton, VIC 3168 Australia  
Phone : +61 (03) 9549 7500  
Fax : +61 (03) 9549 7505  
E-mail : [sales@icom.net.au](mailto:sales@icom.net.au)  
URL : <http://www.icom.net.au>

**Icom New Zealand**

146A Harris Road, East Tamaki,  
Auckland, New Zealand  
Phone : +64 (09) 274 4062  
Fax : +64 (09) 274 4708  
E-mail : [inquiries@icom.co.nz](mailto:inquiries@icom.co.nz)  
URL : <http://www.icom.co.nz>

**Asia Icom Inc.**

6F No. 68, Sec. 1 Cheng-Teh Road,  
Taipei, Taiwan, R.O.C.  
Phone : +886 (02) 2559 1899  
Fax : +886 (02) 2559 1874  
E-mail : [sales@asia-icom.com](mailto:sales@asia-icom.com)  
URL : <http://www.asia-icom.com>

**Beijing Icom Ltd.**

10C07 Long Silver Mansion, No.88, Yong Ding  
Road, Haidian District, Beijing, 100039, China  
Phone : +86 (010) 5889 5391/5392/5393  
Fax : +86 (010) 5889 5395  
E-mail : [bjicom@bjicom.com](mailto:bjicom@bjicom.com)  
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