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Technical Description for WSP250 (PLL Stereo RF Wireless Wooden Speakers)

RF SIGNAL PATH

ANT IN PUT SIGNAL FROM FLT1 912MHZ BANDPASS FILTER TO Q1
Q1 ,R1,L1,C1,C6,IS RF AMPLIFIER , C6 COUPLE THE RF SIGNAL TO MIXER Q2
Q2,R2,C4,C7C2,C8,C5,L2,L3,L4,IS MIXER AMPLIFIER AND 75MHZ BAND PASS FILTER

VOLTAGE CONTROL OSCILLATOR PATH

Q3,R8,R4,C19,C17C14C13,C10,C23,C15,D1,L5,IS LOCAL OSCILLATOR
C15 COUPLE THE LOCAL OSCILLATOR TO THE Q4
Q4,C16,C27C12,C11,C9,R5,R6,IS VOLTAGE CONTROL OSCILLATOR AMPLIFIER
C9 COUPLE THE OSCILLATOR SIGNAL TO MIXER Q2

PHASE LOCK LOOP PATH

IC1 MB15E03 Y1 12.8MHZ CYRSTAL VC1,C30,C31,C103,C20,C24,C25,C26,C22,C29,R9,
R11,R13,R10,R12,,R7, IS PHASE LOCK LOOP CIRCUIT
C22 COUPLE THE VOLTAGE CONTROL OSCILLATOR SIGNAL TO THE MB15E03PIN8
IC1 MB15E03 FROM THE PIN 5 AUTOMATIC SENT THE OUTPUT SIGNAL TO CONTROL THE
VOLTAGE CONTROL OSCILLATOR SIGNAL FREQUENCY

MCU CONTROL PATH

IC2 GMS34112, Y2,C34,C35,C33,C3,Q5,Q6,Q7,R19,R21,R22,R24,F9R1,R20,R14,R13,
R15,R16,R17,R18,IS MCU CONTROL CIRCUIT
IC2 GMS34112 FROM THE PIN 7,8,9,10, OUTPUT THE SIGNAL TO THE IC1 MB15E03
PIN 9,10,11,12,

75.918MHZ AMPLIFIER

C312 COUPLE THE 75MHZ SIGNAL TO THE U301 CXA1538M PIN 18
C311,T301 IS IF AMPLIFIER

XTAL OSCILLATOR 65.218MHZ OSCILLATOR PATH

Q301,CF302 CRYSTAL65.218MHZ,R308,R306,R307,C321,C307,C306,IS IF LOCAL OSCILLATOR
C307 IS COUPLE TO U301 CXA1538M

IF 10.7MHZ AMPLIFIER PATH

INPUT FROM CF3031 OUTPUT TO CF3032

PILOT DETECTOR PATH

C304,C303,C302,C301,R303,R302,R301,R304,VR301 IS PILOT DETECTOR CIRCUIT

AUDIO AMPLIFIER PATH

Q302 Q303 USE TO AUDIO AMPLIFIER FROM THE C5 C6 COUPLE TO Q201

NOISE DETECTOR PATH

U201 KA324A,Q202, IS NOISE DETECTOR CIRCUIT

MUTE CONTROL PATH

Q203,Q204,Q205,Q206, IS MUTE CIRCUIT

TONE CONTROL PATH

U201 KA324A,R206,R234,VR201,C222, IS TONE CONTROL CIRCUIT

POWER AMPLIFIER

TDA1519A,C228,C232,C229,C227, IS POWER AMPLIFIER

MCU BACKUP POWER

U1 NJU7201L30,C1,C2,C3,C4,ZD1,R1,D1, IS MCU BACKUP CIRCUIT