

GXV-3000 IP Video Phone FAQ

1. What service providers or platform support the GXV-3000?

ITSPs with pure SIP proxy (e.g.: Iptel's SER); or ITSPs with hybrid SIP proxy (e.g.: Digium Asterisk™ R1.4, SBC or OBP) but supporting H.264 and H.263 when manipulating media.

2. What are the functions of the USB ports?

The 2 USB interfaces are USB 2.0 host ports. The USB interface can be used for external USB device like flash to store captured image, ring tones, phone address books (not implemented yet), etc.

When a USB flash drive is connected to the USB 2.0 port, an icon will display in the lower section of the LCD.

3. Do I need a service provider? Can I make IP-to-IP call between video phones?

Yes, you need to have an Internet Telephony Service Provider (ITSP). You can also use "Direct IP Call" to talk to each other in an ad hoc fashion without a SIP proxy. "Direct IP Call" can be made between two phones if:

- both phones have public IP addresses, or
- both phones are in a same LAN/VPN using private or public IP addresses, or
- both phones can be connected through a router using public or private IP addresses (with necessary port forwarding or DMZ)

To make a direct IP call, press OK button to bring up MAIN MENU. Select "Direct IP Call". Press OK key to bring up the input interface and then key in the 12-digit target IP address. Press OK key to initiate call.

For example: If the target IP address is 192.168.1.60 and the port is 5062 (e.g. 192.168.1.60:5062), input the following: 192*168*1*60#5062 - "*" key represent "." and "#" key represent ":". Press OK to dial out.

Or, you can select:

Use Quick IP-call mode: No Yes

Then use "#xxx#" to call where xxx is the last octet of the IP address if both phones are in the same LAN.

For example: If the target IP address is 192.168.1.60 and use default port 5060, then you can just off hook the phone and press "#60#" or "#60" followed by SEND key to make the quick IP call. This is very useful in an enclosed LAN environment where you can assign static IP based on, for example, room number in a building.

4. The bandwidth of my internet connection is very low. How do I set up the video phone in this situation?

You need at least **128kbps** bandwidth in both directions (uplink and downlink) to make the GXV-3000 work with good picture quality.

If using less than **128kbps**, for example 96kbps bandwidth, you can configure: **Frame Rate to 5 (lowest) and Video Bit Rate to 64kbps or even 32kbps (lowest)**, to see if the video quality is acceptable in your network environment. Otherwise, please upgrade your bandwidth as you don't have enough physical data pipe to run the video data stream.

Detailed raw data rate (without using video codec compression) can be roughly calculated as follows:

If the LCD is 320x240 for QVGA and one pixel needs one bit (black or white) to present (actually it is more because of color), then the data capacity for ONE frame is: $320 \times 240 = 76.8 \text{ kbps}$.

If the frame rate is 5 frames per second, then the total data stream (raw data for video without compression) is: $76.8 \times 5 = 384 \text{ kbps}$.

Also, you need to add the additional audio data rate (details please refer to Codec FAQ:

<http://www.grandstream.com/FAQ/FAQ-Codec.pdf>)

With the H.264 codec, the video data can be compressed. But to ensure good picture quality having the **necessary bandwidth is the KEY** to a good picture because so much data that needs to be transmitted simultaneously in both directions.

5. What is the meaning of those letters displayed on the four corner of LCD screen when call established?

PCMU/H.264: This means the Audio / Video codec used in the call. It shows audio is using G.711 μ law (PCMU) and video is using H.264 video codec.

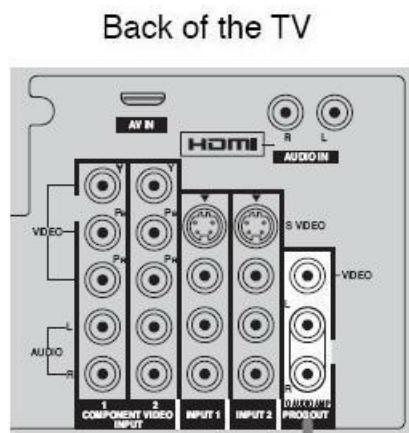
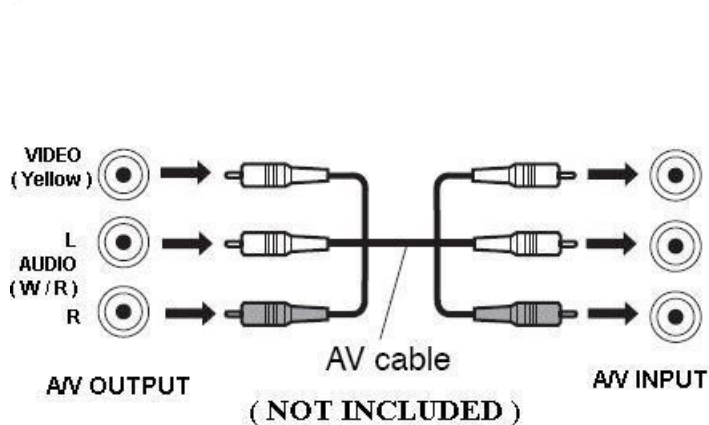
86K/15F: This shows **RECEIVING** video bandwidth used in the call (OSD always shows other side bandwidth used and suppose you should know your own sending video bandwidth as this video bit rate is configured by you in the configurations).

For example: "86K/15F" means you are receiving video bit rate using 86Kbps and 15F means it is using 15 frame per second to send the video.

The top left and right time stamp shows "current time" and "call duration".

6. Can I connect a TV monitor to the GXV-3000?

Yes.



7. Can I broadcast the video from the GXV-3000 into my local network?

No, if you mean live call broadcasting or multicasting in the LAN using the phone as source. Yes, if you mean a video conference using server or MCU as source.

Also, you can configure the phone in "Video Surveillance" mode and get the video stream packets in the same LAN via the monitor PCs. For more detailed information, please refer to the "Video Surveillance" section of GXV-3000 User Manual.

8. Can I take snapshot of the image in the LCD monitor?

Yes. Once a USB flash drive is connected and ready for use (an icon will show up in lower part of the LCD when it is ready), the user can save a snap shot or capture a picture on the LCD and stored into the flash drive in YUV format. For detailed information, please refer to the "Auxillary Ports" section of GXV-3000 User Manual.