

Circuit Description for MDS 2003

The MDS 2003 is the main docking station for the Parkervision Tracking Camera system which is comprised of a main board and a 200 MHz receiver board.

The main board provides audio and video amplification and LED monitoring of all communication signals between the cameraman base unit and its peripheral components.

The receiver board receives Frequency Modulated signals that contain microphone audio and Infrared tracking information from its companion wireless microphone that operates in the 207 to 213 MHz. band. The receiver board has two separate receivers that operate in dual diversity. The receivers are single conversion superhetrodyne types. Each receiver has one stage of RF amplification and one stage of I.F amplification. The mixers used are passive types whose LO injection is derived from a switchable 2 channel Xtal Oscillator that is frequency multiplied by 4 resulting in an LO that is 10.7 MHz. above the receive input signal. The detected signal is then fed to separate filters which separate the voice audio from the 18.5KHz. tracking signal. The tracking signal is outputed to the main CPU in the Camera Unit to provide the camera tracking function. The audio signal is fed to the main board which is then amplified and outputed thru the XLR or RCA audio jack.