Operational description for Digitizer Model PZT-430/PZT-630/PZT-930

The intentionally radiated frequencies are 667kHz. All the other frequencies are unintentionally radiated.

A. Antenna
The tablet has three groups of multiple loop coils there are X(horizontal)-coordinates receiving coil, Y(vertical)-coordinates receiving coil and Transmitting coil.

Radio frequency energy is radiated by the Transmitting coil among these.

X-coil and Y-coil is approximately 26mm wide and as long as the height, for the X-axis, and width, for the Y-axis, of the effective area of the tablet. X-coil and Y-coil consists of 2 turn(loops) wired on the sensor board.

Especially the width of a transmitting coil is not decided but covers the whole effective area of a tablet with three to six coils. transmitting coil consists of 8 turn(loops) wired on the sensor board.

B. Original oscillation frequency and intentionally radiated frequency
We make the 666.7kHz intentionally radiated frequencies from the original oscillation frequency of 16.0MHz by G/A(Gate Array W4027F).

C.Operation
The tablet looks for a pointing device, such as a stylus, by feeding electrical current of above-mentioned frequencies through the transmitting coil.

The coil prepared in the pointing device is excited with a transmitting coil, produces an induced current, and operates as a pointing device.

the tablet is able to detect the position of a pointing device because of the induction caused between the coil of the pointing device and two coils, one from X-axis and the other Y-axis, of the sensor board.

D. Comment on pointing device
The pointing device operates with no battery or active oscillator.