PA-UNIT

MAIN-UNIT

LPF

ANT SWITCH
RL6001

POWER DET
D6002, 6003
HSM88AS(x2)

Q6001, 6002
RF POWER AMP
2SC3102(x2)

TEMP DET
PH6001

TEMP

F_PWR

REF_W

RL_TX/RX

+13.8V

GND

J6004

(From Rear Panel)
(DC IN)
(DC GND)

J1001

RL_TX/RX
(Q1040)

HVU350(x2)
BPF
D1012
D1013

RF AMP
Q1018
2SC4227
-R34

HVU350(x2)
BPF
D1020
D1022

RF AMP
Q1034
2SC4227
-R34

T1001
T1002
D1023
DBM-MIX

IF1:43.95MHz
BPF
XF1002
XF1003

IF AMP
Q1037
2SC4226-R24

APC/TUNE

PWR MODULE
Q1014
M68769H

RF DRIVE AMP
Q1024
2SC2954

RF DRIVE AMP
Q1030
2SC5415E

RF AMP
Q1035
2SC5107-O

SWITCH
D1022
1SS321

COMP AMP
Q1007
M5223AGP

POWER CNTL
Q1002
2SB1143S

F_PWR

REF_W

BUFFER AMP
Q1031
2SC4227
-R34

BUFFER AMP
Q1025
2SC5107-O

BUFFER AMP
Q1019
2SC5107-O

RX OSC
Q1015
3SK508-K52

TX OSC
Q1014
2SC4226
-R24

LPF

MODULATER
D1015, 1016
D1019, 1042

1SV276(x2)
1SV229
1SV230

PLL IC
Q1024
SA7025DK

MOD MUTE SWITCH
Q1011
RT1N241M

MOD_M

CRYSTAL
X1001
14.5 MHz

REF OSC
Q1027
2SC4116GR

W/N DEV SWITCH
Q1034
RT1N241M

W/N

MODULATER
D1029
HVU350

MIC AMP
Q2108
NJM2902V

DCS/CTCSS

LPF
Q2001
NJM2902V

VR IC
Q2014
CXA1846N

MAX DEV

EMPHASIS /LIM AMP
Q2001
NJM2902V

HPF
Q2013
MX165CDW

MIC AMP
Q2108
NJM2902V

MIC MUTE SWITCH
Q2008
RT1N241M

MIC_AUD

(J2002)

BPF
CF1002
CFWM450E
(WIDE)

BPF SW
D1026
MC2848

BPF
CF1001
CFWM450E
(NARROW)

BPF SW
D1028
MC2848

W/N

IF2:450KHz

IF AMP
Q1010
2SC4226-R24

FM IF IC
Q1026
TA31136FN

2nd LO

DISC1

DISC2

RSSI

LPF
Q2014
CXA1846N

NOISE AMP
Q2003
NJM2902V

NOISE DET
D2003, 2004
MC2850(x2)

NSQ

MX_DET

TONE DET
Q2013
MX165CDW

HPF
Q2013
MX165CDW

LPF
Q2110
NJM2902V

DCS DET
Q2003
NJM2902V

DECODE

DE-EMPHASIS
Q2108
NJM2902V

AF MUTE SWITCH
Q2006
DTC323TK

RXM

AUDIO VOL

AF AMP
Q2108
NJM2902V

VR IC
Q2014
CXA1846N

AUDIO POWER AMP
Q2029
TDA7240AV

SPK

J2004

(J2002)

(I/O IN)
DECODE
MX_DET

(I/O OUT)
TX_ON
RX_ON
MOD_M
W/N

(AN IN)
NSQ
RSSI

(AN IN)
REF_W

TEMP

CPU
Q2019
MB90F583B

PLL(CLK, DATA, ENB, UNLOCK)

(D/A OUT)
APC/TUNE
DCS/CTCSS

DATA BUFFER
Q2002, 2009
IMZ1/IMX1

S_TXD

S_RXD

D_BUSY

EEPROM
Q2028
HN58X2432
TI

CRYSTAL
X2001
16.0 MHz

CLK SHIFT
Q2018
2SC4154E

F_SHIFT

PTT

RESET

+5V

Q2027
S-80735SN
-DZ
RESET

+5V REG
Q2024
NJM78L05UA

+5V(NO.1)

+5V REG
Q1023
NJM78L05UA

+5V(NO.2)

+9V

RX9V SW
Q1005
DTB123EK

RX 9V

T/R SW
Q1009
IMH6

TX_ON

RX_ON

SW
Q1041
RT1N241M

SW
Q1040
DTB123EK

RL_TX/RX (J1001)

TX9V SW
Q1006
2SB1132R

TX 9V

+9V REG
Q1030
MM1216EN

(From Rear Panel)
(DC IN)
+13.8V

(DC GND)
GND

POWER SW
Q2020
2SJ327-Z

+13.8V SWED

PTT INV
Q2111
DTB123EK

(Q2008)

SIO

D_BUSY

+13.8V

SPK
(J2004)

P_SW

FR_PTT

MIC_AUD

J2002

:TX RF

:RX RF

:AF, CNTL and OTHERS

CIRCUIT DIAGRAM	MODEL VX-6000V
DES. B-AC024N0000/BLOCK-DIAGRAM	
REF. BP009110-FCC.cir/001.sht EDITION	
DATE 26 Oct.. 2000	UPDATE 15 Feb.. 2001
VERTEX STANDARD CO., LTD.	

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