

circuit are row electrodes and the time specific phase delay values are row specific phase delay values.

20. The electronic device of claim **12**, further comprising a plurality of analog channels, each analog channel receiving a respective incoming signal, the incoming signals of at least two of the analog channels having different phase, each analog channel comprising a respective demodulation circuit which generates a respective demodulation signal and controls its phase based on a respective channel specific phase delay value.

21. The electronic device of claim **20** wherein each demodulation circuit controls the phase of its respective demodulation signal based on a combination of a channel specific phase delay value and a plurality of row specific phase delay values.

22. The electronic device of claim **20**, wherein the each demodulation circuit controls the phase of its respective demodulation signal based on one or more pixel specific phase delay values obtained from a table of pixel specific phase delay values, wherein each pixel specific phase delay value is associated with a desired phase delay for a particular row and channel combination.

23. The electronic device of claim **22**, wherein the table of pixel specific phase delay values is held in RAM.

24. The electronic device of claim **12**, wherein the electronic device is a mobile telephone.

25. The electronic device of claim **12**, wherein the electronic device is a portable music player.

26. The electronic device of claim **12**, wherein the analog channel further includes a mixer configured to mix the incoming signal with the demodulation signal.

27. A method for processing a signal comprising:

sending a stimulation signal across one or more traversal circuits;

modifying the stimulation signal by the one or more traversal circuits to form a first signal, the modification including at least a change in phase;

receiving the first signal at a processing module;

generating a demodulation signal by a demodulation circuit comprised by the processing module, the demodulation signal having the same phase as the first signal; and

processing the first signal with reference to the demodulation signal.

28. The method of claim **27**, wherein the processing of the first signal with reference to the demodulation signal is performed by mixing the first signal and the demodulation signal.

29. The method of claim **28**, wherein the mixing produces a signal selected from the group consisting of: a demodulated version of the first signal, a rectified version of the first signal, a noise suppressed version of the first signal and a demodulated, rectified and noise suppressed version of the first signal.

30. The method of claim **27**, the generating the demodulation signal is performed with reference to a processing module specific value associated with the phase of the first signal.

31. The method of claim **30**, further including:

testing a plurality of versions of the processing module value;

discovering a version that results in a match to within predetermined limits of the phases of the demodulation signal and the first signal; and

saving the version as the processing module specific value.

32. The method of claim **28**, further comprising:

changing the traversal circuits periodically so that the phase of the first signal changes periodically; and changing the phase of the demodulation signal periodically by the demodulation circuit so that the phase of the demodulation signal matches the phase of the first signal.

33. The method of claim **32**, wherein the changing of the phase of the demodulation signal periodically is performed by referring to one of a plurality of time specific values, the time specific values being associated with the periodic changes of the phase of the first signal, in combination with the processing module specific value.

34. A method for processing information on a sensor panel, the method comprising:

sending a stimulation signal to the panel;

receiving an incoming signal at an analog channel, the incoming signal being related to the stimulation signal, but having a different phase than the stimulation signal; generating a demodulation signal at a demodulation circuit;

controlling the phase of the demodulation signal to ensure it matches that of the incoming signal; and

processing the incoming signal with reference to the demodulation signal.

35. The method of claim **34**, wherein the processing of the incoming signal includes mixing the incoming signal with the demodulation signal at a mixer.

36. The method of claim **34**, wherein the controlling the phase of the demodulation signal is performed by referring to a channel specific phase delay value associated with the phase of the incoming signal at the analog channel.

37. The method of claim **36**, further including:

testing a plurality of versions of the channel specific phase delay value;

discovering a version that results in a match to within predetermined limits of the phases of the demodulation signal and the incoming signal; and

saving the version as the channel specific phase delay value.

38. The method of claim **34**, wherein

sending a stimulation signal to the panel further comprises periodically sending the stimulation signal to different groups of one more electrodes the groups being selected from a plurality of electrodes of the panel;

said stimulation of different groups of electrodes results in periodic changes of the phase of the incoming signal, depending on which group is being stimulated; and

controlling the phase of the demodulation signal further includes periodically changing the phase of the demodulation signal to match the periodic changes of the phase of the incoming signal.

39. The method of claim **38**, wherein the periodically changing the phase of the demodulation signal is performed by referring to a plurality of time specific phase delay values, each time specific phase delay value being associated with a phase of the incoming signal caused by the stimulation of a respective group of electrodes.

40. The method of claim **39**, further including the step of interpolating an unknown time specific phase delay value from one or more known time specific phase delay values.

41. The method of claim **39**, wherein the method is performed by a plurality of analog channels, each analog channel experiencing different phase delay at a given time, and the