

CIRCUIT EXPLANATION

HC TELECOM CO., LTD.
FCC ID: ON7HD-950
EXHIBIT #: 6-A

900MHz DSSS DIGITAL CORDLESS TELEPHONE
MODEL : HD-950 **USA/CANADA VERSION**

BASE MAIN

The signal which inputed in TEL-LINE is DC coupled at X100 and transformed Analog into U100.

DATA which is transformed into Digital signal is mixed with PN code at U100 (by spread spectrum) and transmitted to RF section..

Spreading signal which inputed to RF section is mixed with carrier supplied to VCO at U3 and create TX frequency of using channel and then is transmitted to ANTENNA by TX control of D2.

The signal received to antenna is transmitted to U3 by RX/TX control time.

The signal inputed at U1 is mixed carrier of VCO and got to direct conversion and create Base band signal.

And then, create I and Q signal by demodulation (QPSK : Quadrature Phase Shift Keying method is phase- shifted by 90°)

I and Q signal (Two signal phase is 90°) is transmitted to U100 of Base and remixed with PN code and generated Digital signal.

This audio signal is passed through X100 and transmitted to TEL-LINE.

ID setting : when handset is placed on base unit , charge data is transmitted to handset by CT2 of base unit.

The handset is received ID and transmitted ACK signal to RF module.

Y100 is X-tal generating RF - reference signal.

Q101, Q102, Q103, Q104 is charge circuitry.

They are used to prevent OVER CURRENT and to CHARGE DETECTOR(Q104).

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MODEL : HD-950

USA/CANADA VERSION

HAND MAIN

The signal which is inputed to MIC is transformed Analog into Digital at U100.

DATA which is transformed into Digital signal is mixed with PN code at U100.

(by spread spectrum) and transmitted to RF section.

Spreading signal which inputed to RF section is mixed with carrier supplied to VCO

at U3 and create TX frequency of using channel and then is transmitted to

ANTENNA by TX control of D1.

The signal received to antenna is transmitted to U1 of RF by RX/TX control time.

The signal inputed at U1 is mixed carrier of VCO and got to direct conversion and create Base band signal.

And then, create I and Q signal by demodulation (QPSK : Quadrature Phase Shift

Keying method is phase- shifted by 90°)

I and Q signal (Two signal phase is 90°) is transmitted to U1 and remixed with PN code and generated Digital signal.

Digital signal is transformed into Analog at U100.

This audio signal is passed through RECEIVER and transmitted.

R206 & C205 is circuitry to stable reset and changed LOW to HIGH at 88 pin of U100 momentarily when power is on.

When the handset is low voltage the 77pin of U100 change HIGH to LOW and indicate low voltage.

Y101 is X-tal generating RF - reference signal.