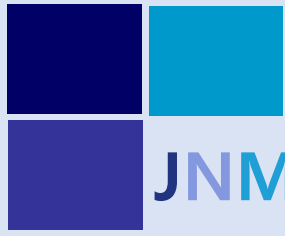




Total Solution for Industrial LCD

JNM DISPLAY CO.,LTD

JNM Display has been
an expert and market leader in the field of LCD display
since 2006, as total solutions for display.



Total Solution for Industrial LCD

JNM DISPLAY CO., LTD

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- 1-2. History
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■ 2. MAIN PRODUCT

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- 2-2. High brightness –Sunlight readable
- 2-3. Transparent LCD Box for Commercial
- 2-4. Bar & Shelf type monitor
- 2-5. Board Solution : ANDROID & PC BOARD
- 2-6. Casino monitor
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■ 3. Production management

- 3-1. Factory, Office & Equipment
- 3-2. QA System : PROJECT / 4M / RMA
- 3-3. Certification : ISO9001, Laboratory, Design

01,

COMPANY GENERAL STATUS

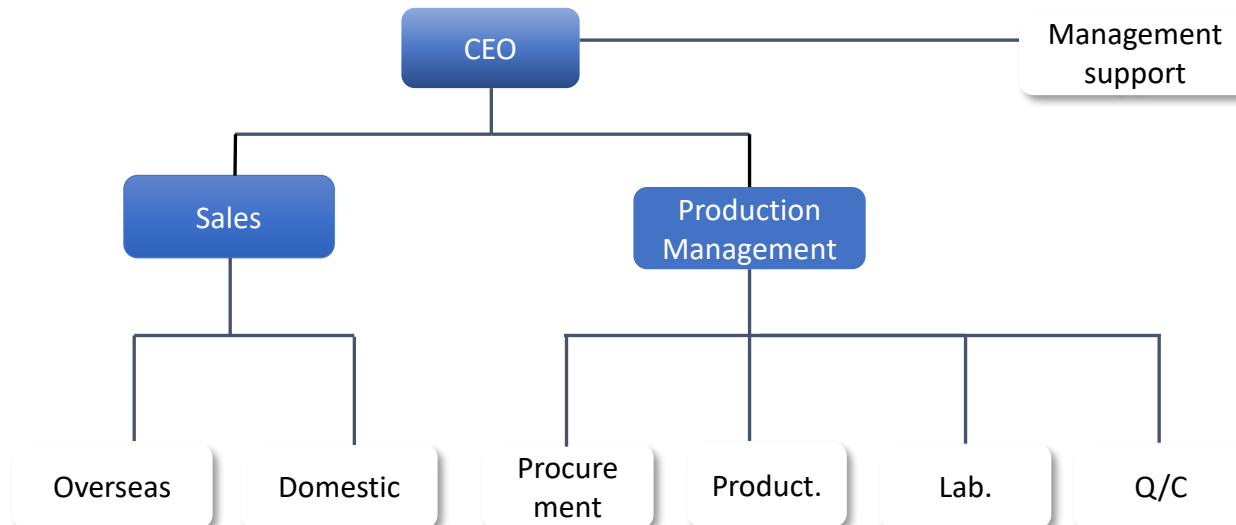
1. Company overview & Organization
2. History
3. Vision



1-1. Company overview & Organization



Company name	JNM Display Co., Ltd
CEO	Daniel Cho
Date of establishment	17 th Jun. 2006
Business Area	<ul style="list-style-type: none">✓ Advertisement✓ Casino & Gaming✓ Industrial (Parking lot, information, kiosk, charger station etc.)✓ Android / PC Board
Website	www.jnmdisplay.com
Address	B-607, B-111~114, 117 SK Twin Tower 119 Gasam Digital 1-Ro, Geumchecon-gu, Seoul, 08589 TEL : 02-2647-1676, FAX: 02-2647-1677



1-2. History



2006-
2011

'06 JNM DISPLAY established
MP for Sunlight Readable LCD
'07 MP for industrial AD board
MP for Sunlight readable LED
'08 Sunlight readable
LED Line-up (6.4"~38")
'09 Supplied CCTV Monitor (Japan)
'10 Developed LED DRIVER for high brightness
40", 42", 55" (1,200~1,500nit)
'11 Developed LCD Waterproof MNT

<Exhibition>

ATI Show 2006 in UKC
COMPUTEX 2007 TAIWAN
COMPUTEX 2009 TAIWAN
Digital signage, kiosk KOREA 2010
INFORCOM 2010 HONGKONG
World IT Show 2011
GP JAPAN 2011
G2E 2011
ISE 2011

2012-
2016

'12 Developed Transparend LCD Box MNT
'13 Developed DS L monitor
R&D center established
'14 Japan BR. established (Tokyo)
Developed 42" Curved LCD
'15 32" Developed Curved LCD
'16 High Brightness MP
21.5" & 23.8"

<Exhibition>

G2E 2012, 2013
ISE 2012
INFOCOMM 2012 in Las Vegas
ELECTRONICA 2012 in MUNCHEN
FINETECH in TOKYO 2013
COMMUNIC ASIA 2013
COMPUTEX in TAIWAN 2014
ICE 2014, 2015, 2016
ELECTRONICA 2016 In MUNCHEN

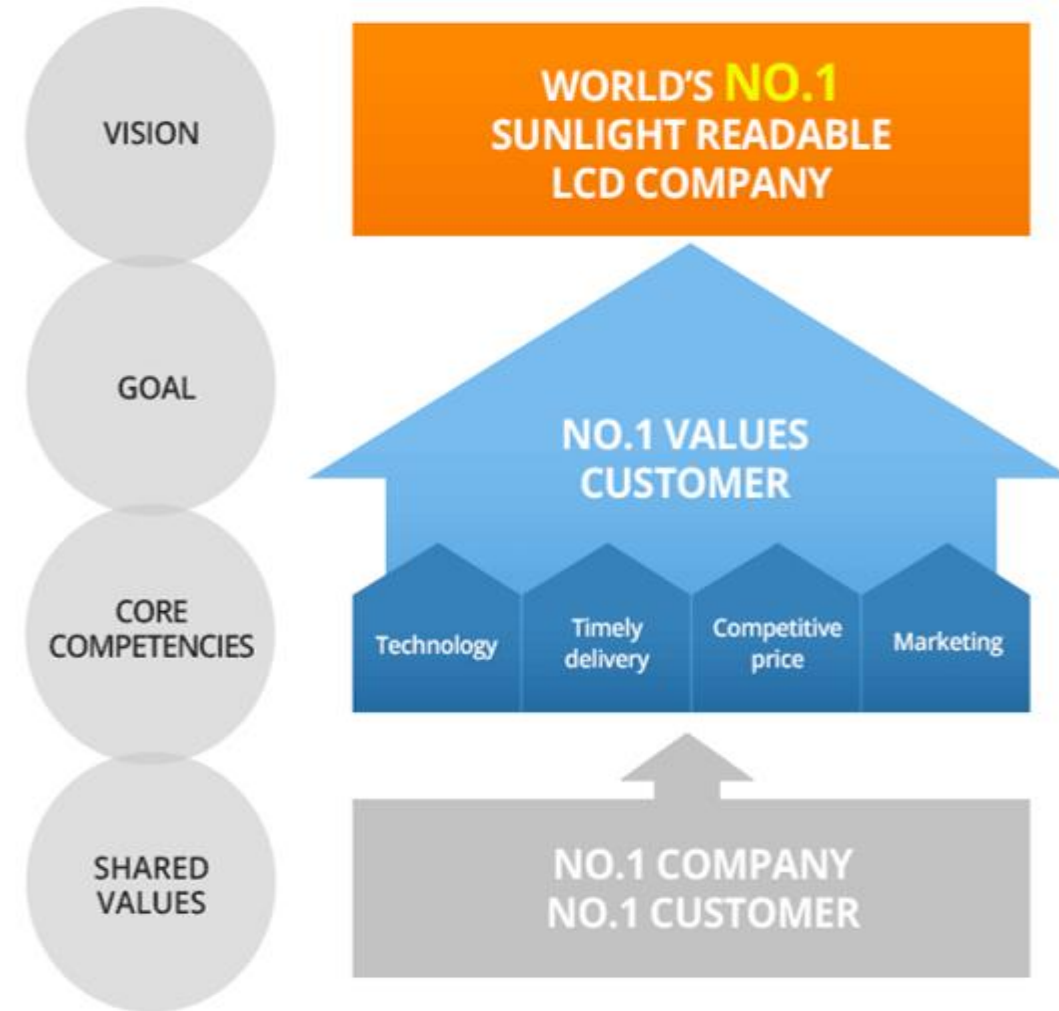
2017-
2021

'16 High Brightness MP
21.5" & 23.8"
'17 ISO-9001' Certified
Developed 43" Curved LCD
'18 Auto pay machine at Incheon Airport
Supplied Kangwon Land for Casino
German BR. established (Dusseldorf)
'19 ISO-9001' Certified
Supplied Kangwon Land for Casino in a row
Developed Android solution
'20 Developed Android B/D for SEGA
Entering Charger station Market
'21 Developed UV-LED monitor
Developed solution for Smart vending machine
Supplied monitor for EV charger

<Exhibition>

ICE 2017, 2020
ELECTRONICA 2016 In MUNCHEN
ISE 2017, 2020 in Amsterdam
Embedded world 2018, 2019, 2020 in Germany
G2E 2018, 2019
DSJ2019, 2020 in Japan

1-3. Vision



- ✓ Head office : Korea (Seoul)
- ✓ Branch office : Japan (Tokyo), Germany (Dusseldorf)
- ✓ Customer base: Germany, UK, Spain, Japan, China, USA, India



02,

Main Product

1. Product type
2. **High brightness** for Industrial
3. **Transparent LCD Box** for Commercial
4. **Bar & Shelf type** monitor
5. **Board Solution** : ANDROID & PC BOARD
6. **Casino**
7. **UV LED** monitor



2-1. Product type



Configuration



LCD Panel type

LCD Panel + LED driver



Panel Kit

LCD Panel + LED driver+ AD board
+ OSD button + LVDS cable + Harness



Open Frame

Panel + LED driver + AD Board
+ Metal (w/o Front bezel)



Closed Frame

Panel + LED driver + AD Board + Metal



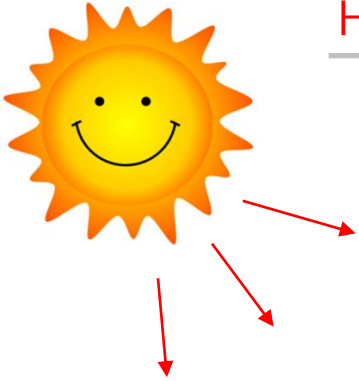
Proflat

Panel + LED driver + AD Board + Metal



Kiosk

2-2. High brightness for Industrial



HIGH BRIGHTNESS (UP TO 3,000m²)

JNM LED DRIVER for high brightness tech.
(MTBF: 50K)
Outstanding visibility
Overheat solution avail.
Low power consumption
Wide temperature and size (7" ~ 85")
For outdoor use (*Auto-dimming avail.)



Strength

HIGH
RELIABILITY

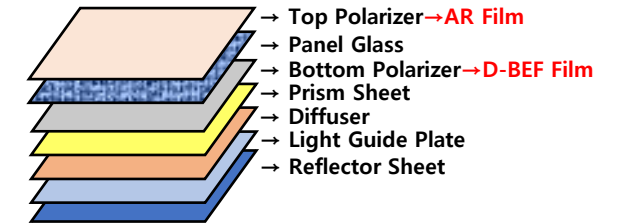
OPTIMAL
VISIBILITY

ENHANCED
VIEWABILITY



Normal TFT

Sun Readable TFT



Sunlight readable

TransFlective Film (Anti Reflection)
D-BEF Film
(Double brightness enhanced film)
Improve Visibility under Sunlight
For outdoor use

2-2. High brightness for Industrial



Brightness



Normal 250nit

JNM modify 1,500nit

Application



2-3. Transparent LCD Box for Commercial



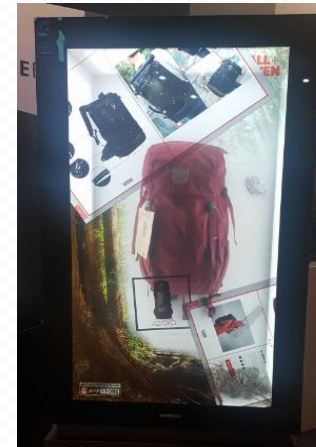
Transparent LCD Box

Various size (7" ~ 55", BAR TYPE available)
Place a 'product' back of transparent LCD
Using BOX, Make your product Outstanding
Media board plays music fit to object
Optional : Touch
Customer reference : Adidas , Nike, The Shilla etc

*Transparent CELL can be purchased separately
(Transparent CELL + METAL GUIDE TYPE)
* Key for Box provided



It has light source in the box and enables you to look through the display
Simple switch on back of the box can easily turn on/off the power



Market your valuable product with Transparent LCD BOX
– Music and captivating visuals of JNM display

2-4. Bar, Shelf type monitor



Bar type – Shelf type Display

Reliable Maker (LG, Innolux, AUO)

[Bar type]

- Various application
- Special Panel Form
- Available Sizes : 15.1"~49.5"

[Shelf type]

- Full-touch screen
- Collect BIG DATA
- Easy Control
- Available Sizes : 22.9"~29"

Bar-Type Monitor



*49.5" Closed frame monitor

Shelf-Type Monitor (In-cell touch)

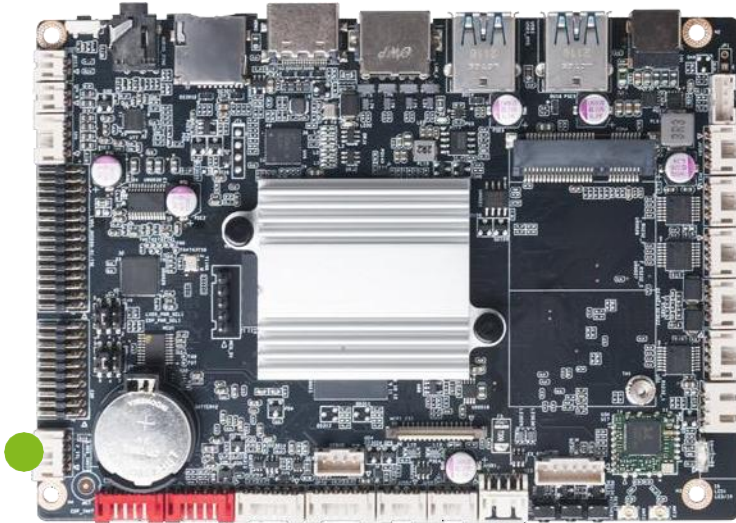


2-5. Board Solution - [Android Board](#) Technical support available for User Interface



RK3399 is Low power, high performed processor for smartphone, personal internet device and other digital multimedia applications.

RockChip RK3399



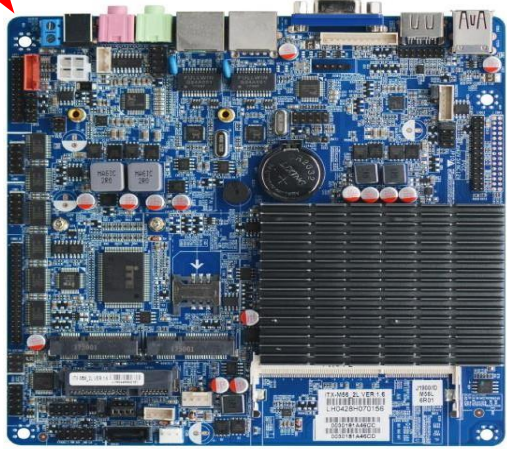
3.5 inch form-factor
146 mm x 102 mm (5.75" x 4.02")
Onboard Wi-Fi/BT module S
upport 3G/4G module

1 x HDMI (3840 x 2160 @60 Hz)
1 x LVDS (1920 x 1200 @60 Hz)
1 x eDP (3840 x 2160 @60Hz)

CPU		Network	
CPU	Rockchip®RK3399	Network Controller	1 x Pef7071 PHY
Frequency	1.80 GHz	Wi-Fi/BT	Onboard Wi-Fi/BT module
Processing Units	2 Cores Cortex-A72 & 4 Cores Cortex-A53	Mobile Network	1 x Full-size Mini-PCle for 3G/4G 1 x SIM Slot
TDP	6 W		
System		Rear I/O	
GPU	Mali-T860MP4	USB	1 x USB3.2 Gen1 OTG, 1 x USB3.2 Gen1,
Graphic Engine	OpenGL ES1.1/2.0/3.0/3.1, OpenCL, Support AFBC (ARM Frame Buffer Compression)	Display	1 x HDMI (Max.3840 x 2160 @60 Hz)
Multi-Media	4K VP9 decoders	Audio	1 x 2-IN-1 Headset (AUDIO-OUT & MIC-IN)
	4K 10bits H.265 video decoders	Ethernet Interface	1 x RJ45
	1080P VC-1, MPEG-1/2/4, VP8 video decoders	Button	1 x Power on, 1 x Recovery, 1 x Reset
System Memory	2 GB, Onboard LPDDR4-2133 MHz	Internal I/O	
Storage	16 GB, Onboard eMMC (Optional: 32 GB/64 GB) 1 x TF Card Reader	USB	3 x USB2.0, signal by 3 x 4pin USB header, 2 x USB2.0, signal by 1 x 8pin USB header
Watchdog Timer	NA	Display	1 x 20pin eDP 1 x 30pin dual channel 24bit LVDS (Max. 1920 x 1200@24 Hz)
Auto Power On	Yes	Camera	1 x MIPI-CSI jack
RTC	Set up independently every day, a week as a cycle	Serial port	3 x 4pin RS232 header, 1 x 4pin RS485 header 1 x 4pin TTL
Remo on	NA	GPIO	1 x 6pin GPIO
Power Requirement	DC-IN, 12 V/2.08 A	Audio	1 x 2pin MIC-IN 1 x 4pin SPK (5W), 1 x 2pin SPK(10W)
Dimensions	146 mm x 102 mm (5.75" x 4.02")	Others	1 x 6pin TP_I²C
Fanless	Yes		1 x 6pin EX_BUTTON
Operating system	Android 7.1/Android 11		1 x 6pin LVDS_BL, 1 x 6pin eDP_BL
Operating Temperature	0°C ~ 60°C (32°F~104°F) @0.7m/s Air Flow		
Humidity	95% @ 40°C (non-condensing)		

No.	Dimensions	No.	Dimensions
1	TTL	16	RS232
2	eDP	17	RS232
3	LVDS	18	RS485
4	SPK (5 W)	19	RS232
5	SPK (10 W)	20	IR
6	MIC-IN	21	EX_BUTTON
7	UBOOT	22	MINI-PCIE
8	2-IN-1 HEADSET	23	MIPI-CSI
9	TF CARD	24	2*USB2.0
10	HDMI	25	USB2.0
11	LAN	26	USB2.0
12	USB3.2 GEN1 OTG	27	GPIO
13	USB3.2 GEN1	28	TP_I2C
14	DC-IN	29	LVDS_BL
15	USB2.0	30	eDP_BL

2-5. Board Solution - PC Board Technical support available for User Interface



SAH-M56(D6L)

Intel® Celeron J1900/2.0GHz
Quad core processor



*Feature

Mini-ITX Motherboard

- Intel® Celeron J1900/2.0GHz Quad core processor, TDP 10W
- Adopt Intel® Bay trail SOC chipset
- Integrated Intel® HD Graphics Support DirectX* 11.1, OpenGL 3.2
- 1*SODIMM memory slot, 1600/1333MHz DDR3L/1.35V, max up to 8GB
- 1 x COM (RS-232/422/485), 5 x COM (RS-232)
- 1 x HDMI, 1 x D-Sub, 1 x Dual Channel 24-bit LVDS
- 1 x USB 3.0, 7 x USB 2.0, 2 x SATA3
- 1 x mini-PCIe, 1 x mSATA
- Gigabit LAN : 1 x Realtek Lan
- 12 V DC-in
- Window 10, Window 8, Window 7, Linux Supported



SAH-M36(I516L)

Intel® Skylake i5 6267U
2.9GHz dual core processor



*Feature

Mini-ITX Motherboard

- Intel® Skylake i5 6267U 2.9GHz dual core processor
- Intel® Iris Graphics 610, support DirectX 12, Open GL 4.5, 4K/60Hz
- Adopt 6TH Gen Intel® Core Processor Platform chipset
- Integrated Intel® HD Graphics Support DirectX* 11.1, OpenGL 3.2
- 2*SODIMM memory slot, 1600MHz DDR3L/1.35V, max up to 32GB
- 1 x COM (RS-232/422/485), 5 x COM (RS-232)
- 1 x HDMI, 1 x D-Sub, 1 x Dual Channel 24-bit LVDS
- 2 x USB 3.0, 6 x USB 2.0, 1 x SATA3
- 1 x mini-PCIe, 1 x mSATA
- Gigabit LAN : 1 x Realtek Lan
- 12 V DC-in
- Window 10, Window 8, Window 7, Linux Supported

2-5. Board Solution - PC Board (3.5" SBC)

Technical support available for User Interface



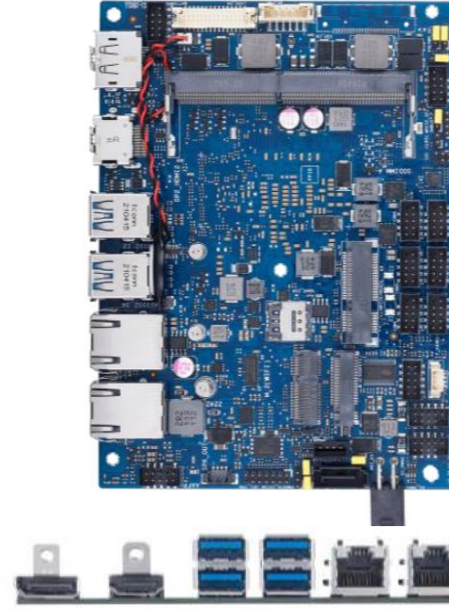
E395S-IM-AA

Intel® Atom x7-E3950
1.6GHz Quad core processor

*Feature

3.5" Form Factor Industrial Motherboard

- Intel® Atom X7-E3950 2.0GHz Quad core processor, TDP 10W
- Integrated Intel® HD Graphics 505
- 1*SODIMM memory slot, 1600/1333MHz DDR3, max up to 8GB
- 2 x COM (RS-232/422/485), 4 x COM (RS-232)
- 1 x HDMI, 1 x DP, 1 x Dual Channel 24-bit LVDS
- 4 x USB 3.1, 1 x USB 2.0
- 1 x mini-PCIe, 1 x M.2, 1 x Micro SD card slot (on-board)
- Gigabit LAN : 2 x intel i210IT (10/100/1000Mbps)
- 12 V- 24V DC-in
- Window 10, Window 8, Window 7, Linux Supported
- Wide Temperature : -40 ~ 85°C (Operating)



C583ES-IM-AA

Intel® Core i5-8365UE
1.6GHz Quad core processor

*Feature

3.5" Form Factor Industrial Motherboard

- Intel® Core i5-8365UE 1.6GHz Quad core processor
- Intel® UHD Graphics 620
- 1*SODIMM memory slot, 2400/2133MHz DDR4, max up to 32GB
- 2 x COM (RS-232/422/485), 4 x COM (RS-232)
- 1 x HDMI, 1 x DP, 1 x Dual Channel 24-bit LVDS (colay with eDP)
- 4 x USB 3.2, 6 x USB 2.0 (2 x header, 4 x connector)
- 1 x mini-PCIe, 2 x M.2, 1 x SATA 3.0, 1 x mSATA(Full size)
- Gigabit LAN : 2 x intel i219LM/i211AT (10/100/1000Mbps)
- 12 V – 24V DC-in
- Window 10, Window 8, Window 7, Linux Supported
- Wide Temperature : -20 ~ 60°C (Operating)

Application

Auto pay machine
For parking lot



Charger station



Smart vending machine

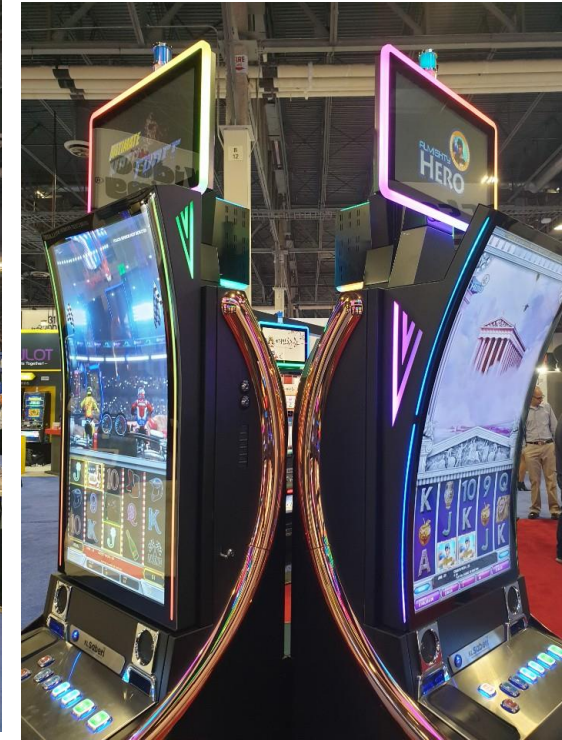


2-6. Casino Monitor – 4 sides of LED



4 LED monitor

- P/N :
JM23WLFGN-4L / JM27WLFGN-2L
JM27WLFPN-2L / JM43WLFPN-2L
- 23" topper monitor with 4 side of LED light
- 27" tempered glass, P-cap touch monitor with 2 side of LED light
- 43" tempered glass, P-cap touch monitor with 2 side of LED light
- **Over 1000 pcs of screen has been installed in Europe and Korea in Casino**
- **Customizing available.**

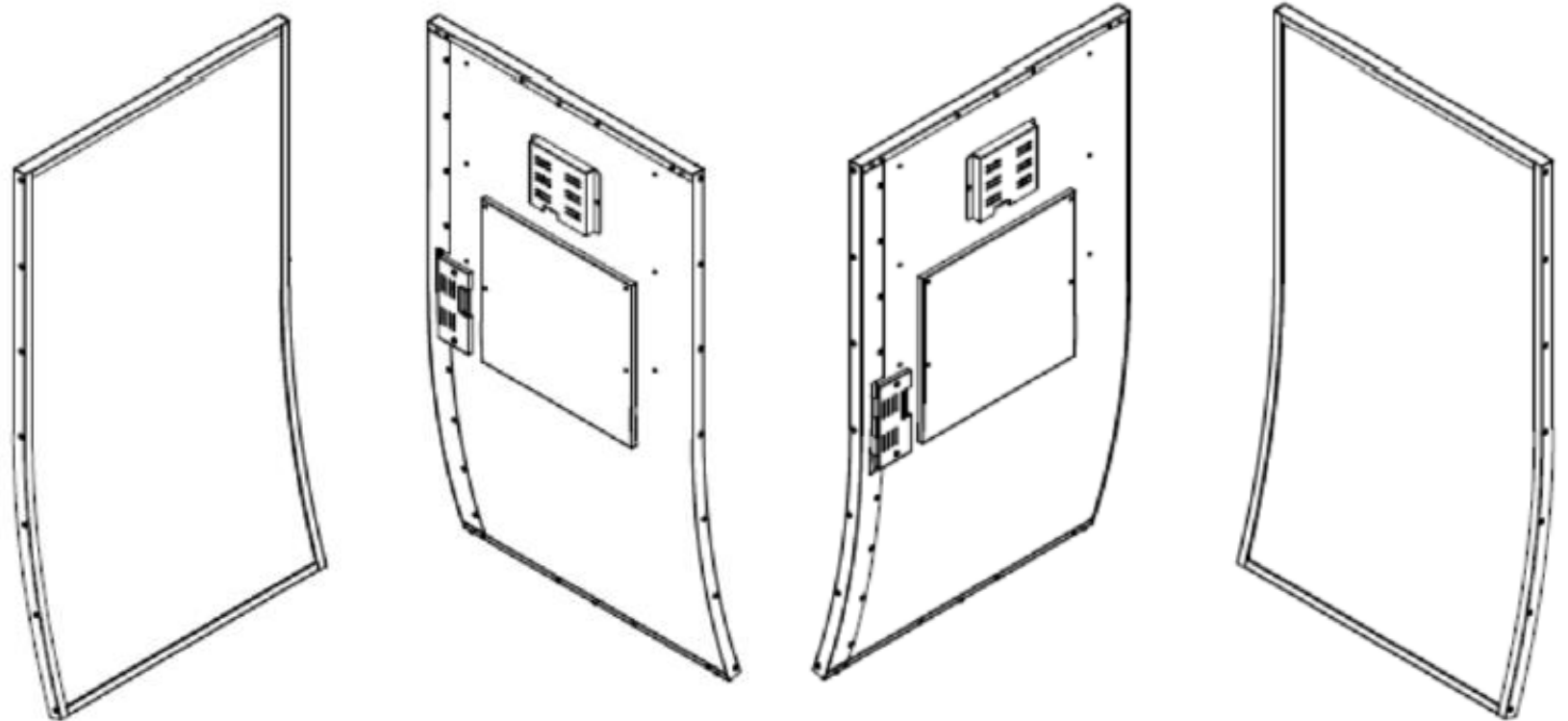


2-6. Casino Monitor – “J” –type curved



“J”-type Curved

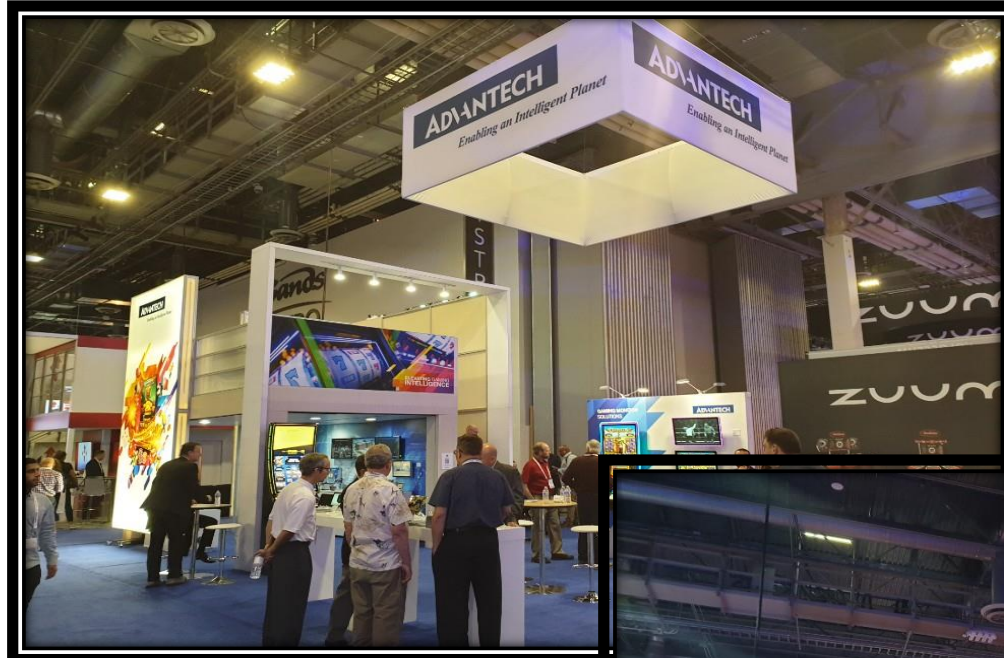
- P/N :
JCV49WLPNN-350R
- 49inch J-type curved
- Resolution : 3,840 x 2,160
- Brightness : 350nit
- **Customizing available.**



2-6. Casino Monitor – [Partners](#)



Partners – Quixant, Advantech, AGS

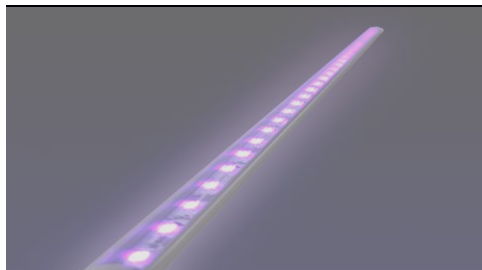


2-7. UV LED Monitor

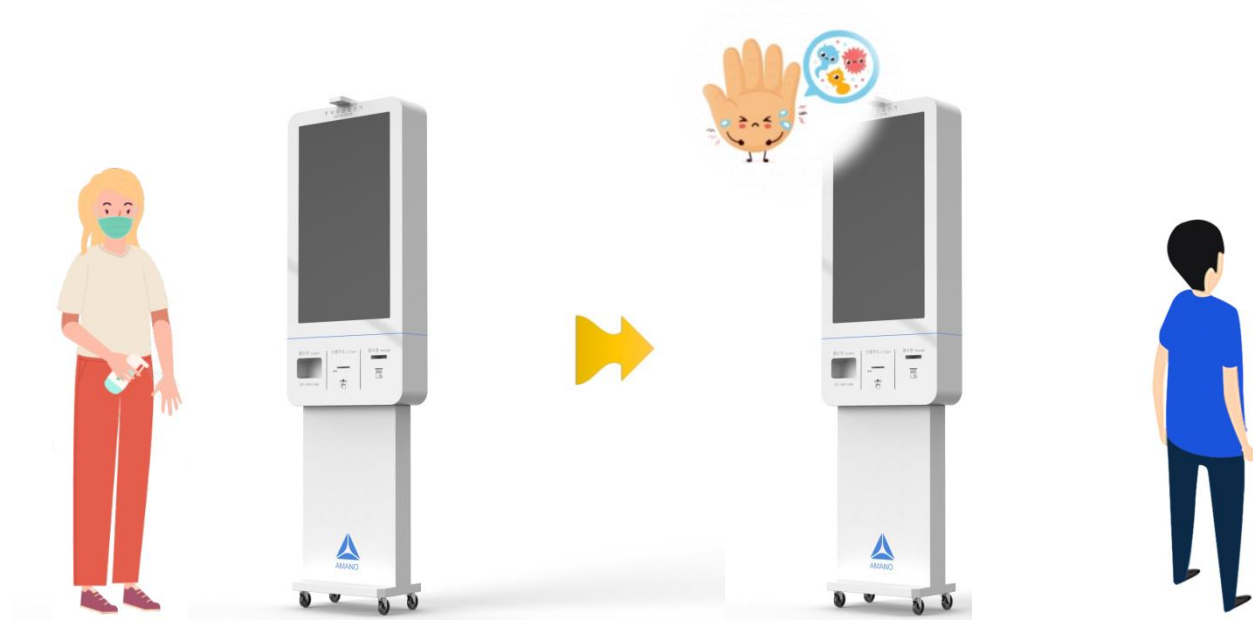


UV LED monitor

- sterilization treatment **within 3 hours**
- 99.9%** sterilization of harmful bacteria
- Sterilize the entire face of the touch glass **simultaneously**
- Smart sterilization** with proximity sensor
- Possible to make **any size** (Inquiry Required)
- Customizing available.**



Touchscreens can be a carrier for spreading disease infections because they have an ideal surface for bacterial growth. **Touchscreen hygiene is the most important thing** in relation to reducing the infection rate.



03,

Production management

1. Factory, Office & Equipment
2. QA System : PROJECT / 4M / RMA
3. Certification : ISO9001, Laboratory, Design



3-1. Factory & Office



Factory Entrance



Assembly line



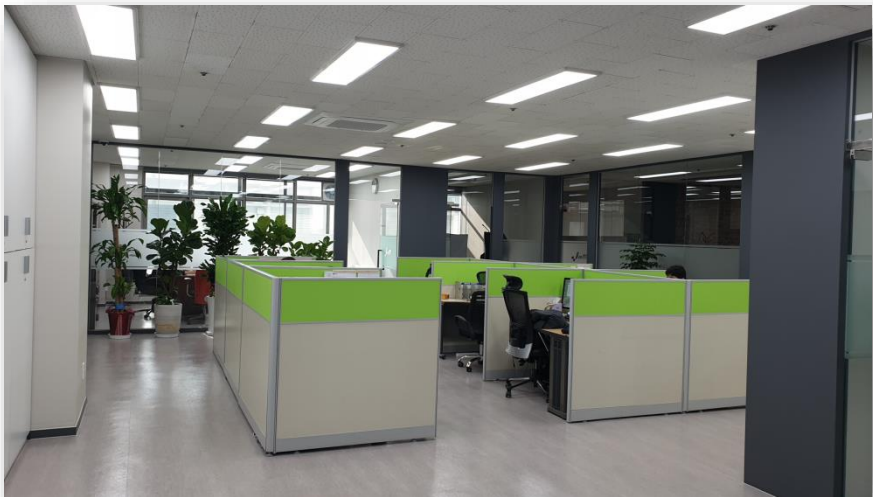
Aging Room



Warehouse



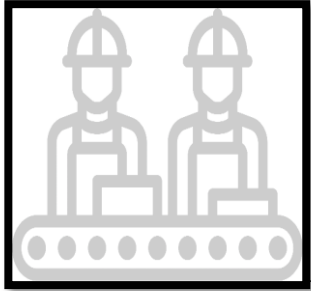
Clean Room



Management and Sales Team, Lab Office



3-1. Equipment



LCD Optical Meter



LCM Inspector M/C



Chamber



Pol. Attachment M/C



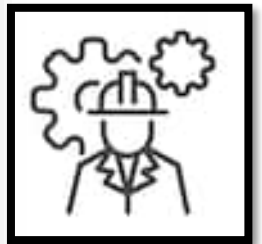
Master, MSPG-925LTH



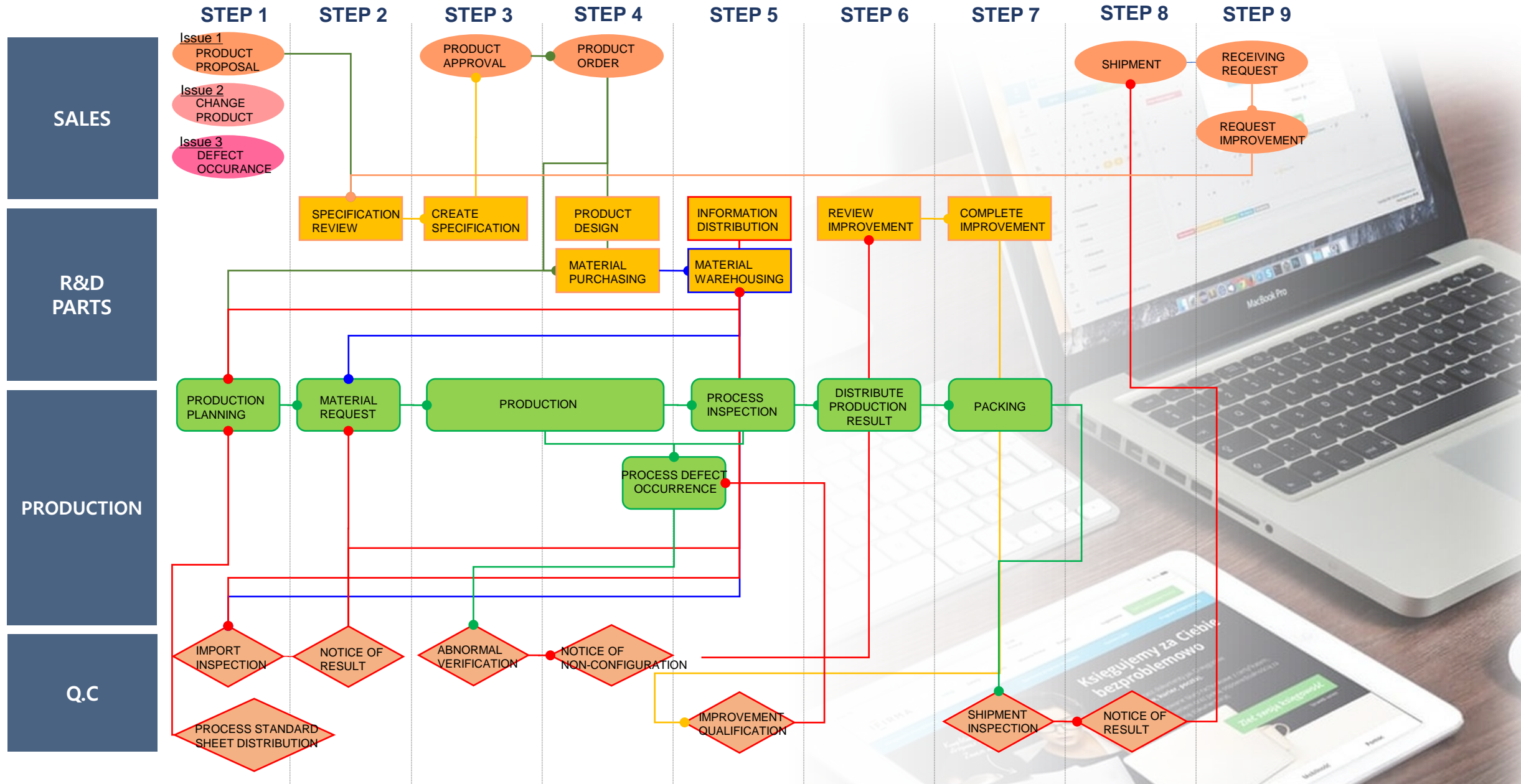
Master, MSVD-250N-20/15



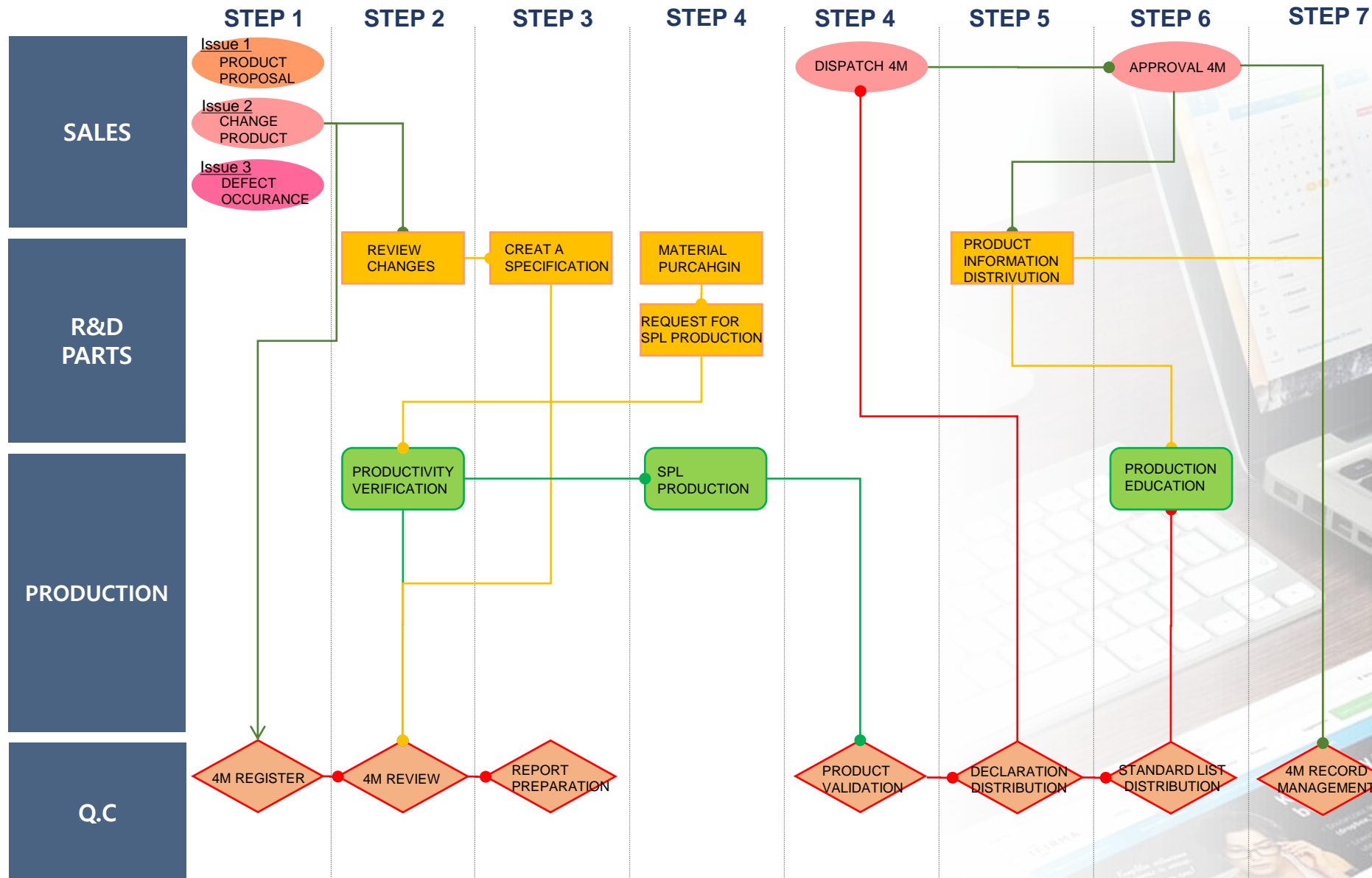
Lecroy, Wavejet354



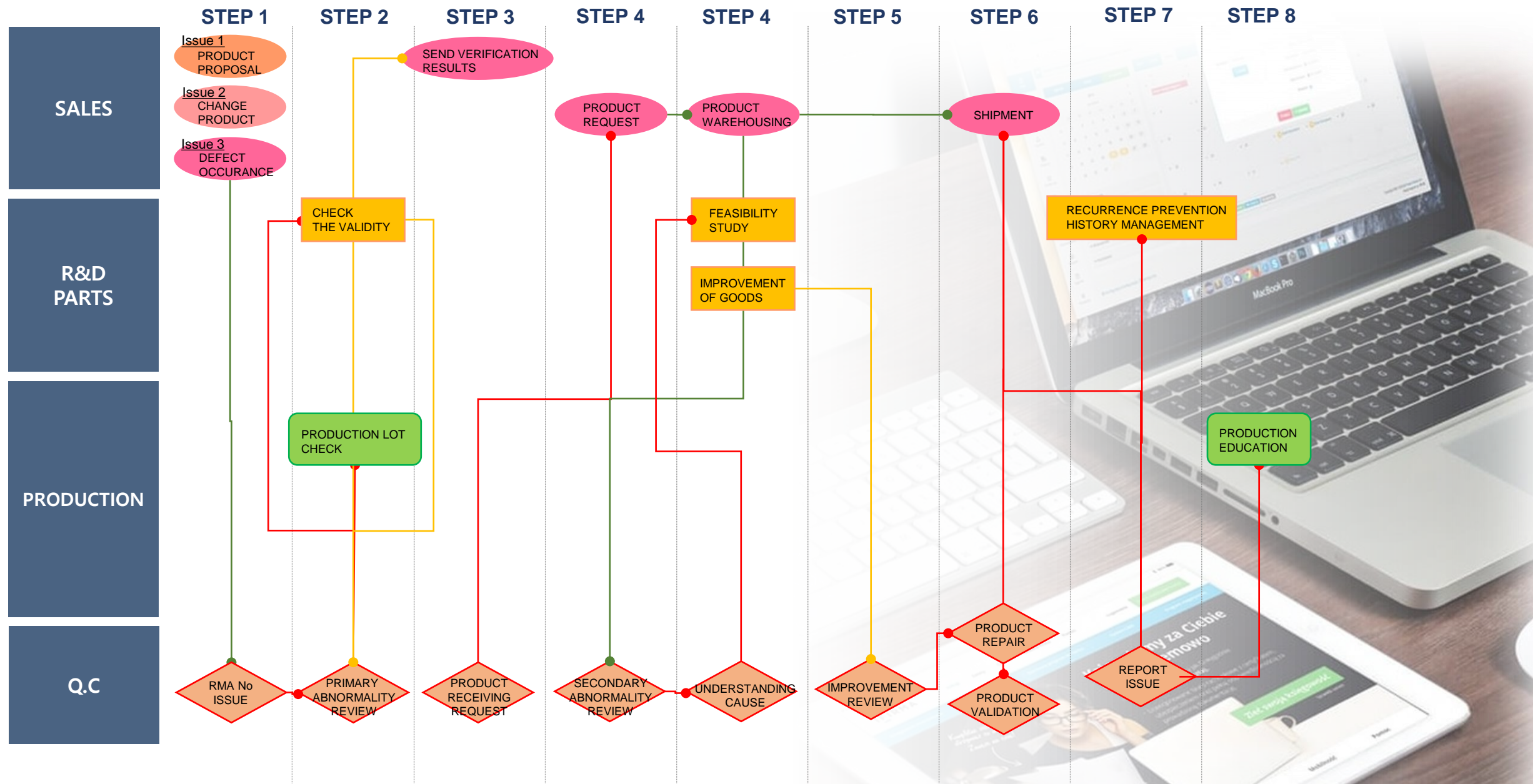
3-2. QA System - PROJECT



3-2. QA System – 4M



3-2. QA System – RMA



3-3. Certification

* ISO 9001:2015 , Laboratory, Design registration



(주)제이엔엠디스플레이

본사 : 서울특별시 금천구 가산디지털1로 119, B-402 (가산동, 에스케이트윈테크타워)
 공장 : 서울특별시 금천구 가산디지털1로 119, B-607 (가산동, 에스케이트윈테크타워)

상기 기업의 품질경영시스템이 다음 표준과 인증범위에 대해 적합함을 엔트리인증원이 인증합니다.

[인 증 표 준]
 ISO 9001:2015

[인 증 범 위]
 산업용 LCD 모니터, 고감도패널, 투명모니터의 개발 및 제조

[유효기간]

2019년 12월 20일부터 2022년 12월 19일까지

(최초인증일자 : 2016년 12월 20일)

*본 인증서는 심사규칙에 의한 사무관리절차에서 만족하였을 경우에 한하여 유효기간동안 효력이 발생함.

인증번호 : NTQ-2235 발행일자 : 2019년 12월 12일

Rev. 02
 제정일 : 2019. 12. 12

제정일 : 2019. 12. 12

제정일 : 2019. 12. 12

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제정일 : 2019. 12. 12

제정일 : 2019. 12. 12

■ 산업집적활성화 및 공장설립에 관한 법률 시행규칙 [별지 제8호제2서식] (개정 2012.10.5) 공장설립등록인정시스템(www.factoryreg.go.kr)에서도 신청할 수 있습니다.

공장등록증명서

접수번호	접수일	처리기간	측시
신청인	회사명 (주)제이엔엠디스플레이 대표자 성명 조현 대표자 주소(법인소재지) 서울특별시 금천구 가산디지털1로 119, B동 607호 (가산동, SK트윈테크타워)	전화번호 02-2647-1676 생년월일(법인등록번호) 110111-3807124	
공장소재지	도로명 : 서울특별시 금천구 가산디지털1로 119, B동 607호 (가산동, SK트윈테크타워) 지번 : 서울특별시 금천구 가산동 119-1, B동 607호 (가산동, SK트윈테크타워) 공정용지	지목 보유구분 자[] 권[]	
등록내용	2012-09-20 공장설립 비디오 및 기타 영상기기 제조업 (26519) 공장 부지 면적(m ²) 215.13 m ²	사업 시작일 중합원 수 남 : 10 여 : 6	
등록조건	제조 시설 면적(m ²) 785.69 m ²	부대 시설 면적(m ²) 397.71 m ²	
등록번호	중합원 수 115452012261818	공장관리번호	

「산업집적활성화 및 공장설립에 관한 법률 시행규칙」 제12조의3에 따라 위와 같이 공장등록증명서를 신청합니다.

2021년 05월 14일

(서명 또는 인)

신청인 공작장

한국산업단지공단 귀하

첨부서류	있 음
신청서 신청인	→ 접수 처리기간
→ 등록 여부 확인	→ 결재 처리기간

「산업집적활성화 및 공장설립에 관한 법률」 제16조제1항·제2항
 증명합니다.

한국산업단지공단



디자인등록증

CERTIFICATE OF DESIGN REGISTRATION

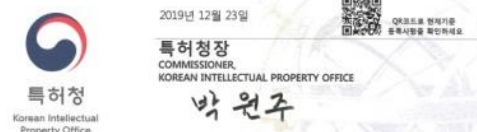
등록	제 30-1039091 호
Registration Number	
출원번호	제 30-2019-0011394 호
Application Number	
출원일	2019년 03월 13일
Filing Date	
등록일	2019년 12월 23일
Registration Date	
등록의 구분	심사 등록
Type of Registration	(EXAMINED REGISTRATION)
출원류	제14류
Class	
디자인의 대상이 되는 물건	디스플레이용 모니터
Product	

디자인권자 Owner
 (주)제이엔엠디스플레이(110111-*****)
 서울특별시 금천구 가산디지털1로 119, B동 402호(가산동, SK트윈테크타워)

창작자 Creator
 조현(721113-*****)
 서울특별시 금천구 가산디지털1로 119, B동 402호(가산동, SK트윈테크타워)

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디자인등록증

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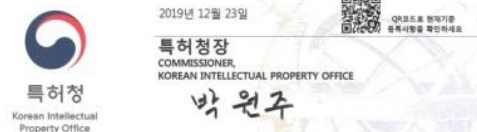
등록	제 30-1039089 호
Registration Number	
출원번호	제 30-2019-0011388 호
Application Number	
출원일	2019년 03월 13일
Filing Date	
등록일	2019년 12월 23일
Registration Date	
등록의 구분	심사 등록
Type of Registration	(EXAMINED REGISTRATION)
출원류	제14류
Class	
디자인의 대상이 되는 물건	디스플레이용 모니터
Product	

디자인권자 Owner
 (주)제이엔엠디스플레이(110111-*****)
 서울특별시 금천구 가산디지털1로 119, B동 402호(가산동, SK트윈테크타워)

창작자 Creator
 조현(721113-*****)
 서울특별시 금천구 가산디지털1로 119, B동 402호(가산동, SK트윈테크타워)

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CERTIFICATE OF DESIGN REGISTRATION

등록	제 30-1054388 호
Registration Number	
출원번호	제 30-2019-0011393 호
Application Number	
출원일	2019년 03월 13일
Filing Date	
등록일	2020년 04월 07일
Registration Date	
등록의 구분	심사 등록
Type of Registration	(EXAMINED REGISTRATION)
출원류	제14류
Class	
디자인의 대상이 되는 물건	디스플레이용 모니터
Product	

디자인권자 Owner
 (주)제이엔엠디스플레이(110111-*****)
 서울특별시 금천구 가산디지털1로 119, B동 402호(가산동, SK트윈테크타워)

창작자 Creator
 조현(721113-*****)
 서울특별시 금천구 가산디지털1로 119, B동 402호(가산동, SK트윈테크타워)

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2020년 04월 07일

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Thank you



info@believe.it

Tel: +39 0445 579035

WhatsApp: +39 331 117 2039

