

# 900MHz DSST CORDLESS PHONE with CALLER ID on CALLWAITING

MODEL : CS201

USA VERSION

CHERISH TELECOM CO., LTD.

FCC ID: XXXCS201

JOB # : 246AK0

EXHIBIT # : 8A

## BASE MAIN

The signal which inputted in TEL-LINE is DC coupled at TR and transformed Analog into Digital at U301. DATA that is transformed into Digital signal is mixed with PN code at U301 (by spread spectrum) and transmitted to RF part.

Spreading signal, which inputted to RF part, is mixed with Carrier supplied to VCO at U1 and create TX frequency of using channel and then is transmitted to ANTENNA through U3 by TX control of D1, D2.

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

The signal inputted 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 and remixed with PN code and generated Digital signal. Digital signal is transformed into Analog at U301.

This audio signal is passed through U301 and transmitted to TEL-LINE through the transformer(TR).

Caller ID signal which inputted to the Tel-Line (in case of TYPEI) passes through C323, C324, R332, R333 U305 and then, is transformed into digital data at U308 and is transmitted to U301. (When RX mute is LOW, The FSK DATA is received) (in case of TYPEII) passes through Transformer, and then, transformed into digital data at U308 (When RX mute is high, The CAS signal is received and then RX mute is LOW to receive the FSK signal) and is transmitted to U301.

The transformed signal into digital data is transmitted to the Handset, and then, The Handset is displayed Caller ID information.

Line inuse state : When the unit is off hook or the line is off hook state, The line detector port is high through R325, R326, Bridge diode and U304. When the unit is on hook or the line is on hook state, The line detector is low.

When the ring is incoming in to the TEL-LINE, the signal passes through C302, ZD301, ZD302, U303 and then detected at U301. The ring data is transformed into analog to digital at U301 and transmitted to Handset.

**ID setting** : when handset is placed on baseunit, charge data is transmitted to handset by CT2 of baseunit. The handset is received ID and transmitted ACK signal to RF PART.

X301 is X-tal generating RF - reference signal and should be adjusted by TV301 accurately.

Q306, Q307, Q308, Q309 is charge circuitry.

They are used to prevent OVER CURRENT and to CHARGE DETECTOR(Q309).

# 900MHz DSST CORDLESS PHONE with CALLER ID on CALLWAITING

MODEL : CS201

USA VERSION

CHERISH TELECOM CO., LTD.

FCC ID: XXXCS201

JOB # : 246AK0

EXHIBIT # :

83

**HAND MAIN** □ □ □ □ □



The signal which is inputted to MIC is transformed Analog into Digital at U101.

DATA, which is transformed into Digital signal, is mixed with PN code at U101 (by spread spectrum) and transmitted to RF part.

Spreading signal, which inputted to RF part, is mixed with Carrier supplied to VCO at U1 and create TX frequency of using channel and then is transmitted to ANTENNA through U3 by TX control of D1, D2

The signal received to antenna is transmitted to U101 by RX/TX control time.

The signal inputted 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 and remixed with PN code and generated Digital signal. Digital signal is transformed into Analog at U101.

This audio signal is passed through R101, R102 and transmitted the RECEIVER unit.

The Caller ID data which is received from Base is transformed to data which is able to display at U101.

U101 activates LCD driver, and then, display caller ID messages.

When the handset is low voltage

R105, R106, C161 make 77 pin of U101 change HIGH to LOW and indicate low voltage.

Y101 is X-tal generating RF - reference signals and should be adjusted by C204 accurately.

U102 is parts for stabilization to voltage of CODEC part.