ADAPTIVE PRODUCT SELECTION GUIDE

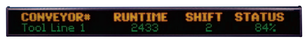
ONE & TWO LINE DISPLAYS

214C

220C

4120

*4160 & 4200 not shown



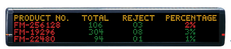
4240
(NEMA 12 pictured)

BIG DOT

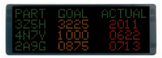
THREE & FOUR+ LINE DISPLAYS

7120

7160
(NEMA 4X pictured)



7200



9120C

9160C

*9200 not shown

9240C

ALPHAVISION DISPLAYS - CHARACTER MATRIX

2.1"

AlphaVision FSCM

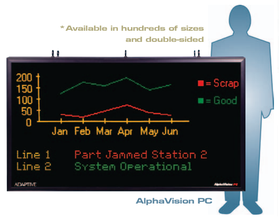
*Available in hundreds of sizes

1.4"

AlphaVision FSCM

DIRECTOR

ALPHAVISION PC DISPLAY- FULL MATRIX



AlphaVision PC

OUTDOOR DISPLAYS

ECLIPSE 2500/2600

*Available in hundreds of sizes

ECLIPSE 3500

		214C	220C	4120C/R	4160C/R	4200C/R	4240C/R	BIG DOT	7120C	7160C	7200C	9120C	9160C	9200C	9240C	2.1" FSCM	1.4" FSCM	DIRECTOR	AlphaVision PC	ECLIPSE 2500	ECLIPSE 2600	ECLIPSE 3500
Display Products:																						
Display Capacity (number of characters shown at one time)	1.5" characters - readable from 75'	NA	NA	2 lines of 20	2 lines of 26	2 lines of 33	2 lines of 40	NA	4 lines of 24	4 lines of 32	4 lines of 40	5 lines of 24	5 lines of 32	5 lines of 40	5 lines of 48	4-12 lines of 24-48 2" characters	6-12 lines of 24-48 1.4" characters	8 lines of 16 or 24	Full matrix 160-384 pixels wide; 48-256 pixels high 1.5" characters and larger	Outdoor full matrix 96-192 pixels wide; 16-80 pixels high 2.25"-14.4" characters	Outdoor full matrix 96-192 pixels wide; 16-80 pixels high 3"-19.2" characters	Outdoor full matrix 64-144 pixels wide; 8-32 pixels high 10"-33" characters
	2" characters - readable from 100'	1 line of 14	1 line of 20	2 lines of 20	2 lines of 26	2 lines of 33	2 lines of 40	NA	3 lines of 20	3 lines of 26	3 lines of 33	4 lines of 20	4 lines of 26	4 lines of 33	4 lines of 40			NA				
	3" characters - readable from 150'	NA	NA	NA	NA	NA	NA	NA	2 lines of 20	2 lines of 26	2 lines of 33	3 lines of 13	3 lines of 17	3 lines of 22	3 lines of 26			NA				
	4" characters - readable from 200'	NA	NA	1 line of 12	1 line of 16	1 line of 20	1 line of 24	1 line of 14	1 line of 12 (7" char.)	1 line of 16 (7" char.)	1 line of 20 (7" char.)	2 lines of 13	2 lines of 17	2 lines of 22	2 lines of 26			NA				
Center to Center Pixel Spacing (pitch):		.3"	.3"	.3"	.3"	.3"	.3"	.57"	.3"	.3"	.3"	.3"	.3"	.3"	.3"	.3"	.2"	.2"	.3"	.45"	.60"	1.375"
Display Dimensions / LxH (inches): **Display Dimensions / LxH (cm):**		24" x 2.1" 61 x 5.3	36" x 2.1" 91.4 x 5.3	36" x 4.8" 91.4 x 12.2	48" x 4.8" 121.9 x 12.2	60" x 4.8" 152.4 x 12.2	72" x 4.8" 182.8 x 12.2	45.6" x 4" 115.8 x 10.16	36" x 7.2" 91.4 x 18.3	48" x 7.2" 121.9 x 18.3	60" x 7.2" 152.4 x 18.3	36" x 9.6" 91.4 x 24.4	48" x 9.6" 121.9 x 24.4	60" x 9.6" 152.4 x 24.4	72" x 9.6" 182.9 x 24.4	1.82" x 3.3" per character 4.6 x 8.3 per character	1.22" x 2.21" per character 3.0 x 5.6 per character	16 char.=19" x 16.8" 24 char.=27.5" x 16.8" 16 char.=48.26 x 42.67 24 char.=69.85 x 42.67	various sizes	various sizes	various sizes	various sizes
Case Dimensions / LxHxD (inches): **Case Dimensions / LxHxD (cm):**		25.8" x 3.8" x 2" 65.5 x 9.7 x 5.1	37.7" x 3.8" x 2.9" 95.8 x 9.6 x 7.4	40.1" x 7.7" x 5.5" 101.9 x 19.6 x 14	52.1" x 7.7" x 5.5" 132.3 x 19.6 x 14	64.1" x 7.7" x 5.5" 162.8 x 19.6 x 14	76.1" x 7.7" x 5.5" 193.3 x 19.6 x 14	49" x 6.25" x 4.25" 124.5 x 16 x 11	40.3" x 10" x 5.6" 102.4 x 25.4 x 14.2	52.3" x 10" x 5.6" 132.9 x 25.4 x 14.2	64.3" x 10" x 5.6" 163.3 x 25.4 x 14.2	40" x 12" x 2.2" 101.6 x 30.4 x 5.5	52" x 12" x 2.2" 132 x 30.4 x 5.5	64" x 12" x 2.2" 162.5 x 30.4 x 5.5	76" x 12" x 2.2" 193 x 30.4 x 5.5	based on # of lines and # of char. per line	based on # of lines and # of char. per line	16 char.=25.40" x 68.04" 24 char.=35.03" x 68.04"char. 16=64.64 x 172.82 24 char.=88.97 x 172.82	based on display matrix	49" x 13" to 92" x 41.5"	64" x 15.5" to 121" x 54"	54" x 19" to 209" x 52"
Approximate Weight (lbs. & kg):		2.55 lbs. (1.16 kg)	4.7 lbs. (2.1 kg)	18.5 lbs. (8.4 kg)	24.5 lbs. (11.2 kg)	31 lbs. (14.1 kg)	37.5 lbs. (17 kg)	12.25 lbs (5.6 kg.)	20 lbs. (9.09 kg)	26 lbs. (11.8 kg)	32 lbs. (14.5 kg)	23 lbs. (10.4 kg)	31 lbs. (11.8 kg)	36 lbs. (16.3 kg)	41 lbs. (18.6 kg)	varies based on size	varies based on size	30-95 lbs. (14-43 kg)	varies based on size	60-240 lbs. (27-109 kg)	96-316 lbs. (44-143 kg)	90-635 lbs. (41-288 kg)
Case Ratings: (All cases are indoor rated except where noted)		NEMA 12	NEMA 1	NEMA 1 (standard) NEMA 12 (optional)	NEMA 1 (standard) NEMA 12 (optional)	NEMA 1 (standard) NEMA 12 (optional)	NEMA 1 (standard) NEMA 12 (optional)	NEMA 1	NEMA 1 (standard) NEMA 4 (optional) NEMA 4x (optional)	NEMA 1 (standard) NEMA 4 (optional) NEMA 4x (optional)	NEMA 1 (standard) NEMA 4 (optional) NEMA 4x (optional)	NEMA 1	NEMA 1	NEMA 1	NEMA 1	NEMA 1	NEMA 1	NEMA 1	NEMA 12	NEMA 3R (outdoor)	NEMA 3R (outdoor)	NEMA 3R (outdoor)
Power Rating:		60VA max. 10-28VDC	100VA max. 100–240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	60VA max. 120 VAC or 230/240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	180VA max. 120 VAC or 230/240 VAC 50/60 Hz	360VA max. 100–240 VAC 50/60 Hz	360VA max. 100–240 VAC 50/60 Hz	360VA max. 100–240 VAC 50/60 Hz	500VA max. 100–240 VAC 50/60 Hz	300-1200VA 100-240 VAC 50/60 Hz	300-1200VA 100-240 VAC 50/60 Hz	150VA max. 100-240 VAC 50/60 Hz	1KVA-12KVA 100-240 VAC 50/60 Hz	120 VAC 60 Hz	120 VAC 60 Hz	120 VAC 60 Hz
Operating Temperature:		0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	0˚ to 50˚C	-40˚ to 50˚C	-40˚ to 50˚C	-40˚ to 50˚C
Display Operating System Options:		Alpha	Alpha	Alpha or Alpha Industrial	Alpha or Alpha Industrial	Alpha or Alpha Industrial	Alpha or Alpha Industrial	Alpha	Alpha or Alpha Industrial	Alpha or Alpha Industrial	Alpha or Alpha Industrial	Alpha	Alpha	Alpha	Alpha	Alpha	Alpha	Alpha	Windows CE or Windows 2000	Alpha	Alpha	Alpha
Communications Support:	Ethernet (TCP/IP):	NA	ext. option	ext. option	ext. option	ext. option	ext. option	ext. option	ext. option	ext. option	ext. option	internal option	internal option	internal option	internal option	ext. option	ext. option	ext. option	standard	NA	NA	NA
	RS232:	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
	RS485:	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard

– Agency Approvals: Listed to ANSI/UL 1950-Third Edition (US) and CAN/CSA-22.2 No.950-M89 (Canada). Complies with EN 60950: 1992 (Europe) and AS/NZS 3260-1993 (Australia). FCC Part 15 Class A. CE Marked.

All specifications are subject to change without notice, contact an Authorized Adaptive Distributor for details.

ADAPTIVE
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ALPHA INTERFACE SELECTIONS

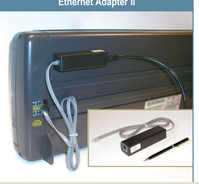
IT and Windows® Applications

ActiveX Controls

Communicate with your Alpha displays directly from any application that supports the use of ActiveX controls including:

- Manufacturing Software and HMI's such as RSView, Wonderware, GE Cimplicity, Intellution, etc.
- Business applications such as Excel, Access, etc.
- Development environments such as Visual Basic and Visual C++

Ethernet Adapter II



Connect ALPHA® displays to your existing 10BaseT or 100BaseT TCP/IP LAN.

Simply attach the ALPHA® Ethernet Adapter II to the back of a display and connect your Ethernet cable to the Adapter. The ALPHA Ethernet Adapter II is easily configured remotely over your network. No external power supply is required as the Adapter is powered directly by the display.

Dimensions: 4.375"L x 1.18"D x 1.18"H
Operating Temp: 5° to 50°C (41°-122°F)
Humidity Range: 10% - 90% Noncondensing
Network Input: 10/100BaseT RJ45/CAT5/HUB network
Output: RS232
Power: Powered by display
Warranty: 1 yr. parts & labor, factory servicing

Industrial Network Interfaces

Alpha® RF900™

Wireless control for ALPHA® indoor and outdoor LED message centers.

Adaptive's Alpha® RF900™ transceivers enable wireless networking solutions for Alpha LED displays. These cost effective, compact devices may be configured for point to point or point to multi-point communications in a client server network. Enables easy RS232 plug and play control from the convenience of your PC – you can send important messages to Alpha LED indoor and outdoor electronic message center (EMC) networks. Typical transmission range is up to 500 feet indoors (dependent upon environment) and 3500 feet outdoors for line-of-sight (LOS) between antennas.

Description	RF900 server	RF900i Client	RF900e Client
	RF900 server attaches to the PC RS232 9 pin serial port	RF900i client attaches to the back of the Alpha LED EMC via RJ11	RF 900e client installed inside new AlphaEclipse EMC at the factory
RS232 Serial Interface:	DB9female	RJ11	Factory installed
Antenna:	2dBi SMA connector	2dBi SMA connector	2dBi with 6 ft. extension cable to enable install
Power:	Wall AC adapter, 6ft. cable Input 120VAC / Output 6VDC @ 500mA	Input 5VDC/RJ11 from Alpha serial port	Input 5VDC from custom cable connection factory installed
Dimensions:	5.1"L x 3.1"W x 1.95"D		
Operating Temperature:	0 – 70˚C	-40˚C to +80˚C	-40˚C to +80˚C
Frequency Band:	902MHz – 928MHz (US) FHSS		
Transmission Range:	Up to 500 ft. indoors (dependent upon building structure), up to 3500 ft. LOS outdoors		

Benefits:
- Reach locations where wired connections are not feasible
- Eliminate costly trenching for outdoor EMC installations
- Eliminate long, costly runs of network cable, conduit and associated labor
- Facilitates easy EMC installation exactly where critical information displays are required

Direct Protocol Interfaces to Alpha displays - for programmers that want to do it themselves

Alpha Protocol
Adaptive's standard, and a standard in many industries. Nearly every Alpha display is compatible with Alpha protocol, allowing you to create applications that will work with the broadest line of LED displays in the world. You can create and control multiple message files, variables within messages, dozens of fonts, colors, display modes and much, much more.

Alpha Industrial Protocol
Similar to Alpha protocol, but only available for select Alpha models. Allows for 4,000 stored message files, 100 variable and quick triggering of messages.

ADAPTIVE MICRO SYSTEMS LLC has been the leading worldwide manufacturer of electronic LED message displays and integrated messaging solutions since 1978. Adaptive prides itself on setting industry standards in the design, manufacture, integration and support of high quality electronic display products. Whether the application calls for small, custom designed displays for OEM applications to large outdoor advertising displays, Adaptive has the solutions our customers need. Adaptive's strengths are our people, our products and our partnerships.

PEOPLE – Adaptive's team is focused on providing quality display solutions and improving opportunities for our business partners. Adaptive's people are well known for going the extra mile to insure our customers' expectations are met or exceeded every day. This attitude has been the cornerstone of Adaptive's success and is an integral part of our corporate culture.

PRODUCTS – The combination of Adaptive's US based engineering team and state-of-the-art Malaysian manufacturing facility insure that our products are of the highest performance and quality at competitive prices. Our vertically integrated manufacturing systems insure consistent quality control through every step of the manufacturing process. We are the only LED manufacturer that builds its own LED displays for incorporation into our messaging products. We offer a broad line of indoor and outdoor product lines under the Alpha®, BetaBrite® and AlphaEclipse™ brands along with a variety of software interfaces and turn-key applications. Adaptive is also a leading supplier of custom designed OEM products that are built to our customers' exact specifications. Most of the LED message displays you see everyday are Adaptive products that either carry our brand or are built into our partners' equipment and systems.

PARTNERSHIPS – Adaptive places a high value on the importance of strong business partnerships. Leveraging our support, manufacturing and engineering strengths through value-added partners, insures that the ultimate end user is satisfied for years to come. We pride ourselves in developing profitable win-win business relationships that last for decades.

Headquarters – Milwaukee, Wisconsin USA
Adaptive's 71,000 square foot corporate headquarters is also home to:
- Engineering Research and Development Team
- Our Software Development Team
- North American Sales and Marketing Teams
- Corporate Quality Control
- Corporate Operations and Purchasing
- Corporate Accounting
- North American Manufacturing
- Customer Support Team
- Applications and Technical Support

European Operation – Grenoble, France
Adaptive's 15,000 square foot European headquarters is home to:
- European Sales and Marketing Teams
- Engineering Development Team
- Manufacturing
- Customer Support
- Applications and Technical Support

Malaysian Operation – Alor Setar, Malaysia
Adaptive's 50,000 square foot Far East headquarters is home to:
- State-of-the-art Electronic Assembly Lines
- State-of-the-art Chip on Board (COB) Lines
- Far East Purchasing
- Manufacturing Engineering
- Far East Quality Control

ADAPTIVE®
www.adaptivedisplays.com

Adaptive Micro Systems LLC / 7840 N. 86th Street / Milwaukee, WI 53224
1.800.558.7022 / Fax: 414.357.2029 / www.adaptivedisplays.com

Adaptive Micro Systems Europe / 25 rue Irène Joliot-Curie / 38320 Eybens, France
+33 4 76 14 76 00 / Fax: +33 4 76 14 75 70

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PRODUCT SELECTION GUIDE

PROVIDING A NEW LEVEL OF VISUAL DISPLAY SOLUTIONS FOR THE WORKPLACE

ADAPTIVE®
Connecting people, places and ideas

PRODUCTIVITY SOLUTIONS

Put Your Data to Work for You

- Adaptive's broad line of Alpha LED message and graphics boards gives you the tools to improve the productivity of any operation by providing your workforce with the live data they need to make decisions.
- Most companies have huge volumes of important information locked away in their company systems, only to be brought to light on monthly reports. Why not show important information to the people that could use it every single day to perform their jobs more effectively? The open systems of today provide literally thousands of ways of accessing your important information and displaying it on LED displays throughout your facility.
- The foundation of Lean Manufacturing and other productivity programs lies in identifying and measuring Key Performance Indicators (KPIs). Adaptive's line of large format displays allows these KPI's to be displayed for your entire workforce to see without having to walk up to a monitor or bulletin board. Just like at a sporting event, where the coaches, players and fans depend upon the scoreboards, production displays can serve the exact same function in any workplace.
- Simple to install and activate – Adaptive displays plug into your existing TCP/IP networks and can quickly go to work for you as an integral component of Windows® programs you use everyday.

Discover the power that real time data can give your workforce. Discover Alpha LED displays.

Choosing the Right LED Display

Alpha LED displays properly applied in the workplace can improve productivity, increase safety awareness and improve morale, by keeping your workforce informed and updated at all times.

The most important attributes of Alpha LED displays are:
- They can be viewed from a great distance compared to other technologies.
- They're easy to connect to live data feeds of important information.
- They integrate to existing networks.
- The bright, active display technology attracts attention and is hard to ignore.

Here are some simple guidelines for choosing the right LED message display.

#1 – Character size – How can I be sure people can read it?

The most important selection criteria is deciding where the display will be placed and estimating the typical and maximum viewing distance. This will decide how large the text needs to be for optimum legibility.

The typical "rule of thumb" is 1" of character height for every 50 feet of maximum viewing distance. Therefore, a standard 2" character can be read from 100 feet away and a 4" character can be read from 200 feet away.

Let's make it easier yet:
- In most applications, a 1.5" to 2" character will meet your needs.
- In large warehouses or production areas, 3" to 4" characters are typically required.
- Outdoors it's a little different story…most static letter boards you see use 4" or 6" letters, while most road side signs use about 10" characters (as a point of reference, signs next to an interstate will usually start with at least 36" to 48" characters).

#2 – Display size – How big of a display do I really need?

The second most important selection criteria is determining how much data needs to be shown at one time. LED displays can cycle through long messages and stream data automatically, but the viewer may need to wait to see the information that is most relevant. Of course, LED displays can be built to nearly any size, but the bigger they are, the more expensive they get. It is important to optimize your investment while insuring that the most important data is always on the display for quick viewing.

#3 – Data source – Where is the information coming from?

Alpha displays offer a broad variety of communications interfaces that will plug into your existing systems, without costing a fortune in integration services.

Windows Applications and TCP/IP Network Communications
LED displays are the most effective when the information on them is current. Most Windows® applications on the market today can easily share data on your network. That same technology is used to get it to your displays.

Alarms and Process Control Applications and Direct RS232/RS485 Communications
Imagine the improved efficiency by adding real information to your alarms, in addition to the horns, buzzers, stack lights and strobes. Process information can be continuously displayed, so action can be taken before the alarm condition is reached.

ADAPTIVE®
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