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## Quotation

### ADDRESS

Template

QUOTATION # 1045

DATE 10/21/2020

PRODUCT/SERVICE	PART NUMBER	DESCRIPTION	QTY	RATE	AMOUNT
Integrity 1.2mm Copper A10S		1.2 mm Pixel Pitch, Copper Wire Bond Diode, 600mm W x 337.5mm H LED Cabinet, including Novastar A10S Receiving Card	16	2,109.00	33,744.00
MCTRL 4K		Novastar MCTRL 4K LED Video Controller	1	4,500.00	4,500.00
Integrity Series magnetic tool	KWAV-I MAGTOOL	Front Maintenance Tool	1	1,324.00	1,324.00
Integrity Mounting Fram	KWAV-I Mounting Frame	LED mounting frame for Integrity Series	1	8,000.00	8,000.00
Integrity 1.2mm Copper Spare Module		Spare Integrity 1.2mm Copper LED Module	4	0.00	0.00
Spare Receiving Card		Spare Receiving Card	2	0.00	0.00
Spare Power Supply		Power Supply	2	0.00	0.00
Tarrifs		Tariffs	1	3,567.00	3,567.00

Shipping will be charged as encurred.

SUBTOTAL	51,135.00
DISCOUNT	-11,498.00
<b>TOTAL</b>	<b>\$39,637.00</b>

Accepted By

Accepted Date

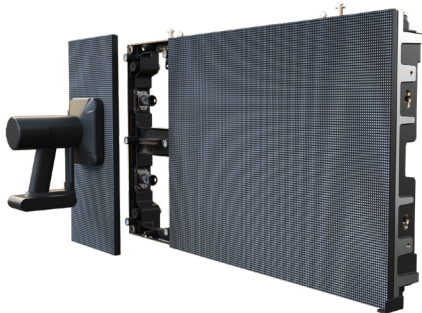
## Integrity Series

Integrity Series is a 16:9 aspect ratio that can be widely used in various applications. Scalable to 720P, 1080P, 2160P, 3840P high-definition, ultra-high definition, 4K and beyond.



### Exquisite Panel Design

Integrity Series provides a professional LED video wall solution featuring a customer-friendly design with a slim standard 27 inch diagonal panel size resulting in a truly seamless video wall tailored to fit any desired size.



### Data and Power Backup

With dual power supplies in each panel the Integrity Series has redundant DC power. If one power supply fails, the other ensures continued operation. Two receive cards in each panel provide continued signal should one receive card fail. The two cards working synchronously provide redundant functionality.

### Full Front Access

Simply front access provided a completely front maintenance LED panel using an electric vacuum pressure tool. A module can be safely removed for access in a matter of seconds.

### Easy to Maintain

The hub board and power supply are simply removed by first removing the two modules that are covering and connected to them.

# Integrity Series Specifications

Parameter		Integrity 1.2X	Integrity 1.5X	Integrity 1.8X	Integrity 2.5X
Physical Parameter	Pixel Configuration	SMD1010	SMD1010	SMD1010	SMD2020
	Pixel Pitch (mm)	1.25	1.56	1.87	2.5
	Pixel Matrix Per Panel	480 x 270	384 x 216	320 x 180	240 x 135
	Pixel Density (pixels/sq.m.)	640000	409600	284089	160000
	Cabinet Dimensions (mm)	600 x 337.5 x 68	600 x 337.5 x 68	600 x 337.5 x 68	600 x 337.5 x 68
	Module Dimensions (mm)	150 x 337.5	150 x 337.5	150 x 337.5	150 x 337.5
	Panel Material	Die-cast Aluminum	Die-cast Aluminum	Die-cast Aluminum	Die-cast Aluminum
	Cabinet Weight (kg/panel)	6.85	6.85	6.85	6.85
	Module Weight (kg/panel)	0.82	0.82	0.82	0.82
Electronic Parameter	Color Gray-scale (bit)	13bit	13bit	13bit	13bit
	Gray Scale Per Color (level)	8192	8192	8192	8192
	Refresh Rate (Hz)	1920-3840	1920-3840	1920-3840	1920-3840
	Driving Type	1/27	1/27	1/30	1/23
	Signal Transmission Distance (m)	CAT5 Cable: < 100 m; Single Mode Fiber: < 10 km	CAT5 Cable: < 100 m; Single Mode Fiber: < 10 km	CAT5 Cable: < 100 m; Single Mode Fiber: < 10 km	CAT5 Cable: < 100 m; Single Mode Fiber: < 10 km
Optical Parameter	Brightness (nit)	800	900	1000	1000
	Optimal Horizontal Viewing Angle (°)	160	160	160	160
	Optimal Vertical Viewing Angle (°)	140	160	160	160
Electrical Parameter	AC Input Voltage (V)	AC: 100V-240V	AC: 100V-240V	AC: 100V-240V	AC: 100V-240V
	AC Input Frequency (Hz)	50-60	50-60	50-60	50-60
	AC Input Power Maximum Value (W/pcs)	160	150	135	85
	AC Input Power Typical Value (W/pcs)	53	50	50	30
Circumstance Parameter	IP Rating (front/rear)	IP40/IP20	IP40/IP20	IP40/IP20	IP40/IP20
	Storage Humidity (RH)	10%~90% Non-condensing	10%~90% Non-condensing	10%~90% Non-condensing	10%~90% Non-condensing
	Working Humidity (RH)	10%~60% Non-condensing	10%~60% Non-condensing	10%~60% Non-condensing	10%~60% Non-condensing
	Lifetime Typical Value (hrs)	100000	100000	100000	100000
Installation Type	Cabinet Installation Type	Fix	Fix	Fix	Fix

# Service Standards

## 3 Year Standard Warranty

A three-year warranty is not uncommon in the industry. The difference is we hold our products to a defect threshold that is unmatched, combined with how we execute the service associated with this warranty. Below is an outline of our product warranty defect thresholds and the warranty service standards that we provide. We believe in providing as much clarity as possible when it comes to defining what the events are that precipitate a service response and what that response will be.

### How Our Warranty Works

1. The dealer removes the part in question
2. K-WAV creates an RMA for return shipping
3. If it is a non-warranty issues, repair cost will be submitted to the dealer for approval.
4. If covered under warranty K-WAV covers the parts and labor to either restore the part to working condition or replace it
5. K-WAV pays to ship it back

The turnaround time on a warranty repair or replacement is the next day from when K-WAV receives the part.

### Acceptable Pixel Defect or Failure Rates

When it comes to acceptance criteria, we want to establish a standard beyond the primary practice of fixing an LED when it's out. There is no question we will repair/replace any defective part. What we are clearly defining is an acceptable rate of failure beyond which additional action is required.

#### Out of box (That's when you first install the screen and turn it on)

- >10ppm based on the total number of pixels in the screen

#### First 90 days or 2000 hours whichever comes first

- >10ppm defect rate

Failure/defect rates greater >10ppm will precipitate the following action plan:

- K-WAV on-site service representative dispatched (within 48 hours)
- Performance of a failure mode analysis
- Development of a corrective action plan
- Execution of corrective action plan

## K-WAV Installation Service Benefits

### Standard 90 Day On-site parts, Labor and Workmanship

If K-WAV provides the installation service, installing the LED, K-WAV will provide white-glove service over the first 90 days, including:

- Technical Phone Support/Troubleshooting
- First-line support of all issues.
- Creation of service ticket
- Return calls within 12 hours (outside of regular business hours)
- If unable to resolve, onsite service representative will be dispatched

On-site service representative dispatched for all service issues (within 72 hours)

- Pixel out
- Break-fix
- Parts swap
- Troubleshooting if needed

## Determination of Quality Related Issues

### Additional Criteria for Acceptable Defect/Failure Rates

Again, when it comes to acceptance criteria, we want to establish a standard that goes beyond the primary practice of fixing an LED when it's out. There is no question we will repair/replace any defective part. What we are clearly defining is an acceptable rate of failure beyond which additional action is required.

Of course, we will ask you to document any failures and send us a written narrative along with photographs that illustrate the issue to more quickly and accurately assess the situation and resolve any problems. We may also request sending us the component(s) in question. We ask that you provide this documentation at the time the problem is encountered.

Failure/defect rates greater those shown below will precipitate the following action plan:

1. K-WAV on-site service representative dispatched (within 48 hours)
2. Performance of a failure mode analysis
3. Development of a corrective action plan
4. Execution of corrective action plan

### Module Failures

The module failure (module failure is abnormality due to the quality of the module's electronic components or design) rate is cumulatively  $\geq 1\%$  for three consecutive months not less than 1 module.

### Receive Card Failures

The control system (receiver card) has a cumulative failure rate of  $\geq 1\%$  for three consecutive months and there are no less than 1 occurrence of malfunction.

### Power Supply Failures

The failure rate of power supply is cumulatively  $\geq 1\%$  for three consecutive months and there are no less than one occurrence of malfunction.

### Metal Structural Components

Zero Tolerance

### Plastic Structural Components

Zero Tolerance

### Plastic Masks

The failure rate of the display's plastic masks is  $\geq 2\%$ .

### Power Cables

The failure rate of one single type of signal cable is  $\geq 2\%$ .

### Signal Cables

The failure rate of one single type of signal cable is  $\geq 2\%$ .

### Failure Induced Safety Hazards

Zero Tolerance

