

# Short Form Catalog

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## Displays

Active Matrix LCD (TFT)  
Passive Matrix LCD (Monochrome)  
Customized LCD



A division of the ZETTLER Group  
[www.azdisplays.com](http://www.azdisplays.com)  
[www.zettler-group.com](http://www.zettler-group.com)

## Worldwide

# Display Solution Provider

### About Us

AZ Displays manufactures a wide array of industrial grade TFT displays at competitive prices.

These displays are available as standard off-the-shelf products as well as fully customizable, turn-key solutions. AZ Displays has provided these solutions to key players in the medical, industrial, HVAC, white goods, and pool/spa markets. Within these markets we have created custom-tailored designs to address specific requirements for the PCAP and resistive touch panels, cover glass, backlights, gaskets, PCBA's, and many other value-added options.

With an extensive product offering in IPS (In-Plane-Switching) panels, our solutions offer wide viewing angles, vivid color representation, and stable response times while maintaining a competitive edge. By vertically integrating the majority of the LCD manufacturing process at our factory, we are able to support roadmaps for 5 to 7 years on our core product offering.

In addition to our TFT line-up, we offer a wide range of passive monochrome displays. Our standard product offering of character and graphic displays are all available with multiple optical characteristics (polarizer, fluids, backlights). We are able to provide fully customized solutions including 100% drop-in replacements to existing designs.

As a member of the global entity, ZETTLER Group, we pride ourselves in supporting the North American market. Being headquartered in Vista, California allows us to provide fast response times and local sales and engineering support for your design needs.

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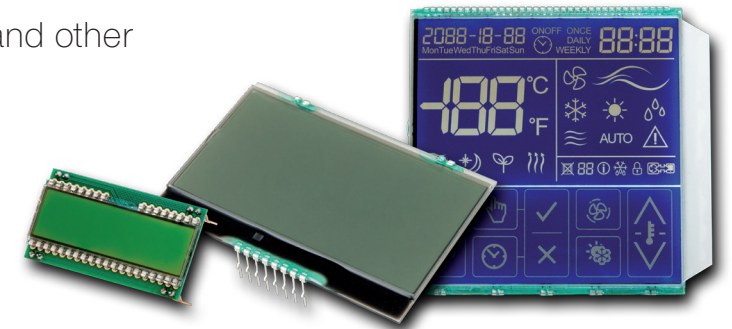
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# Customized Display Solutions

## For Passive Matrix Displays


- LCD Glass: Graphic, Character, Icon, 7 Segment or Combination
- Backlight: Color, Shape and Mounting Preparation
- Interface: Parallel, SPI and I<sup>2</sup>C
- Connector: Multi-Pin Connector, ZIF or Cable Connector
- Cables: FFC, FPC and other
- PCB and Assembly



## For Active Matrix Displays

- Touch Panel: Resistive or Projected Capacitive
- Cover Lens: Multi-Color Printed, Edge Treatment
- Surface Treatment: Clear, Anti-Glare, Anti-Reflective or Anti-Fingerprint
- Interface: MCU, MIPI, RGB, LVDS or HDMI (with scaler board)
- Optical Enhancements



In   
 Plane   
 Switching 

**IPS Displays**

**AZ DISPLAYS INC.**  
 A ZETTLER GROUP COMPANY



Size (inch)	1.3	1.54	2.8	3.5
Resolution H x V (px)	240 x 240	240 x 240	240 x 320	320 x 240
Series	ATM0130B3	ATM0154B1	ATM0280B3	ATM0350D17
Brightness (nits)	500	500	800	500
Contrast (x:1)	800	900	800	800
Interface	RGB/MCU	SPI	RGB/MCU	RGB
Backlight Lifetime (h)	30k	50k	30k	30k
Outline Dimensions W x H x T (mm)	26.85 x 29.55 x 1.73	31.52 x 33.72 x 1.95	62.40 x 81.60 x 2.16	76.90 x 63.90 x 3.30
Viewing Angle (L/R/U/D)	IPS	IPS	IPS	IPS
Resistive Touch Option	-	-	-	●
PCAP Touch Option	-	-	-	-
Operating Temperature (°C)	-20... +70	-20... +60	-20... +70	-30... +80

4.0	4.0	4.3	5.0	5.0
480 x 480	480 x 480	800 x 480	800 x 480	800 x 480
ATM0400D1	ATM0400D1K	ATM0430D44	ATM0500D27	ATM0500D27B
400	1000	700	400	700
800	800	800	1000	1000
RGB	RGB	RGB	RGB	RGB
30k	30k	30k	50k	50k
77.00 x 80.00 x 2.5	77.00 x 80.00 x 2.5	105.50 x 67.20 x 2.6	120.70 x 75.80 x 3.00	120.70 x 75.80 x 3.00
IPS	IPS	IPS	IPS	IPS
-	-	●	●	●
-	-	●	●	●
-20... +70	-20... +80	-20... +70	-20... +70	-20... +70

In   
 Plane   
 Switching 

IPS (In-Plane Switching) technology delivers wide symmetrical viewing angles of 170-178 degree that allow the LCDs to output sharp, vivid optics with no color shifting or contrast degradation. In comparison to traditional TN panels, IPS panels perform with exceptional color saturation, high contrast ratios, and “true black” colors.



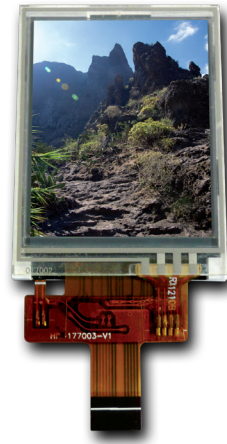


Size (inch)	5.0	6.8	6.8	7.0
Resolution H x V (px)	800 x 480	480 x 1280	480 x 1280	1024 x 600
Series	ATM0500D27K	ATM0680L2	ATM0680L2A	ATM0700L61
Brightness (nits)	1100	450	1100	600
Contrast (x:1)	1000	800	800	1000
Interface	RGB	MIPI	MIPI	LVDS
Backlight Lifetime (in hours)	50k	20k	20k	30k
Outline Dimensions W x H x T (mm)	120.70 x 75.80 x 3.00	66.60 x 181.00 x 4.50	66.60 x 181.00 x 4.50	164.90 x 100.00 x 3.5
Viewing Angle (L/R/U/D)	IPS	IPS	IPS	IPS
Resistive Touch Option	●	-	-	●
PCAP Touch Option	●	●	●	●
Operating Temperature (°C)	-20 ... +70	-20 ... +70	-20 ... +70	-20 ... +70

7.0	7.84	10.1	10.3	10.4
1024 x 600	400 x 1280	1280 x 800	1920 x 720	1024 x 768
ATM0700L61K	ATM0784L1	ATM1010L35	ATM1025L1	ATM1040L10A
1000	550	1000	850	1200
1000	900	800	1000	1000
LVDS	MIPI	LVDS	LVDS	LVDS
30k	20k	70k	20k	50k
164.90 x 100.00 x 5.7	203.48 x 70.60 x 4.9	229.8 x 149.0 x 6.0	259.80 x 112.00 x 12.20	238.6 x 175.8 x 6.5
IPS	IPS	IPS	IPS	IPS
●	-	●	-	-
●	●	●	●	-
-20 ... +70	-20 ... +70	-20 ... +70	-30 ... +85	-30 ... +80

**TN Displays**

**AZ DISPLAYS INC.**  
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Size (inch)	1.77	3.5	4.3	5.0
Resolution H x V	128 x 160	320 x 240	480 x 272	800 x 480
Series	ATM0177B3A	ATM0350D19	ATM0430D12	ATM0500D19
Outline Dimension W x H x T (mm)	34.70 x 46.7 x 2.5	76.9 x 63.9 x 3.3	105.5 x 67.2 x 2.9	120.7 x 75.8 x 3.0
Viewing Angle Left	70	75	70	70
Viewing Angle Right	70	75	70	70
Viewing Angle Up	30	55	70	70
Viewing Angle Down	45	60	50	50
Wide View Polarizer	-	•	•	-
Brightness (nits)	450	625	500 / 800 / 1300	350
Contrast (x:1)	500	450	500	500
Backlight Lifetime (in hours)	30k	30k	20k	50k
Interface	4-wire SPI	RGB	RGB / (MCU)	RGB
Resistive Touch Option	•	•	•	•
PCAP Touch Option	-	-	•	•
Operating Temperature (°C)	-20 ... +70	-20 ... +70	-20 ... +70	-20 ... +70

5.0	5.0	7.0	8.0	9.0	10.1
800 x 480	800 x 480	800 x 480	800 x 600	800 x 480	1024 x 600
ATM0500D19E/K	ATM0500L19	ATM0700D6	ATM0800D9	ATM0900D1	ATM1010L21
120.7 x 75.8	120.7 x 75.8 x 7.4	164.9 x 100.0 x 5.7	183.0 x 141.0 x 6.4	211.1 x 126.5 x 5.9	235.0 x 143.0 x 4.7
80	70	70	70	70	70
80	70	70	70	70	70
80	70	70	70	50	50
80	50	50	50	70	70
•	•	-	-	-	-
520 / 1060	350 / 520 / 1060	500 / 1000	350	250	410
800	800	500	500	500	600
50k	50k	30k	20k	20k	20k
RGB	LVDS	RGB / LVDS / (MCU)	RGB	RGB / LVDS	LVDS
•	•	•	•	-	-
•	•	•	-	-	•
-20 ... +70	-20 ... +70	-20 ... +70	-20 ... +70	-20 ... +70	-20 ... +70

## Monochrome TFT (active matrix)

**AZ DISPLAYS INC.**  
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Resolution H x V (px)	240 x 128	320 x 240	480 x 256	<b>Advantages</b> <ul style="list-style-type: none"> <li>• Multiple Back-ground color options.</li> <li>• Multiple font color options.</li> <li>• Higher contrast</li> <li>• Improved viewing angles</li> </ul> <p>Custom solutions available.</p>
Series	ATM2412B	ATM3224H	ATM4825A	
Outline Dimension W x H x T (mm)	144.0 x 104.0 x 10.0	144.0 x 104.0 x 10.1	144.0 x 104.0 x 10.0	
Viewing Area W x H (mm)	113.5 x 64.0	114.9 x 86.67	113.5 x 65.0	
Dot Size W x H (mm)	0.462 x 0.462	0.3528 x 0.3528	0.231 x 0.231	
Dot Pitch W x H (mm)	0.462 x 0.462	0.3528 x 0.3528	0.231 x 0.231	
Controller	UCI6963	RA8835	RA8835	
Interface	4-wire SPI	MCU	MCU	



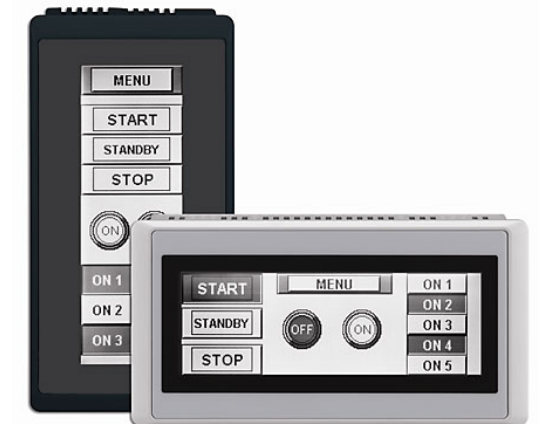
## Graphics Displays (passive matrix)

**AZ DISPLAYS INC.**  
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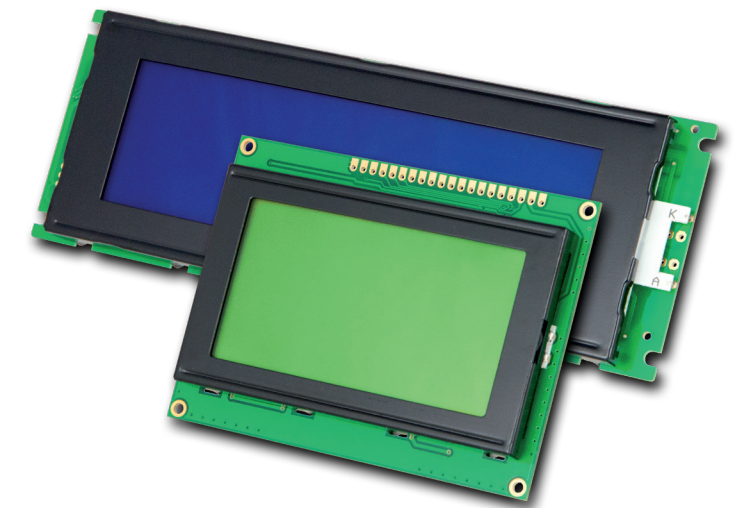
Resolution H x V (px)	160 x 32	192 x 64	240 x 64	240 x 128
Series	AGM16032A	AGM1964C	AGM2464B	AGM2412A
Outline Dimension W x H x T (mm)	85.0 x 29.5 x 13.5	130.0 x 65.0 x 13.5	180.0 x 65.0 x 15	144.0 x 104.0 x 13.5
Viewing Area W x H (mm)	64.5 x 16.4	104.0 x 39.0	133.0 x 39.0	114.0 x 64.0
Dot Size W x H (mm)	0.33 x 0.33	0.458 x 0.458	0.49 x 0.49	0.40 x 0.40
Dot Pitch W x H (mm)	0.37 x 0.37	0.508 x 0.508	0.53 x 0.53	0.45 x 0.45
Controller	ST7920	NT7107	RA6963	RA6963
Bonding Type	COB	COB	COB	COB

## Graphics Displays (passive matrix)

122 x 32	122 x 32	128 x 64	128 x 64	128 x 64
AGM1232E	AGM1232G	AGM1264O	AGM1264K	AGM1264F
65.4 x 27.4 x 9.0	84.0 x 44.0 x 13.5	54.0 x 54.5 x 10	78.0 x 70.0 x 13.5	93.0 x 70.0 x 13.5
59.0 x 18.5	60.0 x 18.0	44.5 x 29.5	62.0 x 44.0	70.7 x 38.8
0.40 x 0.45	0.40 x 0.45	0.28 x 0.33	0.44 x 0.56	0.48 x 0.48
0.44 x 0.49	0.44 x 0.49	0.33 x 0.38	0.48 x 0.62	0.52 x 0.52
PT6520	PT6520	NT7107	NT7107	NT7107
8-bit MCU	8-bit MCU	8-bit MCU	8-bit MCU	8-bit MCU



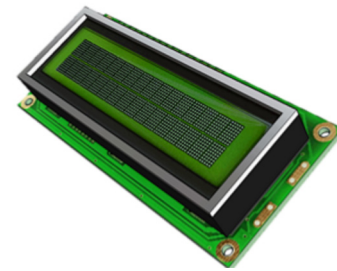
Other versions on request.



## Character Displays (passive matrix)

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Display Format	8 x 1	8 x 2	8 x 2	12 x 2
Series	ACM0801B	ACM0802A	ACM0802C	ACM1202B
Outline Dimension W x H x T (mm)	54.0 x 37.0 x 13.0	40.0 x 35.4 x 9.0	58.0 x 32.0 x 13.5	59.0 x 32.0 x 12.8
Viewing Area W x H (mm)	32.1 x 16.0	30.4 x 13.9	38.0 x 16.0	46.0 x 14.5
Dot Size W x H (mm)	2.90 x 7.60	2.95 x 4.75	2.96 x 5.56	2.65 x 5.50
Dot Pitch W x H (mm)	0.50 x 0.60	0.55 x 0.55	0.56 x 0.66	0.45 x 0.60
Controller	ST7066	ST7066	ST7066	ST7066
Bonding Type	COB	COB	COB	COB



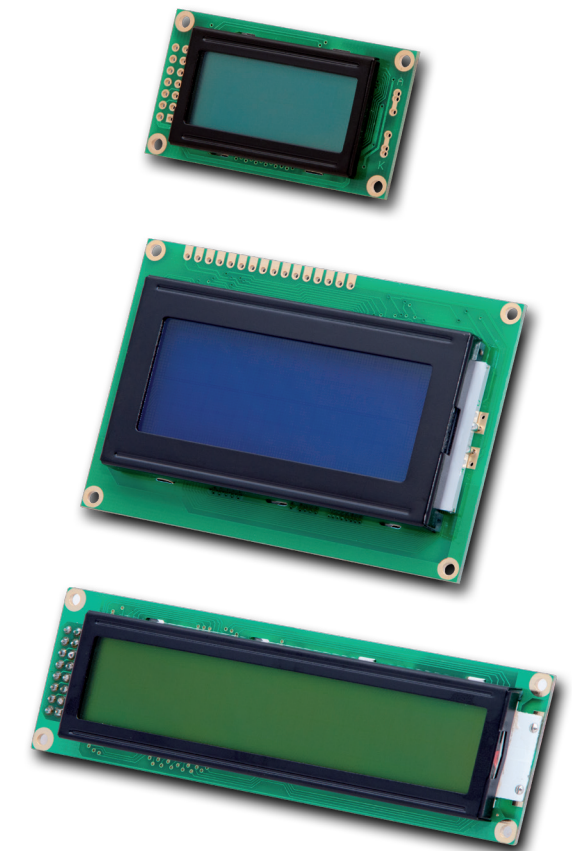
16 x 1	16 x 1	16 x 2	16 x 2	16 x 2
ACM1601C	ACM1601H	ACM1602B	ACM1602E	ACM1602K
80.0 x 36.0 x 13.5	122.0 x 33.0 x 13.0	84.0 x 44.0 x 13.0	85.0 x 36.0 x 13.5	80.0 x 36.0 x 13.5
64.5 x 14.0	100.0 x 14.0	64.5 x 16.4	64.5 x 16.4	64.5 x 16.4
3.07 x 6.56	4.84 x 9.22	3.00 x 5.23	3.00 x 5.23	3.00 x 5.23
0.55 x 0.75	0.92 x 1.10	0.56 x 0.61	0.56 x 0.61	0.56 x 0.61
ST7066	ST7066	ST7066	ST7066	ST7066
COB	COB	COB	COB	COB

## Character Displays (passive matrix)

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Display Format	16 x 2	16 x 4	20 x 2	20 x 4
Series	ACM1602S	ACM1604C/D	ACM2002D/E	ACM2004D/G
Outline Dimension W x H x T (mm)	122.0 x 44.0 x 13.5	87.0 x 60.0 x 13.7	116.0 x 37.0 x 13.7	98.0 x 60.0 x 14.2
Viewing Area W x H (mm)	99.0 x 24.0	61.8 x 25.2	83.0 x 18.6	76.0 x 25.2
Dot Size W x H (mm)	5.20 x 9.55	2.95 x 4.75	3.20 x 5.55	2.95 x 4.75
Dot Pitch W x H (mm)	1.00 x 1.15	0.55 x 0.55	0.60 x 0.65	0.55 x 0.55
Controller	ST7066	SPLC780	ST7066	ST7066
Bonding Type	COB	COB	COB	COB

20 x 4	24 x 2	40 x 4
ACM2004F	ACM2402C	ACM4004H/K
146.0 x 62.5 x 13.5	118.0 x 36.0 x 13.7	190.0 x 54.0 x 13.7
123.0 x 42.5	94.5 x 18.0	147.0 x 29.5
4.85 x 9.23	3.2 x 5.55	2.78 x 4.89
0.93 x 1.11	0.60 x 0.65	0.50 x 0.55
ST7066	ST7066	ST7066
COB	COB	COB



Other versions on request.







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