

DISCRIPTION OF RF CIRCUITRY FOR THE MEETINGPAD, JUNCTION BOX. MENUPAD AND DRAWINGBOARD INTERACTIVE 4256

All four products, MeetingPad, JunctionBox, MenuPad and DrawingBoard Interactive use the same identical RF circuitry. The products employ an RFM amplifier-sequenced hybrid (ASH) transceiver, TR1000 (916MHz). Since the transceiver is a hybrid it only has only 20 passive external components. The receiver section of the TR1000 uses a wide dynamic range log detector in combination with digital AGC and a compound data slicer and has two stages of SAW filtering to provide excellent receiver out-of-band rejection. The transmitter section uses amplitude-shift keyed (ASK) modulation and employs SAW filtering to suppress output harmonics.

This hybrid transceiver is specifically designed for short-range wireless data communication applications and the transmitter has a peak output power of 0.75mW.

The antenna for the MeetingPad, DrawingBoard Interactive and MenuPad uses an embedded antenna on a PCB board that is soldered perpendicular to the main PCB board. The antenna for the JunctionBox is a tuned quarter wavelength helix antenna and is mounted perpendicular to the main PC board. Both the embedded and helix antenna are matched to the transceiver with a series tuning inductor along with a shunt tuning/ESD inductor.

Control of the receiver and transmitter sections of the hybrid transceiver is controlled by a microprocessor