FreeDV Configuration for IC-7300

PC:

OS: W10 Pro

FreeDV Audio Sample Rate: Must be the same throughout Config. Example 44100.

Headset: USB is Prefered.

Microphone (#- USB Audio Device)

Speaker (#-USB Audio Device).

CODEC:

Speakers #- (# - USB Audio CODEC)

Microphone (# - USB Audio CODEC)

For more information: http://rowetel.com/downloads/freedy/

FreeDV reporter_ <u>https://freedv-reporter.k6aq.net/</u>

IC 7300 Configuration

1) **Depress Function Button:**

- a. P.AMP/ATT OFF
- b. AGC Fast
- c. NOTCH OFF
- d. NB OFF
- e. NR OFF
- f. IP+ OFF
- g. VOX OFF
- h. COMP OFF
- i. ¼ OFF
- j. MON1 OFF
- 2) Use Preset to select FreeDV or other Digital Modes
- 3) Hit MENU Button (Bottom Left)
- 4) Select "2"
- 5) Select FT8 PRESET
- 6) Select 3 to configure for FreeDV. See settings below. Make sure to follow the last step and select YES to save.

IC-7300 Preset 3 Configuration

PRESE	T (3) 1/8
Preset Name	FreeDV DigiVoice
Mode	USB-D
Filter	FIL2
Filter BW	1.5K

PRESET (3)	2/8
Filter Type (HF)	SHARP
Filter Type (50M-)	SHARP
ACC/USB Output Select	AF

50%

	PRESET (3)	3/8
\checkmark	ACC/USB AF SQL	OFF (Open)
\checkmark	ACC/USB IF Output Level	50%
\checkmark	USB MOD Level	50%
\checkmark	DATA MOD	USB

PRESET (3)	4/8
SSB-D TX Bandwidth	500-2500
DATA OFF MOD	MIC,ACC
СОМР	OFF
SSB TBW	NAR

	PRESET (3)	5/8
\checkmark	SSB TX Bandwidth	500-2500
\checkmark	USB SEND	OFF
\checkmark	USB Keying (CW)	OFF
\checkmark	USB Keying (RTTY)	OFF

	PRESET (3)	6/8
\checkmark	Inhibit Timer at USB Connection	ON
\checkmark	CI-V Baud Rate	19200
\checkmark	CI-V Baud Address	94h
\checkmark	CI-V Tranceive	OFF

	PRESET (3)	7/8
\checkmark	USB Serial Function	CI-V
\checkmark	CI-V USB Port Unlink from [REM0	OTE]
\checkmark	CI-V USB Baud Rate	115200
\checkmark	CI-V USB Echo Back	ON
	PRESET (3)	8/8
<< vv	nte» white:	
	YES NO	

Run PresetDepress IC-7300 Menu ButtonSelect "2"; Select FT8PRESET;Select Preset 3;Load preset memory?Select YES

3: FreeDV DigiVoice	UN-
In Use	LOAD

Radio File: Save your radio configuration. Example: FDV20200307_01

Radio Settings Mode: Manually change Mode from USB-D to LSB-D for 160, 80 and 40 meters.

RF Power: 100% (Most recommend a power level of 30 watts, but I have found that ICOM engineers limit the power in the IC-7300 in DATA mode to between 30 & 40 watts to prevent damage to the finals.)

FreeDV – Audio Configuration

udio Config				
Input To Computer From Radio				
Device	ID	API	Default Sample Rate	
Microsoft Sound Mapper - Input	0	MME	44100	
Microphone (5- USB Audio CODEC	1	MME	44100	
Microphone (USB Audio Device)	2	MME	44100	
Digital Audio (S/PDIF) (High De	3	MME	44100	
none				
Device: Microphone (5- USB Audio CODEC (1)			Sample Rate: 44100	Rec 2s
Dutput From Computer To Speaker/Headphones	1 10			1
Device		API	Default Sample Rate	
Microsoft Sound Mapper - Output	4	MME	44100	
Speakers (5- USB Audio CODEC)	5	MME	44100	
Speakers (USB Audio Device)	6	MME	44100	
VX2376 Series-1 (NVIDIA High De	7	MME	44100	
MP59H1-0 (2- NVIDIA High Defini	8	MME	44100	
Digital Audio (S/PDIF) (High De	9	MME	44100	
				Play 2s
Device: Speakers (USB Audio Device) (6)			Sample Rate: 44100	•

nput From Microphone To Computer				
Device	ID	API	Default Sample Rate	1
Microsoft Sound Mapper - Input	0	MME	44100	-
Microphone (5- USB Audio CODEC	1	MME	44100	
Microphone (USB Audio Device)	2	MME	44100	
Digital Audio (S/PDIF) (High De	3	MME	44100	
none				
Device: Microphone (USB Audio Device) (2)			Sample Rate: 44100 🗸	Rec
Output From Computer To Radio	ID	API	Default Sample Rate	1
Microsoft Sound Mapper - Output	4	MME	44100	1
Speakers (5- USB Audio CODEC)	5	MME	44100	1
Speakers (USB Audio Device)	6	MME	44100	
VX2376 Series-1 (NVIDIA High De	7	MME	44100	
MP59HT-0 (2- NVIDIA High Defini	8	MME	44100	
Digital Audio (S/PDIF) (High De	9	MME	44100	
none				
none				Play
Device: Sneakers (5, USB Audio CODEC) (5)	-		Sample Pater 4/100	Play
none Device: Speakers (5- USB Audio CODEC) (5)			Sample Rate: 44100 -	Play
none Device: Speakers (5- USB Audio CODEC) (5) Eccive: Transmit API Info			Sample Rate: 44100	Play
none Device: Speakers (5- USB Audio CODEC) (5) eceive Transmit API Info			Sample Rate: 44100	Play

FreeDV-Options

Transmits Text Msg over the air along with voice

Options	>
Reporting Display Voice Keyer Modem Simulation UDP Debugging	
- Txt Msg	
WA2TOP Mike - Missouri City, Texas EL29fm WA2TOP	
- PSK Reporter	
Enable Reporting Callsign: WA2TOP Grid Square: EL29fm	
OK Cancel Apply	

OR

- 1) Sends your info to PSK Reporter
- 2) Transmits Voice and Call Sign Only over the air as TEXT

Options
Reporting Display Voice Keyer Modem Simulation UDP Debugging
WA2TOP-Texas
PSK Reporter Enable Reporting Callsign: WA2TOP Grid Square: EL29FM
OK Cancel Apply

Check the following boxes

Options	×
Reporting Display Voice Keyer Modem Simulation UDP Debugging	
FreeDV 700 Options Clipping 🔽 700C Diversity Combine 🔽 700D Tx Band Pass Filter 🗌 700D Manual UnSync	
OFDM Modem Phase Estimator Options High Bandwidth DPSK	
Half/Full Duplex Operation	
Multiple RX Operation Simultaneously Decode All HF Modes Use single thread for multiple RX operation	
OK Cancel Apply	

Start/Stop/Record File – From Radio

Use this file to make a FreeDV or Analog recording for the station you are receiving.

Fr	FreeDV 1.4 devel			
File	Tools	Help		
		Audio Co	nfig	1
		PTT Conf	ig	
		Options.		
		Filter		
		Start/Stop Play File - Mic In		
<		Start/Sto	Record File - From Radio.	
		Start/Stop Record File - From Modulator		
		Start/Sto	Play File - From Radio	
	Restore defaults			
			20.5	
			20s	

PC Config

Input

Digital Audio (S/PDIF) (High Definition Audio Device) R to C (6- USB Audio CODEC) Mic to Computer HS USB (2- USB Audio Device) one selected here. (Ustomize and volumes and devices in

Sound



Check the following boxes

PTT Config	×
VOX PTT Settings	
Left Channel Vox Tone	
- Hamlib Settings	
🔽 Use Hamlib PTT	
Rig Model:	Icom IC-7300
Serial Device (or hostname:port):	COM7 👻
Radio Address	94
Serial Rate	115200
Serial Params	
– Serial Port Settings – – – – – – – – – – – – – – – – – – –	
Use Serial Port PTT	Serial Device: 🚽
© Use DTR □ DTR = +V	♥ Use RTS ▼ RTS = +V
PTT In	
🗐 Enable PTT Input	Serial Device: 🗸 🗸
	S = +V
Test PTT OK	Cancel Apply

Windows 10 configuration:

Start\Settings\System\Sound Use the drop downs to "Choose your Output and Input devices"

Display, sound, notifications, power	
← Settings	
ம் Home	D
Find a setting	Re
System	Se
Dicplay	
1》) Sound	

Sound Output Headpho	nes (Speakers)
Sound	
Output	
Choose your output device	
Headset Earphone (Jabra EVOL	VE LI 🔽
Certain apps may be set up to us selected here. Customize app vo options.	e different sound devices than the one lumes and devices in advanced sound
Device properties	
Master volume	
(小))	82
▲ Troubleshoot	
Manage sound devices	
Sound Output CODEC	
Sound	Transmit into dummy load.
Sound	Adjust audio level for 1 bar of
Output	ALC on the IC-7300.
Choose your output device	
Speakers (3- USB Audio CODEC)	
Certain apps may be set up to use selected here. Customize app volur options.	different sound devices than the one nes and devices in advanced sound
Device properties	
Master volume	
Master volume 丸»)	20
Master volume ロッ)	Adjust level for best TX audio level in



<u>or</u>

Sound Microphone (3-USB Audio Device)

Input

Choose your input device

Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound options.

Device properties

Test your microphone

Manage sound devices

Device Properties for Microphone (3-USB Audio Device)

ត្	Headset Microphone		Rename
-			
	Disable		
Vol	ume		
Ţ		68	
St	art test		
50			

Sound Microphone (3-USB Audio CODEC)

Input

Choose your input device

Microphone (3- USB Audio CODEC)	\sim
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Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound options.

Device properties



Manage sound devices

Device Properties for Microphone (3-USB Audio CODEC)

	Device	properties
--	--------	------------

D Microphone	Rename
Disable	
Volume	
Q —	25
Start test	

Start/Stop/Play File – From Radio

Use this option to play a previously recorded file. For example, a recording of one of your transmissions sent to you by another station via email. Format - *.wav or *.raw



Start/Stop/Record File – From Radio

Use this file to make a FreeDV or Analog recording for the station you are receiving.

Devel FreeDV 1.4 devel			
File	Tools	Help	
		Audio Config	
		PTT Config	
		Options	
		Filter	
	Start/Stop Play File - Mic In		
Start/Stop Record File - From Radio			
	Start/Stop Record File - From Modulator		
		Start/Stop Play File - From Radio	
	Restore defaults		
		20s	