



Phase Shift Keying-31



ORARI DAERAH 8 SULAWESI SELATAN

THE MAKASSAR DIGIMODE CLUB - YB8ZD



SULWAN DASE-YB8EIP

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MAKASSAR DIGIMODE CLUB - YB8ZD



TOPIK BAHASAN



- MODE-MODE KOMUNIKASI
- DIGIMODE: PSK-31
- BAGAIMANA MODE PSK31 BEKERJA?
- SOFTWARE PENDUKUNG
- INTERFACE
- BAGAIMANA MENG-INSTALASI PSK31
- BAGAIMANA MENGESET SISTEM?
- LET'S CQ



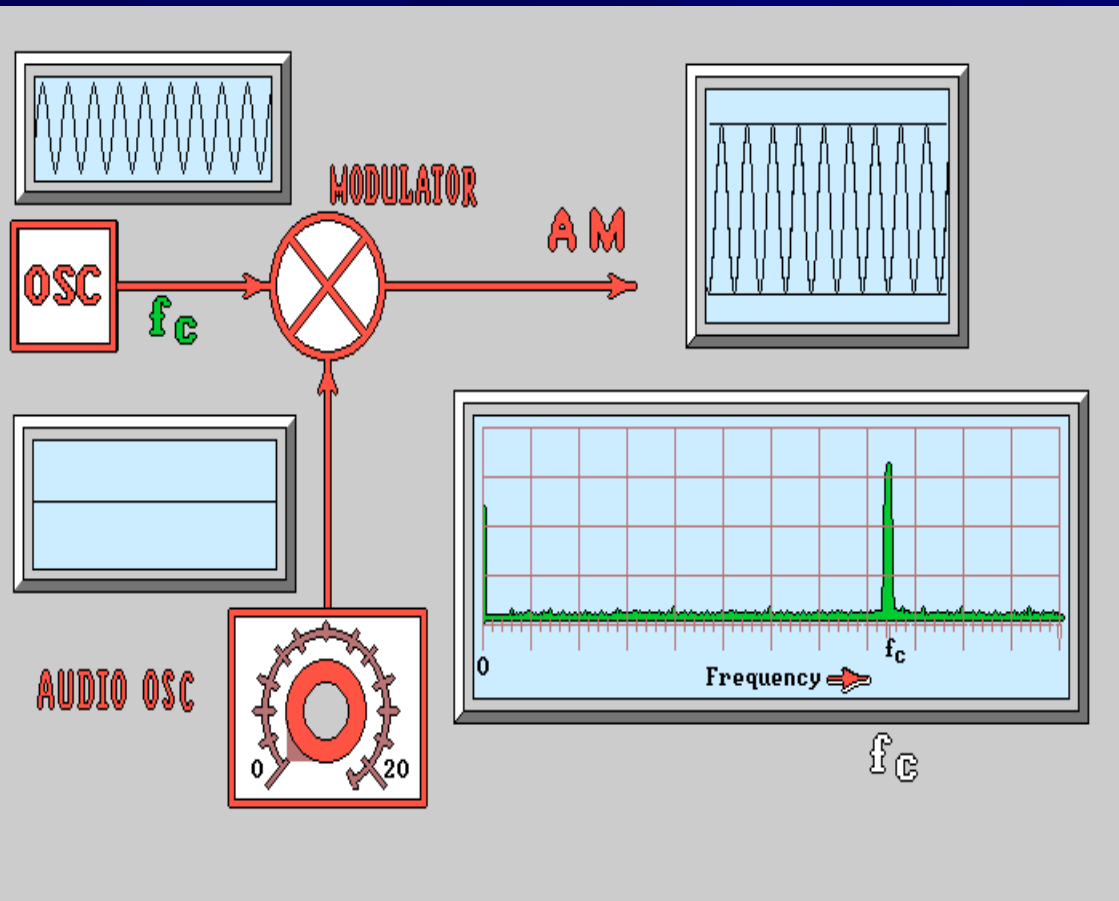
MODE KOMUNIKASI



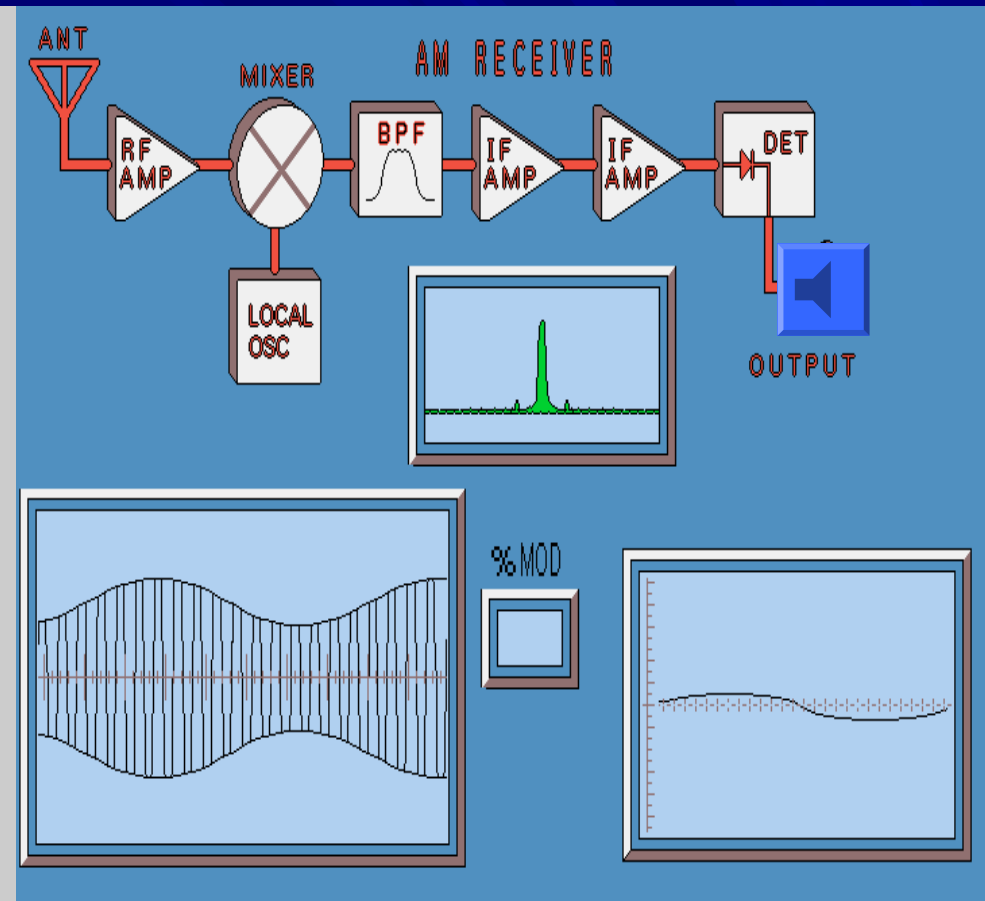
- Mode Komunikasi berdasarkan teknik modulasi:
 - Modulasi Analog
 - Modulasi Digital
- Mode **Komunikasi Analog**:
 - AM (Amplitude Modulation)
 - SSB (Single Side Band): LSB dan USB
 - FM (Frequency Modulation): Narrow FM Band



Modulasi Amplitudo



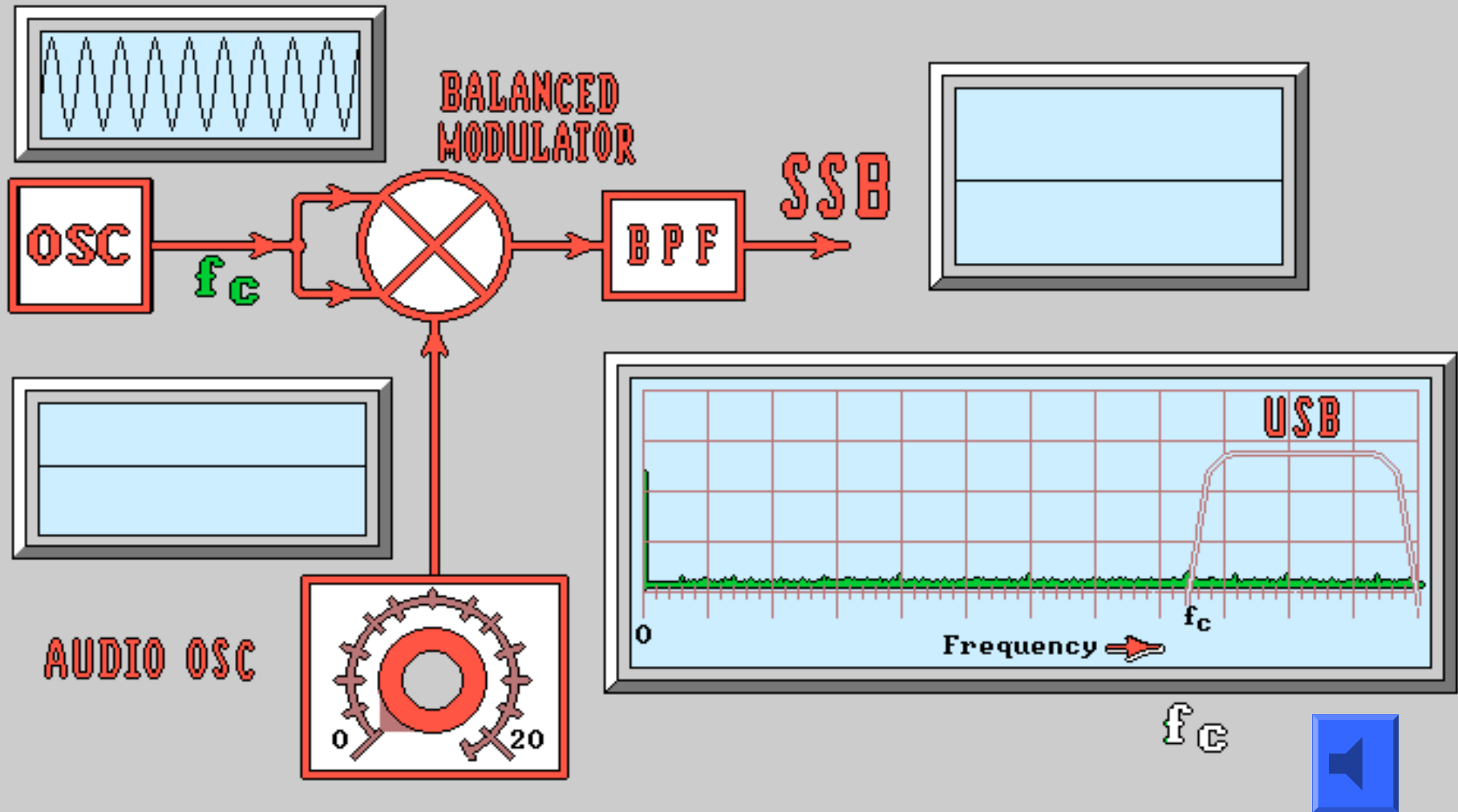
Pemancar AM



Penerima AM

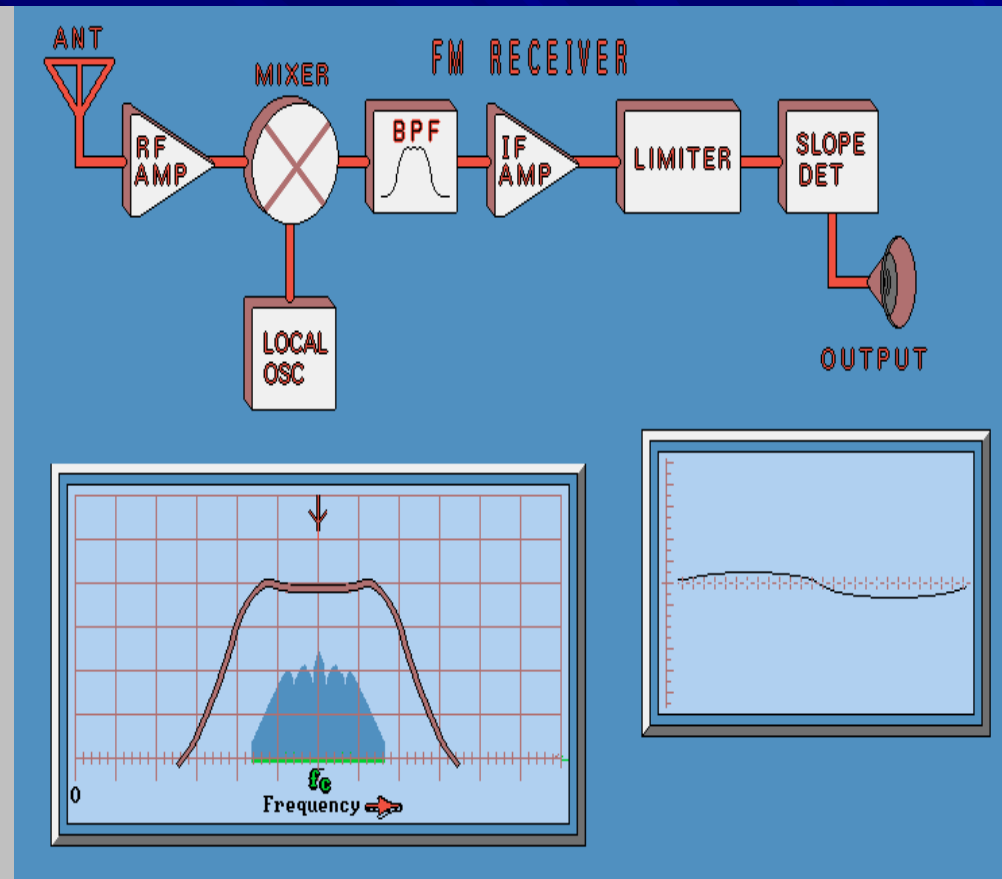
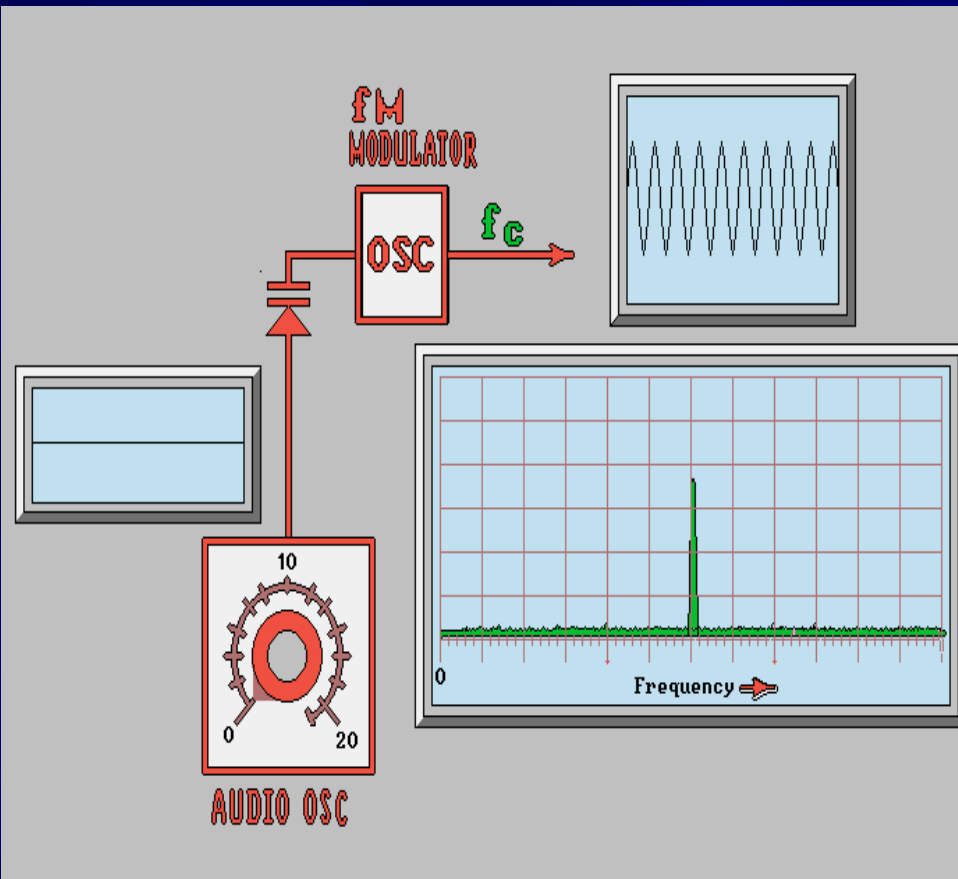


Single Side Band





Frequency Modulation





MODE KOMUNIKASI



■ Mode Komunikasi Digital:

- RadioTeletype (RTTY): Baudot
- ASK (Amplitude Shift Keying)
- FSK (Frequency Shift Keying): FAX
- MFSK
- PSK (Phase Shift Keying): PSK31, PSK62
- QPSK (Quadrature Phase Shift Keying)
- SSTV (Slow Scan Television)



Digimode



■ Mode Komunikasi Digital Dalam Praktek:

– Versi Amateur Radio:

- Teleprinter: Faximili, RTTY, AmTOR, Packet Radio
- Jaringan Internet: AMPR, QRZ.Com...
- Wireless Local Area Network (W-LAN)
- Jaringan VoIP: eQSO, EchoLink
- Telemetry: APRS
- Foto Satelit: 3D Satellite (milik ARRL)
- Global Positioning System: GPS
- Teleconference: eQSO
- Transaksi Bisnis: TERLARANG BUAT AMATIR 😊



DIGIMODE: PSK31



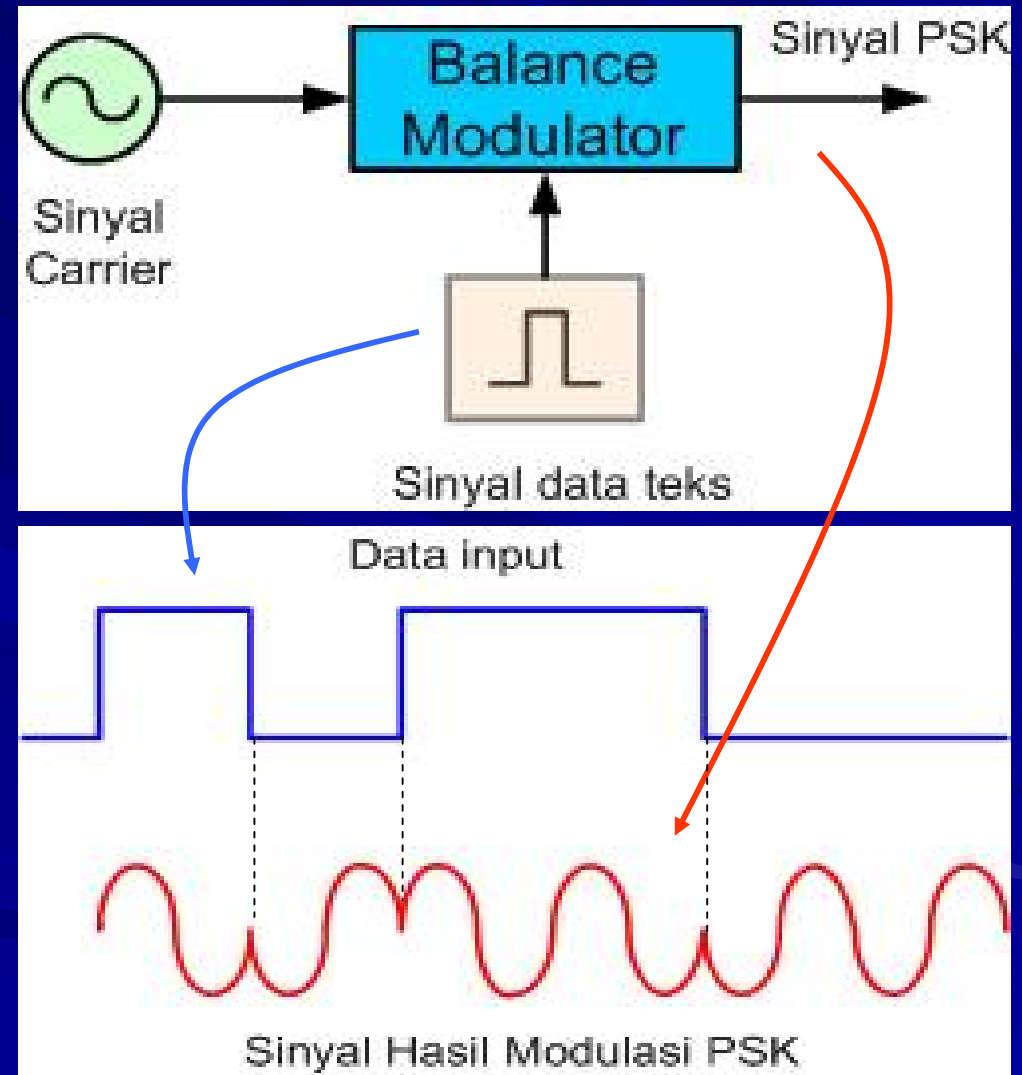
- PSK31 adalah salah satu mode komunikasi Digital (Digimode) dengan menggunakan modulasi PSK (Phase Shift Keying) dengan laju transmisi 31, 62 dan 125 Baud = lebar frekuensi 31, 62 dan 125 Hz.
- Laju transmisi bit dibuat lambat agar dapat ditransmisi pada band frekuensi HF (High Freq).
- Dalam satu frekuensi yang sama, dapat bekerja beberapa station amatir tanpa saling mengganggu.



Prinsip Kerja PSK-31



- Phase Shift Keying adalah mode modulasi digital yang mengubah tiap bit data digital (logik 0 & 1) kedalam sinyal analog yang sepadan.
- Tiap perubahan kode bit, dari logik '0' ke '1' atau dari '1' ke '0', phase sinyal carrier dibalik 180 derajat.





PSK-31



- **PSK-31** singkatan dari Phase Shift Keying (PSK) dengan laju transmisi data (Baudrate) 31,25 Baud. Untuk menghindari kesulitan penulisan bilangan desimal, maka 2 angka dibelakang koma tidak disebut lagi.
- Sebenarnya ada 3 pilhan laju data yaitu:
 - 31 Baud (bit/detik)
 - 62 Baud
 - 125 Baud

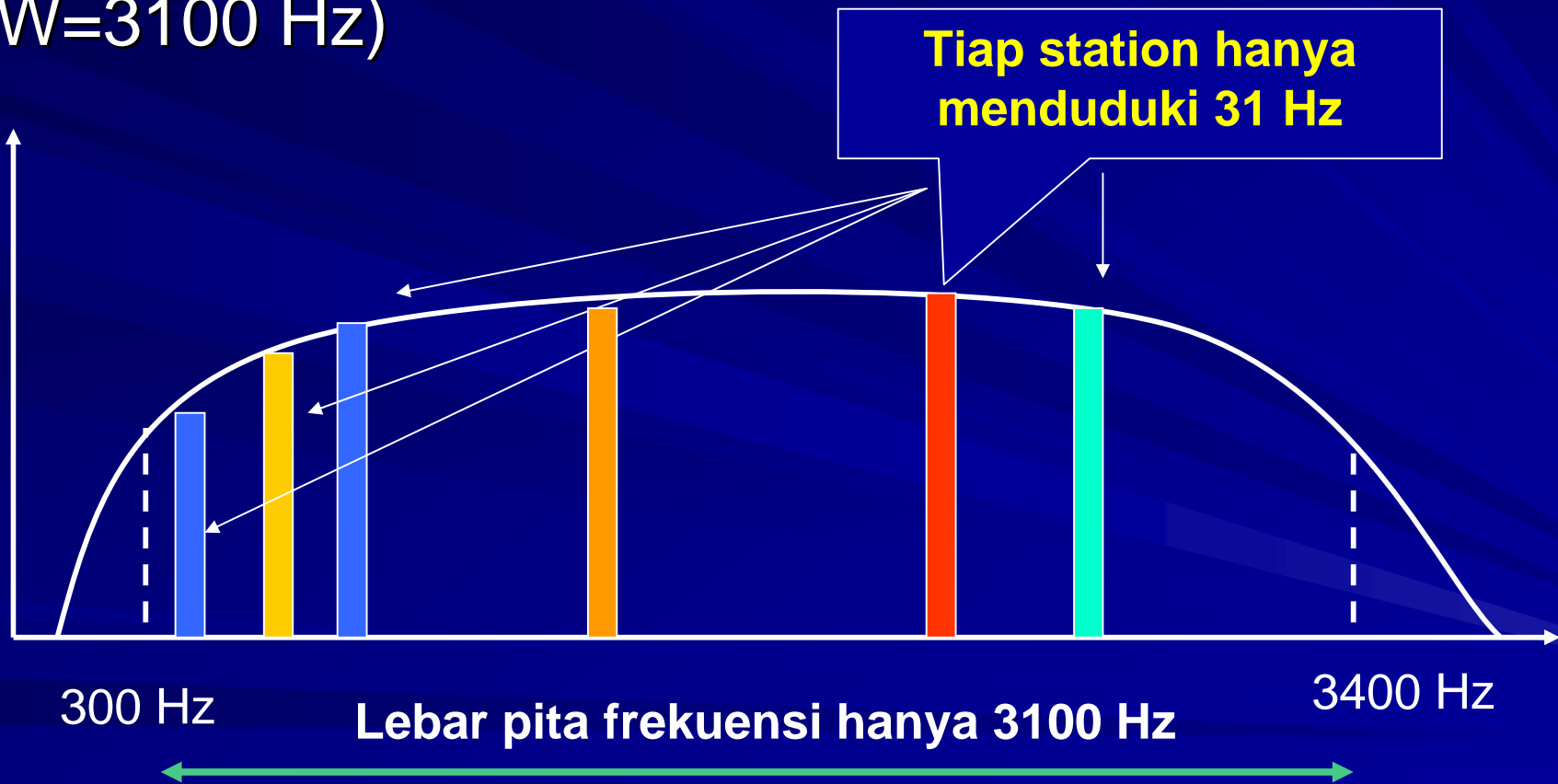




PSK31 Pada SSB



- Band frekuensi audio komunikasi SSB
- (BW=3100 Hz)





SOFTWARE



- Beberapa software yang umum digunakan diantaranya adalah:
 - MixWare: ada dalam bentuk uji coba (gratis)
 - HamDeluxe buatan Simon-HB9DRV dari Swiss (Gratis)
 - WinPSK .
 - MultiPSK. Dapat memonitor beberapa sekaligus beberapa station.
 - DigiPan
 - Semuanya bekerja dengan menggunakan **Soundcard.**



Software MixW



YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/23/2007	16:55:35	YB8ZD			599

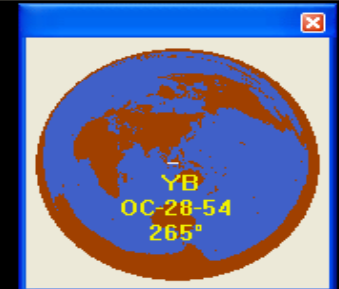
Eq: 14.070.700



RST: 119 0 | i | m | -40

Indonesia: New WPX [265 Deg 1402 km (871 miles)]

...YB8ZD YB8ZD YB8ZD de YB8EIP YB8EIP
 ...All Copy Dear ... (^_^)
 I will send My QSL Card Direct To You - OK
 TNX FR The Nice QSO
 My Best wishes to You and Your Family
 HPE CU AGN My Friend..Gd PSK31 DX-ing ,
 YB8ZD de YB8EIP SK SK 73 73
 END QSO:
 23 Jun 2007,
 TIME: 16:55:35z, Loc TIME:23:55:35



YB8ZD RX Sq AFC Lock Snap 1893.3 Hz IMD: BPSK31 06/23/2007 16:58:07 z

Tampilan MixW

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>


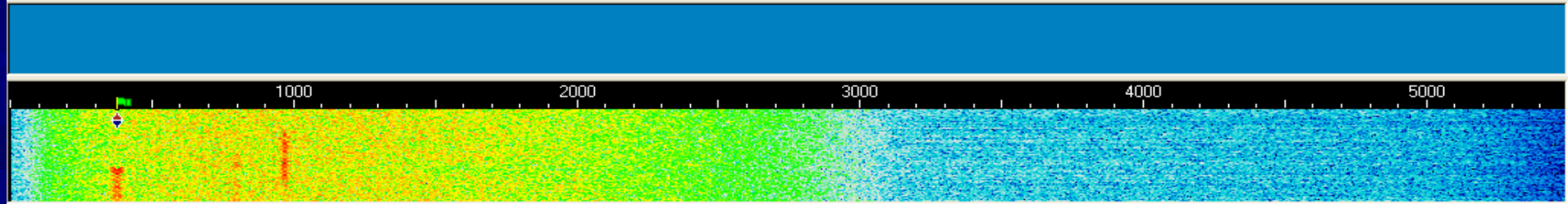
Eq: 14.070.700

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/24/2007	04:03:39	RN0SS			599

Asiatic Russia (Irkutskaya oblast): New WPX [351 Deg 7038 km (4374 mil)]

S CQ RN0SS CQ
PSEE
T O OO EQ RN0SS CQ RN0SS C\$E0SS CQ
PSE K
OLSS S
TNX NOR CALL DR GENNOO UR RST 599 599,
O E AMEII EEALEX
QL BRATSK BRATSK ,
LOC HTE OO06TE, LAST QIEET12.2006 40M BPL63
I YUA0WEAE RN0SS PSE K

R N

RN0SS RX Sq AFC Lock Snap 376.4 Hz IMD: BPSK31 06/24/2007 04:03:41 z

start E:\MAKASSAR DIGIM... Microsoft PowerPoint ... YB8EIP - Current log:...

11:03 AM



Software HamDeluxe



HamRadioDeluxe

File Edit View Bands Favourites Quick Save Macros Logbook Scanning Tuning Tools Voice Window Help

Connect Selection Favourite Quick Save Full Screen DX Cluster Logbook Satellites SW Data Sliders Customise Options Forums Undo Redo Add Backup

Mapper PSK31 Synch Remote Serial Programs



Version 3.4 build 1241

Copyright © 2003 - 2006 by Simon Brown, HB9DRV

PSK31 Deluxe v3.4 - [Classic Channel 1: 1305Hz]

start | E:\WORKSHOP_... | HamRadioDeluxe | PSK31 Deluxe v3... | Microsoft PowerP... | 10:47 AM



Software HamDeluxe



PSK31 Deluxe v3.4 - [Classic Channel 1: 368Hz]

File Edit View Favourites Macros Tags Super Browser Soundcard Tx Rx Tools Window Help

SB 1 2 3 4 BPSK-31

04:00:36 UTC

Logbook

Iags Options Add Reset

Start End
03:56 03:56

Start = now End = now

Field (Tag)	Value
Callsign	
Name	OM
QTH	
Locator	
Frequency	
Band	
Mode	PSK31
Sent	599
Rcvd	
Remark	

Output Level: 70

RX Erase RX Scroll Rewind Send (F1) Auto (F2) Stop (F4) Unsend TX Erase TX Lock

RX> 03:56:49 UTC

```

e UR RST re99 599,
my NAME Alex Alex
QTH BR=TSK BRATSK ,
LOC : 00#6TE [349.0° 7,019.5km] 00#6TE [349.0° 7,019.5km] ,
oHW? RA#Utta de RN#SS pee k
-t teaamt
e efuo jo3fufjo3fe-
e =ee tha otto
cg cg cg de jo3fuo jo3o.ee ufuo
cg cgcg de jo3fuo jo3f° jooiwo
cg cg cg de j Ijoue io k
eãii Sergey
Äëäääääð çà iðëýöiilå QSO, R#UDA de RN#SS
Äifääääiëý 73 sk
,irøtt Pol et te i N db s_aegna ree
..7et 7) TU Sergey sk sk..
i U

```

Receiving BPSK-31

IMD: Send: Immediate To send: 0

Clock error (soundcard - incoming signal) in parts per million
Clock error: 0 Channels: 1 PTT: COM1 AFC: 25Hz

Ready

start E:\MAKASSAR DIGIM... Microsoft PowerPoint ... PSK31 Deluxe v3.4 - ... 11:00 AM



Software DigiPan



YB8EIP - DigiPan

File Edit Clear Mode Options View Lock Configure Help

Lookup CQ Call 3 Call BTU Signoff File Brag T/R Squelch Clear Multi ^

Call: Name: QTH: Rec'd: Sent: Band: Ngtes: * 20m

tte o r N e ge awi oEeoT RG3K RG3K CQ ot Fne ep t 3n eErp Poc 2 o s r etnSS RN0SS
 CQ CQ CQ at?N0SS RN0SS RN0SS
 pse K
 a ôKn nte et t n lcm=e t il e oeat t;e e o s ita n o m sde UV5U UV5U Cm oe e lio t âtl ii
 rUV5 p r5a e n EL1QX/
 m[RZt* A.OCEANo l de RAaefb RAg RA0Ae toe ASIMM 4L1QX/MM CQ ...
 e1w l t et noee eet Ee Å e s ate toSe c a a t n SeeLkN /MM 4L1
 Xf s 4oofEX/MM CQ .b.
 e`o IA de eA0AS RA0AS RA0AS
 AS,OCEAN de RA0AS RAee
 S RA0Ah
 pse K
 p i&

1000 2000 3000 4000 5000

TX RX IMD: Sq AFC Snap BPSK31 06/24/2007 04:13:40 z

start E:\ORARI\ARSIP_YB... Microsoft PowerPoint ... YB8EIP - DigiPan 11:13 AM

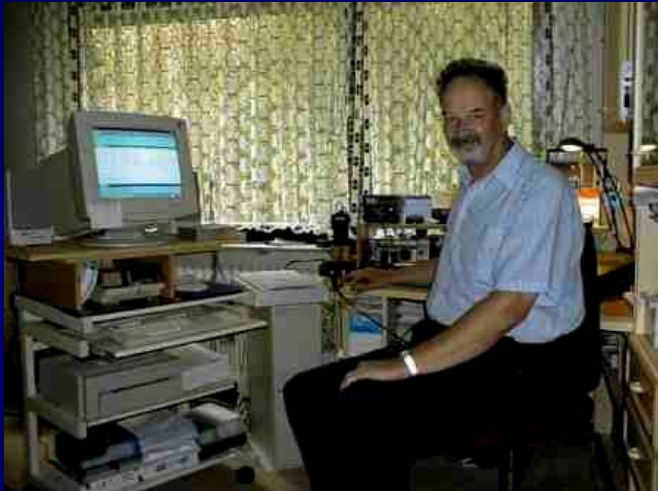


QSO Dengan BPSK-31



Hans -DF8TX Germany

Club Station Gymnasium North Germany



YB8EIP Makassar

Loc: OI94RU



Bagaimana Meng-instal PSK-31?



Perangkat yang dibutuhkan:

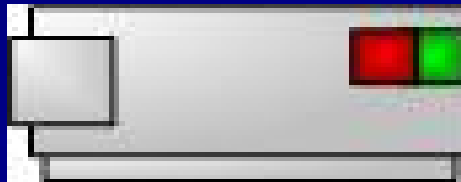
Komputer
+ Software

MixW, HamDeluxe,
MultiPSK, WinPSK



+

Interface-
Hombrew



+

Radio Transceiver HF

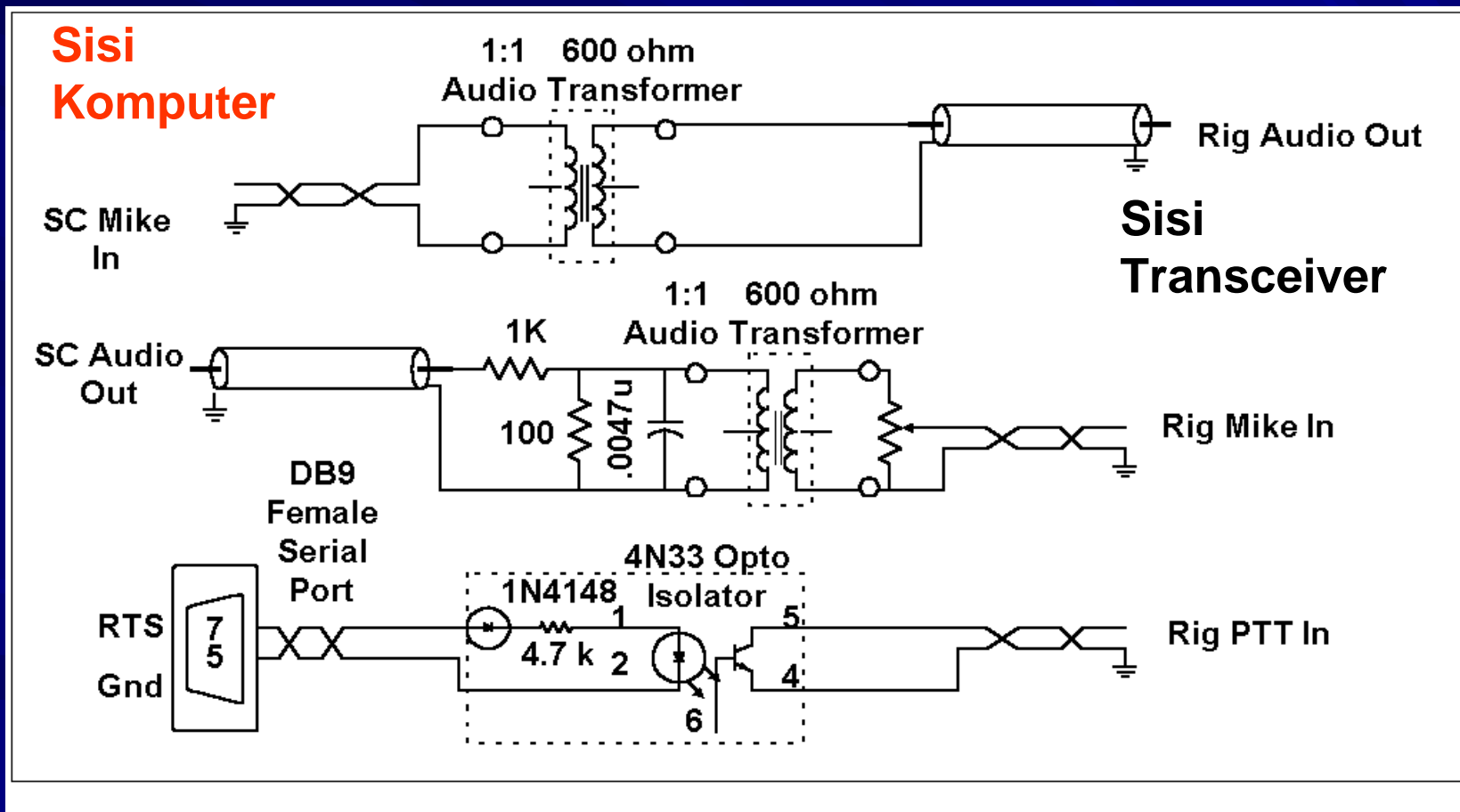


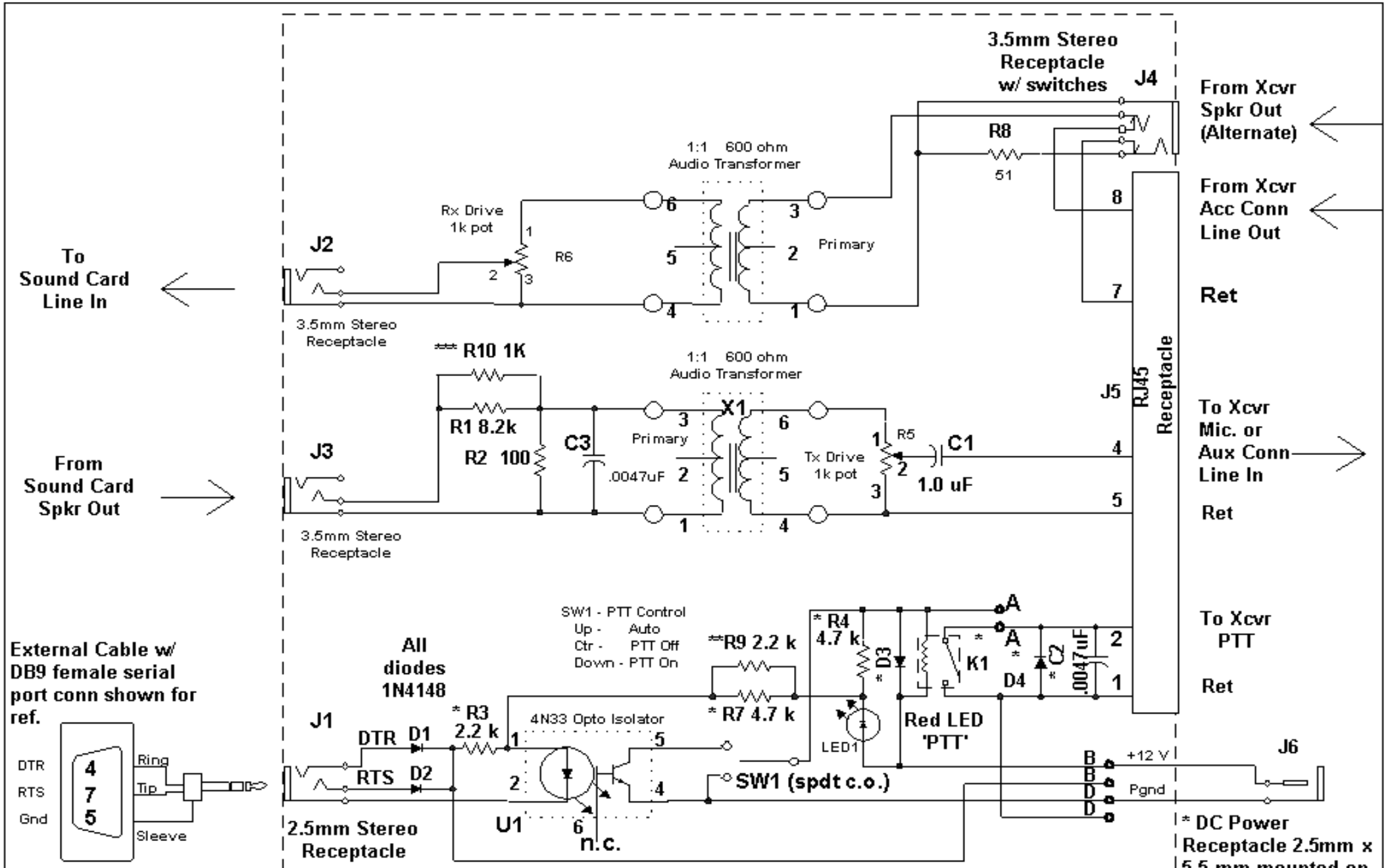


MERAKIT INTERFACE SOUNDCARD BPSK-31?



■ Tahap-1: Merakit Interface Soundcard (Homebrew)





Note: all components marked with * are stuffed per Table 1
 ** are only used if laptop used on config -1, see manual
 *** are used for rigs requiring higher audio drive levels, see manual

Table 1 Component Use Chart for Option -1 or -2

-1 With Relay Use Components	J6 K1 R3 D3 C2
-2 W/O Relay Use Components	R7 R9 D4 A-A B-B D-D



Diagram Blok Sistem Untuk Mode BPSK31?

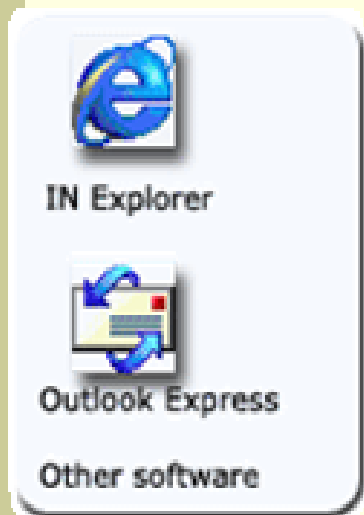
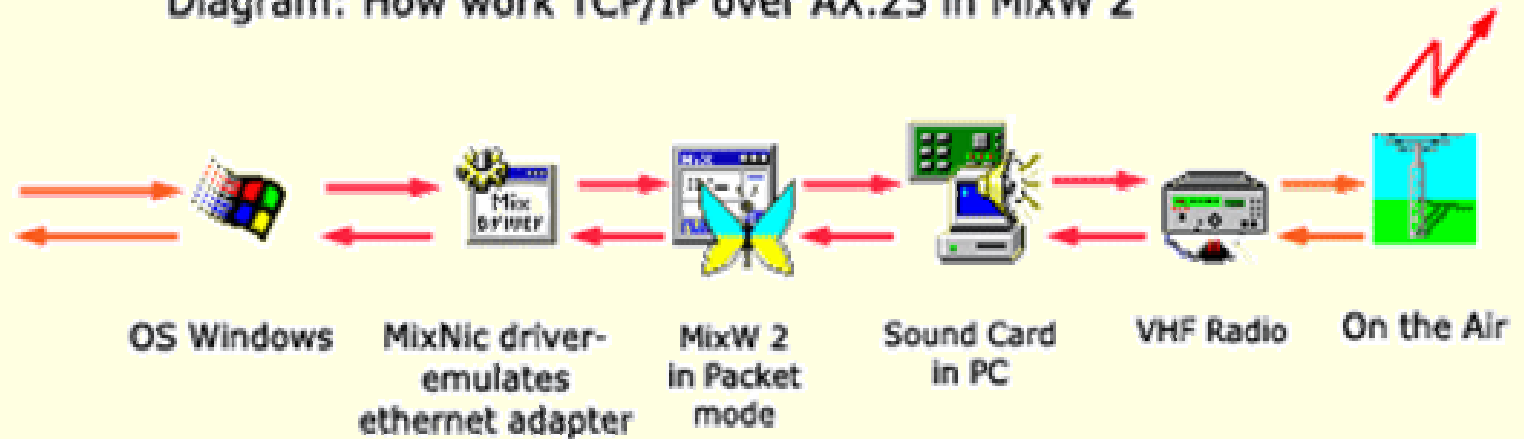


Diagram: How work TCP/IP over AX.25 in MixW 2





Tahapan Instalasi Software



- Untuk memudahkan dalam memahami berbagai sistem komunikasi mode digital (Digimode), maka kita akan menggunakan software **MixW** Unregister versi 2.17 yang bisa di download secara bebas dari internet.
- Keunggulan software MixW(are) adalah karena Multimode dan mudah untuk di gunakan.
- MixW merupakan software yang bekerja dengan OS Windows.



Tahap-1: Instal Software MixW



E:\MAKASSAR DIGIMODE CLUB\SOFTWARE\SOFTWARE_DIGIMODE

File Edit View Favorites Tools Help

Address E:\MAKASSAR DIGIMODE CLUB\SOFTWARE\SOFTWARE_DIGIMODE

Folders

- eQSO
 - EXTERN
 - InterACE
- LAGU
- MAKASSAR DIGIMODE CLUB
 - AKTIVITAS_MDC
 - ARTIKEL_HAM
 - COMPRESSOR
 - FOTO
 - FOTO2_QSO
 - HAM DELUXE
 - HAM_FILE
 - HANDBOOK
 - HOME BREW
 - JENIS RADIO
 - KONEKSITAS
 - LISENSI YB8EIP
 - MANUAL_ICOM
 - ORARI_FILE
 - PEMBINAAN
 - SATELIT_AMATEUR
 - SOFTWARE
 - eQSO
 - eqso_orari
 - EWB5
 - gateway
 - SOFTWARE_ANTENNA
 - SOFTWARE_DIGIMODE**
 - MixW
 - MixW - multimode software
 - SOFTWARE_ENGINEEE
 - TRUETTY
 - WA0TTN
 - MixW2165
 - trtty257
 - eQSO_PC_Client.3.00
 - HRDv034b1241 Full

MixW

MixW - multimode software for radio amateurs_files

SOFTWARE_ENGINEEE

TRUETTY

WA0TTN

MixW2165 1,132 KB

MixW217-Nov-1
Date Created: 5/4/2007 1:32 PM
Size: 3.48 MB

MixW218-Feb-19

MixW218-Jan-09

radio amateurs HTML Document

Shortcut to setup Shortcut 1 KB

trtty257 1,493 KB



Tahap-2: Buka Program MixW



■ Double click icon program MixW



Double Click
Icon MixW



Tampilan Program MixW 2.17



YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Fq: 14.070.700



QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/29/2007	02:41:45				599



0 copy % 100

0 | s/n | 60

RST: 111

0 | i | m | -40



RX Sq AFC Lock Snap 394.9 Hz IMD: BPSK31 06/29/2007 02:41:45 z

Tahap-3: Setting Personal Data

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ?

Clear TX RX << >>


Eq: 14.070.700

QSO	Mode	Freq	Date
42	BPSK31	14070.500	05/12
43	BPSK31	7039.490	06/09
44	BPSK31	14070.700	06/15
45	BPSK31	14070.700	06/26

Personal Data...
Interface language...
Default macros...
Macros for this mode...
Macros for this contest...
 Merge macros
Text colors...
Fonts
Disable CAT
TRCVR CAT/PTT...
LPT port settings...
Secondary PTT port
FSK port
WinKey port
TNC emulation...
Rotor
Disable sound device
Sound device settings...
Output volume...
Input volume...
TNC settings...
Markers...
Callbook...
 Use WAE country list

Name	QTH	RST_Sen
AM	PALEMBANG	599
toru	Tokyo-PM95pk	599
	on37kt	599

RST: 119 0 copy % 100
0 | s/n | 60
0 | i | m | -40



1000 2000 3000 4000 5000

RX Sq AFC Lock Snap 395.4 Hz IMD: BPSK31 06/26/2007 10:48:01 z

start 9. Mercy's - Usah ... E:\WORKSHOP_M... Microsoft PowerP... YB8EIP - Current l... 5:48 PM

Click **Configure**, kemudian select **Personal data**, sehingga muncul tampilan berikut

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700


QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/24/2007	04:38:13				599

0 copy % 100
0 | s/n | 60
RST: 111
0 | i | m | -40

IL

Personal data

Call: YB8EIP
Name: Sulwan
Log file: MixW2.log
QTH: Makassar - Indonesia
Lat: -5.16667 Long: 119.417
Locator: DI94RU IOTA:
Domain (state): Indonesia County: Sulsel
 Use CWID Fast Slow
CWID: de sk



1000 2000 3000 4000 5000

RX Sg AFC Lock Snap 383.2 Hz IMD: BPSK31 06/24/2007 04:38:13 z

start E:\ORARI\ARSIP_YB... Microsoft PowerPoint ... YB8EIP - Current log: ... 11:38 AM

Tahap-4: Setting Control PTT

Click panel 'Configure' dan selek TRCVR CAT/PTT

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View **Configure** Help

AutoCQ CQ QRZ? Ca

Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date
42	BPSK31	14070.500	05/12
43	BPSK31	7039.490	06/09
44	BPSK31	14070.700	06/15
45	BPSK31	14070.700	06/23

name QTH RST_Sen

AM	PALEMBANG	599
toru	Tokyo-PM95pk	599
	on37kt	599

65 Deg 1402 km (871 miles)

RST: 119 0 copy % 100
0 | s/n | 60
0 | i | m | -40

YB
OC-28-54
265°

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

YB8ZD RX Sq AFC Lock Snap 1897.8 Hz IMD: BPSK31 06/23/2007 17:23:54 z

start E:\WORKSHOP_M... Phase Shift Keyin... YB8EIP - Current I... Interface - Microso... 12:23 AM

Tampilan "Setting kontrol PTT"

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Set		
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN			
45	BPSK31	14070.700	06/23/2007	16:55:35	YB8ZD			

Indonesia: New WPX [26]

K t

PTT & CAT

CAT: None

OK Cancel

PTT & CAT Interface

COM1 (1200) Details Disabled

Save frequency on exit Display zero beat frequency

PTT via CAT command

CW via CAT command

CW out via soundcard

CW is LSB

AFSK in place of FSK

DIG (Yaesu) is: LSB

CW pitch: 800 Hz

FSK center fq: 2210 Hz

Default digi mode: FSK

Mouse wheel for tuning Sensitivity, Hz/tick: 500

Cat correction (Hz)

Global: 0

USB: 0

LSB: 0

CW: 0

Digi: 0

TX to RX: 0

YB
OC-28-54
265°

RX Sg AFC Lock Snap 1895.3 Hz IMD: BPSK31 06/23/2007 17:28:04 z

start E:\WORKSHOP_M... Phase Shift Keyin... YB8EIP - Current I... interface - Microso... 12:28 AM

Tahap-5: Setting Serial Port

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View **Configure** Help

AutoCQ CQ QRZ? C

Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date
42	BPSK31	14070.500	05/12
43	BPSK31	7039.490	06/09
44	BPSK31	14070.700	06/15
45	BPSK31	14070.700	06/26

name QTH RST_Sen

AM	PALEMBANG	599
toru	Tokyo-PM95pk	599
	on37kt	599
		599

0 copy % 100

0 | s/n | 60

RST: 119 0 | i | m | -40


LO ORO<\$I VT O
E O T AEE EY MO

Disable CAT
TRCVR CAT/PTT...
LPT port settings...
Secondary PTT port
FSK port
WinKey port
TNC emulation...
Rotor

Disable sound device
Sound device settings...
Output volume...
Input volume...

TNC settings...

Markers...
Callbook...
 Use WAE country list



RX Sg AFC Lock Snap 398.2 Hz IMD: BPSK31 06/26/2007 11:05:09 z

start 14. Kupu-ku... E:\WORKSH... Microsoft Po... YB8EIP - Cu... Master Volume 6:05 PM

Tampilan Setting Serial Port: Select "Disable device" seperti pada gambar

The screenshot shows the YB8EIP software interface. At the top, there is a menu bar (File, Edit, Mode, Options, View, Configure, Help) and a toolbar with buttons for AutoCQ, CQ, QRZ?, Call, Info, Brag, Bye, Clear, TX, RX, and navigation arrows. Below the toolbar is a call log table:

QSD	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/23/2007	16:55:35	YB8ZD			599

Below the table is a location indicator: "Indonesia: New WPX [265 Deg 1402 km (871 miles)]". To the right, there is a frequency display showing "Eq: 14.070.700" and a signal strength indicator. A "Serial port" dialog box is open in the center, showing the following settings:

- Port: COM1 *
- Baud rate: 1200
- Data bits: 8
- Parity: None
- Stop bits: 1
- RTS: Always On
- DTR: Always Off
- Echo
- Disable device
- Hardware flow control

Buttons for OK and Cancel are visible. In the background, a globe shows the location "YB OC-28-54 265°". The bottom of the screen shows a frequency display with a scale from 1000 to 5000 Hz and a taskbar with the Windows start button and several open applications.

Tahap-6: Atur Soundcard

Click 'Configure' & select **Sound Input**. Select Microphone atau Line-in & abaikan yg lain.

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN	oo3Zkt		599
45	BPSK31	14070.700						

Recording Control

Options Help

Recording Line In Microphone CD Audio Aux Phone

Balance: [Slider] [Speaker Icon]

Volume: [Slider]

Mute all

Select Select Select Select Select

Advanced

ALI Audio Wave

YB
OC-28-54
265°

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

YB8ZD RX [Sq*] AFC Lock Snap 1892.2 Hz IMD: BPSK31 06/23/2007 17:35:35 z

start E:\WORKSH... Phase Shift ... YB8EIP - Cu... interface - ... Recording C... 12:35 AM

Click **Configure** & select **Sound output**. Atur setting volume output soundcard seperti pada gambar.

The screenshot displays the YB8EIP software interface. At the top, a menu bar includes 'File', 'Edit', 'Mode', 'Options', 'View', 'Configure', and 'Help'. Below the menu is a row of colored buttons: AutoCQ, CQ, QRZ?, Call, Info, Brag, Bye, Clear, TX, RX, <<, and >>. A table lists log entries with columns for QSD, Mode, Freq, Date, UTC, Call, Name, QTH, and RST_Sen. A frequency display shows 'Eq: 14.070.700' with a signal strength indicator and '0 copy % 100' and '0 | s/n | 60'.

The 'Master Volume' window is open, showing volume controls for various audio outputs: Master Volume, Wave, MIDI, Line, Microphone, CD Audio, Aux, and Phone. Each output has a 'Balance' slider and a 'Volume' slider. There are 'Mute' checkboxes for each output. An 'Advanced' button is located at the bottom of the window. The text 'ALI Audio Wave' is visible at the bottom left of the window.

The Windows taskbar at the bottom shows the Start button, several open applications, and the system tray with the time '5:52 PM' and date '06/26/2007'. A frequency scale from 1000 to 5000 is visible at the bottom of the screen.

Tahap-7: Men-setting Mode BPSK

Click Kolom Mode dan select **BPSK31**

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ

SSB
AM
FM
CW
BPSK31
QPSK31
FSK31
RTTY
Packet
Pactor
Amtor
MFSK
Throb
MT63
Hellschreiber
Fax
SSTV
OLIVIA

Inverted
Mode settings...
Character encoding for this mode ▶
Output amplitude for this mode...
Connect...
Disconnect

Additional modes ▶
Additional modes settings...
TNC modes ▶
TNC modes settings...

Brq Bye Clear TX RX << >>

Eq: 14.070.700

Call	Name	QTH	RST_Sen
YB4IR	IMAM	PALEMBANG	599
JA1SCW	Setoru	Tokyo-PM95pk	599
JT1DN		on37kt	599
YB8ZD			599

0 copy % 100
0 | s/n | 60
RST: 119 0 | i | m | -40

Asia: New WPX [265 Deg 1402 km (871 miles)]

TAET
E R AM S EENAE NE

YB
OC-28-54
265°

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

YB8ZD RX Sq AFC Lock Snap 1895.3 Hz IMD: BPSK31 06/23/2007 17:42:39 z

start E:\WORKSH... Phase Shift ... YB8EIP - Cu... interface - ... Master Volume 12:42 AM

Click Mode dan pilih Mode Setting

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ

SSB
AM
FM
CW
BPSK31
QPSK31
FSK31
RTTY
Packet
Pactor
Amtor
MFSK
Throb
MT63
Hellschreiber
Fax
SSTV
OLIVIA

Inverted
Mode settings...
Character encoding for this mode ▶
Output amplitude for this mode...
Connect...
Disconnect

Additional modes ▶
Additional modes settings... ▶
TNC modes ▶
TNC modes settings... ▶

Brq Bye Clear TX RX << >>

Eq: 14.070.700

0 copy % 100
0 | s/n | 60
0 | i | m | -40

Call	Name	QTH	RST_Sen
YB4IR	IMAM	PALEMBANG	599
JA1SCW	Setoru	Tokyo-PM95pk	599
JT1DN		on37kt	599
YB8ZD			599

asia: New WPX [265 Deg 1402 km (871 miles)]

TAET
E R AM S EENAE NE

YB
OC-28-54
265°

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

YB8ZD RX Sg AFC Lock Snap 1895.5 Hz IMD: BPSK31 06/23/2007 17:42:55 z

start E:\WORKSH... Phase Shift ... YB8EIP - Cu... interface - ... Master Volume 12:42 AM

Tampilan Mode Setting. Click AFC, Squelch, dan Snap. Pilihan Baud Rate: 31,25 Baud (HF SSB)

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/29/2007	03:00:42				599

Eq: 14.070.700

0 copy % 100

0 | s/n | 60

RST: 119 0 | i | m | -40

CQ CQ CQ ...DE YB8ZD YB8ZD YB8ZD...PSE K

BPSK settings

AFC Inverted

Squelch Snap

Threshold

Baudrate: 31.25

TX frequency: 399 Hz

RX frequency: 398 Hz

Varicode: ASCII8 (standard)



CQ CQ CQ ...DE YB8ZD YB8ZD YB8ZD...pse K **RX**

1000 2000 3000 4000 5000

RX Sq AFC Lock Snap 399.4 Hz IMD: BPSK31 06/29/2007 03:00:42 z

start Ujian Akhir Semes... E:\MAKASSAR DI... Microsoft PowerP... YB8EIP - Current l... 10:00 AM

Tahap-8: Setting Macros

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700

QSD	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/23/2007	16:55:35	YB8ZD			599

Indonesia: New WPX [265 Deg 1402 km (871 miles)]

RST: 119 0 copy % 100
0 | s/n | 60
0 | i | m | -40

K t 0A E ETLRBL
OERRPH EECREOU
T OTLE T TTT S

Edit user macro

Macro: F3 Label: QRZ? A

Text:

```
<TX>
...<CALL> <CALL> <CALL> de <MYCALL> <MYCALL> <
<RXANDCLEAR>
```

Subset: Text macros

- <MYCALL> - your callsign
- <MYMAINCALL> - the same, without /P, etc.
- <MYNAME> - your name
- <MYQTH> - your QTH
- <MYWWLOC> - your WW locator
- <CALL> - callsign of other station
- <NAME> - name of other station operator
- <QTH> - QTH of other station
- <WWLOC> - WW locator of other station
- <NOTES> - Notes field
- <RSTR> - RST Received

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

YB8ZD RX Sq AFC Lock Snap 1897.2 Hz IMD: BPSK31 06/23/2007 17:43:58 z

start E:\WORKSH... Phase Shift ... YB8EIP - Cu... Interface - ... Master Volume 12:43 AM

Tahap-8: Setting Macros

- Apa itu Macros ?
- Macros adalah sebuah program dalam MixW yang dapat diaktifkan dengan sekali click untuk memudahkan dalam ber-QSO dengan station lawan QSO.
- Macros berisi serangkaian kalimat dalam bahasa Indonesia atau Inggris yang disusun sesuai Operating Procedure dalam ber-QSO.
- Isi Macros berupa: Auto CQ, CQ, QRZ, CALL, INFO, BRAG, dan BYE.
- Program kecil Macros terdapat pada kotak sebelah kanan yang dapat dipindahkan ke kotak Macros dengan men-seleck salah satu nama program dengan tanda <...> kemudian meng-click tombol <<

Setting Macros: CQ

Callsign lawan akan terisi sendiri di <CALL> ketika anda menegtik Callsign Lawan di Kolom QSO. Callsign Anda akan terisi dengan sendirinya di dalam <MYCALL> setelah anda mengisi "Personal Data"

The screenshot displays the MixW software interface. At the top, the title bar reads "YB8EIP - Current log: MixW 2. log - MixW". Below the title bar is a menu bar (File, Edit, Mode, Options, View, Configure, Help) and a toolbar with buttons for "AutoCQ", "CQ", "QRZ?", "Call", "Info", "Brag", "Bye", "Clear", "TX", "RX", "<<", and ">>".

The main window features a log table with the following data:

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/29/2007	03:13:31				599

To the right of the log table is a frequency display showing "Eq: 14.070.700" and a set of navigation buttons. Below the frequency display is a circular graphic with a compass rose and the text "RST: 119". To the right of this graphic are three input fields: "0 copy % 100", "0 | s/n | 60", and "0 | i | m | -40".

An "Edit user macro" dialog box is open in the foreground. It has a "Macro:" dropdown set to "F2" and a "Label:" field containing "CQ". The "Text:" field contains the following macro code:

```
<TX>
..CQ CQ CQ de <MYCALL> <MYCALL> <MYCALL>
..CQ CQ CQ de <MYCALL> <MYCALL> <MYCALL> pse
<RXANDCLEAR>
```

The "Subset:" dropdown is set to "Text macros". A list of macro variables is visible on the right side of the dialog, including <MYCALL>, <MYMAINCALL>, <MYNAME>, <MYQTH>, <MYWWLDC>, <CALL>, <NAME>, <QTH>, <WWLDC>, <NOTES>, and <RSTR>.

At the bottom of the screen, a frequency scale is visible with markers at 1000, 2000, 3000, 4000, and 5000. The status bar at the very bottom shows "RX Sq AFC Lock Snap 394.3 Hz IMD: BPSK31 06/29/2007 03:13:31 z". The Windows taskbar at the bottom includes the "start" button and several open applications, including "Ujian Akhir Semest...", "E:\MAKASSAR DIGI...", "Microsoft PowerPoi...", and "YB8EIP - Current lo...". The system clock shows "10:13 AM".

Setting Macros: QRZ

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700

QSD	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/29/2007	03:22:56	YB0EO			599

Indonesia: New WPX [265 Deg 1402 km (871 miles)]

RST: 111 0 copy % 100
0 | s/n | 60
0 | i | m | -40

...YB0EO YB0EO YB0EO DE YB8EIP YB8EIP YB8EIP PSE K K

Edit user macro

Macro: F3 Label: QRZ? A Default for all modes Clear OK Cancel

Text:

```
<TX>  
...<CALL> <CALL> <CALL> de <MYCALL> <MYCALL> <  
<RXANDCLEAR>
```

Subset: Text macros

- <MYCALL> - your callsign
- <MYMAINCALL> - the same, without /P, etc.
- <MYNAME> - your name
- <MYQTH> - your QTH
- <MYWWLOC> - your WW locator
- <CALL> - callsign of other station
- <NAME> - name of other station operator
- <QTH> - QTH of other station
- <WWLOC> - WW locator of other station
- <NOTES> - Notes field
- <RSTR> - RST Received



YB0EO

RX Sq AFC Lock Snap 404.1 Hz IMD: BPSK31 06/29/2007 03:23:16 z

start Ujian Akhir Semest... E:\MAKASSAR DIGI... Microsoft PowerPoi... YB8EIP - Current lo... 10:23 AM

Setting Macros: CALL

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help


AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN	on37kt		599
45	BPSK31	14070.700	06/29/2007	03:22:56	YB0EO	RAHMAT	JAKARTA	599

Indonesia: New WPX [265 Deg 1402 km (871 miles)]

...YB0EO YB0EO YB0EO DE YB8EIP YB8EIP YB8EIP
 GM GM HELLO OM RAHMAT..TNX FR UR CALL...:-)
 UR RST IS 599 599
 MY NAME IS SULWAN ...SULWAN - EPC MEMBER NO #770
 LOC: OI94RU OI94RU - MAKASSAR CITY - INDONESIA
 QSL INFO: LOOK AT WWW.QRZ.COM...QRZ.COM
 QSL CARD: ---> DIRECT - DIRECT, NO BURO NO BURO
 HOME ADDRESS: BTN HAMZY BLOK S NO 4
 HOW U COPY OM RAHMAT ? BTU YB0EO



Edit user macro

Macro: F4 Label: Call A Default for all modes Clear OK Cancel

Text:

```

<TX>
...<CALL> <CALL> <CALL> de <MYCALL> <MYCALL>
<GA> <GA> Hello OM <NAME>..TNX FR UR Call...:]
UR RST is 599 599
My Name is SULWAN ...SULWAN - EPC Member No
LOC: OI94RU OI94RU - MAKASSAR CITY - INDONI
QSL Info: Look at 'www'.QRZ.COM...QRZ.COM
QSL CARD: ---> Direct - Direct, No Buro No Buro
Home Address: BTN HAMZY BLOK S NO 4 MAKASS.
HOW U COPY OM <NAME> ? BTU <CALL> de <MYC
<RXANDCLEAR>

```

Subset: Text macros

- <MYCALL> - your callsign
- <MYMAINCALL> - the same, without /P, etc.
- <MYNAME> - your name
- <MYQTH> - your QTH
- <MYWWLOC> - your WW locator
- <CALL> - callsign of other station
- <NAME> - name of other station operator
- <QTH> - QTH of other station
- <WWLOC> - WW locator of other station
- <NOTES> - Notes field
- <RSTR> - RST Received

YB0EO (RAHMAT, JAKARTA) [RX] [Sq] [AFC] [Lock] [Snap] 415.0 Hz [IMD]: [BPSK31] [06/29/2007] [03:37:27 z]

start Ujian Akhir Semest... E:\MAKASSAR DIGI... Microsoft PowerPoi... YB8EIP - Current lo... 10:37 AM

Setting Macros: INFO

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call CALL2 INFO Bye Clear TX RX << >>

Eq: 14.070.700

0 copy % 100
0 | s/n | 60
RST: 111 0 | i | m | -40

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/29/2007	03:22:56	YB0EO	RAHMAT	JAKARTA	599

Indonesia: New WPX [265 Deg 1402 km (871 miles)]

...YB0EO YB0EO DE YB8EIP YB8EIP
MY STATION INFO:
TRX: ICOM IC-707, POWER 30W,
ALINCO DR-610 FOR PACKET RADIO AND PHONE
ANT: DIPOLE HOMEBREW (HF)- 6M ABOVE GROUND
TROMBONE AND J-POLE-HOMBREW FOR 2M, 6M ABOVE GROUND
TUNER FOR HF ---> HOMEBREW
INTERFACE: HOMEBREW
PC: P-3 NOTEBOOK TOSHIBA TE2000
SOFTWARE: WINXP, MIXW V.2.17 (UNREG)
MY LICENSED SINCE 1992
HW U COPY? BTU YB0EO DE YB8EIP PSE



Edit user macro

Macro: F6 Label: INFO A Default for all modes Clear OK Cancel

Text:

```
<TX>  
...<CALL> <CALL> de <MYCALL> <MYCALL>  
My Station Info:  
TRX: Icom IC-707, Power 30W,  
Alinco DR-610 for Packet Radio and phone  
ANT: Dipole Homebrew (HF): 6m Above Ground  
Trombone and J-Pole-Hombrew for 2m, 6m above  
TUNER for HF --> Homebrew  
Interface: Homebrew  
PC: P-3 Notebook Toshiba TE2000  
Software: WinXp, MixW V.2.17 (Unreg)  
My Licensed since 1992
```

Subset: Text macros

- <MYCALL> - your callsign
- <MYMAINCALL> - the same, without /P, etc.
- <MYNAME> - your name
- <MYQTH> - your QTH
- <MYW/LDC> - your W/W locator
- <CALL> - callsign of other station
- <NAME> - name of other station operator
- <QTH> - QTH of other station
- <W/WLOC> - W/W locator of other station
- <NOTES> - Notes field
- <RSTR> - RST Received

YB0EO (RAHMAT, JAKARTA) RX Sq AFC Lock Snap 413.5 Hz IMD: BPSK31 06/29/2007 03:41:11 z

start Ujian Akhir Semest... E:\MAKASSAR DIGI... Microsoft PowerPoi... YB8EIP - Current lo... 10:41 AM

Setting Macros bye

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call CALL2 INFO Bye Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/29/2007	03:22:56	YB0EO	RAHMAT	JAKARTA	599

Indonesia: New WPX [265 Deg 1402 km (871 miles)]

RST: 119

0 copy % 100
0 | s/h | 60
0 | i | m | -40

YB
OC-28-54
265°

...YB0EO YB0EO YB0EO DE YB8EIP YB8EIP
...ALL COPY DEAR RAHMAT... (^_^)
I WILL SEND MY QSL CARD DIRECT TO YOU - OK
TNX FR THE NICE QSO
MY BEST WISHES TO YOU AND YOUR FAMILY
HPE CU AGN MY FRIEND..GD PSK31 DX-ING ,
YB0EO DE YB8EIP SK SK 73 73
END QSO:
29 JUN 2007,
TIME: 03:42:10Z, LOC TIME:10:42:10

YB0EO (RAHMAT, JAKARTA)

TX Sq AFC Lock Snap 411.5 Hz IMD: BPSK31 06/29/2007 03:43:34 z

start Ujian Akhir Semest... E:\MAKASSAR DIGI... Microsoft PowerPoi... YB8EIP - Current lo... 10:43 AM

Edit user macro

Macro: F7 Label: Bye A Default for all modes Clear OK Cancel

Text:

...<CALL> <CALL> <CALL> de <MYCALL> <MYCAL
...All Copy Dear <NAME>... (^_^)
I will send My QSL Card Direct To You - OK
TNX FR The Nice QSO
My Best wishes to You and Your Family
HPE CU AGN My Friend..Gd PSK31 DX-ing ,
<CALL> de <MYCALL> SK SK 73 73
END QSO:
<DATE>,
TIME: <TIME>, Loc TIME:<LOCALTIME>
<RXANDCLEAR>

Subset: Text macros

- <MYCALL> - your callsign
- <MYMAINCALL> - the same, without /P, etc.
- <MYNAME> - your name
- <MYQTH> - your QTH
- <MYWWLOC> - your WW locator
- <CALL> - callsign of other station
- <NAME> - name of other station operator
- <QTH> - QTH of other station
- <WWLOC> - WW locator of other station
- <NOTES> - Notes field
- <RSTR> - RST Received

Setting Macros BYE

YB8EIP - Current log: MixW2.log - MixW

File Edit Mode Options View Configure Help

AutoCQ CQ QRZ? Call Info Brag Bye Clear TX RX << >>

Eq: 14.070.700

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		ori37kt	599
45	BPSK31	14070.700	06/24/2007	04:45:32	JT1DN			599

Mongolia: !!!!!!! QSO BEFORE: 06/15/2007 12:05:28 PM !!!!!!! [350 Deg

0 copy % 100
0 | s/h | 60
RST: 111 0 | i | m | -40

Edit user macro

Macro: F7 Label: Bye


Text:

```

...<CALL> <CALL> <CALL> de <MYCALL> <MYCAL
...All Copy Dear <NAME>... (^_^)
I will send My QSL Card Direct To You - OK
TNX FR The Nice QSO
My Best wishes to You and Your Family
HPE CU AGN My Friend. Gd PSK31 DX-ing .
<CALL> de <MYCALL> SK SK 73 73
END QSO:
<DATE>.
TIME: <TIME>. Loc TIME:<LOCALTIME>
<RXANDCLEAR>
    
```

Subset: Text macros

- <MYCALL> - your callsign
- <MYMAINCALL> - the same, without /P, etc.
- <MYNAME> - your name
- <MYQTH> - your QTH
- <MYWVLOC> - your W/V locator
- <CALL> - callsign of other station
- <NAME> - name of other station operator
- <QTH> - QTH of other station
- <WVLOC> - W/V locator of other station
- <NOTES> - Notes field
- <RSTR> - RST Received



JT
AS-23-32
350°

JT1DN RX [S]q AFC Lock Snap 382.4 Hz IMD: BPSK31 06/24/2007 04:45:48 z

Tahap-7: Test Operasional

Click Folder CQ. Bila sistem berfungsi bagus, maka radio akan berubah dari posisi receive ke posisi transmit

The screenshot shows the YB8EIP software interface. At the top, there's a menu bar (File, Edit, Mode, Options, View, Configure, Help) and a toolbar with buttons for AutoCQ, CQ, QRZ?, Call, Info, Brag, Bye, Clear, TX, RX, and frequency navigation. Below the toolbar is a log table with columns: QSO, Mode, Freq, Date, UTC, Call, Name, QTH, and RST_Sen. The log shows four entries, with the last one (QSO 45) highlighted in blue. To the right of the log is a control panel with a frequency display (14.070.700), a signal strength indicator (RST: 119), and a world map. The main display area shows a Morse code sequence: LO ORO<\$I VT O ETO IOL I E E O T AEE EY MO/ followed by two lines of green text: ..CQ CQ CQ DE YB8EIP YB8EIP YB8EIP and ..CQ CQ CQ DE YB8EIP YB8EIP YB8EIP PSE K K. At the bottom, there's a frequency scale from 1000 to 5000 and a taskbar with various open applications.

QSO	Mode	Freq	Date	UTC	Call	Name	QTH	RST_Sen
42	BPSK31	14070.500	05/12/2007	16:46:23	YB4IR	IMAM	PALEMBANG	599
43	BPSK31	7039.490	06/09/2007	11:43:08	JA1SCW	Setoru	Tokyo-PM95pk	599
44	BPSK31	14070.700	06/15/2007	11:45:50	JT1DN		on37kt	599
45	BPSK31	14070.700	06/26/2007	11:12:52				599



Good BPSK31 DX



Selamat Mencoba

Terima Kasih

de YB8EIP 73!