

The PANASONIC KX-F706W is available for **T.38**, see below setting.
Please make sure if you have change any setting must "**save**"/"**commit**" and "**reboot**".

SP5002-----you can also to set **g.729** for higher priority

```
usr/config$ voice -print

Voice codec setting relate information
  Sending packet size :
    G.711U             : 40 ms
  Priority order codec :
    g711u
  Volume levels       :
    voice volume      : 28
    input gain        : 28
    dtmf volume       : 23
  No sound compress & CNQ :
    G.711(U-Law)     : Off
  Echo canceller      : On On
  Jitter buffer       :
    Min Delay        : 90
    Max Delay        : 150
```

```
usr/config$ support -print

Special Voice function support manipulation
  T.38(FAX) support : Enabled
  Modem relay       : Disabled
  Faxecm           : Enabled
  Redundancy depth : 2
  Modem volume      : 6
  Fax max rate     : 14400
```

SP5058 Setup~~~~The vender suggest to used **T.38**

FoIP

Maximum FoIP Rate:	Auto
T.38 Low Speed Redundancy	<input checked="" type="checkbox"/>
T.38 High Speed Redundancy:	<input checked="" type="checkbox"/>

Modify

VoIP Package

Jitter Buffer Size[20~200](ms):	60
VoIP DTMF Relay Mode:	In band
RFC2833: Payload number for DTMF[96~127]	101
RTP Packet NAT Detect By:	By IP Or By Port
Extension Number SIP Header To:	<input type="checkbox"/>
Supported SIP 100rel:	<input type="checkbox"/>
RTP Packet Monitor Time [0 Disable](sec)	0

You can also to set **g.729a** for higher priority

	Preferred CODEC				
	1	2	3	4	5
Silence Detection / Suppression:	<input type="checkbox"/>				
Priority:					
Codec Type:	G.711 u-law	G.729A	G.729A	G.711 a-law	G.726
Packet Time (ms):	40	40	20	20	20
Approximate Bandwidth Required (kbps):	74.8	18.8	29.6	85.6	53.6

Modify

While compression is achievable with voice, faxing is quite different. Actually a fax modem is converting an image (e.g. a document, picture, etc.) into an analogue signal, and modulates it over an appropriate carrier frequency of the sound spectrum. The signal travels through landlines to reach the other fax modem that actually recognizes the fax signal, demodulates it and converts it back to an image.

So here is the big problem. Compression means some loss in signal spectrum, phase and amplitude. There is no way this loss to be recovered. So a somewhat damaged or modified signal reaches the receiving modem. No device or algorithms can convert a compressed signal the way it was before compression. Otherwise there would have never been any problem with broadband requirements or disk space availability.

This is why faxing over almost can VoIP never work properly and if it does "work", it behaves quite unpredictably, and the result images are often unrecognizable. VoIP is based on compression for the sake of broadband while faxing is based on a nearly perfect conversion of images.

Some Adapters (a.k.a ATA's) claim they do T.38, which is the protocol used for faxing over VoIP, but most implementations of this are in the beginning stage and are usually not compatible between different chipset or even the same brand/different chipset. You may be lucky though.

For the fax issue, please try to adjust the fax rate lower of SP5002/SP5058 via T.38 and test again, **after change any setting must "save" or "commit" and "reboot"**.

Example: SP5002 "FAX MAX RATE"-**9600**

SP5058 "FoIP Rate" -**9600**

Because these are two different VoIP gateway devices based on two different chipset systems, it is better to have fax bridge to working properly with the same chipset, in order for the fax bridge to work properly you can try to change the SP5058 to SP5054/SP5052 and trial test FAX issue.