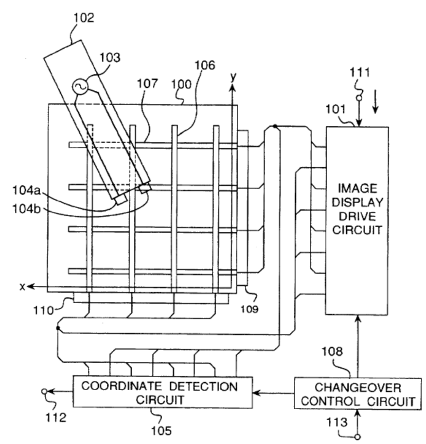
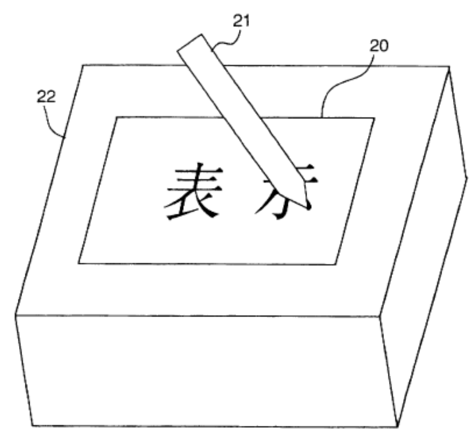
EXHIBIT E-2
YOSHIDA in view of BLESSER and/or IGUCHI
U.S. Patent No. 10,108,277

As demonstrated in the claim chart below, asserted claims asserted claims 1, 2, 5, 8, 14, 15, 18, and 21 of U.S. Patent No. 7,277,277 ("'277 patent") are invalid under 35 U.S.C. § 103 as obvious in view of U.S. Patent No. 5,798,756 to YOSHIDA ("YOSHIDA") [MAXEYE_00001968 - MAXEYE_00002043] combined with the knowledge of a person of ordinary skill in the art ("POSITA") and the secondary references identified in the claim chart below, namely, U.S. Patent No. 4,577,057 to BLESSER ("BLESSER") [MAXEYE_00001792 - MAXEYE_00001798] and U.S. Patent No. 5,736,980 to IGUCHI ("IGUCHI") [MAXEYE_00001908 - MAXEYE_00001967].

One of ordinary skill in the art, as of the effective filing date of the '277 patent claims, would have known to combine the prior art elements disclosed by these references using known methods, and to use these elements according to their established functions in order to achieve a known and predictable result. Because these prior art references are within a common field of endeavor, and/or are directed to a related set of problems, it would have been obvious for one of ordinary skill in the art to look from one of the identified references to another in order to find any missing functionality.

As discussed below, a POSITA would have recognized that combining YOSHIDA (basic capacitive stylus), BLESSER (signal differentiation), and IGUICHI (time-differentiated signals and phase-based angular detection) provides a well-known and predictable improvement in stylus-based input systems. Given the widespread use of capacitive styluses, a POSITA would have found it obvious to incorporate these elements to enhance detection accuracy, signal differentiation, and tilt compensation.

The chart below is based on Defendant's current understanding of Plaintiff's positions concerning the scope and construction of the claims of the asserted patents, and is not, and should in no way be seen as, adoption or admission of any particular claim scope or construction for any term or limitation. Defendant reserves the right to provide additional theories, disclosures, and analysis, particularly in light of the fact that discovery in this case has just begun, Plaintiff has not completed its document production regarding prior art, and portions of Plaintiff's infringement contentions are vague, imprecise, and otherwise deficient.

Claim 1	Disclosure
1[pre] A pen-shaped position indicator configured to capacitively couple with a sensor surface, the pen-shaped position indicator comprising:	YOSHIDA discloses a pen-shaped electronic pen 21, which capacitively couples with a sensor surface. YOSHIDA, Figs. 1 and 2, 19:66-67, 20:1 (“the electric field generator 102 shown in FIG. l is incorporated in a pen-shaped electronic pen 21”). YOSHIDA also discloses that “a signal which is generated by an electric field generated from the electrodes of the coordinate pointing device at the electrodes of the panel coupled through an electrostatic capacitive coupling with the coordinate pointing device is detected.” YOSHIDA, 14:62-67. Fig.1  Fig.2  To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose capacitive coupling of a pen-shaped position indicator, one of ordinary skill in the art would, based on one’s knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one’s knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below.

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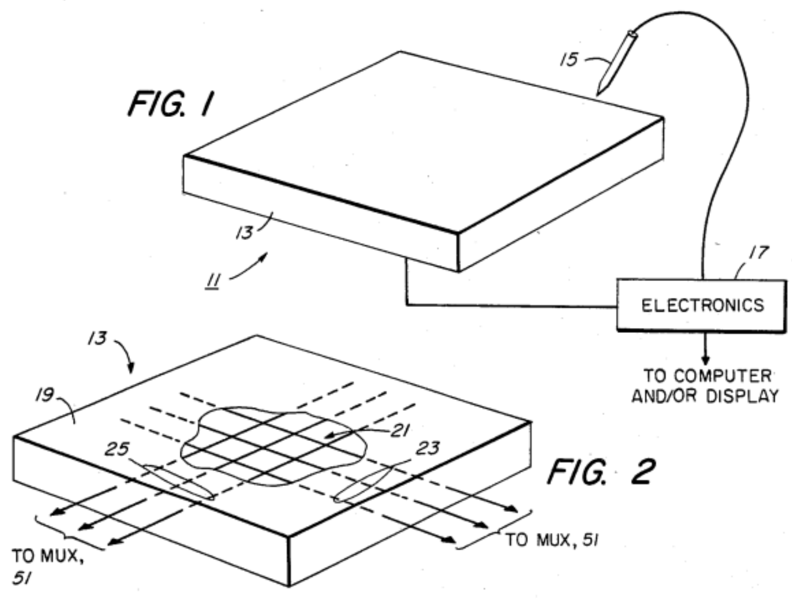
BLESSER discloses a stylus-based digitizing system where position data is obtained through interaction with a sensing surface: “It is to be understood that the invention is applicable to any type of digitizing tablet system in which positional data is obtained by the interaction of some type of element in a stylus, located at some finite distance from the tip of the stylus, with an array or grid of elements in the tablet. The interaction may be realized, for example, by capacitive, inductive, or acoustic coupling.” BLESSER, 3:45-50.

BLESSER FIG. 1 illustrates a tablet-stylus system where a pen-shaped stylus interacts with a digitizing grid. BLESSER, Fig. 1 (stylus and digitizer system).



A POSITA would recognize that combining BLESSER’s stylus system with YOSHIDA’s capacitive input improves detection accuracy, making it a logical enhancement. BLESSER’s disclosure of stylus-based signal differentiation complements YOSHIDA’s capacitive detection by improving the ability to distinguish between different input signals, reducing interference, and enhancing

	overall precision. Capacitive styluses inherently face challenges related to signal clarity and resolution, which BLESSER's techniques help mitigate by introducing methodologies for signal enhancement and tilt correction. Furthermore, stylus input devices were widely used at the time of the invention, and the integration of capacitive coupling with signal differentiation would have been a predictable step toward improving user experience and system responsiveness. The combination follows well-established engineering principles, where POSITA would recognize that improving signal differentiation leads to more accurate tracking and responsiveness in stylus-based interfaces, making this modification an expected and beneficial improvement. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses a capacitive pen system in which multiple electrodes interact with a sensor surface, forming capacitive relationships. Specifically, IGUCHI discloses that an electric field is generated from the stylus electrodes and capacitively coupled with the sensor surface to provide positional data. IGUCHI, Figs. 26a, 26b, 30:25-29 ("[t]he main electrode 304 covered with resin is arranged at an end tip of the pen shaft 310" and "[t]he auxiliary electrode 305 is arranged around this main electrode 304").

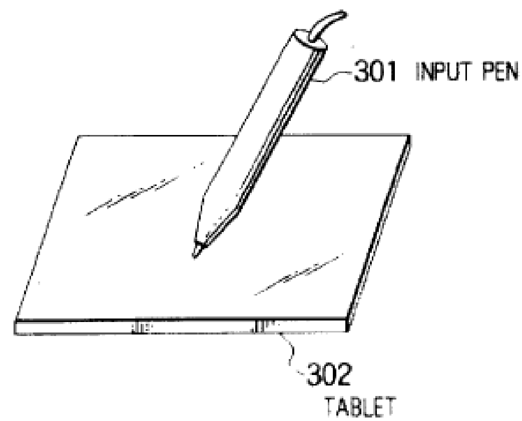
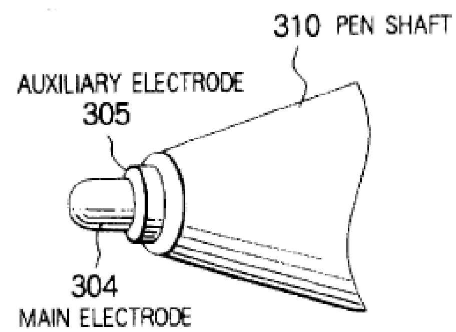
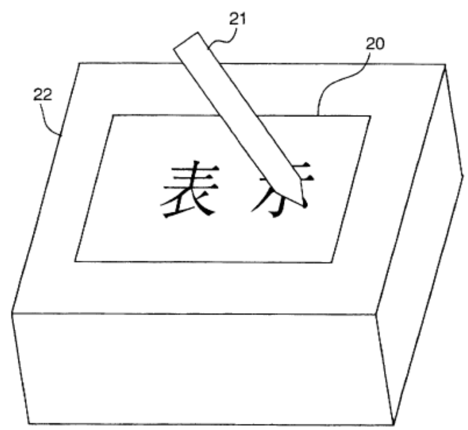
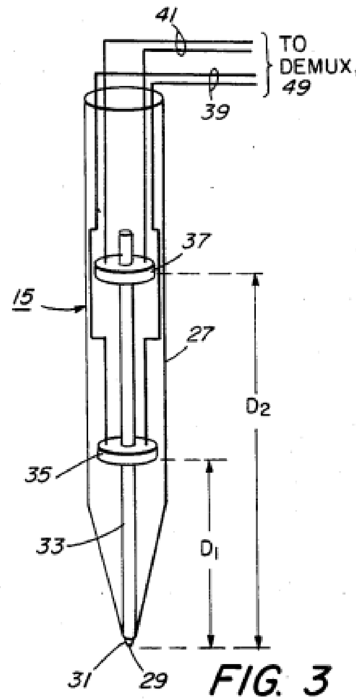
	FIG. 26a  FIG. 26b  A POSITA would recognize that integrating IGUCHI's structured electrode arrangement with YOSHIDA's capacitive stylus and BLESSER's signal differentiation improves detection accuracy in a predictable manner. IGUCHI reinforces YOSHIDA's capacitive coupling by stabilizing signal interactions through multiple electrodes, enhancing positional and angular tracking. While BLESSER refines input precision via signal differentiation, IGUCHI ensures distinct capacitive relationships that mitigate signal drift and noise. Given these known advantages, a POSITA would have found it obvious to combine IGUCHI's structured electrode placement with YOSHIDA and BLESSER to enhance stylus precision and reliability in capacitive input systems.
1[a] a pen-shaped body having a pen-tip portion;	YOSHIDA discloses a pen with a pen-tip portion. YOSHIDA, Fig.2.

	Fig.2  YOSHIDA’s Fig. 2 illustrates a pen-shaped electronic pen 21 featuring a distinct pen-tip portion, which serves as the primary contact point for capacitive coupling. This figure provides a side view of the pen, highlighting its elongated cylindrical body and the tapered tip designed for interaction with a sensor surface. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose a pen-shaped body having a pen-tip portion, one of ordinary skill in the art would, based on one’s knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one’s knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a pen-shaped stylus: “Stylus 15 is a hand-held type or instrument and includes an elongated cylindrical body or housing 27 which terminates at a tip 29 at one end which is adapted to be placed on the worksheet

	positioned on tablet 13." BLESSER, 4:25-30, Fig. 3 (illustrates the pen body and tip).  FIG. 3 A POSITA would recognize that incorporating BLESSER's stylus design into YOSHIDA's capacitive system enhances detection accuracy by ensuring a stable and ergonomic input structure. BLESSER's elongated cylindrical body and well-defined pen-tip portion improve user handling, ensuring precise contact with the sensor surface. Capacitive styluses require a stable form factor for reliable signal transmission, and a POSITA would find it obvious to integrate BLESSER's stylus body configuration into YOSHIDA's system to optimize input accuracy and capacitive interaction. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below.

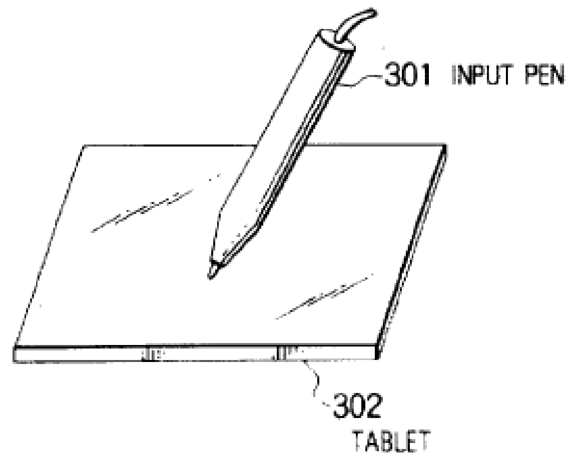
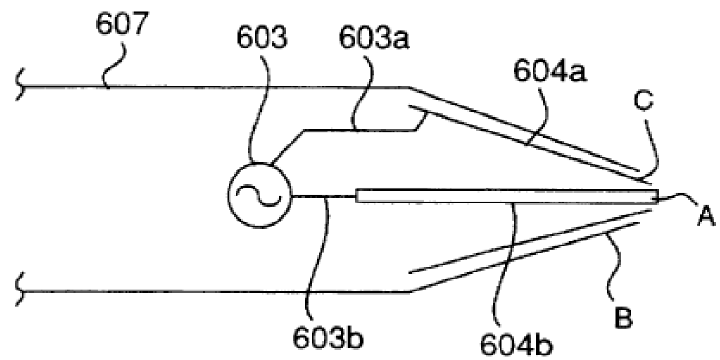
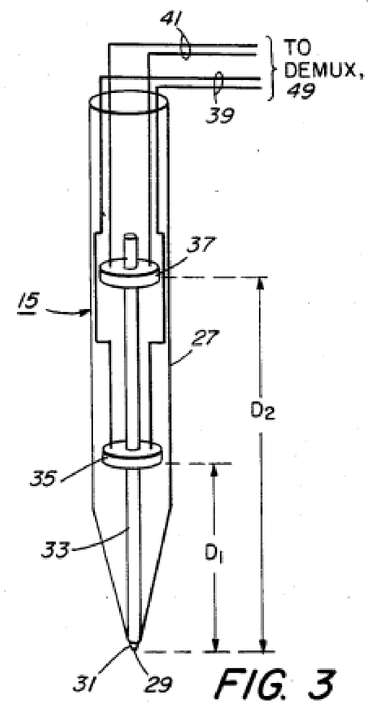
	IGUCHI discloses a capacitive pen system that includes a pen-shaped structure with a main electrode at the tip. IGUCHI, Fig. 26a, 30:25-29. FIG. 26a  A POSITA would recognize that IGUCHI's structured electrode design enhances capacitive stability by reinforcing YOSHIDA's pen configuration with improved electrode positioning at the pen tip. While BLESSER contributes an ergonomic stylus shape, IGUCHI's capacitive pen structure ensures precise coupling between the stylus and sensor surface. Given the widespread adoption of structured electrode placement in capacitive styluses, a POSITA would have found it obvious to integrate IGUCHI's structured capacitive approach with YOSHIDA and BLESSER to improve signal stability, detection fidelity, and overall stylus precision.
1[b] a first electrode arranged at a first position of the pen-tip portion;	YOSHIDA discloses a rod-shaped inner electrode 604b at the pen-tip portion of the pen-shaped electric field generator 607. YOSHIDA, Fig. 6A.

	Fig.6A  In Figure 6A of YOSHIDA, a rod-shaped inner electrode 604b is depicted at the pen-tip portion. This cross-sectional view shows the internal configuration of the pen tip, where the inner electrode is located along the central axis of the pen, facilitating capacitive coupling with the sensor surface. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose a first electrode arranged at a first position of the pen-tip portion, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a first coil (electrode equivalent) arranged at a first position within the pen: "A first coil 35 is disposed within the body 27 of stylus 15 at a first axial distance D1 from tip 29." BLESSER, 4:30-35, Fig. 3 (placement of coils in stylus).

	 FIG. 3 A POSITA would recognize that integrating BLESSER's coil-based electrode configuration into YOSHIDA's capacitive stylus system enhances electrical coupling and signal transmission stability. BLESSER's first coil, positioned near the stylus tip, ensures precise signal detection, improving the reliability of capacitive interactions. Given the well-known advantages of structured electrode positioning in stylus-based systems, a POSITA would have found it obvious to incorporate BLESSER's coil arrangement into YOSHIDA's system to refine signal integrity and capacitive response. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below.

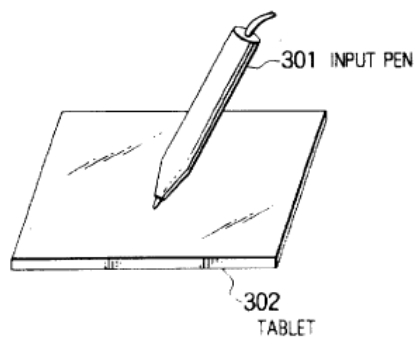
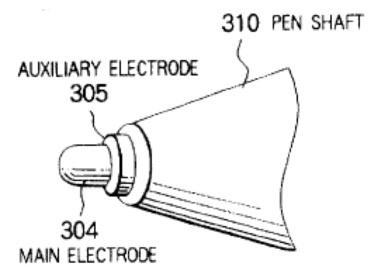
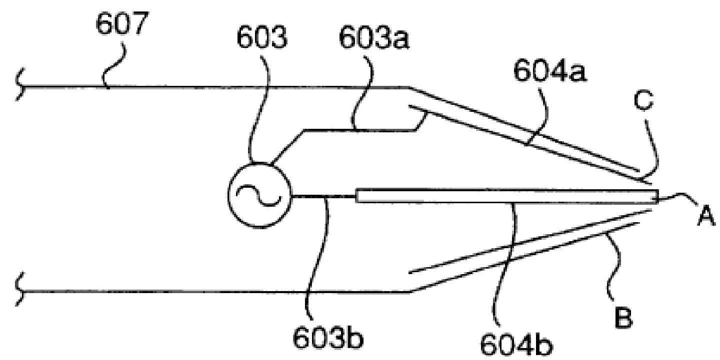
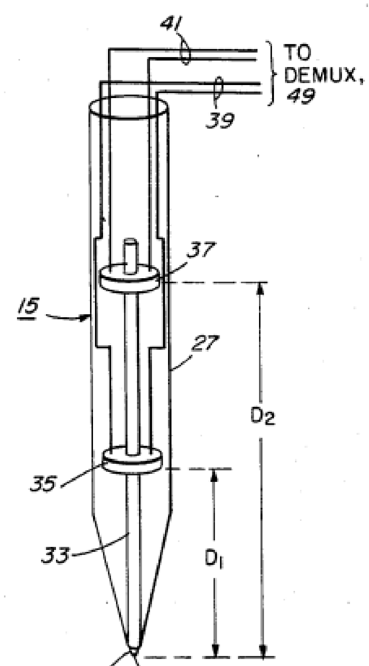
	IGUCHI discloses a main electrode 304 at the end tip of the pen shaft, which is positioned to interact capacitively with the sensor surface. IGUCHI, Fig. 26a, Fig. 26b, 30:25-29 (“[t]he main electrode 304 covered with resin is arranged at an end tip of the pen shaft 310” and “[t]he auxiliary electrode 305 is arranged around this main electrode 304.”). FIG. 26a  FIG. 26b  A POSITA would recognize that IGUCHI’s structured electrode placement strengthens capacitive stability, reinforcing YOSHIDA’s system by improving electrode positioning at the tip. While BLESSER’s coil configuration enhances signal differentiation, IGUCHI’s capacitive electrode arrangement ensures direct and consistent coupling with the sensor surface, minimizing signal disruption. Given the industry-wide adoption of structured capacitive electrodes, a POSITA would have found it obvious to combine IGUCHI’s refined electrode placement with YOSHIDA and BLESSER to optimize signal detection, capacitive response, and input precision.
1[c] a second electrode arranged at a second position of the pen-tip portion different from the first position, the second position being off an axis of the pen-shaped position indicator;	YOSHIDA discloses a megaphone-shaped outer electrode 604a positioned differently from the first electrode and off-axis. YOSHIDA, Fig.6A.

	Fig.6A  Referring to Fig.6A of YOSHIDA, a megaphone-shaped outer electrode 604a is also arranged at the pen-tip portion of the pen-shaped electric field generator 607, and the second position of the outer electrode 604a is different from the first position of the inner electrode 604b. Fig. 6A also shows that the position of the outer electrode 604a is off an axis of the pen-shaped position indicator. This arrangement is evident in this cross-sectional depiction, where the outer electrode surrounds the inner electrode asymmetrically, contributing to the detection of tilt or angle when interacting with the sensor surface. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose a second electrode arranged at a second position of the pen-tip portion different from the first position, the second position being off an axis of the pen-shaped position indicator, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

	One of ordinary skill, based on one’s knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a second coil (electrode equivalent) at a different position from the first: “a second coil 37 is disposed within the body 27 of stylus 15 at a second axial distance D2 from tip 29.” BLESSER, 4:31-33, Figs. 3, 7 (coil placement and tilt angle detection).  FIG. 3

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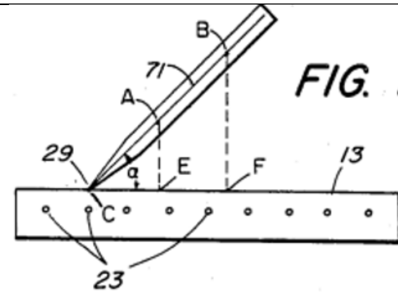

FIG. 7

A POSITA would recognize that integrating BLESSER’s coil-based positioning into YOSHIDA’s capacitive stylus system enhances electrode differentiation, improving signal precision and tilt detection. BLESSER’s second coil, positioned at a different location, ensures that signals are phase-separated and spatially distinct, enabling better capacitive tracking. Given the well-known importance of off-axis electrode configurations in stylus-based capacitive systems, a POSITA would have found it obvious to incorporate BLESSER’s off-axis second coil arrangement into YOSHIDA’s capacitive input system to refine tilt accuracy and input stability.

Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below.

IGUCHI discloses an auxiliary electrode 305 arranged around the main electrode 304, forming an off-axis capacitive interaction with the sensor surface. IGUCHI, Figs. 26a, 26b, 30:25-29.
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FIG. 26a

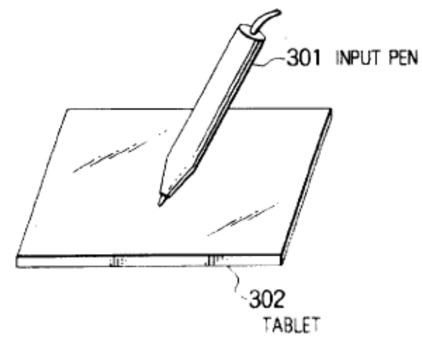
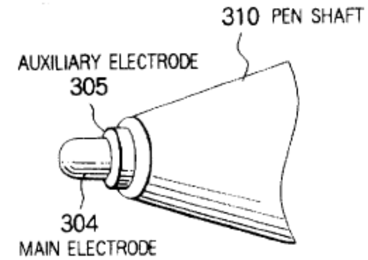


FIG. 26b



A POSITA would recognize that IGUCHI's auxiliary electrode positioning enhances capacitive stability by ensuring a spatially distinct second electrode for improved signal differentiation. While BLESSER's coil arrangement improves signal separation, IGUCHI's capacitive auxiliary electrode ensures reliable off-axis capacitive coupling, reducing signal distortion and improving angular detection. Given the industry-wide recognition of multi-electrode capacitive structures, a POSITA would have found it obvious to combine IGUCHI's off-axis auxiliary electrode with YOSHIDA and BLESSER to optimize signal clarity, tilt detection, and capacitive accuracy.
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<td>1[d] a signal production circuit configured to generate first and second signals that are distinguishable from each other; and</td>
<td>YOSHIDA discloses a signal production circuit that generates first and second signals that are distinguishable from each other. Specifically, YOSHIDA discloses "in a manner as shown in FIG.26, when electrodes 2601a and 2601b provided in an LCD panel 2600 are connected to a differential amplifier 2602" and "as shown in FIG, 26. the outer electrode 604a and the inner electrode 604b are coupled most intensely with the electrodes 260la and 2601b via capacitors 2610a and 2610b[, i]n the above place, electric fields applied to the outer electrodes 604a and 604b are opposite in phase to each other." YOSHIDA, Fig. 26, 27:13-25. Thus, the first and second signals generated using electrodes 604a and 604b are distinguishable from each other.</td>
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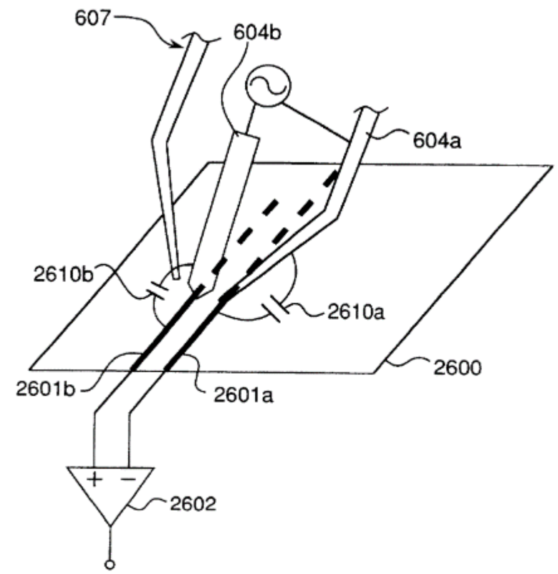
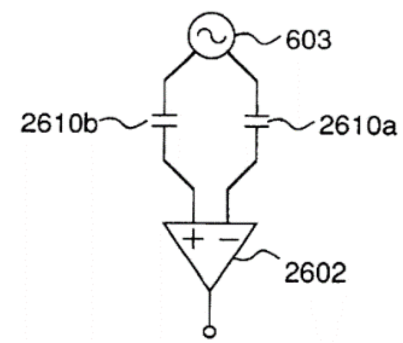
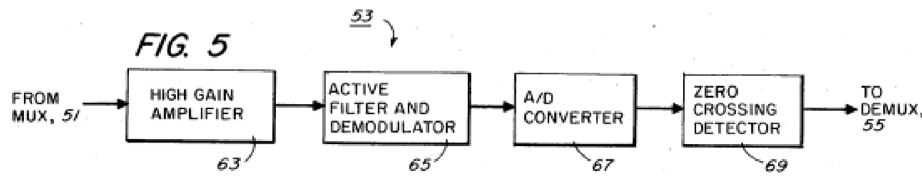
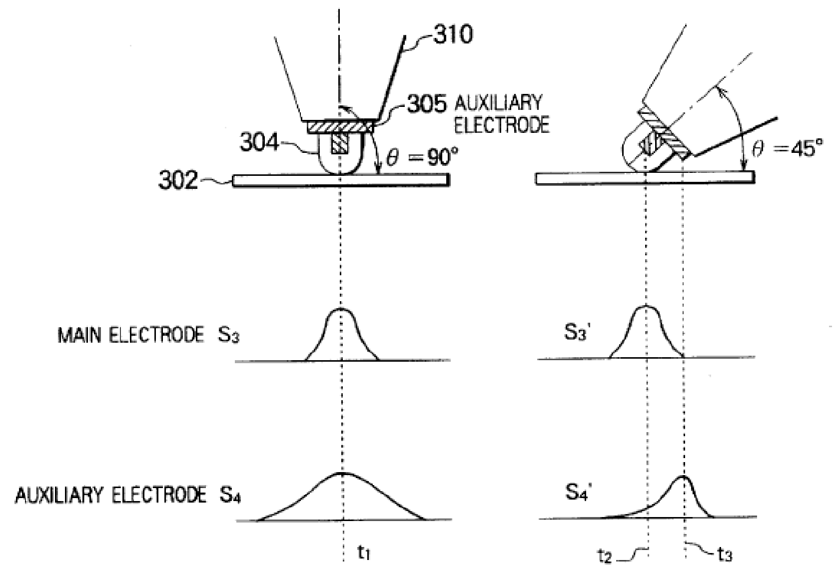
	Fig.26  YOSHIDA further discloses in Figure 27 that the AC power source 603 of the electric field generator connects to the differential amplifier 2602 via capacitors 2610a and 2610b, demonstrating how distinguishable signals are applied to the electrodes in a stylus system. YOSHIDA, Fig. 27, 26:31-35. Specifically, YOSHIDA also discloses "[a]n electric equivalent circuit corresponding to the arrangement of FIG. 26 is shown in FIG. 27" and "[a]s shown in FIG.27, the AC power source 603 included in the electric field generator 607 is connected to the differential amplifier 2602 via the capacitors 2610a and 2610b". YOSHIDA, Fig. 27, 26:31-35. These signals interact with the sensor surface in operation, ensuring they are transmitted through conductive pathways and maintaining distinct phase relationships.

	Fig.27  YOSHIDA's Figure 27 presents a schematic diagram of the electronic pen's circuitry, including an AC power source 603 (a signal production circuit) connected to electrodes 604a and 604b as depicted in Fig. 26. The output of the AC power source 603 applied to the outer electrodes 604a and the inner electrode 604b are opposite in phase to each other. The phase of the first signal to the inner electrode 604b is inverted with respect to the phase of the second signal to the outer electrode 604a. The diagram indicates that the power source generates distinguishable signals applied to the electrodes, with annotations suggesting opposite phases or differing frequencies to facilitate signal differentiation. Additionally, YOSHIDA Figure 27 expands on the signal transmission process, illustrating how the signals interact with the sensor surface during operation. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose a signal production circuit configured to generate first and second signals that are distinguishable from each other, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

	One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses this limitation by describing an AC voltage source applied to coils that generates signals used for position detection: "Electronics 17 includes a signal emitting section 43 and a signal receiving and processing section 45. Signal emitting section 43 includes an AC voltage source 47 and a demultiplexor 49." BLESSER, 4:43-47, Fig. 5 (signal processing circuit). FIG. 5  A POSITA would recognize that BLESSER's signal production system, when applied to YOSHIDA's capacitive stylus, enhances signal differentiation by multiplexing distinct signals for capacitive detection. BLESSER discloses an AC voltage source and demultiplexor, which generate signals at different frequencies for stylus-based position tracking. When incorporated into YOSHIDA's capacitive input system, this multiplexed signal generation would allow each electrode to receive distinct, separately identifiable signals, thereby improving electrode interaction reliability and capacitive detection precision. Given the widespread use of multiplexed signal processing for stylus input devices, a POSITA would have found it obvious to incorporate BLESSER's signal production methods into YOSHIDA's system to optimize capacitive signal transmission and ensure distinguishability between electrode signals. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below.

	IGUCHI discloses capacitive signal differentiation, where time-differentiated signals from capacitive electrodes encode positional information. IGUCHI, Fig. 29b. FIG. 29a (θ =90°) FIG. 29b (θ =45°)  IGUCHI further discloses: "The main electrode 304 covered with resin is arranged at an end tip of the pen shaft 310. The auxiliary electrode 305 is arranged around this main electrode 304." IGUCHI, 30:25-29. IGUCHI also discloses: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined" and that "[i]nclination data of the pen shaft can be taken out by a difference between timing signals caused by a

	difference between these coordinates." IGUCHI, 15:6-12. This confirms that IGUCHI describes a system in which signals from different electrodes are separately detected, supporting the generation of distinguishable signals. A POSITA would recognize that integrating IGUCHI's capacitive signal differentiation system with YOSHIDA's stylus system and BLESSER's multiplexed signal processing improves signal distinguishability and capacitive response stability. IGUCHI discloses a spatially-separated main and auxiliary electrode system, where signals from different electrodes are detected independently and differentiated based on timing variations. This time-differentiated capacitive signal processing ensures that signals remain distinct based on their phase and positional characteristics, complementing BLESSER's multiplexed signal production by reinforcing capacitive signal separation at the electrode level. Given the well-established use of time-differentiated signal processing for capacitive tracking, a POSITA would have found it obvious to combine IGUCHI's structured capacitive detection method with YOSHIDA and BLESSER's signal production techniques to improve signal separation, stylus tracking fidelity, and capacitive input precision.
1[e] conductive lines extending between the signal production circuit and the first and second electrodes, respectively,	YOSHIDA discloses conductive lines transmitting signals between AC power source 603 and electrodes 604a, 604b. YOSHIDA, Figs. 26, 27. The signal of the AC power source 603 (the "signal production circuit") is applied to the outer electrodes 604a and the inner electrode 604b (the "first and second electrodes") through conductive lines.

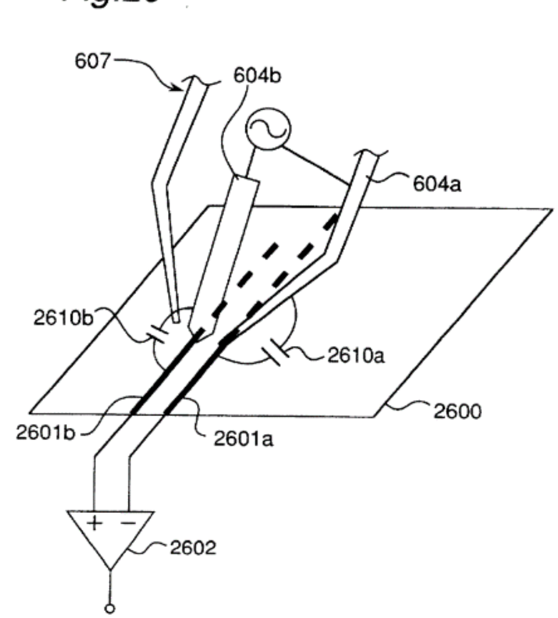
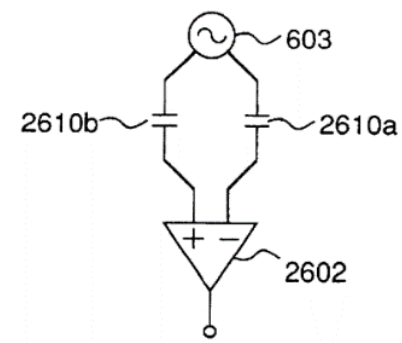
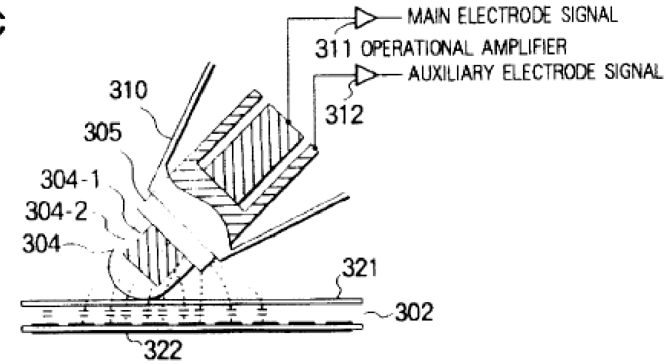
	Fig.26  YOSHIDA's Figure 26 illustrates the internal circuit of the pen, where conductive lines extend between the AC power source 603 and the first and second electrodes (604a, 604b). These conductive lines serve as the transmission medium for signals from the power source to the electrodes, ensuring proper operation of the capacitive coupling mechanism. *See also* Fig. 27:

	Fig.27  To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose conductive lines extending between a signal production circuit and the first and second electrodes, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose conductive lines extending between a signal production circuit and the first and second electrodes, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses capacitive stylus systems where conductive pathways connect signal production circuits to electrodes: "Electronics 17 includes a signal emitting section 43 and a signal receiving and processing section 45. Signal emitting section 43 includes an AC voltage source 47 and a demultiplexor 49." BLESSER, 4:43-47.

	This demonstrates a structured transmission system, where signals generated by the circuit are sent through conductive pathways to the stylus electrodes for processing. A POSITA would recognize that BLESSER's signal transmission methods, when applied to YOSHIDA's capacitive stylus system, improve signal integrity and electrode connectivity. BLESSER's use of structured conductive pathways ensures stable transmission of multiplexed signals, reducing signal degradation and interference. Given the widespread reliance on conductive pathways in stylus input systems, a POSITA would have found it obvious to integrate BLESSER's conductive connection methods into YOSHIDA's stylus system to enhance electrode signal stability and transmission efficiency. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses conductive connections between the main and auxiliary electrodes and associated circuits. Specifically, IGUCHI discloses: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-12. Further, IGUCHI's Figure 27c shows the arrangement of electrodes and connections, supporting that the capacitive signals are transmitted through conductive pathways. IGUCHI, 31:5-11, Fig. 27c.

	FIG. 27c  Additionally, IGUCHI discloses: "[T]he main electrode 304 covered with resin is arranged at an end tip of the pen shaft 310" and "[t]he auxiliary electrode 305 is arranged around this main electrode 304." IGUCHI, 30:25-29. This demonstrates the structured connectivity within IGUCHI's capacitive stylus system. A POSITA would recognize that integrating IGUCHI's structured conductive connections with YOSHIDA's stylus system and BLESSER's signal transmission methods improves capacitive signal stability and electrode connectivity in a predictable manner. IGUCHI discloses a capacitive stylus system where the main and auxiliary electrodes are spatially separated, ensuring that signals are transmitted independently through structured conductive pathways. Figure 27c of IGUCHI explicitly shows the arrangement of electrodes and their associated connections, reinforcing that capacitive signals are reliably transmitted between the signal production circuit and the electrodes. While BLESSER ensures stable multiplexed signal transmission, IGUCHI enhances electrode connectivity by structuring conductive pathways, preventing interference and maintaining consistent capacitive interactions with the sensor surface. Given the well-known importance of structured conductive pathways for capacitive input devices, a POSITA would have found it obvious to incorporate IGUCHI's structured connectivity approach with YOSHIDA and BLESSER's systems to improve signal transmission fidelity, electrode interaction stability, and capacitive input precision.

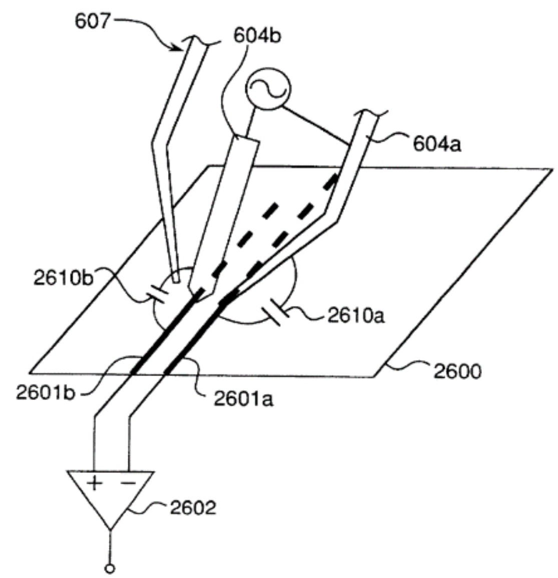
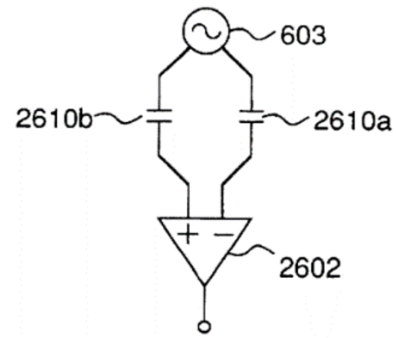
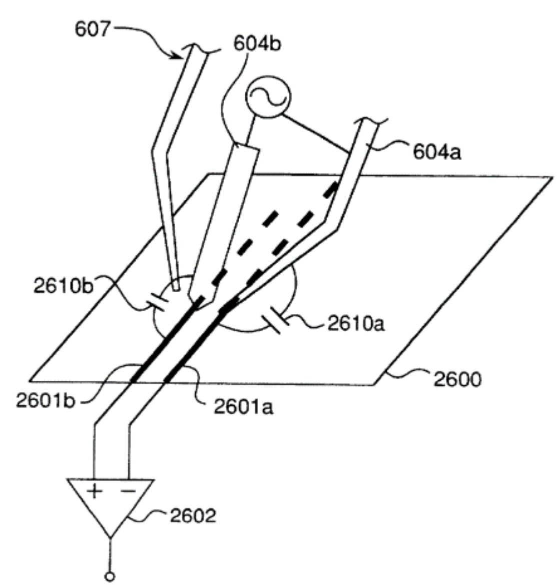
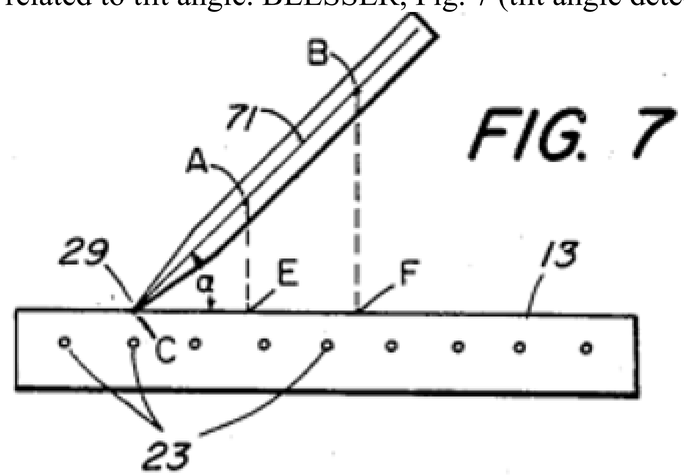
1[f] wherein the first and second signals generated by the signal production circuit, in operation, are transmitted to the first and second electrodes via the conductive lines;	YOSHIDA discloses capacitive coupling between electrodes 604a, 604b and the LCD panel electrodes 2601a, 2601b. YOSHIDA, Fig.26, 27:5-7. The outer electrodes 604a and the inner electrode 604b are coupled with the electrodes 260la and 2601b of the of the LCD panel 2600 via capacitors 2610a and 2610b. Fig.26  *See also* Fig. 27:

	Fig.27  YOSHIDA also discloses "[i]n the experiment shown in FIG. 7, a potential difference across a pair of adjoining segment electrodes 202 was detected…a y-coordinate value of the electrodes 604a and 604b of the electric field generator 607 can be obtained". YOSHIDA, 27:5-7 and 14-16. YOSHIDA also discloses "by performing two times similar detection operations from the segment electrode side and from the common electrode side so as to detect and decide the coordinates of the bottom portion of each double-humped output obtained, the coordinates of the bottom portion correspond to the coordinates of the position in which the electrodes 604a and 604b are located[, t]herefore[,] the coordinates (x, y) of the position in which the electrodes 604a and 604b of the electric field generator 607 are located can be specified." YOSHIDA, 27:17-25. YOSHIDA further discloses that the electrodes 202 of LCD panel 200 can detect the coordinates (x, y) of the position in which the electrodes 604a and 604b are located. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose the first and second signals being transmitted to the first and second electrodes via conductive lines, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

	One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a structured signal transmission process, ensuring that distinct signals are transmitted from a signal production circuit to electrodes via conductive lines: "The signals in registers 57 and 59 are fed into stylus tip position processor section 61 where they are processed to produce a digital output signal over line 61-1 corresponding to the X and Y coordinates of the location of tip 29 of stylus 15 relative to grid 21." BLESSER, 5:16-20. This demonstrates that BLESSER's system ensures that signals generated for electrode interaction are effectively transmitted via structured conductive pathways. A POSITA would recognize that BLESSER's signal transmission structure, when integrated with YOSHIDA's capacitive stylus system, enhances signal integrity and transmission stability. BLESSER's structured transmission process ensures that distinct signals are directed reliably to electrodes, reducing interference and improving stylus detection accuracy. Given the industry-wide reliance on structured signal transmission pathways in stylus-based systems, a POSITA would have found it obvious to incorporate BLESSER's structured transmission approach into YOSHIDA's capacitive stylus system to improve signal precision and capacitive response. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses time-differentiated signals traveling through capacitive pathways, demonstrating that signal transmission via conductive lines is an inherent feature. Specifically, IGUCHI states: "[A] time difference is caused between timing t2 of a peak of an output signal S3' provided by the main electrode and timing t3 of a peak of an output signal S4' provided by the auxiliary electrode." IGUCHI, Fig. 29b, 31:37-41. Further, IGUCHI discloses that capacitive signals are detected by electrodes positioned at different locations, confirming the presence of transmission paths: "Since the auxiliary electrode is located in a position separated from the main

	electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-9. Additionally, IGUCHI Figure 27c provides a schematic representation of capacitive signal transmission paths, demonstrating how signals generated at different electrode locations travel through conductive pathways before interacting with the sensor surface. IGUCHI, Fig. 27c, 31:5-11. A POSITA would recognize that IGUCHI's structured signal transmission approach, when combined with YOSHIDA's capacitive stylus system and BLESSER's signal processing, further enhances the precision and stability of transmitted signals. While BLESSER ensures the structured generation and multiplexing of signals, IGUCHI ensures capacitive signal stability by structuring conductive pathways between electrodes, reinforcing signal reliability and minimizing interference. Given the widespread reliance on structured signal transmission for accurate stylus tracking, a POSITA would have found it obvious to combine IGUCHI's structured signal transmission methods with YOSHIDA and BLESSER's systems to optimize capacitive response, electrode interaction reliability, and stylus detection accuracy.
1[g] wherein the first and second electrodes are configured to form first and second capacitive relationships with the sensor surface, respectively, to generate detection signals in the sensor surface based on which angle information of the pen-shaped position indicator is obtainable.	YOSHIDA discloses a capacitive stylus system where multiple electrodes 604a, 604b interact with a sensor surface to generate detection signals. Specifically, YOSHIDA explains that an electric field is generated from the stylus electrodes and capacitively coupled with the sensor surface to provide positional data. YOSHIDA, Fig. 26, 27:13-25. YOSHIDA further discloses: "A signal which is generated by an electric field from the electrodes of the coordinate pointing device at the electrodes of the panel coupled through an electrostatic capacitive coupling with the coordinate pointing device is detected." YOSHIDA, 14:62-67.

	Fig.26  To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose first and second electrodes forming first and second capacitive relationships with the sensor surface to generate detection signals for angle information, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses how the stylus detects tilt angle using signal differences: "[W]hen pen 15 is tilted at an angle α, as shown in FIG. 7, the waveform envelopes will not be the same from each coil. Instead, coil 35 (at a distance A on pen 15) will produce a position data signal corresponding to point E on tablet 13 while coil 37 (at

	location B on pen 15) will produce a position data signal corresponding to point F on tablet 13.” BLESSER, 5:50-56. BLESSER further disclose how signals from two coils generate detection signals related to tilt angle. BLESSER, Fig. 7 (tilt angle detection).  FIG. 7 BLESSER further discloses: “[The] [s]tylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt.” BLESSER, 5:20-23. A POSITA would recognize that BLESSER’s stylus-based signal processing, when integrated with YOSHIDA’s capacitive stylus system, enhances capacitive signal detection and tilt measurement. BLESSER ensures that capacitive signals are processed to extract tilt and positional data, improving the stylus tracking capabilities of YOSHIDA’s capacitive input system. Given the industry-wide reliance on capacitive signal differentiation for stylus-based tracking, a POSITA would have found it obvious to incorporate BLESSER’s angle detection techniques into YOSHIDA’s capacitive system to improve positional accuracy and angular resolution. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below.

IGUCHI discloses an apparatus for inputting coordinates. As shown in FIG. 26a and FIG. 26b, "[t]he main electrode 304 covered with resin is arranged at an end tip of the pen shaft 310" and "[t]he auxiliary electrode 305 is arranged around this main electrode 304." IGUCHI, 30:25-29, Figs. 26a, 26b.

FIG. 26a

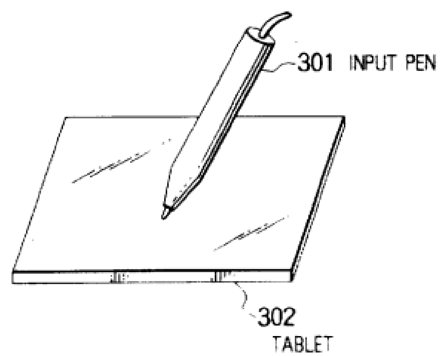
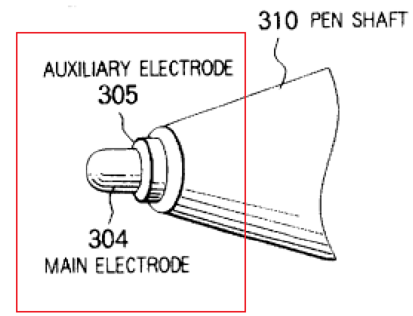
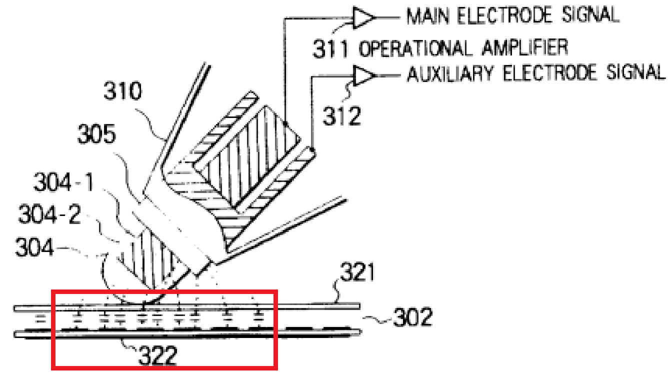
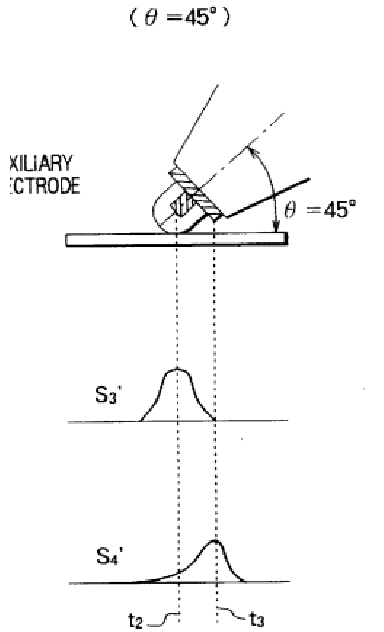


FIG. 26b



IGUCHI also discloses how capacitive signals interact to determine pen inclination: "[N]o shape of the electrostatic capacity is formed with right and left symmetry with respect to the main electrode. This is because no peak of the electrostatic capacity provided by the main electrode 304 is in conformity with a peak of the electrostatic capacity provided by the auxiliary electrode 305 by inclining the pen shaft." IGUCHI, 31:5-11, Fig. 27c.

	FIG. 27c  IGUCHI’s Figure 27c presents an analysis of how capacitive relationships between multiple electrodes on a pen allow for angle detection. The capacitive signals generated by the electrodes interact with the sensor surface, producing detection signals that reveal tilt and angular movement of the pen. As shown in Figure 27c, variations in detected capacitance between electrodes allow for the calculation of angular displacement, supporting the claim that the generated detection signals provide angle information. IGUCHI also discloses “[s]ince the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined” and that “[i]nclination data of the pen shaft can be taken out by a difference between timing signals caused by a difference between these coordinates”. IGUCHI, 15: 6-12. A POSITA would have understood or found obvious that the “inclination data of the pen shaft” is corresponding to the “angle information of the pen-shaped position indicator” in 1[g], and the “the difference between timing signals caused by a difference between these coordinates” is corresponding to the “detection signals in the sensor surface” in 1[g]. The limitation “to generate detection signals in the sensor surface based on which angle information of the pen-shaped position indicator is obtainable” in 1[g] has been disclosed by IGUCHI.

	IGUCHI further supports the detectability of angular displacement by describing how time-differentiated signals from capacitive electrodes encode tilt information. IGUCHI, Fig. 29b, 31:47-50. Specifically, IGUCHI discloses “a time difference is caused between timing t2 of a peak of an output signal S3’ provided by the main electrode and timing t3 of a peak of an output signal S4’ provided by the auxiliary electrode.” IGUCHI, Fig.29b, 31:37-41. FIG. 29b  In Figure 29b of IGUCHI, the output signals S3’ and S4’ from the main and auxiliary electrodes are plotted over time. The graph demonstrates that while both signals are of the same type (e.g., voltage signals), there is a measurable time difference between them, which is utilized to determine the pen’s tilt or angle. The figure presents a waveform diagram illustrating the time difference between output

	signals S3’ and S4’. The figure visually demonstrates how these signals shift over time, supporting the argument that signals from different electrodes have a detectable phase difference. This timing offset allows for accurate angular detection of the pen’s tilt relative to the sensor surface. A POSITA would recognize that integrating IGUCHI’s capacitive signal differentiation approach with YOSHIDA’s stylus system and BLESSER’s tilt detection techniques further enhances angular measurement and tracking precision. While BLESSER ensures signal differentiation based on stylus positioning, IGUCHI refines angular detection by incorporating time-differentiated capacitive signals, ensuring that the electrodes generate distinct detection signals that correspond to stylus angle changes. Given the widespread use of capacitive-based angle detection techniques in stylus systems, a POSITA would have found it obvious to combine IGUCHI’s structured capacitive timing-based detection method with YOSHIDA and BLESSER’s capacitive stylus system to improve signal clarity, angle detection accuracy, and overall stylus input performance.

Claim 2	**Disclosure**
The pen-shaped position indicator according to claim 1, wherein the first and second electrodes are arranged at the first and second positions that are different along the axis of the pen-shaped position indicator.	*See supra* regarding Claim 1. YOSHIDA discloses a megaphone-shaped outer electrode 604a positioned differently from the first electrode and off-axis. YOSHIDA, Fig.6A.

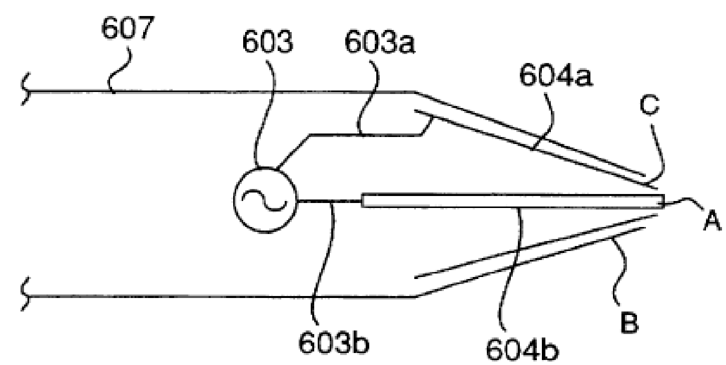
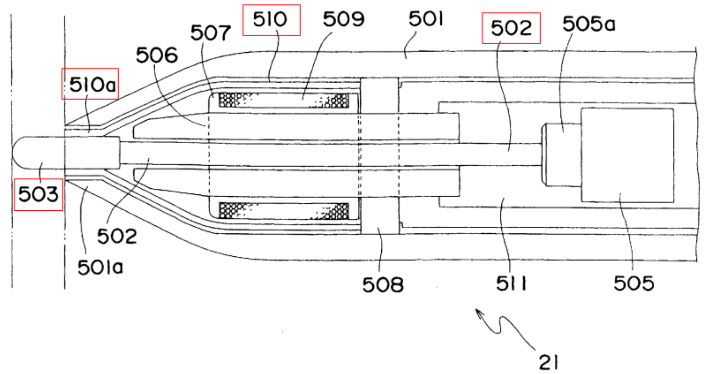
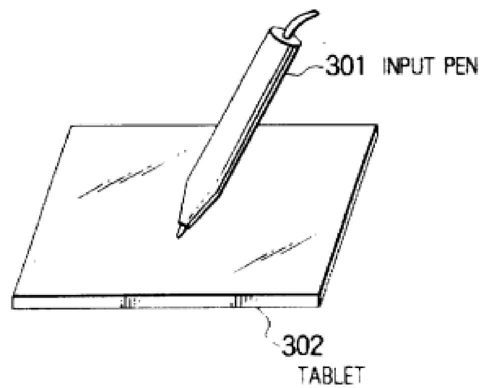
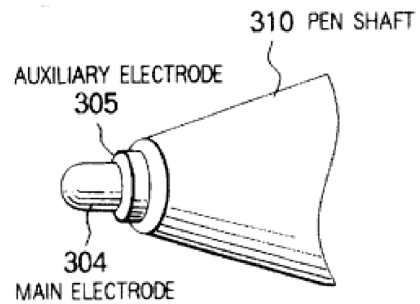
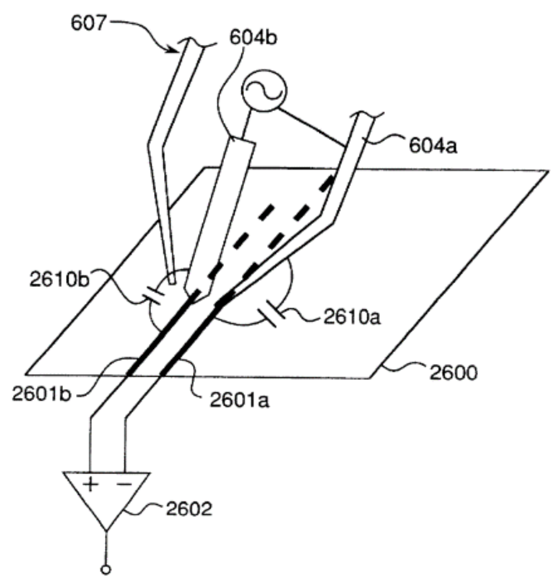
	Fig.6A  Referring to Fig.6A of YOSHIDA, a megaphone-shaped outer electrode 604a is also arranged at the pen-tip portion of the pen-shaped electric field generator 607, and the second position of the outer electrode 604a is different from the first position of the inner electrode 604b. Fig. 6A also shows that the position of the outer electrode 604a is off an axis of the pen-shaped position indicator. This arrangement is evident in this cross-sectional depiction, where the outer electrode surrounds the inner electrode asymmetrically, contributing to the detection of tilt or angle when interacting with the sensor surface. YOSHIDA also discloses rod-shaped inner electrode 502 and outer electrode 510 are arranged at the first and second positions that are different along the axis of the pen 21. YOSHIDA, Fig.29.

	Fig. 29  YOSHIDA's Figure 29 provides a detailed view of the pen's internal structure, showing inner electrode 502 and outer electrode 510 positioned at different locations along the pen's longitudinal axis. This longitudinal section highlights the spatial separation between the electrodes, which is crucial for detecting different capacitive interactions along the pen's length. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose first and second electrodes arranged at different positions along the axis, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. A POSITA would recognize that arranging capacitive electrodes at different locations along a stylus body enhances detection capabilities. This design is a well-established configuration in stylus-based input devices to ensure more accurate positional tracking and tilt detection. Given that YOSHIDA explicitly teaches spatially separated electrodes along the pen axis, a POSITA would have found it obvious to implement such electrode configurations in capacitive stylus systems to improve input stability and tracking fidelity.

	Alternatively, one of ordinary skill could modify YOSHIDA in view of IGUCHI to meet this limitation, as shown below. IGUCHI Figs. 26a, 26b also disclose the main electrode 304 (corresponding to “the first electrode” in [2]) and the auxiliary electrode 305 (corresponding to “the second electrode” in [2]) are arranged at the first and second positions that are different along the axis of the pen shaft 310. FIG. 26a  FIG. 26b  A POSITA would recognize that IGUCHI’s structured electrode placement reinforces YOSHIDA’s disclosure of spatially separated electrodes, ensuring distinct capacitive relationships along the pen axis. IGUCHI’s arrangement further enhances detection accuracy by ensuring that signals from the main and auxiliary electrodes remain distinct and time-differentiated. Given the common industry practice of placing electrodes at different axial positions to enhance stylus input precision, a POSITA would have found it obvious to incorporate IGUCHI’s structured electrode configuration into YOSHIDA’s capacitive stylus system to optimize signal tracking and tilt detection.

Claim 5	Disclosure
The pen-shaped position indicator according to claim 1, wherein the angle information is a tilt angle of the pen-shaped position indicator relative to the sensor surface.	YOSHIDA discloses a capacitive stylus system where multiple electrodes interact with a sensor surface to generate detection signals. YOSHIDA, Fig. 26, 27:13-25. YOSHIDA further discloses: “[A] signal which is generated by an electric field from the electrodes of the coordinate pointing device at the electrodes of the panel coupled through an electrostatic capacitive coupling with the coordinate pointing device is detected.” YOSHIDA, 14:62-67. Fig.26  To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose that the generated angle information corresponds to a tilt angle, one of ordinary skill in the art would, based on one’s knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

	Alternatively, one of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses stylus tilt angle detection through signal differentiation and capacitive processing, ensuring that the angle of the stylus relative to a sensor surface is detected and processed: "[The] [s]tylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt." BLESSER, 5:20-23, *see also* 5:50-60, Fig. 7. BLESSER also discloses a digitizing tablet system that corrects for stylus tilt errors: "The present invention relates generally to digitizing tablet systems and more particularly to a digitizing tablet system which is constructed so as to automatically correct for stylus tilt errors." BLESSER, 1:6-10. BLESSER further discloses how positional data is obtained using a stylus and an array of tablet sensors: "[P]ositional data is obtained by the interaction of some type of element in a stylus, located at some finite distance from the tip of the stylus, with an array or grid of elements in the tablet." BLESSER, 3:45-50. BLESSER's FIG. 7 illustrates how different signals from two coils in the stylus are used to measure tilt angle. When the pen is tilted, the signals detected at the grid vary, allowing for an accurate determination of tilt. BLESSER, Fig. 7 (illustrates how tilt is detected).

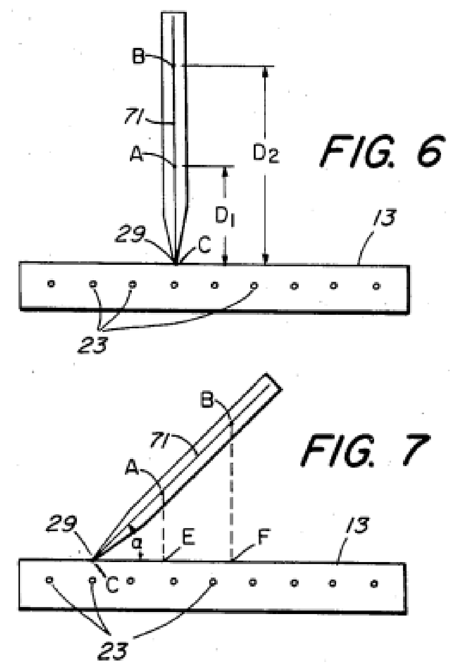
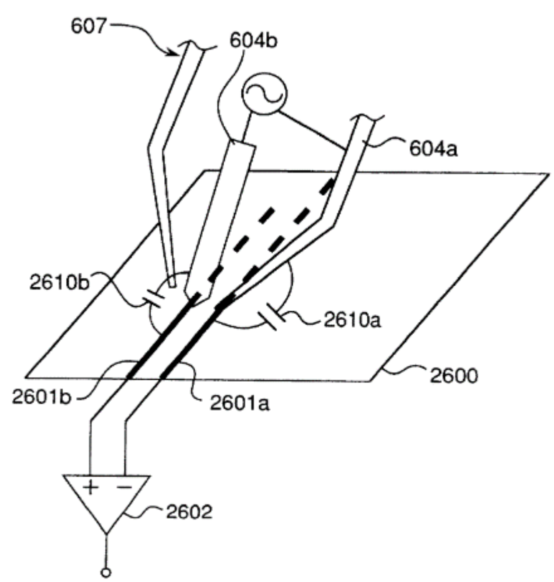
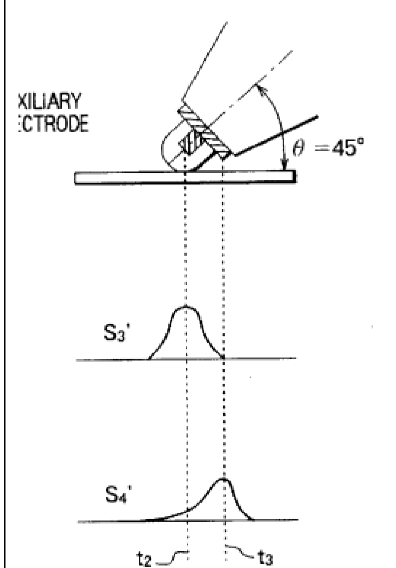


Fig. 7: Illustrates how signals from two coils in the stylus are used to measure tilt angle. When the pen is tilted, the signals detected at the grid vary, allowing for accurate tilt angle determination.

A POSITA would recognize that BLESSER's tilt angle detection techniques, when integrated with YOSHIDA's capacitive stylus system, enable precise measurement of the stylus's angle relative to the sensor surface. BLESSER ensures that capacitive signals can be processed to extract tilt angle information, improving stylus tracking accuracy and user interaction feedback. Given the widespread reliance on capacitive signal differentiation for tilt measurement in stylus input systems, a POSITA would have found it obvious to incorporate BLESSER's tilt angle processing techniques into YOSHIDA's capacitive stylus system to improve positional tracking and tilt detection accuracy.

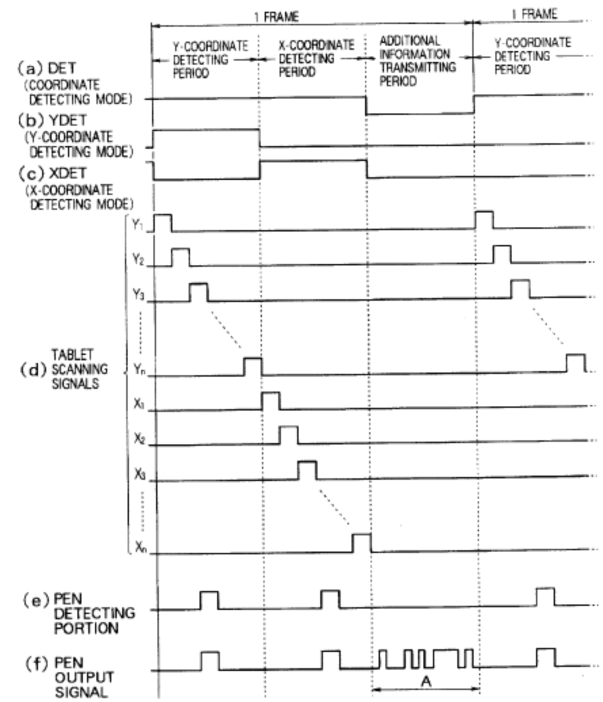
Claim 8	Disclosure
The pen-shaped position indicator according to claim 1, wherein the first and second signals are of the same type but have a time difference from each other.	YOSHIDA discloses a capacitive pen system where multiple electrodes interact with a sensor surface to generate distinct signals. YOSHIDA, Fig. 26, 27:13-25. *Fig.26*  One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a signal processing system where signals are multiplexed and transmitted with phase differentiation, supporting distinct signals from separate stylus components: "The signals in registers 57 and 59 are fed into stylus tip position processor section 61 where they are processed to produce a digital output signal . . . ." BLESSER, 5:16-18. BLESSER also discloses that signal

	differentiation occurs naturally in stylus-based detection systems. BLESSER, 5:50-60. A POSITA would recognize that integrating BLESSER's multiplexed signal generation with YOSHIDA's capacitive stylus system would improve signal distinction by ensuring that signals from different electrodes remain separate in time. BLESSER's structured signal transmission introduces phase shifts, reinforcing YOSHIDA's capacitive signal generation and ensuring that the signals produced are time-differentiated while remaining of the same type. Given the common industry practice of using multiplexed and time-separated signals for stylus-based tracking, a POSITA would have found it obvious to incorporate BLESSER's structured signal timing techniques into YOSHIDA's capacitive stylus system to improve signal distinction and processing reliability. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses a capacitive pen system where the signals from the first and second electrodes are of the same type but have a measurable time difference. Specifically, IGUCHI discloses "a time difference is caused between timing t2 of a peak of an output signal S3' provided by the main electrode and timing t3 of a peak of an output signal S4' provided by the auxiliary electrode." IGUCHI, Fig.29b, 31:37-41.

	FIG. 29b (θ =45°)  In Figure 29b of IGUCHI, the output signals S3' and S4' from the main and auxiliary electrodes are plotted over time. The graph demonstrates that while both signals are of the same type (e.g., voltage signals), there is a measurable time difference between them, which is utilized to determine the pen's tilt or angle. The figure presents a waveform diagram illustrating the time difference between output signals S3' and S4'. The figure visually demonstrates how these signals shift over time, supporting the argument that signals from different electrodes have a detectable phase difference. This timing offset allows for accurate angular detection of the pen's tilt relative to the sensor surface. Additionally, IGUCHI describes a systematic operation cycle where the capacitive pen interacts with a grid of electrodes in an X-Y coordinate system. Specifically,

	IGUCHI also discloses that: "[o]ne cycle of a systematic operation of the coordinate inputting apparatus is shown as one frame in FIG. 31 and is constructed by three periods composed of a Y-coordinate detecting period, an X-coordinate detecting period and an additional information transmitting period"; "the electrodes Y1 to Ym at Y-coordinates are sequentially turned on in the Y-coordinate detecting period, and the electrodes Xl to Xn at X-coordinates are sequentially turned on in the X-coordinate detecting period"; "a detecting portion of the detecting pen outputs a signal when an electrode closest to a pen tip is turned on"; and "it is possible to discriminate a position of the pen tip on the tablet by timing of the signal from the detecting pen." IGUCHI, 32:64-67, 33:1, 33:8-16, Fig. 31.

FIG. 31



	Further, IGUCHI discloses that capacitive signals detected by electrodes positioned at different locations are inherently time-separated, confirming the presence of a structured timing offset between signals: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-9. A POSITA would recognize that integrating IGUCHI's time-differentiated signal processing with YOSHIDA's capacitive stylus system and BLESSER's multiplexed signal transmission ensures structured time separation between signals of the same type. While BLESSER ensures phase separation through multiplexed signal transmission, IGUCHI explicitly introduces capacitive signal differentiation based on time offsets, reinforcing signal distinction at the stylus-electrode interface. Given the industry-wide reliance on time-differentiated signal processing for accurate stylus tracking, a POSITA would have found it obvious to combine IGUCHI's structured timing-based detection with YOSHIDA and BLESSER's capacitive stylus system to improve signal separation, phase differentiation, and stylus tracking fidelity.

Claim 14	**Disclosure**
14[pre] A method of detecting angle information of a pen-shaped position indicator, the method comprising:	YOSHIDA discloses a pen-shaped electronic pen 21, which interacts with a sensor surface through electrostatic capacitive coupling. YOSHIDA, Figs. 1 and 2, 19:66-67, 20:1 ("the electric field generator 102 shown in FIG. l is incorporated in a pen-shaped electronic pen 21"). YOSHIDA also discloses that "a signal which is generated by an electric field generated from the electrodes of the coordinate pointing device at the electrodes of the panel coupled through an electrostatic capacitive coupling with the coordinate pointing device is detected." YOSHIDA, 14:62-67.

Fig.1

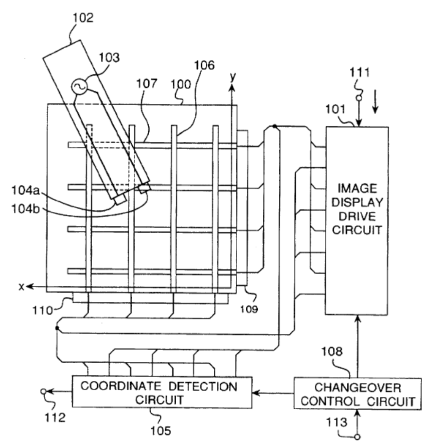
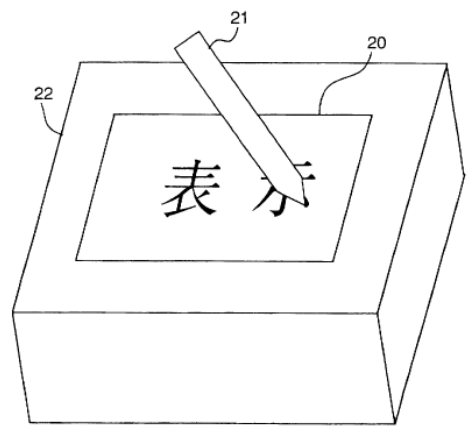


Fig.2



YOSHIDA further describes detecting angular information by analyzing capacitive interactions between the stylus electrodes and the sensor surface. YOSHIDA, Fig. 26.

Specifically, capacitive variations corresponding to different pen orientations enable the system to determine tilt angles.

Fig.26

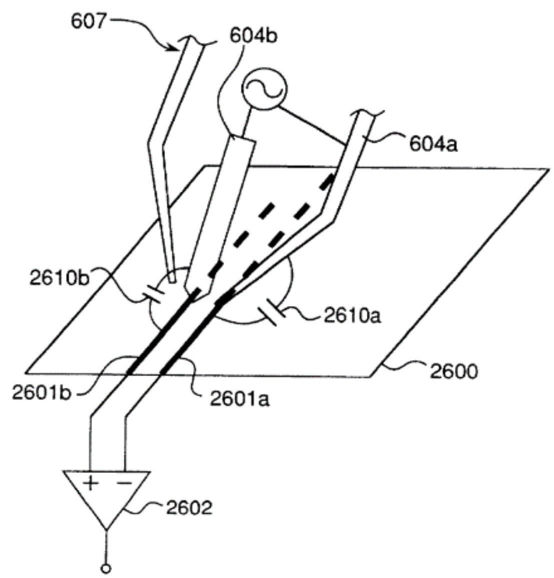


Fig. 26 discloses a method where capacitive relationships between electrodes and a sensor surface allow for detecting angular information of the stylus.

To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose a method for detecting angle information, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

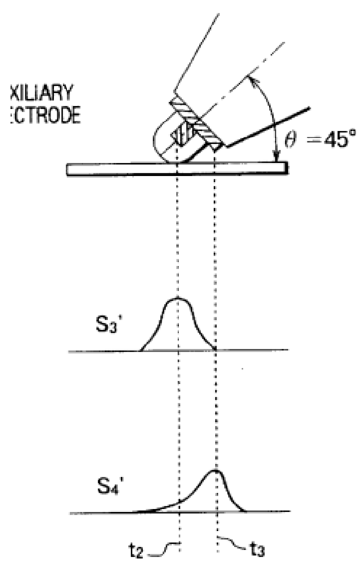
One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below.

BLESSER discloses a stylus system where capacitive signals are processed to determine angular information, ensuring that the angle of the stylus relative to a sensor surface is detected and output as digital data: "[The] [s]tylus tip position processor section 61 also

	produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt.” BLESSER, 5:20-23. BLESSER further discloses a method for detecting and correcting stylus tilt errors: “A voltage signal is applied to each coil sequentially. The signal applied to each coil induces a voltage in each conductor in the grid. The induced voltages are processed to produce a first and a second data signal, the first data signal corresponding to the position of the first coil relative to the grid and the second data signal corresponding to the position of the second coil relative to the grid, with the difference in the two data signals, if any, being caused by tilt of the stylus.” BLESSER, [57] (Abstract). A POSITA would recognize that integrating BLESSER’s tilt angle detection techniques with YOSHIDA’s capacitive stylus system enables precise measurement of stylus orientation. BLESSER processes capacitive signals to extract tilt angle data, improving stylus tracking accuracy and real-time angle detection. Given the common industry practice of using capacitive signal differentiation for angular tracking, a POSITA would have found it obvious to incorporate BLESSER’s tilt angle detection techniques into YOSHIDA’s capacitive input system to optimize positional accuracy and angular responsiveness. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI explicitly discloses capacitive signal differentiation techniques that enable angular detection based on time-differentiated signals: “[A] time difference is caused between timing t2 of a peak of an output signal S3’ provided by the main electrode and timing t3 of a peak of an output signal S4’ provided by the auxiliary electrode.” IGUCHI, 31:37-41, Fig. 29b.

FIG. 29b

(θ =45°)



Further, IGUCHI discloses that capacitive signals interacting with multiple electrodes are separately detected, confirming the ability to derive angle information from structured capacitive relationships: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-9.

A POSITA would recognize that integrating IGUCHI's capacitive signal differentiation system with YOSHIDA's stylus system and BLESSER's tilt angle processing further enhances angular measurement and tracking precision. While BLESSER ensures signal processing for tilt detection, IGUCHI provides structured capacitive signal differentiation based on time offsets, ensuring that electrodes generate distinct signals corresponding to

<table>
<tr><td></td><td>stylus inclination. Given the industry-wide reliance on time-differentiated signal processing for stylus tracking, a POSITA would have found it obvious to combine IGUCHI’s structured timing-based detection with YOSHIDA and BLESSER’s capacitive stylus system to improve signal separation, angle detection accuracy, and overall stylus input performance.</td></tr>
<tr><td>14[a] forming a first capacitive relationship between a sensor surface and first electrode, which is arranged at a first position of a pen-tip portion of the pen-shaped position indicator and is supplied with a first signal generated by a signal production circuit and transmitted via a first conductive line in the pen-shaped position indicator;</td><td>YOSHIDA discloses capacitive coupling between a first electrode and a sensor surface. YOSHIDA, Fig. 26, 27:13-25.

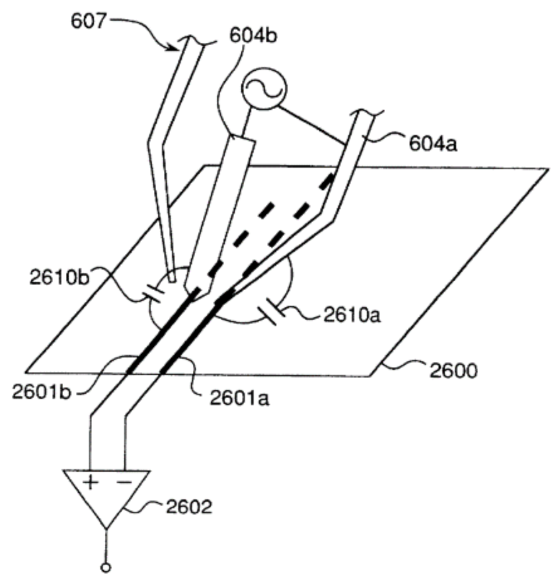
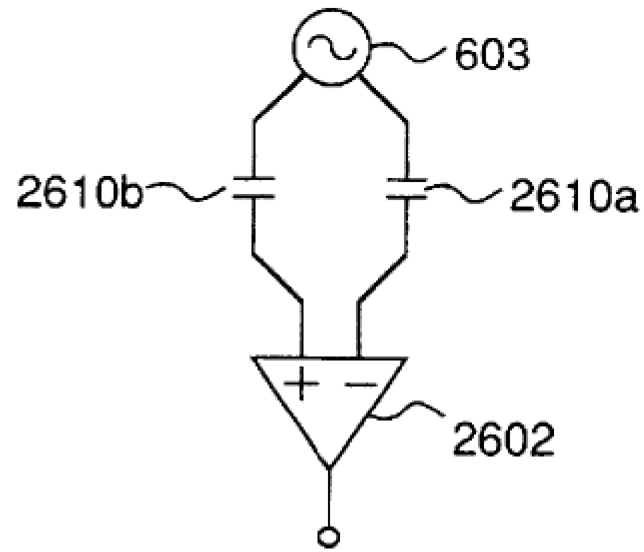
Fig.26


Figure 26 of YOSHIDA illustrates the capacitive interaction between the pen’s first electrode 604b and the LCD panel electrode 2601b (at the sensor surface), demonstrating the fundamental capacitive relationship necessary for signal transmission. YOSHIDA’s Figure 27 presents a schematic diagram of the electronic pen’s circuitry, including an AC power source 603 (a signal production circuit) connected to electrodes 604a and 604b as depicted in Fig. 26.</td></tr>
</table>

	Additionally, YOSHIDA discloses that the first electrode (604b) is supplied with a first signal from an AC power source (603), which is transmitted via a conductive line. YOSHIDA, Fig. 27, 26:31-35. *Fig.27*  To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose forming a first capacitive relationship between the first electrode and the sensor surface, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below.

BLESSER discloses a stylus system where a first electrode forms a structured capacitive relationship with a digitizing surface, ensuring signal differentiation: “The signals in registers 57 and 59 are fed into stylus tip position processor section 61 where they are processed to produce a digital output signal . . . .” BLESSER, 5:16-18.

BLESSER further discloses how the first coil interacts with the digitizer surface. BLESSER, Fig. 7 (stylus interaction with tablet).

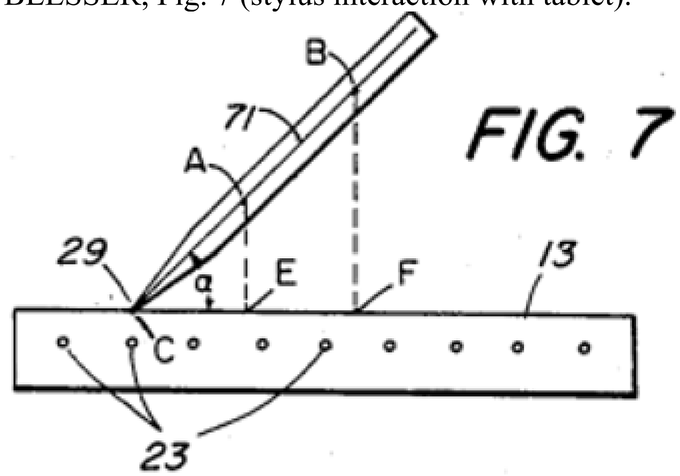
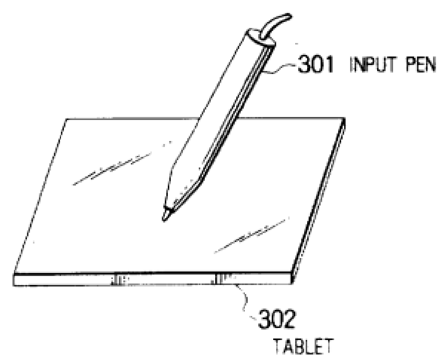
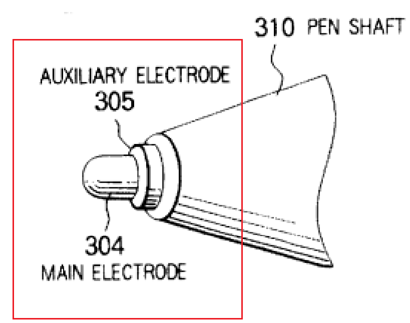


FIG. 7

A POSITA would recognize that BLESSER’s signal processing techniques, when applied to YOSHIDA’s capacitive stylus system, improve signal integrity and electrode interaction with the sensor surface. BLESSER introduces structured signal generation, ensuring that the first electrode reliably forms a capacitive relationship with the sensor surface while receiving a distinct first signal from the signal production circuit. Given the common industry practice of using structured capacitive signal processing for stylus-based systems, a POSITA would have found it obvious to incorporate BLESSER’s capacitive signal processing techniques into YOSHIDA’s capacitive stylus system to enhance detection accuracy and signal transmission reliability.

Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below.

	IGUCHI discloses that the first electrode receives a signal from a signal production circuit and interacts with the sensor surface via capacitive coupling, reinforcing the structured interaction: “Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined.” IGUCHI, 15:6-9. IGUCHI further discloses capacitive electrodes forming a capacitive relationship for stylus-based input detection. IGUCHI, Fig. 26a, Fig. 26b, 30:25-29 (“[t]he main electrode 304 covered with resin is arranged at an end tip of the pen shaft 310” and “[t]he auxiliary electrode 305 is arranged around this main electrode 304”). FIG. 26a  FIG. 26b  A POSITA would recognize that integrating IGUCHI’s structured capacitive signal transmission approach with YOSHIDA’s stylus system and BLESSER’s signal processing further enhances capacitive detection and signal differentiation. While BLESSER ensures stable signal generation and structured processing, IGUCHI reinforces capacitive signal stability by structuring electrode interactions with the sensor surface, ensuring consistent and reliable capacitive coupling. Given the common industry use of structured capacitive electrode arrangements for stable signal transmission, a POSITA would have found it obvious to combine IGUCHI’s structured electrode system with

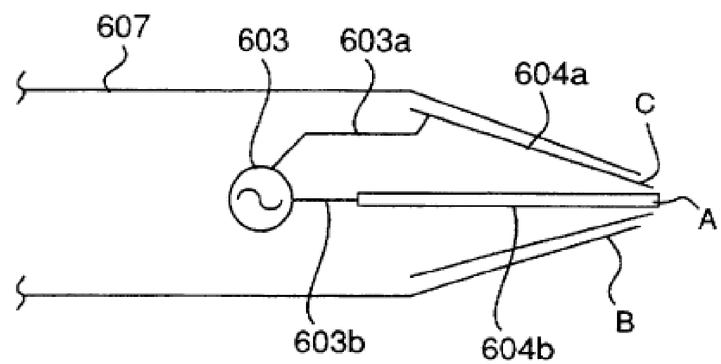
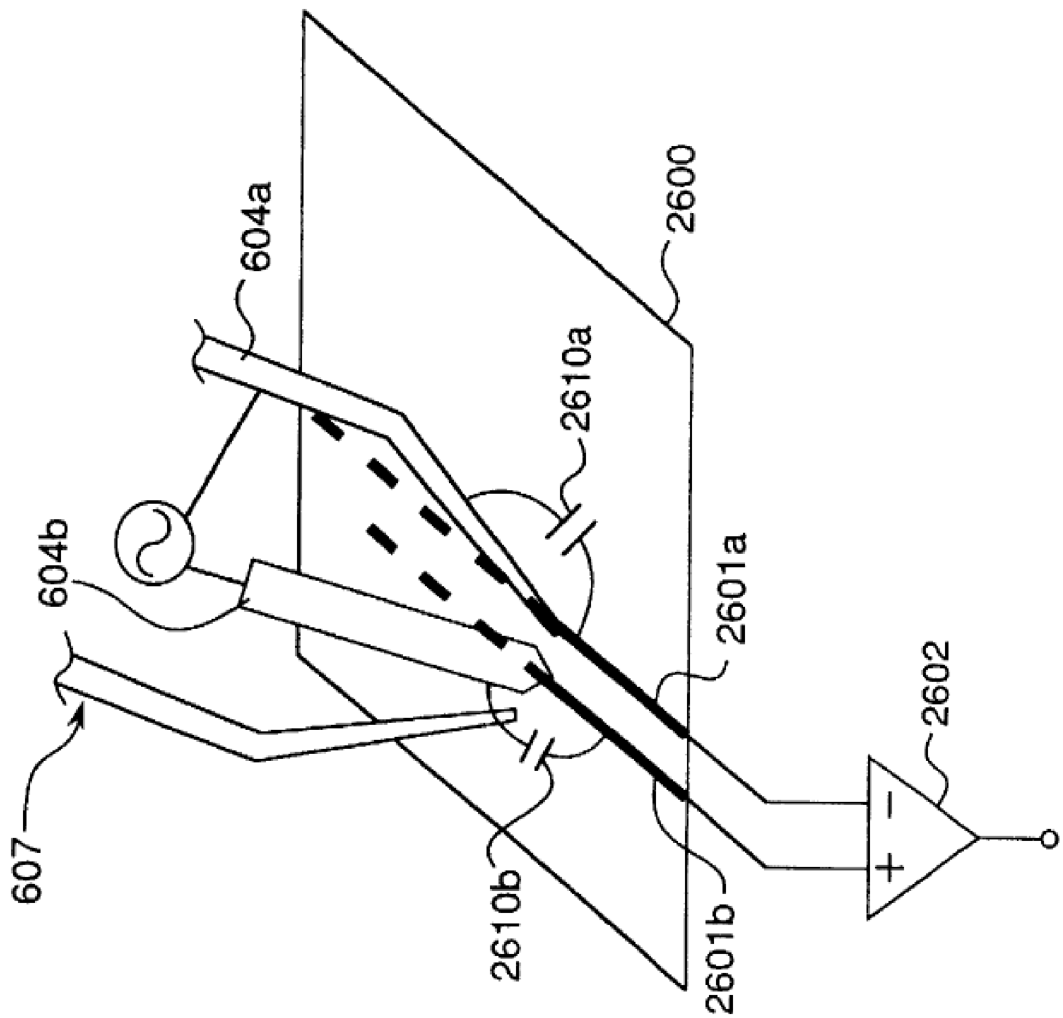
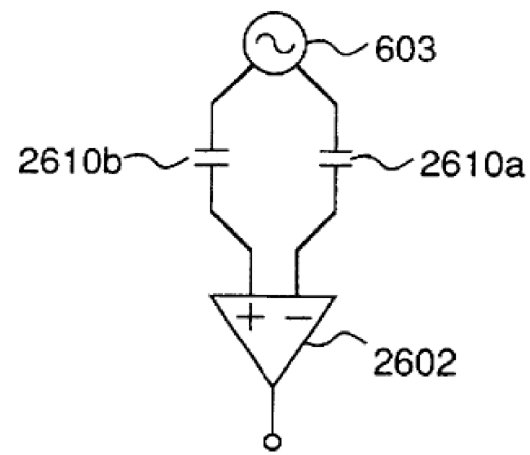
	YOSHIDA and BLESSER's capacitive stylus system to improve signal clarity, capacitive response stability, and stylus tracking accuracy.
14[b] forming a second capacitive relationship between the sensor surface and a second electrode, which is arranged at a second position of the pen-tip portion different from the first position and off an axis of the pen-shaped position indicator and is supplied with a second signal generated by the signal production circuit and transmitted via a second conductive line in the pen-shaped position indicator, wherein the second signal is distinguishable from the first signal; and	YOSHIDA discloses a multi-electrode stylus system with capacitive coupling. YOSHIDA, Figs. 6A, 26, 26:19-22 ("The outer electrodes 604a and the inner electrode 604b are coupled most intensely with the electrodes 2601a and 2601b via capacitors 2610a and 2610b."). Specifically, Figure 6A of YOSHIDA illustrates an inner electrode (604b) and an outer megaphone-shaped electrode (604a), which is positioned at a different location from the inner electrode and extends outward, demonstrating an off-axis configuration. Fig.6A  Figure 26 of YOSHIDA illustrates the capacitive interaction between the pen's first electrode 604a and the LCD panel electrode 2601a (at the sensor surface), demonstrating the fundamental capacitive relationship necessary for signal transmission. YOSHIDA's Figure 27 presents a schematic diagram of the electronic pen's circuitry, including an AC power source 603 (a signal production circuit) connected to electrodes 604a and 604b as depicted in Fig. 26.

Fig.26



	See also, Fig. 27:

Fig.27



YOSHIDA discloses that these electrodes create capacitive relationships with the sensor surface and that signals applied to them are phase-differentiated and thus distinguishable from each other: "Electric fields applied to the outer electrodes 604a and 604b are opposite in phase to each other." YOSHIDA, 26:23-26.

Additionally, YOSHIDA discloses that the second electrode (604a) is positioned off-axis and is supplied with a second signal from an AC power source (603), which is transmitted via a conductive line. YOSHIDA, Fig. 27, 26:31-35.

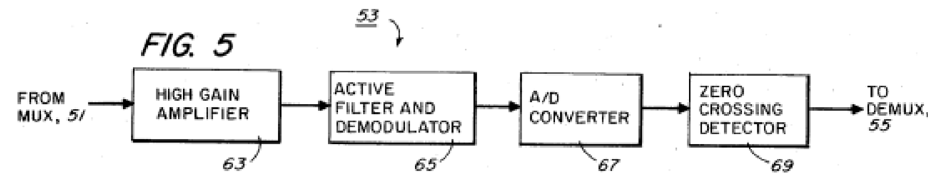
To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose forming a second capacitive relationship between the second electrode and the sensor surface, one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below.

BLESSER discloses a stylus system where a second electrode is positioned off-axis and forms a structured capacitive relationship with a digitizing surface, ensuring signal differentiation: "The signals in registers 57 and 59 are fed into stylus tip position processor section 61 where they are processed to produce a digital output signal." BLESSER, 5:16-18.

BLESSER further discloses how a second coil generates a distinguishable signal for tilt correction: "The two output signals are fed to a computer and/or a display . . . ." BLESSER, 5:23-25, Figs. 5, 7 (stylus signal processing).

FIG. 5



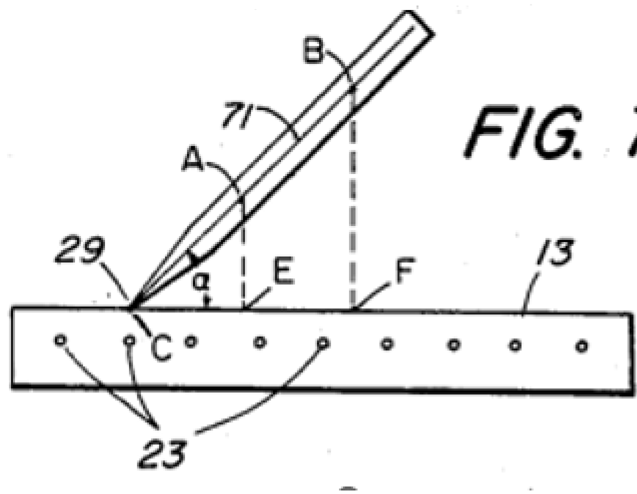
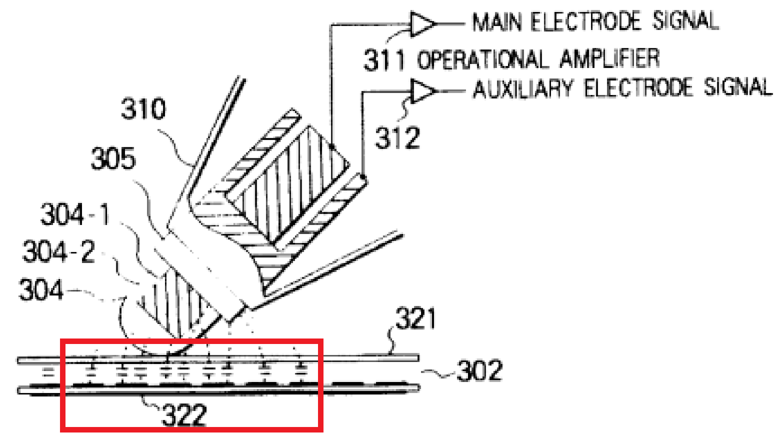
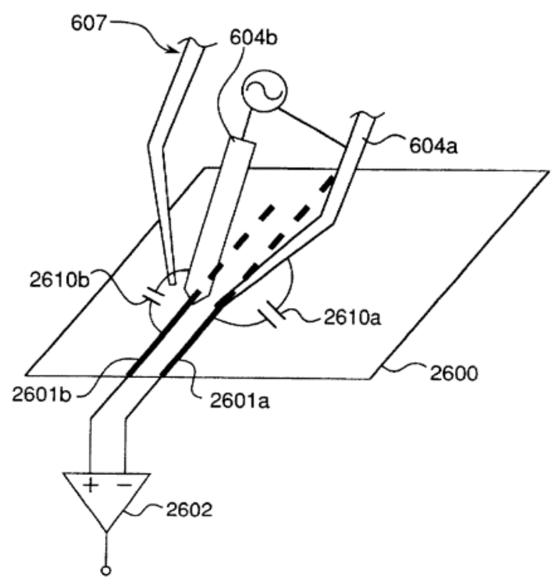


FIG. 7

A POSITA would recognize that BLESSER's signal differentiation techniques, when applied to YOSHIDA's capacitive stylus system, improve signal integrity and ensure that

	distinct signals are supplied to each electrode. BLESSER introduces structured signal generation, ensuring that the second electrode reliably forms a capacitive relationship with the sensor surface while receiving a second signal that remains distinguishable from the first. Given the common industry practice of using structured capacitive signal processing for stylus-based systems, a POSITA would have found it obvious to incorporate BLESSER's structured capacitive signal processing techniques into YOSHIDA's capacitive stylus system to enhance detection accuracy and signal differentiation. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses a structured capacitive input system where a second electrode forms a distinct capacitive relationship with a sensor surface: "The auxiliary electrode 305 is arranged around this main electrode 304." IGUCHI, 30:26-28. Further, IGUCHI discloses that the second electrode receives a distinct signal from a signal production circuit and interacts with the sensor surface via capacitive coupling, reinforcing the structured interaction: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-9. IGUCHI also discloses capacitive relationships between main electrode 304 and auxiliary electrode 305. IGUCHI, Fig. 27c.

	FIG. 27c  IGUCHI's Figure 27c illustrates the capacitive interaction between the main electrode (304) and the sensor surface. The diagram highlights the placement of the electrode relative to the surface and the resulting capacitive coupling, which varies with the pen's orientation. The figure demonstrates how a secondary capacitive relationship forms between another electrode on the stylus and the sensor, which provides further positioning data for detecting angular movement. A POSITA would recognize that integrating IGUCHI's structured capacitive signal transmission approach with YOSHIDA's stylus system and BLESSER's signal processing further enhances capacitive detection and ensures distinguishable signals for separate electrodes. While BLESSER ensures structured signal generation and transmission, IGUCHI reinforces capacitive signal differentiation by structuring electrode interactions with the sensor surface, ensuring consistent and reliable capacitive coupling. Given the common industry use of structured capacitive electrode arrangements for stable signal transmission, a POSITA would have found it obvious to combine IGUCHI's structured electrode system with YOSHIDA and BLESSER's capacitive stylus system to improve signal clarity, capacitive response stability, and stylus tracking accuracy.
14[c] detecting angular information of the pen-shaped position indicator based	YOSHIDA discloses a capacitive stylus system with multiple electrodes that interact with a sensor surface to determine positional information. YOSHIDA, Fig. 26, 14:62-67;

on the first and second capacitive relationships.	26:19-22 (“the outer electrodes 604a and the inner electrode 604b are coupled most intensely with the electrodes 2601a and 2601b via capacitors 2610a and 2610b.”); *see also* Claim 1[b] and 1[c] and Claim 14[b] *supra* regarding the arrangement of multiple electrodes for capacitive coupling. Specifically, Figure 26 of YOSHIDA illustrates how capacitive coupling between electrodes 604a, 604b and a sensor surface generates detection signals, which allow the system to determine the pen’s location. *Fig.26*  YOSHIDA explains that the interaction between these capacitive elements and the sensor surface allows for precise input detection: “[A] signal which is generated by an electric field from the electrodes of the coordinate pointing device at the electrodes of the panel coupled through an electrostatic capacitive coupling with the coordinate pointing device is detected.” YOSHIDA, 14:62-67. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose detecting angular information based on first and second capacitive relationships,

one of ordinary skill in the art would, based on one's knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation.

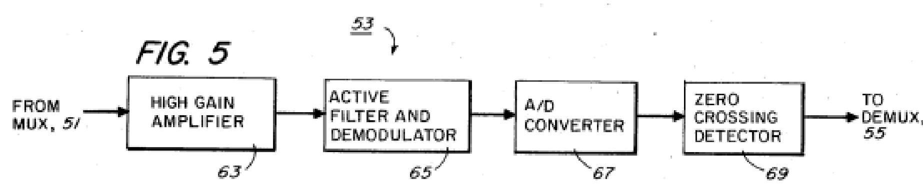
One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below.

BLESSER explicitly discloses a stylus system where angular information is derived based on capacitive relationships between multiple electrodes and the sensor surface: "[The] [s]tylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt." BLESSER, 5:20-23.

BLESSER further explains that tilt angle is calculated using trigonometric relationships, including the law of cosines: "[T]he angle of tilt α can be calculated using the law of cosines. That is, the cosine of angle=(CE)/(AC). This may also be achieved using a table look-up or the like." BLESSER, 6:33-37.

Additionally, BLESSER describes how signals from different coils create different position data due to stylus tilt: "[W]hen pen 15 is tilted at an angle α, as shown in FIG. 7, the waveform envelopes will not be the same from each coil. Instead, coil 35 (at a distance A on pen 15) will produce a position data signal corresponding to point E on tablet 13 while coil 37 (at location B on pen 15) will produce a position data signal corresponding to point F on tablet 13." BLESSER, 5:50-56, Figs. 5 (processing circuit), 6 (position and angle determination), 7 (tilt angle calculation).

FIG. 5



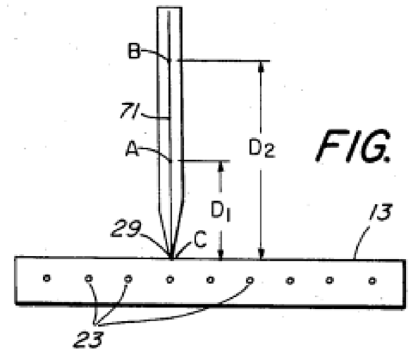


FIG. 6

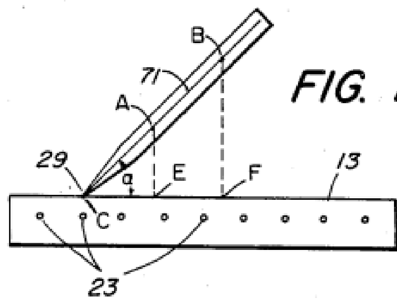


FIG. 7

BLESSER also discloses how angular information is derived using signal differences from multiple coils: “The signals in registers 57 and 59 are fed into stylus tip position processor section 61 where they are processed to produce a digital output signal over line 61-1 corresponding to the X and Y coordinates of the location of tip 29 of stylus 15 relative to grid 21. Stylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt.” BLESSER, 5:16-23.

A POSITA would recognize that BLESSER’s angular detection techniques, when applied to YOSHIDA’s capacitive stylus system, enable precise measurement of stylus orientation based on capacitive relationships. BLESSER ensures that multiple capacitive signals from separate electrodes can be processed to determine tilt angle, reinforcing YOSHIDA’s foundational capacitive input system. Given the common industry practice of using capacitive signal differentiation for angular tracking, a POSITA would have

	found it obvious to incorporate BLESSER's tilt angle detection techniques into YOSHIDA's capacitive input system to improve positional accuracy and angular measurement. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses a system where capacitive signals from multiple electrodes exhibit a measurable time difference, which is used to determine tilt: "A time difference is caused between timing t2 of a peak of an output signal S3' provided by the main electrode and timing t3 of a peak of an output signal S4' provided by the auxiliary electrode." IGUCHI, 31:37-41, Fig. 29b.

FIG. 29b

(θ =45°)

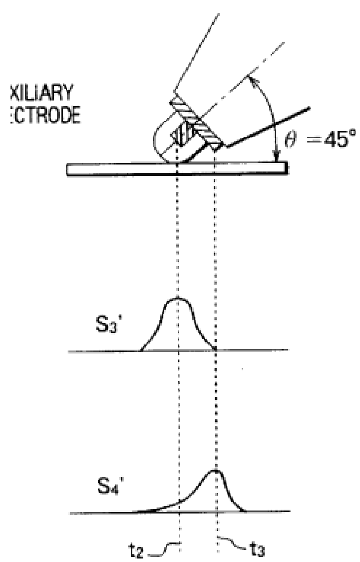
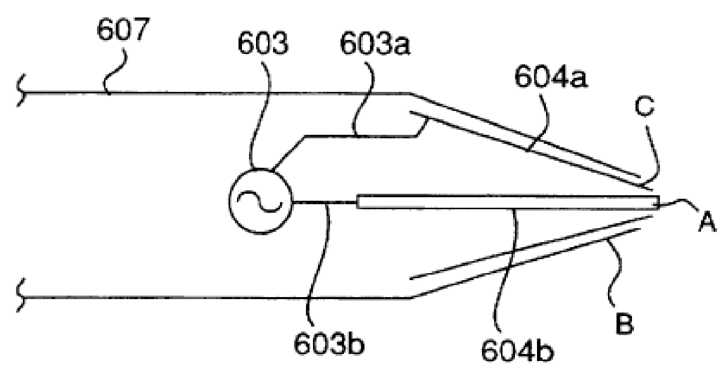
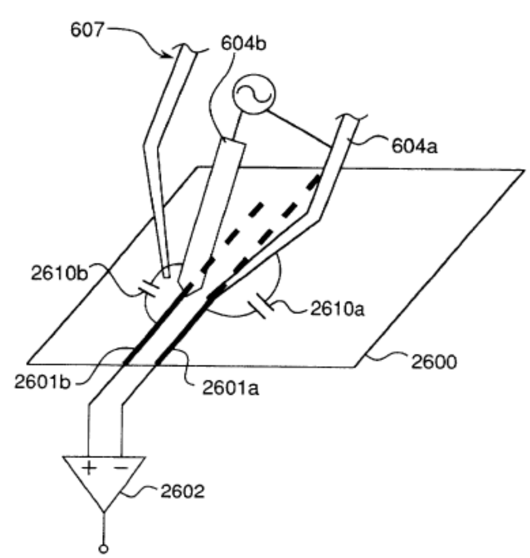


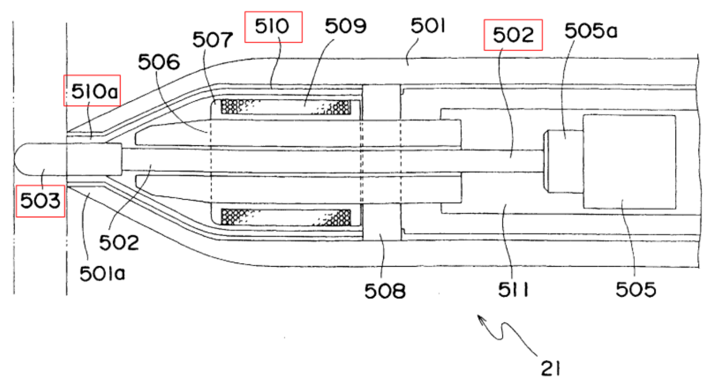
Figure 29b of IGUCHI illustrates phase-shifted capacitive signals, demonstrating how capacitive variations provide real-time tilt measurement. This disclosure directly supports the angular detection requirement of 14[c] by showing how a capacitive stylus system processes signal differentiation to determine inclination.

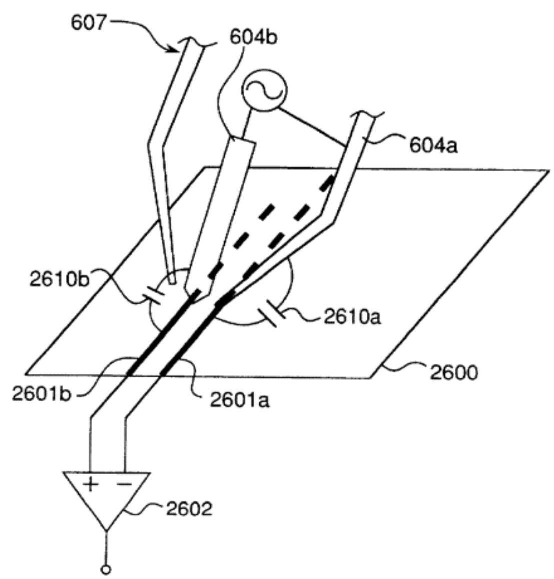
Further, IGUCHI discloses that capacitive signals interacting with multiple electrodes are separately detected and processed for angular measurement: “Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined.” IGUCHI, 15:6-9.

	A POSITA would recognize that integrating IGUCHI's capacitive signal differentiation system with YOSHIDA's stylus system and BLESSER's tilt angle processing further enhances angular measurement accuracy. While BLESSER ensures signal processing for tilt detection, IGUCHI provides structured capacitive signal differentiation based on time offsets, ensuring that electrodes generate distinct signals corresponding to stylus inclination. Given the industry-wide reliance on time-differentiated signal processing for stylus tracking, a POSITA would have found it obvious to combine IGUCHI's structured timing-based detection with YOSHIDA and BLESSER's capacitive stylus system to improve signal separation, angle detection accuracy, and stylus tracking fidelity.

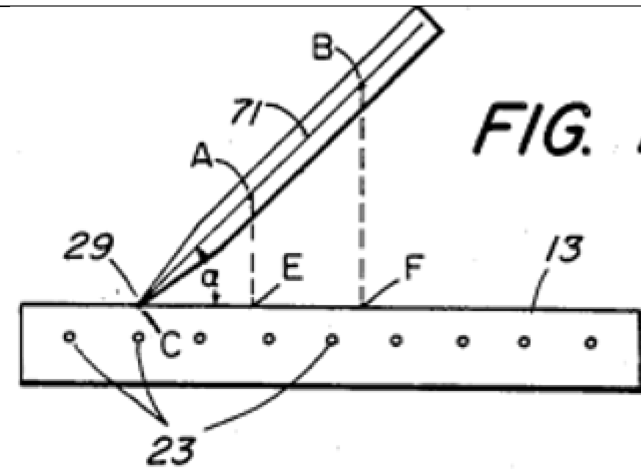
Claim 15	**Disclosure**
The method according to claim 14, wherein the first and second electrodes are arranged at the first and second positions that are different along the axis of the pen-shaped position indicator.	*See supra* regarding Claim 14; *see also* Claim 2. YOSHIDA discloses a megaphone-shaped outer electrode 604a positioned differently from the first electrode and off-axis. YOSHIDA, Fig.6A. Fig.6A  Referring to Fig. 6A of YOSHIDA, the megaphone-shaped outer electrode 604a is positioned at the pen-tip portion of the pen-shaped electric field generator 607,

	distinct from the inner electrode 604b. This cross-sectional depiction highlights how the outer electrode surrounds the inner electrode asymmetrically, creating an off-axis configuration that aids in detecting tilt or angle when interacting with the sensor surface. Fig. 6A further illustrates a multi-electrode stylus system with capacitive coupling, where the outer electrode extends outward from the inner electrode, reinforcing its role in capacitive interaction. Figure 26 of YOSHIDA illustrates the capacitive interaction between the pen's first electrode 604a and the LCD panel electrode 2601a (at the sensor surface), demonstrating the fundamental capacitive relationship necessary for signal transmission. YOSHIDA's Figure 27 presents a schematic diagram of the electronic pen's circuitry, including an AC power source 603 (a signal production circuit) connected to electrodes 604a and 604b as depicted in Fig. 26. Fig.26 

	YOSHIDA explains that these electrodes create capacitive relationships with the sensor surface and that signals applied to them are phase-differentiated and thus distinguishable from each other: “Electric fields applied to the outer electrodes 604a and 604b are opposite in phase to each other.” YOSHIDA, 26:23-26. YOSHIDA also discloses electrodes 502 and 510 at different positions along the axis. YOSHIDA, Fig.29. Fig. 29  YOSHIDA’s Figure 29 provides a longitudinal section of the pen, detailing the placement of inner electrode 502 and outer electrode 510 at distinct positions along the pen’s axis. This configuration is designed to capture varying capacitive interactions along the length of the pen. The figure confirms that electrodes are placed at separate positions along the pen’s longitudinal axis, allowing for varied capacitive interactions. Capacitive stylus technology was well known at the time, and a POSITA would have recognized that placing electrodes at different positions along the pen’s axis allows for more accurate signal differentiation and tilt detection. A POSITA would have understood that capacitive input systems commonly use multiple electrodes positioned at various locations along the pen axis to improve spatial resolution and enhance detection accuracy.

Claim 18	Disclosure
The method according to claim 14, wherein the angle information is a tilt angle of the pen-shaped position indicator relative to the sensor surface.	*See supra* regarding Claim 14. YOSHIDA discloses a capacitive stylus system, where multiple electrodes interact with the sensor surface to generate signals that inherently contain positional and angular data. YOSHIDA, 26:19-22 (“the outer electrodes 604a and the inner electrode 604b are coupled most intensely with the electrodes 2601a and 2601b via capacitors 2610a and 2610b.”), *see also* 27:13-25, Fig. 26. Fig.26  To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose detecting an inclination angle of the pen-shaped position indicator, one of ordinary skill in the art would, based on one’s knowledge and the

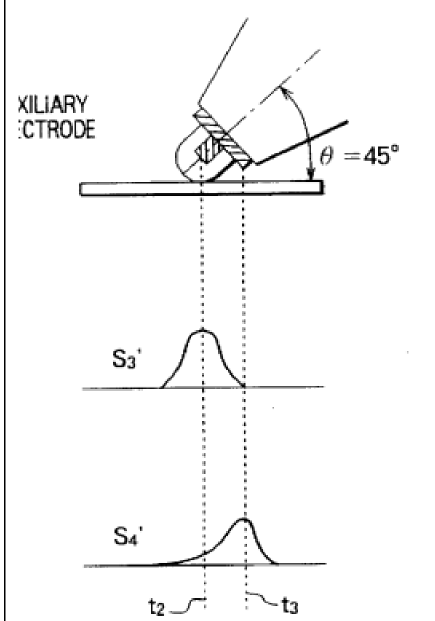
	disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one's knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a stylus system where inclination angle is derived from capacitive signal differentiation: "[The] [s]tylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt." BLESSER, 5:20-23. BLESSER also discloses how a pen-type stylus detects and corrects for tilt errors using multiple coils and calculations: "[D]igitizing tablet system which is constructed so as to automatically correct for stylus tilt errors." BLESSER, 1:7-10. BLESSER further discloses how the pen calculates tilt angle using a triangulation method: "[W]hen pen 15 is tilted at an angle α, as shown in FIG. 7, the waveform envelopes will not be the same from each coil. Instead, coil 35 (at a distance A on pen 15) will produce a position data signal corresponding to point E on tablet 13 while coil 37 (at location B on pen 15) will produce a position data signal corresponding to point F on tablet 13." BLESSER, 5:50-56, Fig. 7.

	 FIG. 7 Fig. 7: Depicts how tilt is detected using multiple coils at different distances from the pen tip. BLESSER further discloses how the angle of tilt is computed based on signal differences detected at multiple positions on the grid: "[B]y using triangles ACE and BCF and the fact that the ratio of corresponding sides of similar triangles are equal, the ratio of the distance from A to C over the distance from B to C is equal to the ratio of the distance from C to E over the distance from C to F." BLESSER, 5:65-6:10. BLESSER's FIG. 7 visually demonstrates how tilt is detected using multiple coils at different distances from the pen tip. BLESSER, Fig. 7 (illustrates the tilt measurement system). A POSITA would recognize that BLESSER's angular detection techniques, when applied to YOSHIDA's capacitive stylus system, enable precise measurement of the inclination angle. BLESSER ensures that capacitive signals can be processed to determine both the angle and tilt of the stylus, reinforcing YOSHIDA's capacitive input framework. Given the common industry practice of using capacitive signal differentiation for angular tracking, a POSITA would have found it obvious to

	incorporate BLESSER's inclination angle detection techniques into YOSHIDA's capacitive input system to improve positional accuracy and angle tracking. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI discloses determining tilt angle from capacitive relationships and signal timing differences. IGUCHI, Fig.29b, 31:37-50 (explaining "a time difference is caused between timing t2 of a peak of an output signal S3' provided by the main electrode and timing t3 of a peak of an output signal S4' provided by the auxiliary electrode" where "an arbitrary angle of the input pen with respect to the tablet can be set to an inclination angle in a standard state in accordance with differences in habit when the detecting pen is individually used.").

FIG. 29b

($\theta = 45°$)

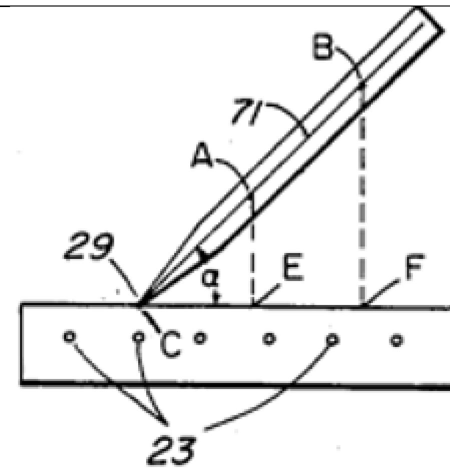


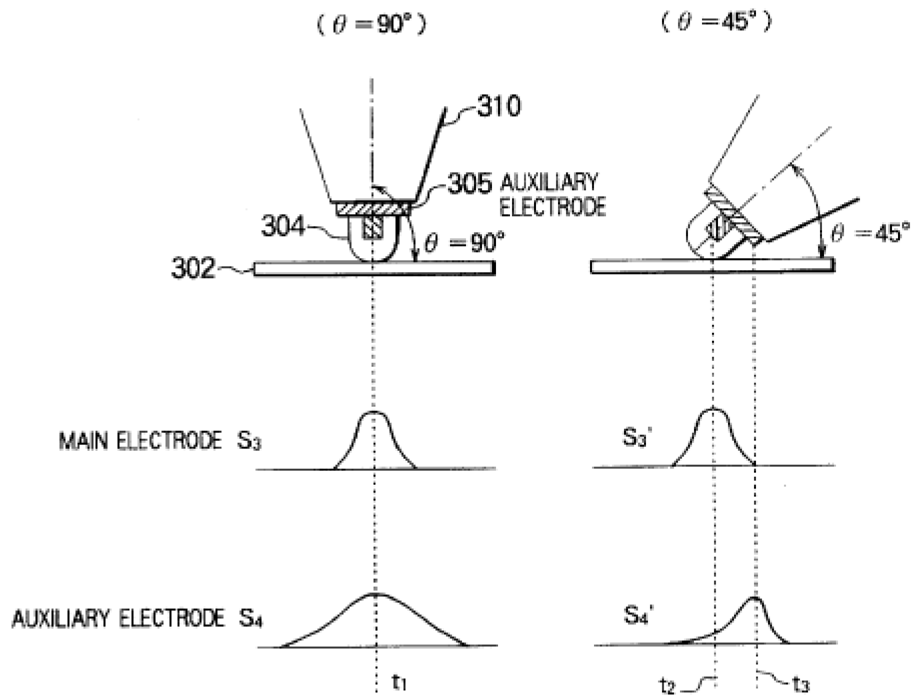
IGUCHI's Figure 29b, as previously described, illustrates the method of determining the pen's tilt angle by analyzing the time differences between signals from the main and auxiliary electrodes. The graphical representation in the figure correlates these time differences with specific tilt angles. The figure illustrates how a stylus's angle is derived from capacitive relationships, demonstrating real-world tilt calculations.

	Further, IGUCHI discloses that capacitive signals from different electrodes are separately detected and used to determine inclination data: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-9. A POSITA would recognize that integrating IGUCHI's capacitive signal differentiation system with YOSHIDA's stylus system and BLESSER's inclination angle processing further enhances angular measurement accuracy. While BLESSER ensures signal processing for angle and tilt detection, IGUCHI provides structured capacitive signal differentiation based on time offsets, ensuring that electrodes generate distinct signals corresponding to stylus inclination. Given the industry-wide reliance on time-differentiated signal processing for stylus tracking, a POSITA would have found it obvious to combine IGUCHI's structured timing-based detection with YOSHIDA and BLESSER's capacitive stylus system to improve signal separation, inclination angle detection accuracy, and overall stylus tracking fidelity.

Claim 21	**Disclosure**
The method according to claim 14, wherein the first and second signals are of the same type but have a time difference from each other.	*See supra* regarding Claim 14; *see also* Claim 8. YOSHIDA discloses a capacitive stylus system where multiple electrodes interact with a sensor surface to generate distinct signals. Specifically, YOSHIDA discloses how electrodes 604a and 604b interact with capacitive elements on a sensor panel to generate detection signals: "[A]signal which is generated by an electric field from the electrodes of the coordinate pointing device at the electrodes of the panel coupled through an electrostatic capacitive coupling with the coordinate pointing device is detected." YOSHIDA, 14:62-67; *see also*, Fig. 26, 27:13-25.

	YOSHIDA further discloses: “[T]he outer electrode 604a and the inner electrode 604b are coupled most intensely with the electrodes 2601a and 2601b via capacitors 2610a and 2610b.” YOSHIDA, 26:19-22. To the extent Plaintiff contends YOSHIDA does not expressly, implicitly, or inherently disclose detecting angle information based on a time difference between first and second detection signals, one of ordinary skill in the art would, based on one’s knowledge and the disclosure of YOSHIDA, understand how to modify YOSHIDA to meet this limitation. One of ordinary skill, based on one’s knowledge and the disclosure of YOSHIDA, could modify YOSHIDA in view of BLESSER to meet this limitation, as shown below. BLESSER discloses a stylus system where capacitive signals are processed to determine angular information, including tilt angle, based on differences in detected signals: “[The] [s]tylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt.” BLESSER, 5:20-23. BLESSER further discloses how coil-based signal differentiation is used to detect stylus tilt, which inherently results in a time difference between the signals. Specifically, BLESSER discloses: “The signals in registers 57 and 59 are fed into stylus tip position processor section 61 where they are processed to produce a digital output signal over line 61-1 corresponding to the X and Y coordinates of the location of tip 29 of stylus 15 relative to grid 21. Stylus tip position processor section 61 also produces a digital output signal over line 61-2 corresponding to the angle of tilt of stylus 15 and the orientation of the tilt” (BLESSER, 5:16-23) and “when pen 15 is tilted at an angle α, as shown in FIG. 7, the waveform envelopes will not be the same from each coil. Instead, coil 35 (at a distance A on pen 15) will produce a position data signal corresponding to point E on tablet 13 while coil 37 (at location B on pen 15) will produce a position data signal corresponding to point F on tablet 13.” BLESSER, 5:50-56, Fig. 7.

	 FIG. 7 These disclosures confirm that BLESSER's coil-based system inherently results in time-differentiated signals due to the different positions of the coils on the stylus. A POSITA would recognize that BLESSER's signal differentiation techniques, when applied to YOSHIDA's capacitive stylus system, improve angular detection by ensuring that separate capacitive signals can be analyzed to determine differences in their timing and amplitude. BLESSER processes capacitive signals to extract timing differences, which provides a method for determining angular information based on capacitive interactions. Given the common industry practice of using capacitive signal differentiation for angular tracking, a POSITA would have found it obvious to incorporate BLESSER's tilt angle processing techniques into YOSHIDA's capacitive input system to improve signal timing analysis and positional accuracy. Alternatively, one of ordinary skill could modify YOSHIDA in view of BLESSER and IGUCHI to meet this limitation, as shown below. IGUCHI explicitly discloses capacitive signal differentiation techniques that enable angular detection based on time-differentiated signals: "[A] time difference is caused between timing t2 of a peak of an output signal S3' provided by the main

	electrode and timing t3 of a peak of an output signal S4’ provided by the auxiliary electrode.” IGUCHI, 31:37-41, Fig. 29b. FIG. 29a FIG. 29b  IGUCHI Figure 29b illustrates this concept through a waveform diagram, where the signals S3’ and S4’ are shown to have distinct peaks that occur at different times. This timing offset enables the determination of angular information based on phase shifts in the detected signals, a principle used in capacitive sensing.

	Further, IGUCHI discloses that capacitive signals from different electrodes are separately detected and used to determine inclination data: "Since the auxiliary electrode is located in a position separated from the main electrode, coordinates of the main and auxiliary electrodes with respect to a tablet plate are separately detected when the pen shaft is inclined." IGUCHI, 15:6-9. A POSITA would recognize that integrating IGUCHI's capacitive signal differentiation system with YOSHIDA's stylus system and BLESSER's tilt angle processing further enhances angular measurement accuracy based on time-differentiated signals. While BLESSER ensures signal processing for angle detection, IGUCHI provides structured capacitive signal differentiation based on time offsets, ensuring that electrodes generate distinct signals corresponding to stylus inclination. Given the industry-wide reliance on time-differentiated signal processing for stylus tracking, a POSITA would have found it obvious to combine IGUCHI's structured timing-based detection with YOSHIDA and BLESSER's capacitive stylus system to improve signal separation, angle detection accuracy, and stylus tracking fidelity.