

# OUR GLOBAL COMPETENCE CENTRES



 APOLLO DISPLAY  
TECHNOLOGIES



 DISTEC



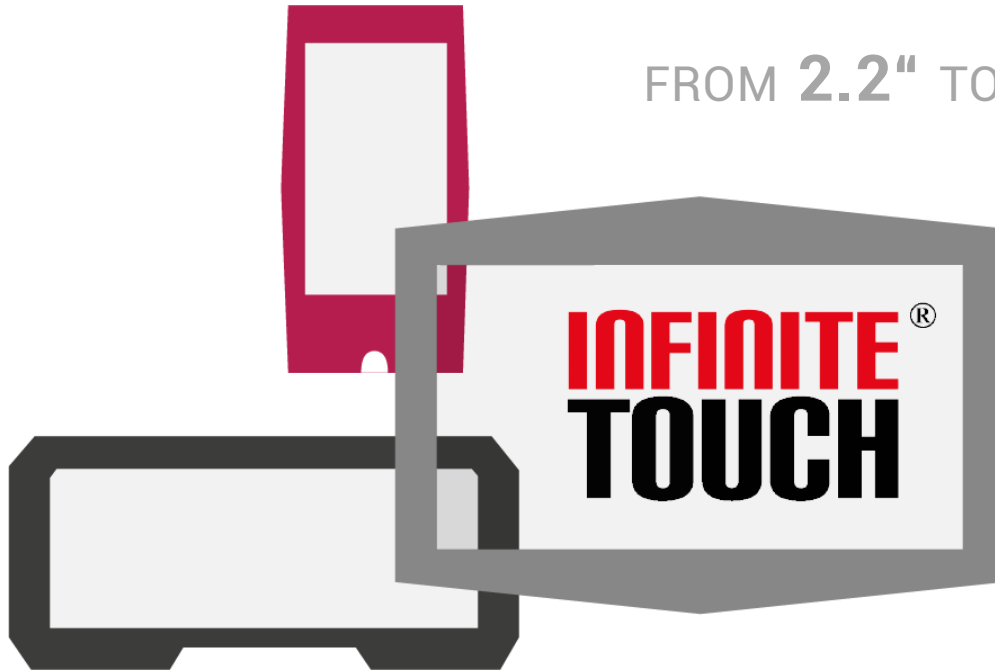
 DISPLAY  
TECHNOLOGY



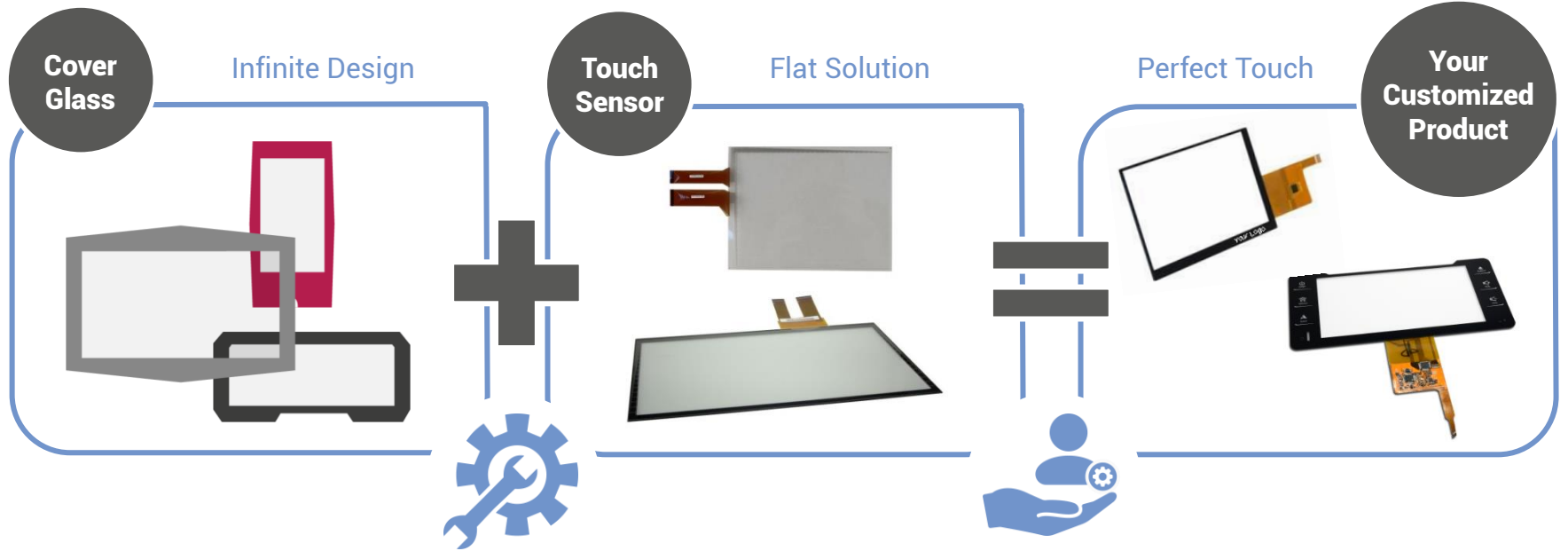
**FORTEC**  
ELEKTRONIK AG

# INFINITE FREEDOM OF TOUCH DESIGN

FROM 2.2" TO 75"



# INFINITE TOUCH DESIGN



# INFINITE TOUCH DESIGN **TRUE FLAT**

True Flat Design for Projected Capacitive Touch:



Standard sizes<sup>(1)</sup>

**5" to 32"**



Project based sizes<sup>(2)</sup>

**2.2" to 75"**



Samples glass strength<sup>(1)</sup>

**1.1 to 4 mm**



Project based glass strength<sup>(2)</sup>

**up to 15 mm**

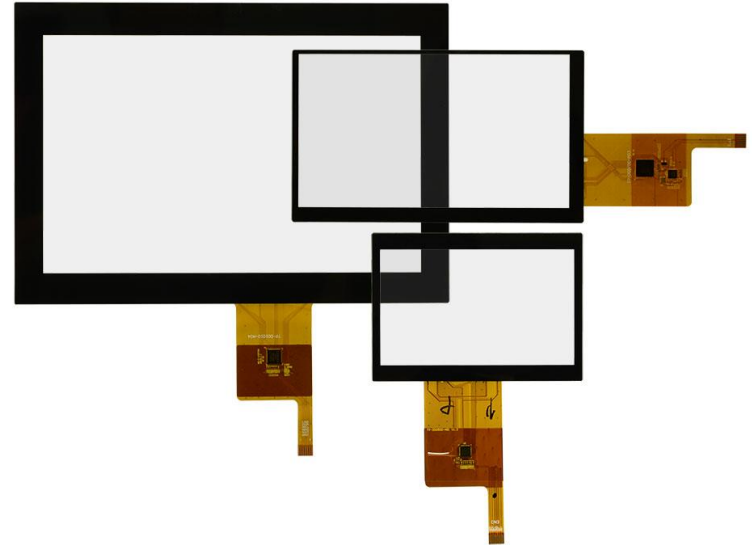
<sup>(1)</sup> With immediate availability for samples.

<sup>(2)</sup> On request.

# INFINITE TOUCH DESIGN **TRUE FLAT PCAP**

## Distec PCAP sensors:

- ✓ PCAP: Sensorfoil for low overall height and low weight
- ✓ Up to 10 touchpoints (depends on cover glass thickness)
- ✓ Chip on board / Chip on flex
- ✓ Interfaces: USB (HID), RS232, I2C
- ✓ Supported OS: Windows, Linux, Android, Mac, QNX
- ✓ Glove usage or palm recognition (on request)
- ✓ Detection of water / blood / salt water (on request)
- ✓ Tape bonding or optical bonding: **VACUBOND®**



# INFINITE TOUCH DESIGN **INDIVIDUAL DESIGN**

## Individual Cover Glass Design:

- ✓ Size \_\_\_\_\_ Custom
- ✓ Design \_\_\_\_\_ Infinite
- ✓ Floatglass \_\_\_\_\_ Chemically or thermally toughened
- ✓ Surface \_\_\_\_\_ AG (anti-glare)  
AR (anti-reflection)  
AF (anti-finger-print)
- ✓ Print \_\_\_\_\_ organic, digital, ceramic (therm. tough. only),  
opaque/lightproof, single/multicolor for customer  
logo, buttons, passe-partout, ...
- ✓ Edges \_\_\_\_\_ ground, faceted, c-cut, polished, ...
- ✓ Other glass \_\_\_\_\_ laminated safety glass, Xensation, Gorilla,  
antibacterial glass, UV blocker, ...
- ✓ Tape bonding or optical bonding \_\_\_\_\_ **VACUBOND®**



# INFINITE TOUCH DESIGN 5" WIDE SENSOR FOIL

5"w	<a href="#">TO-09-112</a> TF-DD0500-A06
Touch dimensions	129.18 x 72 mm
Active area	111.40 x 63.4 mm
Tail length, position	94.37 mm, left (standard) / right
Operating temperature Storage temperature	-20°C to 70°C / -04°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 3 mm
Touchpoints	2 (up to 10)
Chip on flex	EETI EXC80H60 / <a href="#">Datasheet</a>
Interfaces	I2C
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux, Chrome, Mac, QNX
TFT Displays <sup>(1)</sup>	Ortustech COM50H5N03ULC • AUO G050TAN01.0 Ampire AM-7201280HTZQW-00H

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 7" WIDE SENSOR FOIL

7"w	<u>TO-09-018</u> TF-DD0700-A02	<u>TO-09-021R1.1</u> TF-DD0700-B03
Touch dimensions	164 x 103 mm	164 x 103 mm
Active area	154 x 93 mm	154 x 93 mm
Tail length, position	91.87 mm, right (bottom) / left (top)	91.87 mm, right (bottom) / left (top)
Operating temperature	-30°C to 70°C / -22°F to 158°F	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 3 mm	Up to 3 mm
Touchpoints	5	10
Chip on flex	Goodix GT911 / <a href="#">Datasheet</a>	Ilitek ILI2301S+ILIM2VDS / Datasheets: <a href="#">1</a> <a href="#">2</a>
Interfaces	I2C	USB (HID)
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	Innolux G070Y2-L01 • LG LB070WV8-SL02 • Kyocera TCG070WVLQGPNN-AN40 Mitsubishi AA070MC01 / AA070MC11 / AA070ME01 / AA070ME11	

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3 and above.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.



# INFINITE TOUCH DESIGN 7" WIDE SENSOR FOIL

7"w	<u>TO-09-034</u> TF-DD0700-A09	<u>TO-09-032</u> TF-DD0700-A08
Touch dimensions	162.2 x 107.8 mm	162.2 x 107.8 mm
Active area	151.39 x 95.2 mm	151.39 x 95.2 mm
Tail length, position	92.76 mm, right (bottom) / left (top)	92.76 mm, right (bottom) / left (top)
Operating temperature	-30°C to 70°C / -22°F to 158°F	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F	-30°C to 80°C / -22°F to 176°F
Cover glass	<b>Up to 3 mm</b>	<b>Up to 4 mm</b>
Touchpoints	<b>5</b>	<b>10</b>
Chip on flex	Goodix GT911 / <a href="#">Datasheet</a>	Ilitek ILI2301S+ILIM2VDS / Datasheets: <a href="#">1</a> <a href="#">2</a>
Interfaces	<b>I2C</b>	<b>USB (HID)</b>
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	Ampire AM-1280800P2TZQW-00H / AM-1280800P3TZQW-00H / AM-1280800P3TZQW-10H Tianma TM070JDHG34-00	

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3 and above.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 10" WIDE SENSOR FOIL

10"w	TO-09-053 TF-DD1000-A00
Touch dimensions	231.52 x 140.23 mm
Active area	222.52 x 126.13 mm
Tail length, position	95.2 mm, top (right) / bottom (left)
Operating temperature	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 5 mm
Touchpoints	10
Chip on flex	Ilitek ILI2511 / <a href="#">Datasheet</a>
Interfaces	USB (HID)
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	Panasonic VVX10F087J00

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3 and above.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 10.1" WIDE SENSOR FOIL

10.1"w	TO-09-029 TF-DD1010-A04
Touch dimensions	250 x 173 mm
Active area	218 x 136.80 mm
Tail length, position	88.18 mm, bottom (right) / top (left)
Operating temperature	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 3 mm
Touchpoints	Up to 10
Chip on flex	GT9271 / <a href="#">Datasheet</a>
Interfaces	I2C
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux
TFT Displays <sup>(1)</sup>	Amoled AL101WXL02-N • Tianma TM101JDHG30-00 • NLT NL12880AC16-01D • AUO G101EVN01.0 / G101EVN1.3

<sup>(1)</sup> TFT Displays with nearly perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 10.1" WIDE SENSOR FOIL

10.1"w	TO-09-050R1.1 TF-DD1010-D05
Touch dimensions	230 x 154.51 mm
Active area	219 x 137.80 mm
Tail length, position	94.12 mm, top (middle) / bottom (middle)
Operating temperature	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 5 mm
Touchpoints	10
Chip on flex	Ilitek ILI2511 / <a href="#">Datasheet</a>
Interfaces	USB (HID)
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	Amoled AL101WXL02-N • Tianma TM101JDHG30-00 • NLT NL12880AC16-01D • AUO G101EVN01.0 / G101EVN1.3

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3 and above.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 10.4" SENSOR FOIL

10.4"	<a href="#">TO-09-066</a> TF-DD1040-A06
Touch dimensions	224 x 175.30 mm
Active area	213.04 x 160.43 mm
Tail length, position	90.78 mm, top (left) / bottom (right)
Operating temperature Storage temperature	-30°C to 70°C / -22°F to 158°F -30°C to 85°C / -22°F to 185°F
Cover glass	Up to 5 mm
Touchpoints	10
Chip on flex	Ilitek ILI2511 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID)
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	Innolux G104X1-L03, G104X1-L04 • Mitsubishi AA104XD12, AA104XG12, AA104XD02 • Kyocera TCG104XGLPAPNN-AN30 • NLT NL10276BC20-18 • AUO G104XVN01.0

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 10.4" SENSOR FOIL

10.4"	<u>TO-12-501</u>
Touch dimensions	224.15 x 174.97 mm
Active area	212.45 x 159.65 mm
Tail length, position	91.79 mm, bottom (right) / top (left)
Operating temperature Storage temperature	-25°C to 70°C / -13°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 4 mm
Touchpoints	10
Chip on board	SW3718 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID)
Sensor	AG nano wire film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac
TFT Displays <sup>(1)</sup>	Innolux G104X1-L03, G104X1-L04 • Mitsubishi AA104XD12, AA104XG12, AA104XD02 • Kyocera TCG104XGLPAPNN-AN30 • NLT NL102476BC20-18 • AUO G104XVN01.0

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 11.6" WIDE SENSOR FOIL

11.6"	<u>TO-09-056</u> TF-DD1160-A00
Touch dimensions	270.1 x 160.41 mm
Active area	258.3 x 146.2 mm
Tail length, position	95.19 mm, top (right) / bottom (left)
Operating temperature	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 5 mm
Touchpoints	10
Chip on board	Ilitek ILI2511 / <a href="#">Datasheet</a>
Interfaces	USB (HID)
Sensor	ITO-Film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	Panasonic VVX12F045J00 • NLT NL192108AC13-02D

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3 and above.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 12.1" SENSOR FOIL

12.1"	<u>TO-18-501</u>
Touch dimensions	268.56 x 202.34 mm
Active area	247.87 x 186.40 mm
Tail length, position	92 mm, left (upper middle) / right (lower middle)
Operating temperature Storage temperature	-25°C to 70°C / -13°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5982+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	Innolux G121XCE-L01 / G121S1-L02 • Mitsubishi AA121XK01 / AA121XL01 • Kyocera TCG121XGLPAPNN-AN20 • NLT NL10276BC24-21

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.



# INFINITE TOUCH DESIGN 12.1" WIDE SENSOR GLASS

12.1"w	TO-09-022 TF-DD1210-A00
Touch dimensions	285.5 x 187.5 mm
Active area	266 x 168 mm
Tail length, position	197.7 mm, left (upper middle) / right (lower middle). (Tail length 120mm on request)
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5962+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO-Film on 0.7mm glass, sensor pitch designed for cover glass thickness 6mm
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	Innolux G121I1-L01 • Mitsubishi AA121TD01 • SGD GKVGC1MNDK2A0 • AUO G121EAN01.0 • Tianma NL12880AC20-20D

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

# INFINITE TOUCH DESIGN 12.1" WIDE SENSOR FOIL

12.1"w	TO-12-508 TF-DD1210-A01
Touch dimensions	275 x 179.7 mm
Active area	265.12 x 167.2 mm
Tail length, position	84.75 mm, left (bottom) / right (top)
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5982+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	AG nano wire film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	Innolux G121I1-L01 • Mitsubishi AA121TD01 • SGD GKVGC1MNDK2A0 • AUO G121EAN01.0 • Tianma NL12880AC20-20D

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 12.5" WIDE SENSOR GLASS

12.5"w	TO-09-048 TF-DD1250-A01
Touch dimensions	289 x 171.65 mm
Active area	280 x 159.04 mm
Tail length, position	101.66 mm, top (right) / bottom (left)
Operating temperature	-30°C to 70°C / -22°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 3 mm
Touchpoints	10
Chip on flex	Ilitek ILI2301S+ILIM2VDS / Datasheets: <a href="#">1</a> <a href="#">2</a>
Interfaces	USB (HID)
Sensor	ITO-Film on 0.7mm glass
Supported OS	Windows, Android, Linux <sup>(2)</sup>
TFT Displays <sup>(1)</sup>	LG LP125WF2-SPB2

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Standard USB/HID driver implemented from Linux Kernel 3.3 and above.

# INFINITE TOUCH DESIGN 13.3" SENSOR FOIL

13.3"	<u>TO-18-508</u>
Touch dimensions	309.30 x 183.98 mm
Active area	296.76 x 168.24 mm
Tail length, position	92.08 mm, bottom (left) / top (right)
Operating temperature Storage temperature	-25°C to 70°C / -13°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5982+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO G133HAN01.0

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 15" SENSOR FOIL

15"	<a href="#">TO-18-504</a>
Touch dimensions	326.50 x 258.10 mm <sup>(4)</sup>
Active area	304.13 x 228.1 mm
Tail length, position	90.04 mm, bottom (middle) / top (middle)
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5962+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	Innolux G150XGE-L04 / R150XJE-L01 • AUO G150XTN06.0 / G150XTN06.4 • Mitsubishi AA150XT01 / AA150XT11 / AA150PD03 / AA150PD13 / AA150XW14 • NLT NL10276AC30-42C

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

<sup>(4)</sup> Touch outline dimension differs slightly from outline dimensions of TFT's above.

# INFINITE TOUCH DESIGN 15.6" SENSOR FOIL

15.6"	<u>TO-18-505</u>
Touch dimensions	363.13 x 216.49 mm
Active area	346.2 x 195.5 mm
Tail length, position	90.05 mm, bottom (left) / top (right)
Operating temperature Storage temperature	-25°C to 70°C / -13°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5982+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO G156XW01V1, G156HAN01.0 • LG LP156WF6-SPB1 • NLT NL192108AC18-02D • Sharp LQ156M3LW01

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 17.3" SENSOR FOIL

17.3"	<a href="#">TO-18-507</a>
Touch dimensions	403 x 240 mm
Active area	381.89 x 214.81 mm
Tail length, position	90.52 mm, bottom (left) / top (right)
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5982+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO G173HW01V0

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 19" SENSOR FOIL

19"	<a href="#">TO-12-504</a>
Touch dimensions	395 x 325 mm
Active area	377.32 x 302.06 mm
Tail length, position	91.79 mm, bottom (right) / top (left)
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 4 mm
Touchpoints	10
Chip on board	SW3718 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID)
Sensor	AG nano wire film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac
TFT Displays <sup>(1)</sup>	Sharp LQ190E1LX75 • AUO G190EG01 V1 / G190ETN01.2

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.



# INFINITE TOUCH DESIGN 21.5" SENSOR FOIL

21.5"	<u>TO-18-503</u>
Touch dimensions	498.2 x 295.58 mm
Active area	480 x 271.5 mm
Tail length, position	90.42 mm, bottom (left) / top (right)
Operating temperature Storage temperature	-25°C to 70°C / -13°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5962+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO G215HVN01.0 • LG LM215WF3-SLC1

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 24" SENSOR FOIL

24"	<a href="#">TO-18-502</a>
Touch dimensions	551.66 x 324.49 mm
Active area	535.36 x 302.89 mm
Tail length, position	90.35 mm, bottom (left) / top (right)
Operating temperature Storage temperature	-25°C to 70°C / -13°F to 158°F -30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5962+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO G240HW01V0 • Amoled AL240FHL01-N

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 27" SENSOR FOIL

27"	<a href="#">TO-29-501</a> TF-DD2700-A01
Touch dimensions	630 x 371 mm
Active area	598.6 x 337.15 mm
Tail length, position	170.29 mm, bottom (middle) / top (middle)
Operating temperature Storage temperature	-20°C to 70°C / -0°F to 158°F -20°C to 80°C / -04°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EETI EXC80H68108STAG / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	Metal Mesh (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Android, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO M270HVN02.1

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN 32" SENSOR FOIL

32"	TO-18-506
Touch dimensions	734.56 x 428.8 mm
Active area	698.70 x 393.30 mm
Tail length, position	89.74 mm, bottom (middle) / top (middle)
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-30°C to 80°C / -22°F to 176°F
Cover glass	Up to 10 mm
Touchpoints <sup>(2)</sup>	10
Chip on board	EXC3000+EX5962+EX5418 / <a href="#">Datasheet</a>
Interfaces	I2C / USB (HID) / RS232
Sensor	ITO coated film (incl. OCA <sup>(3)</sup> )
Supported OS	Windows, Linux, Mac, QNX
TFT Displays <sup>(1)</sup>	AUO P320HVN02.0 / P320HVN02.1 / P320HVN03.0 / P320HVN04.1 / P320HVN07.0

<sup>(1)</sup> TFT Displays with perfect mechanic correlation to sensor foil. In general our sensor foils are corresponding with any other TFT.

<sup>(2)</sup> Touchpoints may reduced due to cover glass thickness.

<sup>(3)</sup> Optical Clear Adhesive: preassembled glue for lamination of sensor foil to cover glass.

# INFINITE TOUCH DESIGN OVERVIEW VACUBOND®

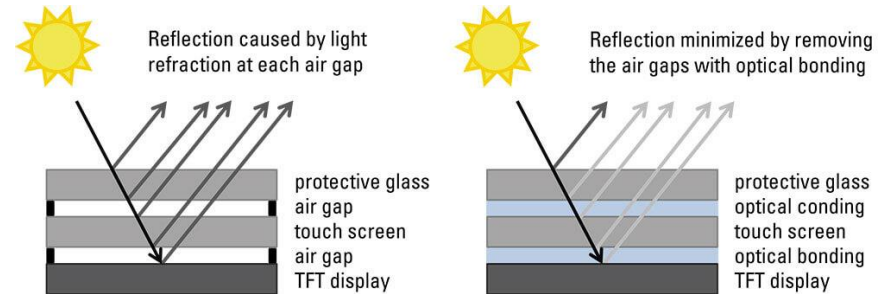
In close strategic and technical co-operation with the Japanese Taica - Group we developed the latest generation of optical bonding and assembly technology.

For supply security and for support of your risk management we installed the identical machines and processes in Germering/Munich, Germany as well as in Ronkonkoma/NY, USA.



## Vacuum Bonding doesn't need:

- ✓ Drying process / curing time
- ✓ Dam construction as wet bonding
- ✓ Comprehensive "optical defect specification"
- ✓ Stable mechanical structure of TFT



# INFINITE TOUCH DESIGN **ADVANTAGES VACUBOND®**

## Advantages VacuBond®:

- ✓ Perfect contrast and readability in sunshine by eliminating the air gaps between TFT display and cover glass / touch
- ✓ No condensation / fogging in air-gap
- ✓ Reduced danger of splintering during glass breakage
- ✓ Improved shock absorption, more robust construction
- ✓ Improved heat transmission via front-glass (up to factor 8)
- ✓ Cost-efficient and reliable bonding of small and sensitive TFTs in the range of 2,4" to 7" and of TFTs up to 32"+ in general
- ✓ "free air exclusion" bonding: we fill free space inside of the TFT by bonding (ex-protection)
- ✓ We can directly bond into your front-panel
- ✓ High precision in production due to production jig and automated process
- ✓ Our process is reversible, we can re-bond e.g. for repair



**VACUBOND®**

**FORTEC**  
ELEKTRONIK AG

# INFINITE TOUCH DESIGN **ADVANTAGES ASSEMBLY WITH VACUBOND®**

## Advantages Assembly with VacuBond®:

- ✓ Easy assembly of the fragile new generation TFT displays without metal housings
- ✓ Zero anomalies production (opaque, translucent) makes a cosmetic specification superfluous
- ✓ Assembly of protective glass of any thickness for increased ruggedness (drop ball tests, IEC60721-3-7 as well as MIL STD 810F passed with VacuBond)
- ✓ Assembly of touch screens of all common technologies: resistive, glass/glass, AMR, projected capacitive
- ✓ Assembly at room temperature in contrast to assembly in autoclaves, which may exceed the maximum specified temperature of the touch screen.



Modern 3,2" TFT display assembled in VacuBond technology with a protective glass



Same 3,2" TFT display without protective glass: the very small bezel and the fragile mechanics do not allow for tape assembly or wet bonding

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