



EMBEDDED HMI

TOP SERIES

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SMART X HMI
EMBEDDED HMI
TOP SERIES



SMART X HMI

THE
BEGINNING OF
CHANGE IS NOW

EMBEDDED HMI



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Greetings

HMI Specialized Company

M2I Corporation was established in April 1999 for manufacturing industrial HMI, and get strong visions of global HMI specialized company in industrial monitoring/control ling territory

We do the roll to sense all information of industrial field and signals of devices, and connect human and machine. Also we support not only manual operation, but also smart system(Automatic monitor/Control).

Continuous R&D and technical service development were focused all the time as dramatic changes of industrial structure. And M2I tries constantly for brand identity and quality development by products that customer needs and make wide range of product line-up

M2I Corporation cooperates plenteous customers with knowledge and know-how in industrial automation field. Aiming to be the global leader of smart factory and industrial IoT, M2I Corporation will do the best to improve the reliability and productivity by revolutionary product development and service.

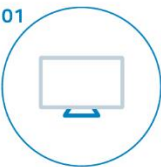
M2I Corporation

Applied Field

Optimized Product for Smart Factory, Represented as Industry 4.0

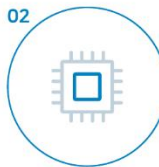
M2I's Smart HMI is surpassing traditional HMI products for Factory Automation, and having connectivity for various devices, flexible functionality, stability and security. With various versatile, it can be used in Smart Factory and other various fields, and it is adopted not only in high-technology industry like Semiconductor, Display, but also in Growing/Normal industry like Automobile, Mobile Device, Secondary Cell, and Pharmacy/Bio.

01



Display/Mobile Phone
Logistics

02



Semiconductor/Electronics
Gas cabinet, VMB, Chiller, Loader/Unloader, Scrubber Lead frame, Laser marker, Chamber

03



Chemical/Steel
Pharmacy, Plastic, Cosmetics, Chemical, Steel manufacture

04



Automobile/Shipbuilding
Painting, Welding, Pressing, Assmebly

05



Food/Pharmacy
Ramen, Soup, Snack, Ice cream, Milk, Rice, Packaging, Storage

06



Secondary Cell/Solar
Oil refining, Battery, Power generation, Water resources

07



Textile/Packaging
Dyeing, Print, Dry cleaning, Knitting, Rotary machine

08



Automated/Logistics
OHCV, OHT, Lifter, OHS, AMR, AGV, Stacker Crane

History

HMI Specialized Company

M2I Corporation will do the best to improve the reliability and productivity by revolutionary product development and service.



2016 - Present
Customized Smart Factory Solution

Relocation of New M2I Building
Smart Factory Solution Business Start and Obtaining New Projects' Orders
Launching TOP-PCVIEW Series, Designated in Semiconductor and Automobile Industry
Launching TOPRW and TOPRE Series
The Highest Sales Record as 60,000 Units
Launching TOP-VIEW(SCADA S/W) and TOP-PCVIEW(Panel PC)



2011 - 2015
Endless R&D and Effort

Launching TOPRX and TOPRH Wired/Wireless Series
ATEX/KCS/NEPSI Certificates for XTOP Series Acquired
Launching TOPR Series
Launching XTOP Wide Series



2001 - 2010
The Automation in Anywhere

Launching HTOP Handy Type Wired/Wireless Series
Opening Regional Office in Daegu
Launching XTOP Series
Selected to INNO-BIZ Company
UL/CE/FCC Certificates Acquired



1999 - 2000
The beginning of M2I

Venture Company Certificates Acquired
Launching TOP Series(The First Industrial HMI in Korea)
M2I Corporation Established



TOP Series Introduction

Product Line-Up Satisfying Customers' Various Needs



Detachable Aluminum Body with Multimedia Functions

Premium/Standard/ATEX Model

SERIAL 3 PORTS | ETHERNET 2 CHANNEL | USB HOST 2 PORTS | USB OTG | SD CARD
OPTION MODULE | [HDMI OUT](#) | [CAMERA](#) | [AUDIO OUT](#) | [VIDEO IN](#)

* Multimedia functions are supported only in premium model!





EMBEDDED HMI



Compact Size, Light and Convenient

TOPRE Series

SERIAL 1 PORT | ETHERNET 1 CHANNEL | USB OTG | SD CARD





EMBEDDED HMI



The Series Developed TOPR's Function from XTOP Products

Normal/EX Model

SERIAL 3(2) PORTS | ETHERNET 2(1) CHANNEL | USB HOST | USB OTG | SD CARD

* 15", 12", 10", 8", 5" please check the number of ports by each model





EMBEDDED HMI



Handy Type with Ergonomic Designed Hand Grip

TOPRH Wired/Wireless Series

[Wired](#) SERIAL 2 PORTS | ETHERNET 1 CHANNEL | USB HOST 2 PORTS | SD CARD
[Wireless](#) WIFI | USB HOST 2 PORTS | USB OTG | SD CARD





EMBEDDED HMI



With a Wider Screen

TOPRW/TOPRW-IO Series

SERIAL 2 PORTS | ETHERNET 1 CHANNEL | [USB HOST](#) | USB OTG | SD CARD

* USB HOST functions is supported only in 10" and 7"





EMBEDDED HMI



Miniaturized New Form Factor, Smaller and Simple

TOPRP Series/Touch Monitor

SERIAL 2 PORTS | ETHERNET 2 CHANNEL | USB HOST 2 PORTS | USB OTG
SD CARD | [HDMI OUT](#)





BOX HMI/TOUCH MONITOR

TOP Design Studio Software

Easier and More Diverse

The software which supports TOPR, TOPRX, TOPRW, TOPRE, TOPRH, TOPRP, TOP-VIEW, TOP-WVIEW you can download in **M2I website(www.m2i.co.kr/eng) for free.**

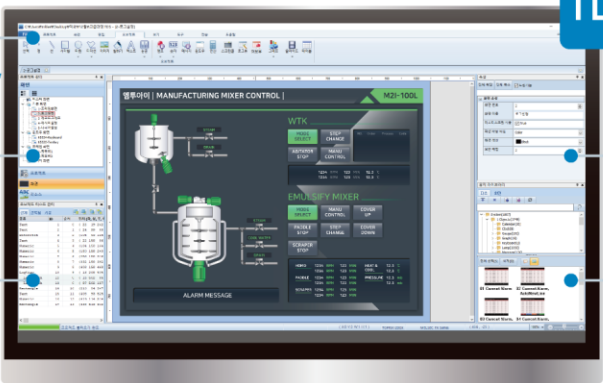
Combination of PC BASED HMI and EMBEDDED HMI

Mutual convert between PC BASED HMI(SCADA, TOP-PCVIEW series) and EMBEDDED HMI(TOPR/TOPRX/TOPRW/TOPRE/TOPRH series) is possible. So program is efficiently used. This make the person who is familiar with EMBEDDED HMI program(TOP Design Studio) easy to use PC BASED HMI(SCADA) program without any training procedure.
To change the project, select [Project] - [Property] - [Change HMI] function in TOP Design Studio.

DYNAMIC RIBBON MENU
Menu and toolbar into one

PROJECT PROPERTY WINDOW
Convenient and systematic management

OBJECT LIST WINDOW
Easy to see objects with table format



TDS

PROPERTY WINDOW
Modify multiple objects at the same time

USER LIBRARY WINDOW
Object and screen sample supplied

- 01
LANGUAGE

LANGUAGE

This software supports korean/english/chinese(Simplified)/japanese. You can select the language in [VIEW-Language] menu in software.
- 02
DYNAMIC RIBBON MENU

DYNAMIC RIBBON MENU

Menu-Toolbar united ribbon UI, easy to use by big icon.
- 03-1
DOCKING WINDOW

PROJECT PROPERTY WINDOW

Helping the project/screen/resource to be easier and systemized management.
- 03-2
DOCKING WINDOW

OBJECT LIST WINDOW

The object registered on screen is shown as table format.
- 03-3
DOCKING WINDOW

PROPERTY WINDOW

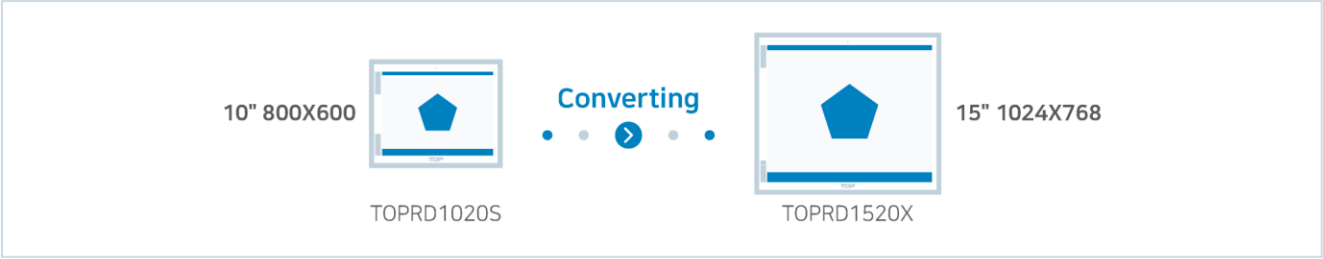
Showing the property of screen/object and editing them is possible. Same kind of object can be edited by group in same time.
- 03-4
DOCKING WINDOW

USER LIBRARY WINDOW

Supporting the screen/parts designed by objects.

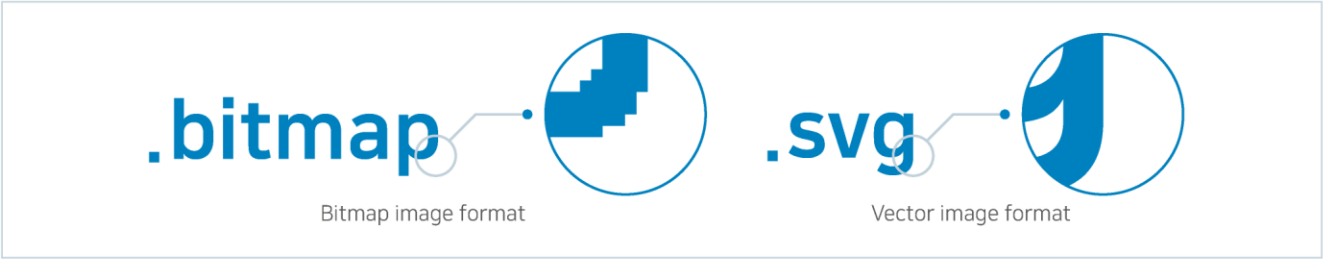
01. Automatic Resizing Function for Model Change

If you change the TOP model which has different resolution, all registered objects in screens will automatically resize by new model's resolution.



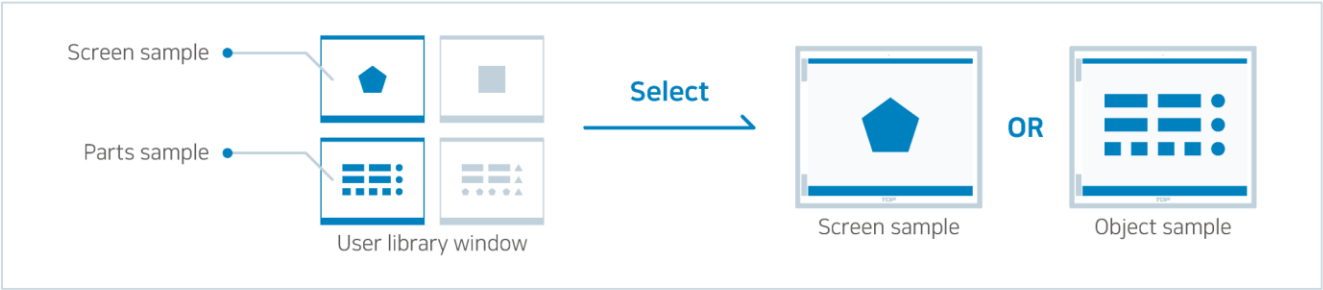
02. Vector Image Library

TOP supports vector image library(SVG format) with 16M full color. Vector image can display clear view regardless of size change.



03. User Library Window Sample

We supply the sample of screens and objects which customers can use for their own project.



04. Off-Line/On-Line Simulation

Off-line simulation is a test operation in PC without the control unit, and on-line simulation is a test operation in PC connected to control unit like PLC. This on-line simulation has 2 hours trial mode. The operation of TOP and PC simulation is same because they are same program.



TOP Design Studio Software

05. Flexible and Easy Programming by [Effect/Action] Function of Object

[Effect/Action] function is supported regardless any shape or type of object. If a set [Condition] meets, [Effect] or [Action] already set operates. Animated effect and other many operation can be set in object.



Condition(AND/OR)
Event(Touch) + Bit data + Word data + String data + Time/Schedule + Interval

Effect
Hide + Disable + Reverse + Blink + Shape change + Image change + Width/Height change + Move + Rotate

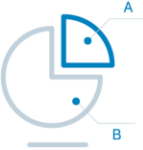
Action
Bit data + Word data + String data + Script + Key + Special function

06. Faster and More Accurate Analysis by Variable Graph Format

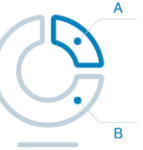
Beyond one or two, 3 dimensional graph shows the data quickly.



Chart graph



Pi graph



Donut graph



Meta graph



Bar graph



Trend graph



3D graph

** 3D graph is supported in TOP Design Studio v2.0*

07. Global Alarm Scroll/Action for Occurred Alarm

Alarm list can be shown as table format or scroll format. [Global alarm scroll] function displays the contents of occurred Alarm by scroll format moving by 1 letter. An operator can check the alarms in any screens. The action for this occurred alarm, supports showing image/text/PDF file and sound effect. Also, operating set action or saving a certain address data maximum 10ea.



Global alarm scroll display

Action



Sound

OR



Call image file

OR



Call text file

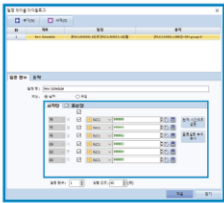
OR



Call PDF file

08. Schedule Function Address Data

Each schedule(Year/Month/Day/Hour/Minute/Second) can be set as PLC's address, so data can be edited during operation. [* Project menu > Schedule > Schedule table dialog]



Step. 01
Set start and end schedule as PLC address

Step. 02
Set the count of operation and interval

Step. 03
Set an action

Easier and More Diverse

09. Text/Image Automatic Copy

If text data outside of TDS is copied and pasted in TDS, a [Text object] is created automatically. If image data outside of TDS is copied [Image object] is created automatically.



Memo



Paint

Ctrl + C

Ctrl + V

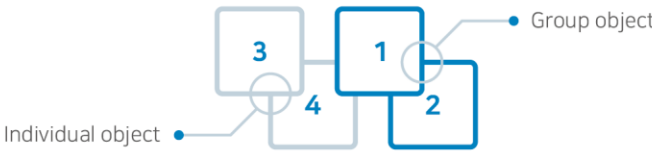


TOP Design Studio

Automatically made text/image object

10. Multi-Layer System of Object

Object can be layered and set by top/bottom order. Putting layered object on other object and set animated effect is available.



Individual object

Group object

Object overlap(Ordering)



Move



Blink



Rotation

11. Table Object

Easy registration without any drawing process of table. Text/Image/Numeric/String/Clock/Lamp objects can be set in table property dialog.



Table object

Registration

	ABC	ABC
ABC		123
ABC		123

Object setting by each cell

12. Easy and Powerful Programming by JAVA script

As the powerful functions of JAVA script, the most common used one, not only a simple command but also programming language can be set easily with samples.

```
var addr1 = (@PLC1.R00000:16.DEC);
if( addr1 > 0 ){
  @PLC1.R00001:16.DEC = 0;
}
if( @PLC1.R00000:16.DEC == 0 ){
  @PLC1.R00001:16.DEC = 100;
}
else {
  @PLC1.R00000:16.DEC = @PLC1.R00001:16.DEC;
}
for(i=1; i<=100; i=i+1) {
  if(i==10) continue;
  @PLC1.R00000:16.DEC = i+4
}
```



JAVA script

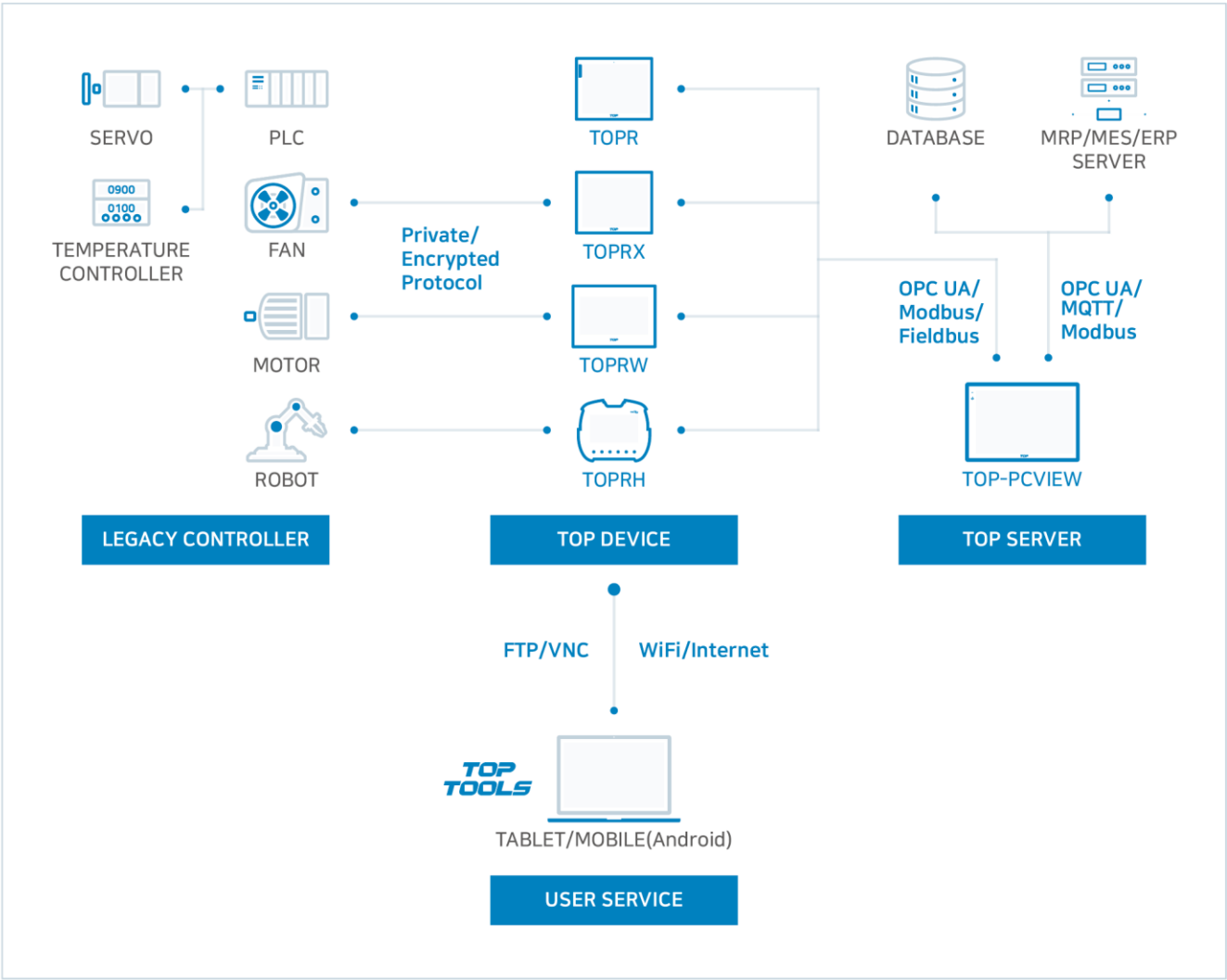
Coding



TOP

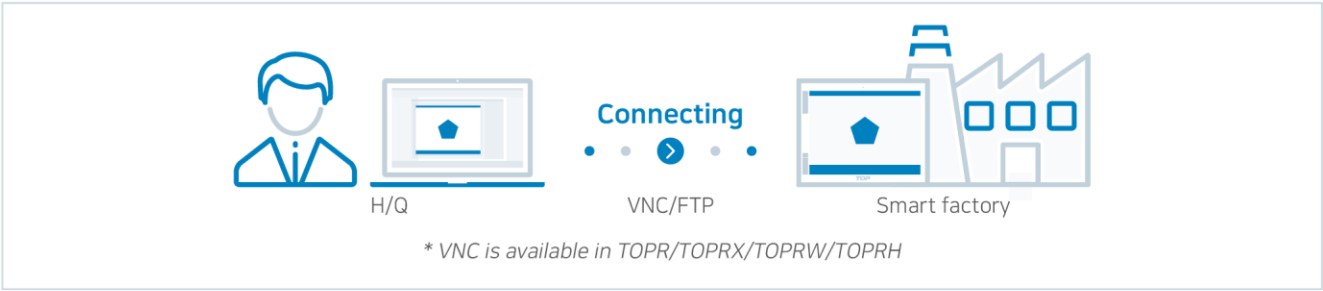
```
var addr1 = (@PLC1.R00000:16.DEC);
if( addr1 > 0 ){
  @PLC1.R00001:16.DEC = 0;
}
if( @PLC1.R00000:16.DEC == 0 ){
  @PLC1.R00001:16.DEC = 100;
}
else {
  @PLC1.R00000:16.DEC = @PLC1.R00001:16.DEC;
}
for(i=1; i<=100; i=i+1) {
  if(i==10) continue;
  @PLC1.R00000:16.DEC = i+4
}
```


Use of Smart TOP in Industrial Field



01. VNC(Virtual Network Computing)/FTP(File Transfer Protocol)

The screen of TOP in factory cab be monitored and controlled by remote PC, tablet, mobile device, and other TOP by VNC. Also file transferring is possible by FTP.



02. OPC UA(Open Platform Communications Unified Architecture) Protocol Supports

OPC UA is a future-oriented and expandable architecture. This makes PCVIEW(PC BASED HMI) gather and manage data stable.

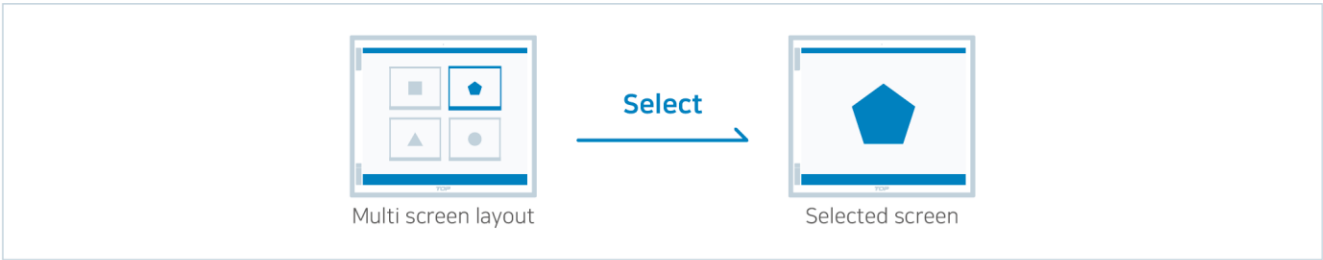
03. E-mail, SMS Sending in Factory Fireld

E-mail and SMS set in program can be sent by field’s condition. Manager or customer can receive the situation immediately by E-mail and SMS.

More Convenient and Safer

04. Multi Screen

A single screen can show several other screens with ‘Screen call object’. Monitoring a number of screens is possible, and screen change will be done when this small screen call object is touched.



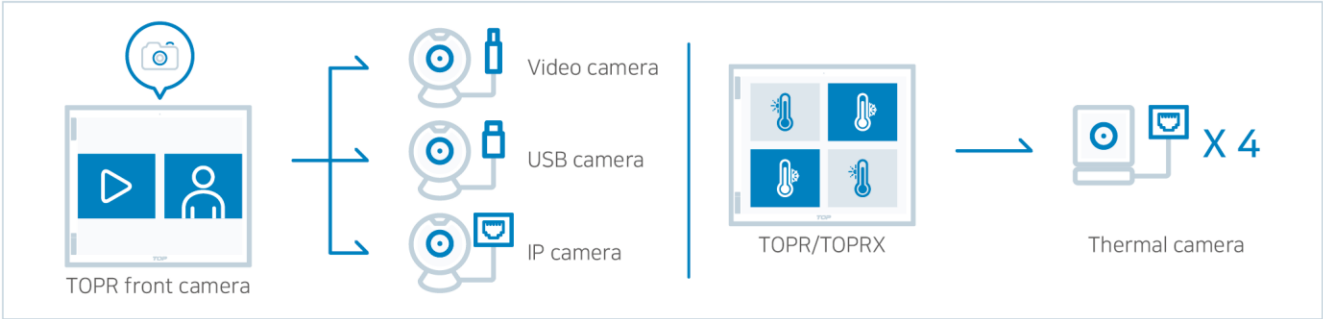
05. Using Big Screen with HDMI Out

Set a screen as multi screen, and show this to big monitor or TV by HDMI. HDMI screen can show individual screen as HDMI dual mode.



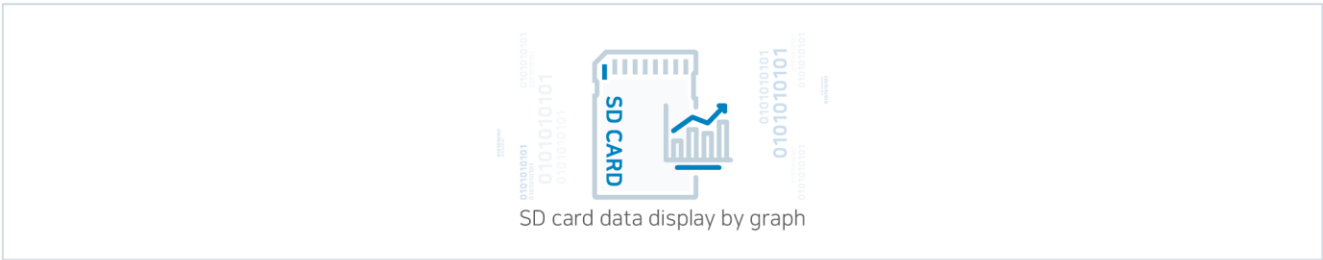
06. Thermal/IP/Video/Integrated Camera

TOPR premium model has an integrated camera in front side, and a video port which can connect a video camera. Thermal and IP camera can be connected to ethernet port, and USB camera is also connectable. Operating with video and recording is possible. Also, making safer industrial environment is possible using this function in anti-fire or security area.



07. Immediate Graph Display of Data in SD Card

Sampling a data in SD card and showing it in record graph can make the analysis faster.

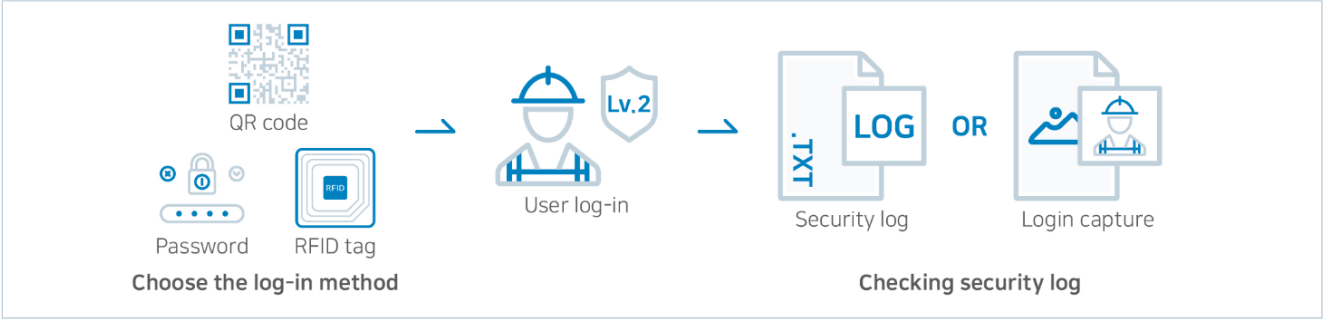


Use of Smart TOP in Industrial Field

More Convenient and Safer

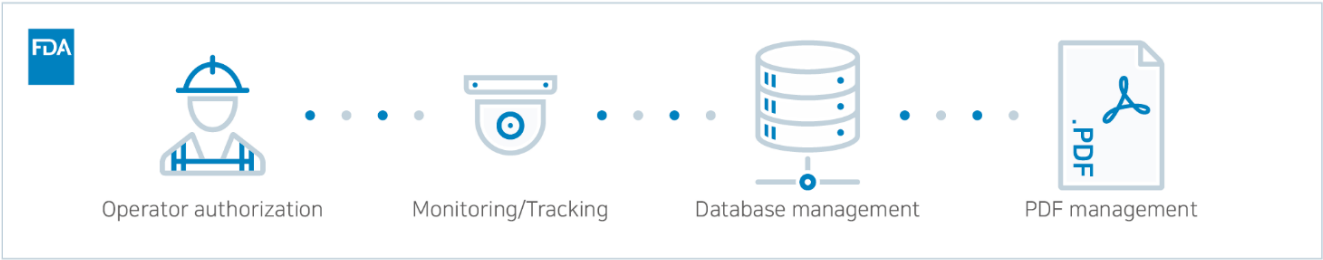
08. Close Security Management and Convenient Log-in

TOP can set 16 levels of password to be safe security management. Log-in methods are input the password directly by keyboard, or using QR code, RFID tag. External reading device is needed for each method of log-in. Additionally, security log function is able to record the log-in and log-out, or save the video data of log-in spot by capture function.



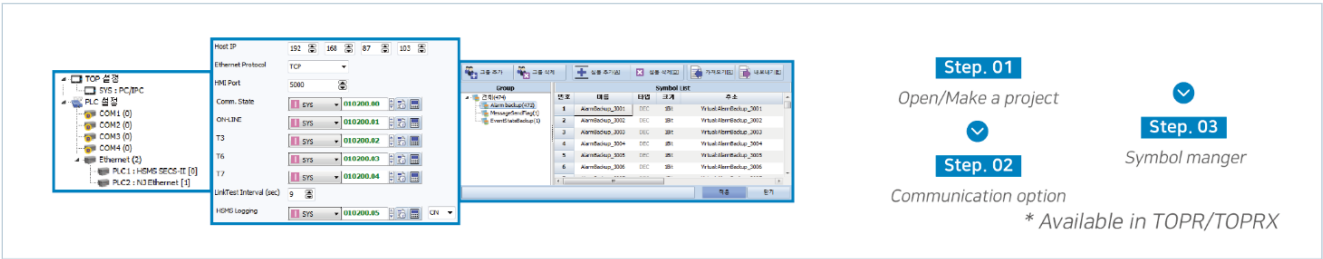
09. FDA 21CFR Part 11

Operator authorization, tracking the log of monitoring/control, managing DB and PDF file.



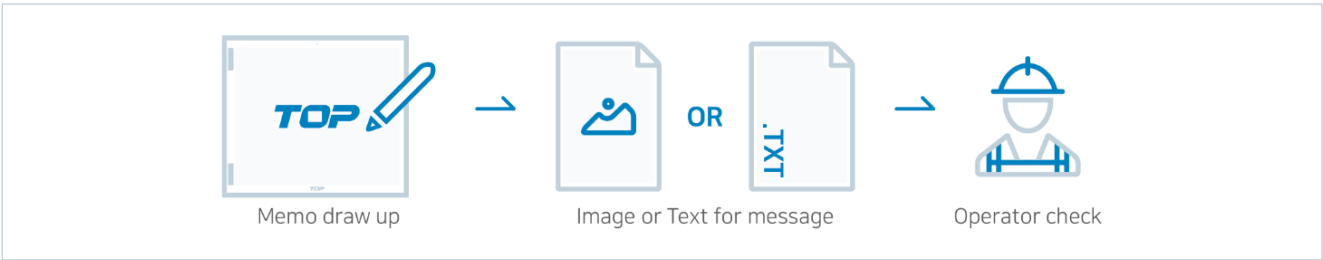
10. HSMS SECS GEM Protocol for Semiconductor Industry

Communication for Variable/Alarm/Report/Event/Item/Message/Host command and remote command/limit monitoring



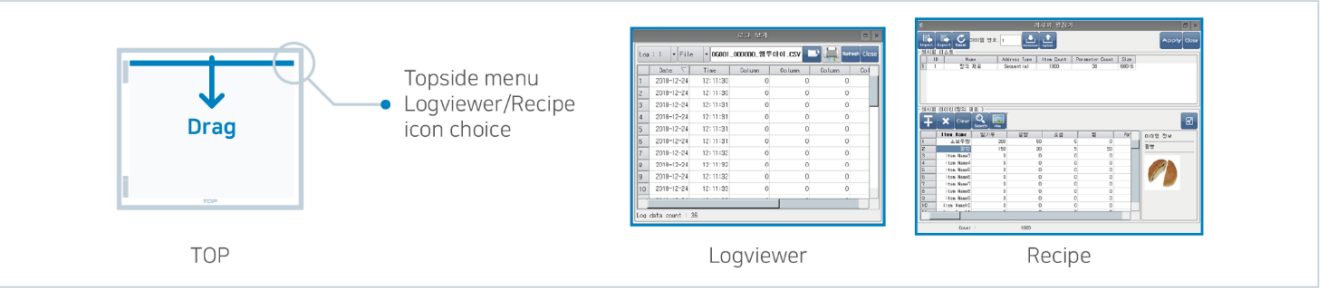
11. Memo Write/Read for Operator

Memo function with text/drawing mode on the spot is possible. Saved memo can be checked by a selected operator.



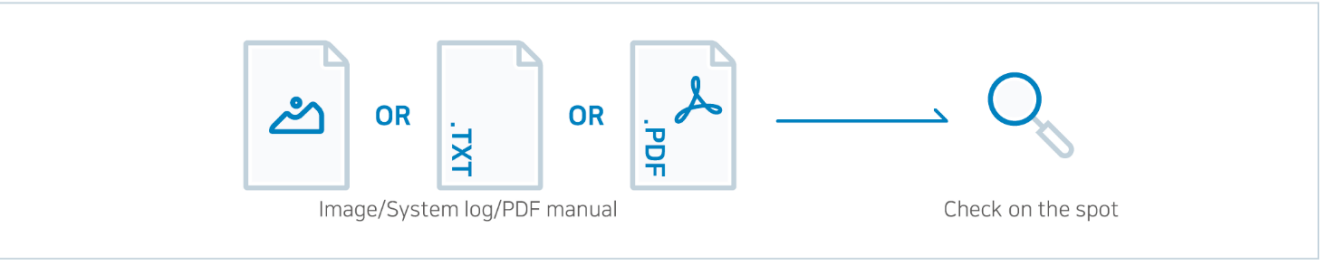
12. Log/Recipe Data Monitoring, Always On The Spot

There is Logviewer/Recipe menu in Top side menu, showed when you drag from upper outside to inside. [Logviewer' menu is a table format viewer for log file even in SD card. [Recipe editor] menu is also table format for recipe data in TOP's memory and editable of item names or data. So, additional object on the screen is not needed to check log/recipe data on the spot anytime.



13. File Checking On The Spot, with Image/Text/PDF viewer

Screen captured images, text files like system log, and manuals in PDF format can be monitored immediately on TOP without transfer to Laptop or PC.



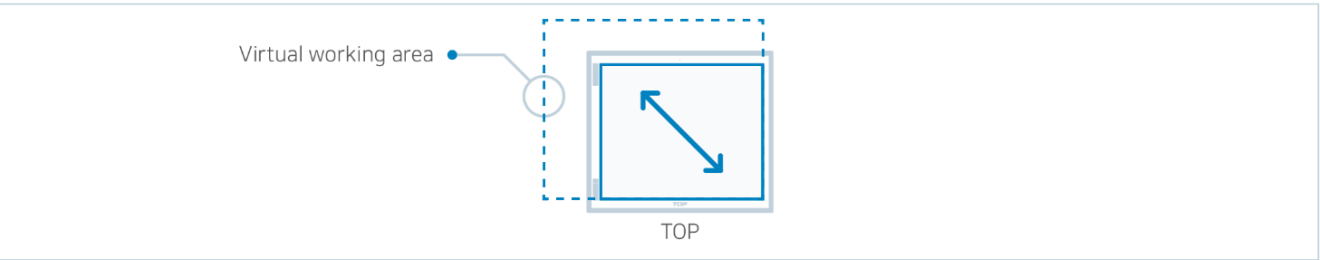
14. Project Change without PC, On The Spot

Using project browser menu, project launch file(HBZ) in USB memory/SD card/TOP internal memory can be selected. When the [OK] button is pushed, project can be changed on the spot.



15. Wider Use by Zoom Screen Function

Virtual working space, which is bigger than product's resolution, is supported.



Solid and High-Performance Hardware

Smarter

TOPR,RX,RW,RE,RH support QUAD CORE CPU, 16M FULL COLOR

QUAD CORE CPU

Extraordinary speed

16M FULL COLOR

Clean and detail display with bright and clear touch screen

Convenient TOP Menu

Top-side menu bar shows by drawing down from top side of screen. When EXIT button is pushed, screen is changed to menu screen. They are organized with Icons, and supporting korean/english. This menu support variable information and convenient functions.

Top-side menu



Menu screen



Menu screen with icon UI like PC, which is more familiar. (Supporting VNC viewer, FTP, Project browser, File browser, Screen shot, Control panel, Information, etc)

Supplying various functions in menu as, Communication Status Checking/Touch Sensing Test and Calibration/Data Move/Setting Changes/Information Display. Menu Screen can be protected and managed by Admin Password functions.

Certificates



Representative Interfaces

USB OTG

Convertible port between ‘Transmitter mode’ to transfer the program and ‘Host mode’ to connect USB devices like memory, barcode reader, or camera.

SD Card

Saving data like Log/Alarm/Recipe, Up/Downloading files like Project/Image/Video/Text, and Recovery disk.

Ethernet Port

Connect with PLC, PC, camera, barcode reader, etc.

Rear USB HOST Port

Connect with barcode reader, camera, memory, etc.

Serial Port

Connect with PLC, servo, temp controller, barcode reader, etc.

This description introduces common ports for all series M2l supports, so each model’s available port can be different. Please check exact port configuration in specifications and draws of each model.

Connectable Devices by Serial/Ethernet Port

Manufacturer	Series	CPU Type	RS-232C/422/485	Ethernet
PLC	MELSEC-Q	Q□□/00J/□□H/□□UDH/□□UDEH	●	●
	MELSEC iQ-R	R□□	●	●
		FX0/1/2/1S/1N/2N/2NC	●	
	MELSEC-FX	3U/3UC/3G	●	● (ENET-ADP)
	MELSEC iQ-F	10/20GM	●	
MITSUBISHI Electronic Corporation		5U/5UC	●	●
		A1N/2N/3N	●	●
	MELSEC-A	A1S(H)/2S(H)/AOJ2(H)	●	●
		A2A/3A/2A-S1	●	●
		A2U/3U/4U/2USH	●	●
	SYSMAC CJ2	CJ2H	●	●
	SYSMAC CJ1	CJ1G/1M	●	●
	SYSMAC CS1	CS1G/H	●	●
	NJ	NJ□□□		●
	NX	NX□□□		●
OMRON Industrial Automation	SYSMAC CP	CP1L/1H	●	●
		C50/120/200/500/1000	●	
	SYSMAC C	CQM1/1H	●	
		CPM1/2A/2C	●	
	Mobile Robot LD	LD60/LD90		●
	XGT	XGI/XGR/XEC/XMC	●	
	XGB	XGK/XBM/XBC	●	●
	GLOFA-GM	GM1/2/3/4/6/7	●	●
		80/120/200/300/1000S	●	●
		10S1/10/30/60/100S	●	
LS Industrial Systems	Master-K	50/200H	●	
		500(H)/1000	●	
	SIMATIC S7-1200	All models		●
	SIMATIC S7-1500	All models		●
	SIMATIC S7-400	All models	●	●
SIEMENS AG.	SIMATIC S7-300	All models	●	●
	SIMATIC S7-200	All models		●
	LOGO!	0BA8		●
	SIMATIC S5	90/95/100/115/135/155U	●	
	ControlLogix	1756	●	●
Rockwell Automation(Allen Bradely)	CompactLogix	1768/1769	●	●
	MicroLogix	1000/1200/1500 system	●	●
	SLC500	SLC5/03/04/05	●	●
	PLC-5	PLC5/11/20/30/40/40L/60/60L	●	
	MODBUS	All models	●	
MODBUS	MODBUS/TCP	All models		●
GE Fanuc Intelligent Platforms	Series 90-30 PLC	IC693C□□□□□	●	●
	Series 90-70 PLC	IC697C□□□□□	●	●
	Micro	TSX37 All models	●	
	Premium	TSX/TPMX P57 All models	●	●
	Twido	TWD LCAA/LMDA All models	●	
Schneider Electric Industries	Quantum	140 CPU All models	●	●
	Momentum	171 CCS/CCC All models	●	●
	M340	M340	●	●
	PANASONIC Electric Works	FP	●	●
	YASKAWA Electric Corporation	MP900/2000/3000	●	●
YOKOGAWA Electric Corporation	SR100	SR100		●
FUJI Electric	FA-M3	F3SP□□-□N/H/S	●	●
	Micrex-SX	SPH□□□	●	●
	Micrex-F	F, F□□(S/H), F1□□(S/H), F200	●	●
		KV-700/1000/3000/5000/7000/8000	●	●
		KV-10/24	●	
KEYENCE Corporation	KV	Nano	●	●
KOYO Electronic Industries	DL-205/305/405	D2 240/330/430	●	
	FBs	FBs-□□MA/MC/MN	●	●
	FBe	FBe-□□MA/MC	●	
	FBn	FBn-□□MCT	●	
	Alpha	N7/NX(70/700/750/CCU)	●	
RS Automation	Plus	NX7/NX Plus(70P/700P/CCU+)	●	
	SPC	SPC-10/100/120S/300	●	
	N7_NX	70./700/750	●	●
	X8	All models	●	●
	CM1	XP/CP	●	●
KDT Systems	CM2	BP	●	●
	CM3	S/SB	●	●
	T / V	All models	●	
	Comfile Technology	TCP-3X/9X	●	
		EH-150	●	
Hitachi Industrial Equipment Systems	HIDIC-H	Micro EH	●	

Manufacturer	Series	CPU Type	RS-232C/422/485	Ethernet
Delta	DVP	DVP series	●	
VIGOR Electric Corporation	M/VB/VH	M series / VB series / VH series	●	
HONEYWELL	HC900		●	●
IDEC Corporation	MicroSmart	FC3/FC4A	●	●
HAWE Hydraulik	PLVC	PLVC	●	
	ACON	ACON-CB/CGB/C/CA/CG/SE/CY	●	
	PCON	PCON-CB/CGB/CFB/CGFB/CA/CFA/C/CG/CF/SE/CY	●	
IAI Corporation	SCON	SCON-CB/CGB/CB-F/CA/CAL/CGAL/C	●	
	RCP6	RCP6S	●	
	ERC	ERC2/3	●	
	XSEL	XSEL-J/K/JX/KX/P/Q/PX/QX	●	
BECKHOFF	TwinCAT	TwinCAT supporting ADS/AMS		●
Azbil Corporation	SDC, DCP, DMC, CMC	SDC, DCP, DMC, CMC	●	
CODESYS	CODESYS V2		●	●
	CODESYS V3			●
B&R Automation	X20	X20	●	
JTEKT	TOYOPUC	PC10G, PC3J/PC3JX, Plus	●	●
Temperature Controller				
	SRV	V-TIO-A/V-TIO-C	●	
RKC Instrument	SRX	X-TIO-A	●	
	SR Mini HG	H-PCP-A/H-PCP-J	●	
	SRZ	Z-TIO/DIO/CT/COM	●	
HanyoungNux	NP200/100	All models	●	
	NX, PX	NX9/7/3/2, PX9/7	●	
	RT	RT9	●	
	UX100	UX100	●	
SamwonTech	NOVA500	SD5□□/SL5□□/SP5□□/ST5□□	●	
	NOVA300	SD3□□/SS3□□/ST3□□	●	
	SP790	SP7□□	●	
YOKOGAWA Electric Corporation	UT/UP/UM	UT(/UP/UM/UD)3/4/5/7/10□□	●	
CHINO Corporation	DB	DB1/DB2 All models	●	
	KP	KP1/2/3 All models	●	
	LT	LT2/3/4/8/30 All models	●	
	JU	JU All models	●	
	JW	JW All models	●	
Human Automation	TSD	V5-SC1T	●	
On Off Sstern	HSD	NE0S-HSD	●	
TOHO	TTM	TTM-00□	●	
TemcoLine	T50	T5□	●	
	N50	N5□	●	
	M74	M74	●	
Invertor				
LS Industrial Systems	Starvert Inverter	SV-IS7/G5A/P5A/C5/V5/G5/S5/H/V/S3	●	
FUJI Electric Systems	Inverter	FRN□□□□11S-□	●	
Weight Indicator				
AND	AD	AD4326/4327/4328/4329	●	
CAS	CI/NT	CI/NT	●	
	XB	XB	●	
	CI-1580A	CI-1580A	●	
BONGSHIN	BS	BS	●	
SEHWA CNM	SI	SI-4□□□	●	
Shinhan Electronics	SH	SH-5100	●	
MINEBEA	CSD	CSD-912/912B-EX/903/904-EX/891B/815B/701B/709/819C/401	●	
Barcode Reader				
General Barcode Reader	Barcode	USB/RS-232C	●	
KEYENCE Corporation	Barcode	BL-1300 Sereis	●	
OMRON Industrial Automation	Barcode	MicroHAWK Barcode Reader		●
Cognex Corporation	Barcode	DataMan Series		●
OPTION	Barcode	NLV		●
KEYENCE Corporation	Barcode	SR Series(SR1000/SR1000W/SR-X300/SR-X300W)	●	●
RFID Reader				
OMRON Industrial Automation	RFID	V680	●	
		V680S		●
LS Industrial Systems	RFID	XCODE-1306/1307	●	
CEYON Technology	RFID	TRA5		●
		CRE1356		●
SICK AG	RFID	RFH6xx	●	
SYSTEMK	RFID	HFR-2AM/4AM		●
Motion Controller				
DST ROBOT(former DONGBU)	iMS-J	iMS-J	●	
	iM-Σ	iM-Σ2/3/4/5/6/7/8	●	
	iM-U		●	●
	DTR	DTR2/3/4	●	
ROBOSTAR	Newro	RCS6000/RCM	●	
EMOTIONTEK	MCU	MCU-MA/MP/XA/XP	●	
	MCU2	MCU-MA2/MP2/XA2/XP2	●	

Manufacturer	Series	CPU Type	RS-232C/422/485	Ethernet
	MCS	MCS-80A4/P4/A8/P8	●	
	MCSH	MCSH-1/2/16/80	●	
	MCST	MCST-16		●
	MDA	MDA7000	●	
OMRON Industrial Automation	Campositioner	3F88L-160/162	●	
		Plus-R	●	
FASTECH	Ezi-Servo	Plus-E		●
Gidding & Lewis	MMC	MMC	●	●
TOSHIBA	COMPO	COMPO ARM ROBOT	●	
Lenze	L-Force	L-Force servo		●
Delta-Tau	PMAC	PMAC	●	●
MISUMi	EXRS-C1	EXRS-C1	●	
CSCAM	GX	All models	●	
Servo				
MITSUBISHI Electronic Corporation	MELSERVO	MR-J2S/M, MR-J3, MR-J4	●	
HIGEN Motor(former OTIS)	FDA	FDA6000/7000	●	
LS MECAPION(former Metronix)	Anypack	APD-VS/VP/VK/VN□□	●	
	MXQ	MXQ-20/21/40/41	●	
Parker Hannifin	Compax3	All models	●	
LinMot	LinRS	B1100/E1100/E1200/E1400	●	
Screw Driver				
KOLVER Srl	EDU	2AE/TOP/TA/MITO	●	
	MT Focus	400	●	
Atlas Copco	Power Focus	6000	●	●
TOHNICHI	CEM/CTB	CEM3-G/CTB2-G	●	
SEHAN Electools	SHC	All models	●	
Measurement				
YOKOGAWA Electric Corporation	Chart Recorder	μR10000/20000		●
SAMAHN TECH	Air Speed Meter		●	
Ophir Optronics Solutions	Laser Power Meter	Nova II - Thermopile	●	
ROOTECH	Digital Power Meter	Accura Series	●	●
Green Power	CPS	CPS Master / Slave	●	
DONGDO TECH	ML	ML Series	●	
SERVOMEX	DF	DF-3□□E, DF-7□□	●	
Tiger Optics	HALO	HALO KA, HALO 3	●	
MKP	MFC	VIC-D2000 Series	●	
OMRON Industrial Automation	EQUO Series	Air Thermo Station		●
SCS	A100	A100-Series	●	
Wireless Data Receiver				
PATLITE	WDR	WDR-LE-Z2		●
Multiplexer				
S.I TECH	MUX	MUX	●	
Camera				
S & E	TMS	TMS 080/160		●
Motor				
CKD	ABSODEX	All models	●	
Printer				
ZEBRA	Printer	Printer	●	●
DDC				
ASIC	DDC	DDC	●	
Speed tech	ExtDDC	ST/PS, ST/RS, ASIC/2-7040	●	
Fieldbus				
EtherCAT				●
CANopen			●	
Ethernet/IP				●
Industrial Control System				
OPC UA				●
Building Automation				
BACnet/IP				●
BACnet/MSTP			●	
Power System Automation				
IEC 60870-5-101			●	
DNP3				●
Image Stream				
Cognex Corporation	Insight Vision	Insight Vision		●
Leuze Electronic	IPS 200i	IPS 200i		●
Other Standard Protocol				
SECS	HSMS			●
IP Camera	RTSP/RTP			●
NMEA0183			●	
IPC-Hermes Standard	IPC-Hermes	Upstream/DownStream		●

* This connectable device list can be changed and updated per development situation



Detachable Aluminum Body with Multimedia Functions
Premium/Standard/ATEX Model

EMBEDDED HMI

SMART X HMI



INTERFACE

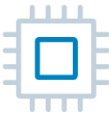
SERIAL 3 PORTS | ETHERNET 2 CHANNEL | USB HOST 2 PORTS | USB OTG | SD CARD
OPTION MODULE | CAMERA | HDMI OUT | AUDIO OUT | VIDEO IN

* Multimedia functions are supported only in premium model

CERTIFICATION



FEATURES



QUAD CORE CPU

Quad core processor supplying rapid processing speed



ALUMINUM FRAME

Aluminum body with outstanding durability and splendid design



SUPPORTING 2 ETHERNET CHANNELS

2 Ethernet channels with different IP



T6 TEMPERATURE LEVEL CERTIFICATION

KCs(Korea), CCC(China), ATEX(Europe), Hazloc(North America), IECEx(Global) certification



16M FULL COLOR

Bright and vivid full color, supports vector image library



DETACHABLE UNIT STRUCTURE

Efficient combinaton of variable-size display unit and process unit depend on system requirement



FRONT-SIDE OTG USB

Supporting both HOST mode(USB devices i.e.memory, barcode reader, camera, etc) and program transmission mode



MULTIMEDIA FEATURE(PREMIUM MODEL)

Front-side camera, audio output, video input, HDMI output

DISPLAY UNIT

PREMIUM MODEL

Functional		TOPRD1520X	TOPRD1220X	TOPRD1020S
Display	Display Type	15" TFT Color	12.1" TFT Color	10.4" TFT Color
	Color		16M Colors	
	Display Area(mm)	304.1x228.1	246x184.5	211.2x158.4
	Resolution(dot)	1024x768	1024x768	800x600
	Brightness Level		10 Levels(by software)	
	Backlight Type		LED	
Touch	Backlight Life		50,000 hours	
	Touch Type		Analog resistive film	
	Resolution(Cell)	1024x768	1024x768	800x600
	Touch Life		1 million times or more	
Embedded Device	Front Camera		USB UVC Max. Resolution: 640x480	
Structure	Panel Cut(mm)	355x286	306x247	260x202
	External Dimension(mm)	370x301x36.7	320x261x34.2	276x219.5x32.6
	Weight(kg)	3.58	2.44	1.88

PROCESS UNIT

* Process unit can be assembled with variable display units

Functional		TOPRP20D
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM3	RS-485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: 3.5mm 3pin x 1
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 2
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Micro-B(Front) x 1
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
	Option Modules	CAM32
	HDMI Output	HDMI v1.4a, HDMI Output, Max. Resolution: 1920x1080 at 60Hz Connector: HDMI x 1
	Video Input	Decodes NTSC, PAL or SECAM composite video, S-Video Connector: RCA socket x 1
Memory & Others	Audio Output	Stereo output Connector: 3.5mm Audio socket x 1
	Printer	Roll Printer(EPSON protocol)
	Screen memory	128MB
	Backup memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe
	Backup Period	Permanent
	Real Time Clock	Built in
	Status LED	3 LEDs(Power, Operation, Link) Built in
	External Dimension(mm)	201.6x147.6x37.3
	Weight(kg)	0.82

DISPLAY UNIT

STANDARD MODEL

Functional		TOPRD1510X	TOPRD1210S	TOPRD1010S
Display	Display Type	15" TFT Color	12.1" TFT Color	10.4" TFT Color
	Color		16M Colors	
	Display Area(mm)	304.1x228.1	246x184.5	211.2x158.4
	Resolution(dot)	1024x768	800x600	800x600
	Brightness Level		10 Levels(by software)	
	Backlight Type		LED	
Touch	Backlight Life		50,000 hours	
	Touch Type		Analog resistive film	
	Resolution(Cell)	1024x768	800x600	800x600
	Touch Life		1 million times or more	
Structure	Panel Cut(mm)	355x286	306x247	260x202
	External Dimension(mm)	370x301x36.7	320x261x34.2	276x219.5x32.6
	Weight(kg)	3.58	2.44	1.88

PROCESS UNIT

* Process unit can be assembled with variable display units

Functional		TOPRP10D
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM3	RS-485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: 3.5mm 3pin x 1
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 2
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Micro-B(Front) x 1
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
	Option Modules	EtherCAT, CAM32
	Printer	Roll Printer(EPSON protocol)
	Screen memory	128MB
Memory & Others	Backup memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe
	Backup Period	Permanent
	Real Time Clock	Built in
	Status LED	3 LEDs(Power, Operation, Link) Built in
Structure	External Dimension(mm)	201.6x147.6x37.3
	Weight(kg)	0.82

DISPLAY + PROCESS UNIT

PREMIUM/STANDARD MODEL

Functional		15"	12.1"	10.4"
Power	Input Voltage		24Vdc(20~28Vdc)	
	Power Consumption	18W	15W	15W
	Voltage Sag		24Vdc, Within 10ms	
	Insulation Resistance		500Vdc, 10MΩ	
	Operation Temperature(℃)		-10 ~ +50	
Environment	Storage Temperature(℃)		-20 ~ +60	
	Operation Humidity(%RH)		0 ~ 90(No Dew)	
	Atmosphere		No corrosive gas	
	Vibration Endurance		Amplitude: 10sF < 25Hz(2G) X,Y,Z each direction(for 30 minutes)	
	Noise Immunity		1000Vp-p(Pulse width 1μs)	
	Static Electricity Discharge		Connective discharge from EN61000-4-2: ±4kV	
	Shock Endurance		10G X,Y,Z each direction(for 3 times)	
	Ground Connection		Class 3(100Ω or less)	
	Protection Classification		IP65(Front)	
	Certification		CE, KC, UL	
Structure	Weight(kg)	4.4	3.26	2.7
	Cooling System		Natural air circulation	
	Case Material		AL(Aluminum)	

DISPLAY UNIT

Functional		TOPRT1210SD-Ex
Display	Display Type	12.1" TFT Color
	Color	16M Colors
	Display Area(mm)	246x184.5
	Resolution(dot)	1024x768
	Brightness Level	10 Levels(by software)
Touch	Backlight Type	LED
	Backlight Life	50,000 hours
	Touch Type	Analog resistive film
	Resolution(Cell)	1024x768
	Touch Life	1 million times or more
Embedded Device	Front Camera	USB UVC Max. resolution: 640x480, 4 Adjustable angles: Up 20°, 10°, 0°, Down 10°
Structure	Panel Cut(mm)	306x247
	External Dimension(mm)	320x261x34.2
	Weight(kg)	2.44

ATEX MODEL

PROCESS UNIT

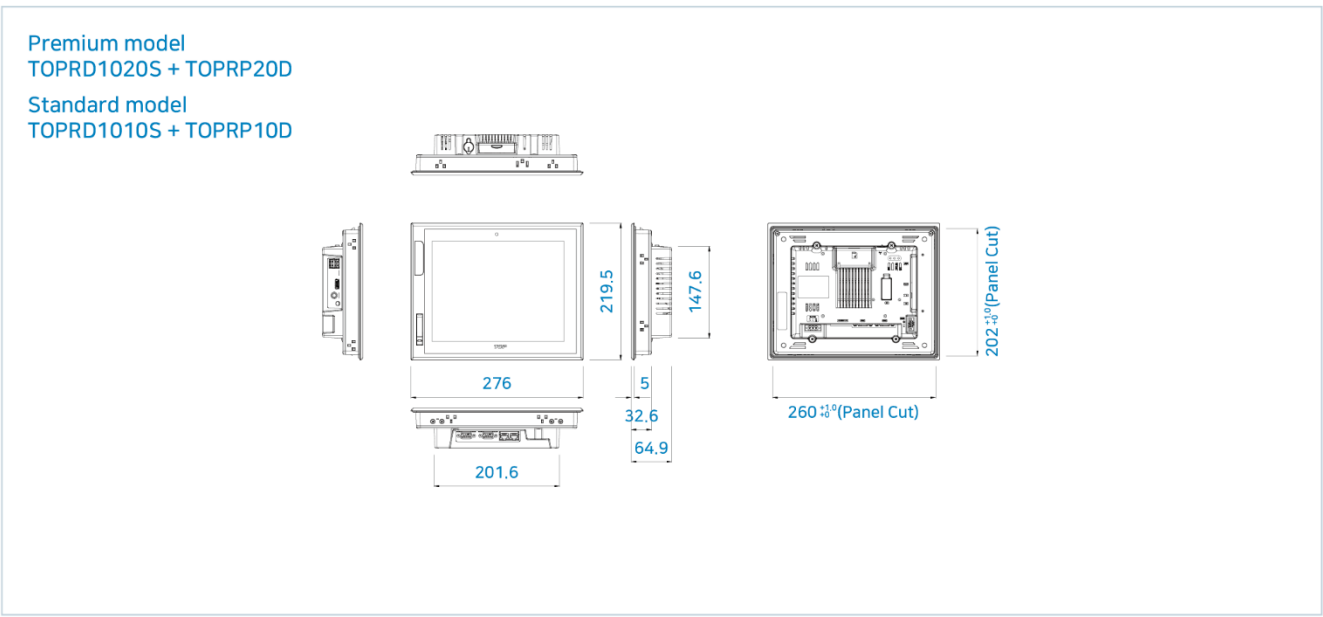
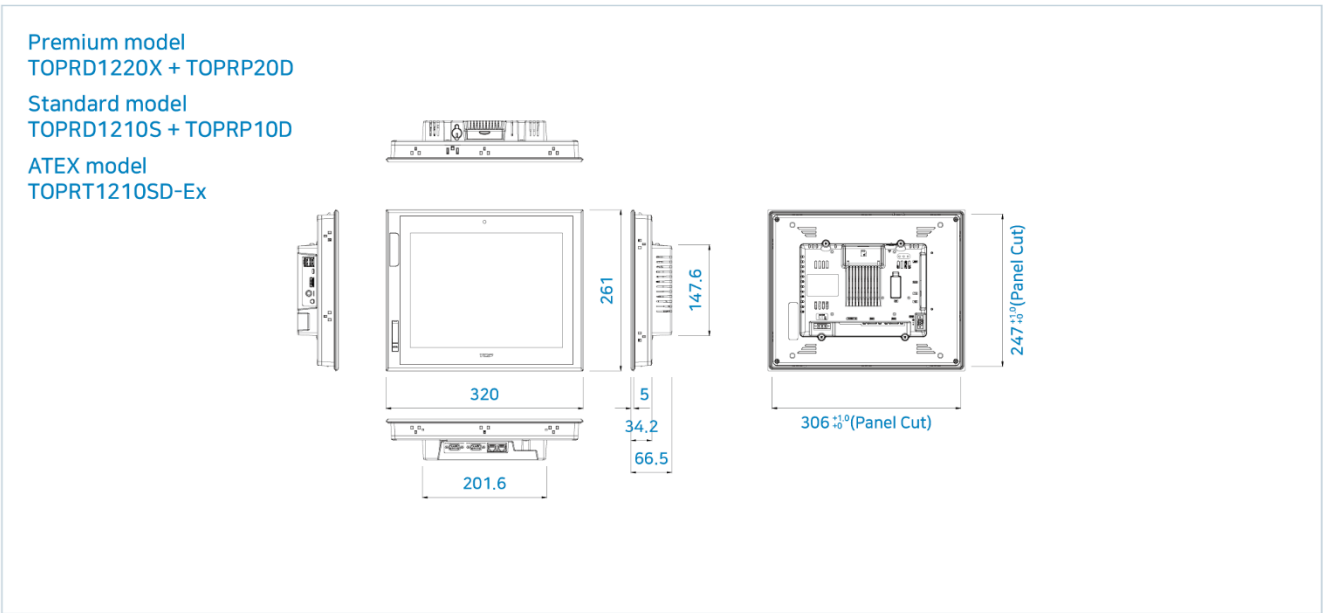
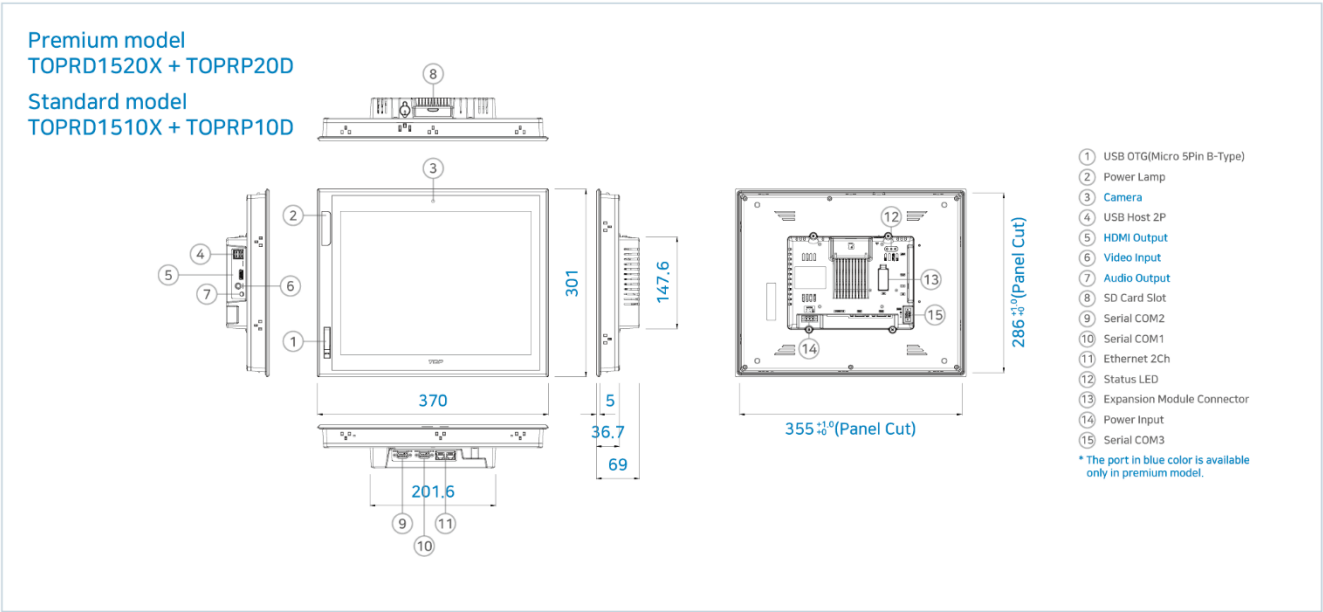
Functional		TOPRT1210SD-Ex
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM3	RS-485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connection: 3.5mm 3pin x 1
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 2
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Micro-B(Front) x 1
	SD Card	SD Card Slot x 1, SDHC(Max. 32GB)
	Option Modules	EtherCAT, CAM32
	Printer	Roll Printer(EPSON protocol)
	Screen Memory	128MB
Memory & Others	Backup Memory	512KB: System Buffer(10K Word), including Alarm/Logging/Recipe
	Backup Period	Permanent
	Real Time Clock	Built in
	Status LED	3 LEDs(Power, Operation, Link) Built in
Structure	External Dimension(mm)	201.6x147.6x37.3
	Weight(kg)	0.82

DISPLAY + PROCESS UNIT

Functional		TOPRT1210SD-Ex
Power	Input Voltage	24Vdc(20~28Vdc)
	Power Consumption	15W
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
Environment	Operation Temperature(°C)	-10 ~ +50
	Storage Temperature(°C)	-20 ~ +60
	Operation Humidity(%RH)	0 ~ 90(No Dew)
	Atmosphere	No corrosive gas
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X,Y,Z each direction(for 30 minutes)
	Noise Immunity	1000Vp-p(Pulse width 1μs)
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV
	Shock Endurance	10G X,Y,Z each direction(for 3 times)
	Ground Connection	Class 3(100Ω or less)
	Protection Classification	IP65(Front) for CE/KC/UL, IP54(Front) for CCC, IP4X(Front) for KCs
Structure	Certification	CE, KC, UL, KCs, CCC, ATEX, IECEx, Hazloc
	Weight(kg)	3.26
	Cooling System	Natural air circulation
	Case Material	AL(Aluminum)

DRAWING

* Each inch model's blueprint size of premium model and standard model are same
* Each port's name and position are referred to 15 inch model's blueprint





The Series Developed TOPR's Function from
XTOP Products

Normal/EX Model

EMBEDDED HMI

SMART X HMI



INTERFACE

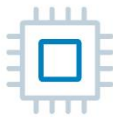
SERIAL 3(2) PORTS | ETHERNET 2(1) CHANNEL | USB HOST | USB OTG | SD CARD

* 15", 12", 10", 8", 5" please check the number of ports by each model

CERTIFICATION



FEATURES



QUAD CORE CPU

Quad core processor supplying rapid processing speed



TOUCH DRAG FEATURE

Available touch drag to make a picture memo or scroll down to appear top-side menu



COMPATIBILITY WITH XTOP SERIES

Same panel cut size of XTOP series easy to replace discontinued XTOP model



FRONT-SIDE OTG USB

Supporting both HOST mode(USB devices i.e.Memory, barcode reader, etc) and program transmission mode



16M FULL COLOR

Bright and vivid full color, supports vector image library



RRFIND INTEGRATED BODY

Refined integrated body with advantage of easy



SUPPORTING 2 ETHERNET CHANNELS

2 Ethernet channels with different IP (10" or upper model)



T6 TEMPERATURE LEVEL CERTIFICATION

KCs(Korea), CCC(China), ATEX(Europe), Hazloc(North America), IECEx(Global) certification

TOPRX SPECIFICATIONS

Functional		General model	TOPRX 1500XD	TOPRX 1200XD	TOPRX 1200SD	TOPRX 1000SD	TOPRX 1000VD	TOPRX 0800SD	TOPRX 0800VD	TOPRX 0500VD
		Explosion proof model	TOPRX 1500XD-Ex	TOPRX 1200XD-Ex	TOPRX 1200SD-Ex	TOPRX 1000SD-Ex	TOPRX 1000VD-Ex			
Display	Display Type	15" TFT Color	12.1" TFT Color	12.1" TFT Color	10.4" TFT Color	10.4" TFT Color	8.4" TFT Color	8.4" TFT Color	5.6" TFT Color	
	Color	16M Colors								
	Display Area(mm)	304.1x228.1	246x184.5	246x184.5	211.2x158.4	211.2x158.4	170.4x127.8	170.9x128.2	112.9x84.7	
	Resolution(dot)	1024x768	1024x768	800x600	800x600	640x480	800x600	640x480	640x480	
	Brightness Level	10 Levels(by software)								
	Backlight Type	LED								
Touch	Backlight Life	50,000 hours								
	Touch Type	Analog resistive film								
	Resolution(cell)	1024x768	1024x768	800x600	800x600	640x480	800x600	640x480	640x480	
	Touch Life	1 million times or more								
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1								
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1								
	Serial COM3	RS-485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: 3.5mm 3pin x 1	Not available							
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 2						IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 1		
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 1								
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B(Front) x 1								
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)								
	Printer	Roll Printer(EPSON protocol)								
Memory & Others	Screen Memory	128MB								
	Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe								
	Backup Period	Permanent								
	Real Time Clock	Built in								
Power	Status LED	3 LEDs(Power, Operation, Link) Built in								
	Input Voltage	24Vdc(20~28Vdc)								
	Power Consumption	18W	15W	12W						
	Voltage Sag	24Vdc, Within 10ms								
Environment	Insulation Resistance	500Vdc, 10MΩ								
	Operation Temperature(℃)	-10 ~ +50								
	Storage Temperature(℃)	-20 ~ +60								
	Operation Humidity(%RH)	0 ~ 90(No dew)								
	Atmosphere	No corrosive gas								
	Vibration Endurance	Amplitude: 10sF<25Hz(2G) X,Y,Z each direction(for 30 minutes)								
	Noise Immunity	1000Vp-p(Pulse width 1μs)								
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV								
	Shock Endurance	10G X,Y,Z each direction(for 3 times)								
	Ground Connection	Class 3(100Ω under)								
Structure	Protection Classification	General model: IP65(Front), Explosion proof model: IP54(Front) for CCC, IP4X(Front) for KCs								
	Certification	General model: CE, KC, UL Explosion proof model: CE, KC, UL, KCs, CCC, ATEX, IECEx, Hazloc								
	Panel Cut(mm)	355x286	306x247	306x247	260x202	260x202	222x168	222x168	158x126	
	External Dimension(mm)	369x300x67.2	320x261x64.7	320x261x64.7	274x216x64.7	274x216x64.7	236x182x58.9	236x182x58.9	172x140x58	
	Weight(kg)	2.78	2.18	2.18	1.68	1.68	1.06	1.06	0.62	
	Cooling System	Natural air circulation								
Case Material	PC(Resistance to flame)									

DRAWING

Standard model
TOPRX1500XD

EX model
TOPRX1500XD-Ex

Front view dimensions: 369 (width), 300 (height), 6 (depth), 67.2 (bottom depth).
Panel cut view dimensions: 355±0.5° (width), 286±0.5° (height).

- 1 USB OTG(Mini 5Pin B-Type)
- 2 USB Host 1P
- 3 Ethernet 2Ch
- 4 Serial COM2
- 5 Serial COM1
- 6 SD Card Slot
- 7 Status LED
- 8 Power Input
- 9 Serial COM3

Standard model
TOPRX1200XD
TOPRX1200SD

EX model
TOPRX1200XD-Ex
TOPRX1200SD-Ex

Front view dimensions: 320 (width), 261 (height), 6 (depth), 64.7 (bottom depth).
Panel cut view dimensions: 306±0.5° (width), 247±0.5° (height).

- 1 USB OTG(Mini 5Pin B-Type)
- 2 USB Host 1P
- 3 Ethernet 2Ch
- 4 Serial COM2
- 5 Serial COM1
- 6 SD Card Slot
- 7 Status LED
- 8 Power Input
- 9 Serial COM3

Standard model
TOPRX1000SD
TOPRX1000VD

EX model
TOPRX1000SD-Ex
TOPRX1000VD-Ex

Front view dimensions: 274 (width), 216 (height), 6 (depth), 64.7 (bottom depth).
Panel cut view dimensions: 260±0.5° (width), 202±0.5° (height).

- 1 USB OTG(Mini 5Pin B-Type)
- 2 USB Host 1P
- 3 Ethernet 2Ch
- 4 Serial COM2
- 5 Serial COM1
- 6 SD Card Slot
- 7 Status LED
- 8 Power Input
- 9 Serial COM3

Standard model
TOPRX0800SD
TOPRX0800VD

Front view dimensions: 236 (width), 182 (height), 6 (depth), 58.9 (bottom depth).
Panel cut view dimensions: 222±0.5° (width), 168±0.5° (height).

- 1 USB OTG(Mini 5Pin B-Type)
- 2 USB Host 1P
- 3 Ethernet 1Ch
- 4 Serial COM2
- 5 Serial COM1
- 6 SD Card Slot
- 7 Status LED
- 8 Power Input

Standard model
TOPRX0500VD

Front view dimensions: 172 (width), 140 (height), 6 (depth), 58 (bottom depth).
Panel cut view dimensions: 158±0.5° (width), 126±0.5° (height).

- 1 USB OTG(Mini 5Pin B-Type)
- 2 USB Host 1P
- 3 Ethernet 1Ch
- 4 Serial COM2
- 5 Serial COM1
- 6 SD Card Slot
- 7 Status LED
- 8 Power Input



With a Wider Screen
TOPRW Series

EMBEDDED HMI

SMART X HMI



INTERFACE

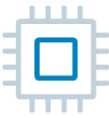
SERIAL 2 PORTS | ETHERNET 1 CHANNEL | [USB HOST](#) | USB OTG | SD CARD

* USB HOST functions is supported only in 10" and 7"

CERTIFICATION



FEATURES



QUAD CORE CPU

Quad core processor supplying rapid processing speed



16M FULL COLOR

Bright and vivid full color, supports vector image library



TOUCH DRAG FEATURE

Available touch drag to make a picture memo or scroll down to appear top-side menu



REFINED INTEGRATED BODY

Refined integrated body with advantage of easy



800x480 HIGH RESOLUTION

With 10", 7", 5" wide screen ratio, expansion of work-area available



COMPATIBILITY WITH XTOP SERIES

With same panel cut size of XTOP, easy to replace discontinued XTOP model



FRONT-SIDE OTG USB

Supporting both HOST mode(USB devices i.e.Memory, barcode reader, etc) and program transmission mode

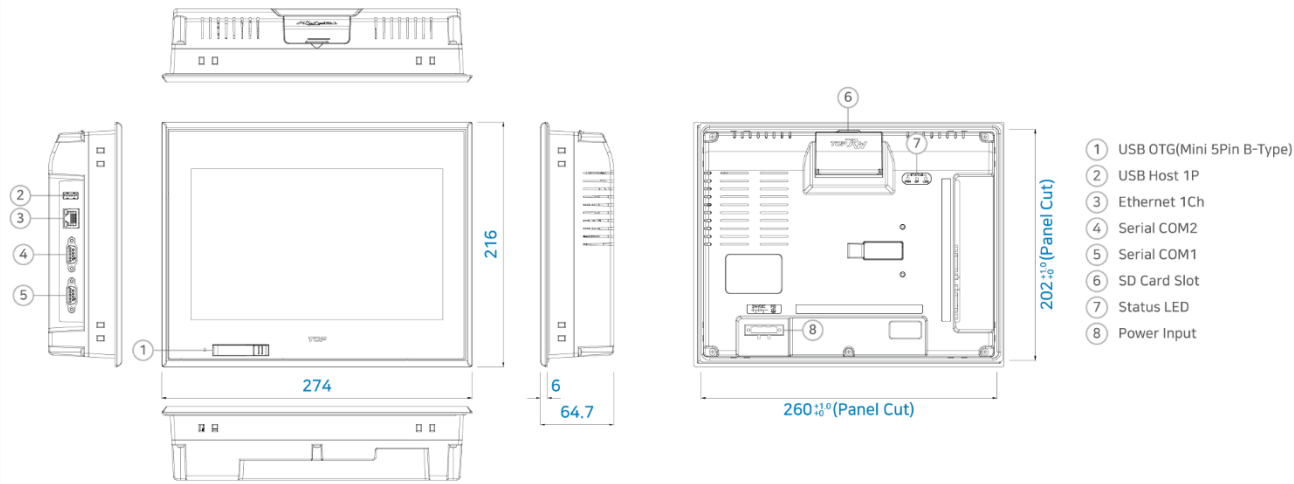
TOPRW SPECIFICATIONS

Functional		TOPRW1000WD	TOPRW0700WD	TOPRW0700WD NE	TOPRW0500WD
Display	Display Type	10.2" TFT Color	7" TFT Color		5" TFT Color
	Color		16M Colors		
	Display Area(mm)	222x132.48	154x86		108x64.8
	Resolution(dot)		800x480		
	Brightness Level		10 Levels(by software)		
	Backlight Type		LED		
Touch	Backlight Life		50,000 hours		
	Touch Type		Analog resistive film		
	Resolution(Cell)		800x480		
	Touch Life		1 million times or more		
Interface	Serial COM1		RS-232C Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1		
	Serial COM2		RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1		
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 1	Not available		IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 1
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 1			Not available
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol)			
			Connector: USB Mini-B(Front) x 1		Connector: USB Mini-B(Rear) x 1
	SD Card		SD Card Slot x 1, SDHC(MAX 32GB)		
	Printer		Roll Printer(EPSON protocol)		
	Screen Memory		128MB		
	Backup Memory		512KB: System buffer(10K Word), Including Alarm/Logging/Recipe		
Memory & Others	Backup Period		Permanent		
	Real Time Clock		Built in		
Power	Status LED		3 LEDs(Power, Operation, Link) Built in		
	Input Voltage		24Vdc(20~28Vdc)		
	Power Consumption	15W		12W	
	Voltage Sag		24Vdc, Within 10ms		
Environment	Insulation Resistance		500Vdc, 10MΩ		
	Operation Temperature(°C)		-10 ~ +50		
	Storage Temperature(°C)		-20 ~ +60		
	Operation Humidity(%RH)		0 ~ 90(No dew)		
	Atmosphere		No corrosive gas		
	Vibration Endurance		Amplitude: 10≤F<25Hz(2G) X,Y,Z each direction(for 30 minutes)		
	Noise Immunity		1000Vp-p(Pulse width 1μs)		
	Static Electricity Discharge		Connective discharge from EN61000-4-2: ±4kV		
	Shock Endurance		10G X,Y,Z each direction(for 3 times)		
	Ground Connection		Class 3(100Ω under)		
Structure	Protection Classification		IP65(Front)		
	Certification		CE, KC, UL		
	Panel Cut(mm)	260x202		197x127	136x100
	External Dimension(mm)	274x216x64.7		212x145x45.6	150x114x41.8
	Weight(kg)	1.7		0.72	0.4
	Cooling System		Natural air circulation		
	Case Material		PC(Resistance to flame)		

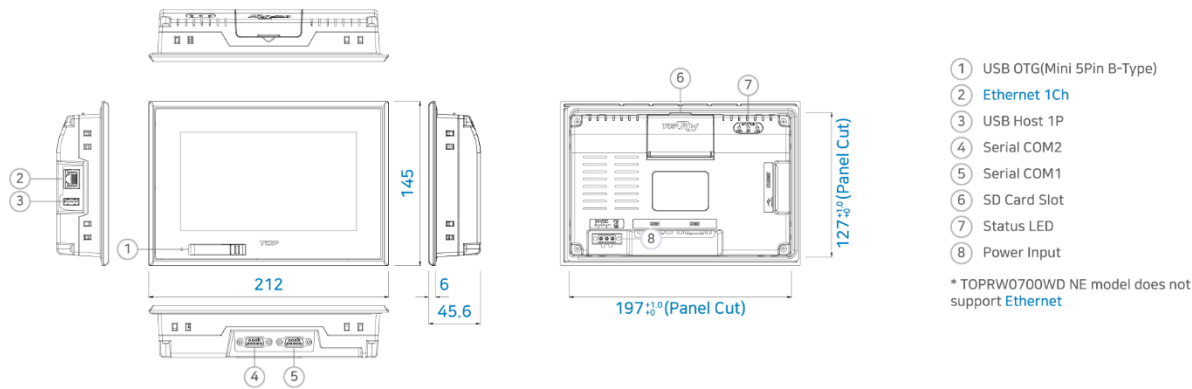
DRAWING

* TOPRW0700WD NE model does not support Ethernet

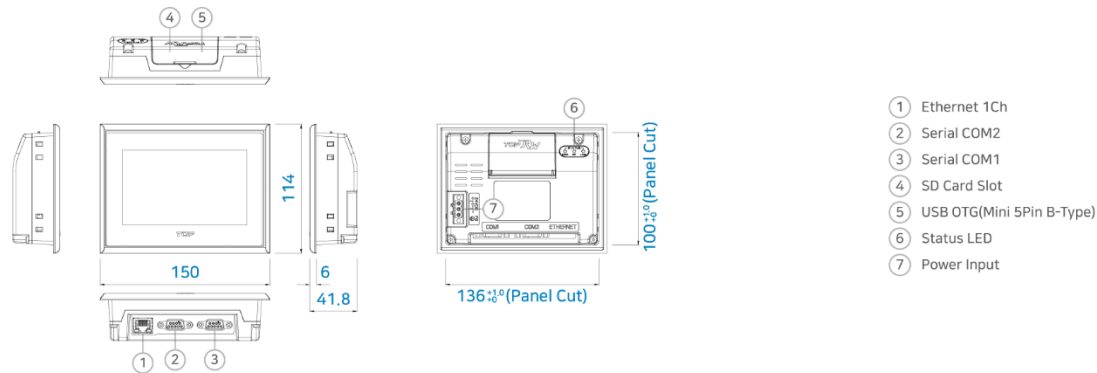
TOPRW1000WD



TOPRW0700WD
TOPRW0700WD NE



TOPRW0500WD





Integrated I/O HMI
with Flexible Composition and Control

TOPRW-IO Series

EMBEDDED HMI

SMART X HMI



INTERFACE

SERIAL 2 PORTS | ETHERNET 1 CHANNEL | USB HOST | USB OTG | SD CARD

CERTIFICATION



FEATURES



FLEXIBLE I/O SUPPORT

DIGITAL INPUT 16ch,
DIGITAL OUT SINK 16ch,
* ANALOG INPUT(Voltage 2ch, current 2ch),
* ANALOG OUTPUT(Voltage 2ch, current 2ch),
* RTD 2ch
* Analog and RTD are supported only
in TOPRW0700WD-IO



16M FULL COLOR

Bright and vivid full color,
supports vector image library



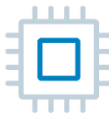
REFINED INTEGRATED BODY

Refined integrated body with advantage
of easy



COMPATIBILITY WITH XTOP SERIES

With same panel cut size of XTOP,
easy to replace discontinued XTOP model



QUAD CORE CPU

Quad core processor supplying rapid
processing speed



TOUCH DRAG FEATURE

Available touch drag to make a picture
memo or scroll down to appear top-side
menu



800x480 HIGH RESOLUTION

With 7" wide screen ratio,
expansion of work-area available



FRONT-SIDE OTG USB

Supporting both HOST mode(USB devices
i.e.Memory, barcode reader, etc)
and program transmission mode

TOPRW-IO SPECIFICATIONS

Functional		TOPRW0700WD-IO	TOPRW0710WD-IO
Display	Display Type	7" TFT Color	
	Color	16M Colors	
	Display Area(mm)	154x86	
	Resolution(dot)	800x480	
	Brightness Level	10 Levels(by software)	
	Backlight Type	LED	
Touch	Backlight Life	50,000 hours	
	Touch Type	Analog resistive film	
	Resolution(Cell)	800x480	
	Touch Life	1 million times or more	
Interface	Serial COM1	RS-232C Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1	
		RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1	
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX AUTO MDIX Connector: RJ-45 x 1	
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 1	
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B(Front) x 1	
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)	
Printer	Roll Printer(EPSON protocol)		
IO	IO Function	Digital Input 16ch, Digital Output 16ch, Analog Input(Voltage 2ch, Current 2ch), Analog Output(Voltage 2ch, Current 2ch), RTD 2ch	
Memory & Others	Screen Memory	128MB	
	Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe	
	Backup Period	Permanent	
	Real Time Clock	Built in	
Power	Status LED	3 LEDs(Power, Operation, Link) Built in	
	Input Voltage	24Vdc(20~28Vdc)	
	Power Consumption	15W	
	Voltage Sag	24Vdc, Within 10ms	
Environment	Insulation Resistance	500Vdc, 10MΩ	
	Operation Temperature(℃)	-10 ~ +50	
	Storage Temperature(℃)	-20 ~ +60	
	Operation Humidity(%RH)	0 ~ 90(No dew)	
	Atmosphere	No corrosive gas	
	Vibration Endurance	Amplitude: 10≤F<25Hz(2G) X,Y,Z each direction(for 30 minutes)	
	Noise Immunity	1000Vp-p(Pulse width 1μs)	
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X,Y,Z each direction(for 3 times)	
	Ground Connection	Class 3(100Ω under)	
	Protection Classification	IP65(Front)	
Structure	Certification	CE, KC	
	Panel Cut(mm)	197x127	
	External Dimension(mm)	212x145x62.5	
	Weight(kg)	0.81	
	Cooling System	Natural air circulation	
Case Material	Plastic		





Compact Size, Light and Convenient

TOPRE Series

EMBEDDED HMI

SMART X HMI



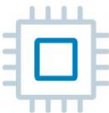
INTERFACE

SERIAL 1 PORT | ETHERNET 1 CHANNEL | USB OTG | SD CARD

CERTIFICATION



FEATURES



QUAD CORE CPU

Quad core processor supplying rapid processing speed



16M FULL COLOR

Bright and vivid full color, supports vector image library



TOUCH DRAG FEATURE

Available touch drag to make a picture memo or scroll down to appear top-side menu



REFINED INTEGRATED BODY

Refined integrated body with advantage of easy



4.3" COMPACT SIZE

Powerful performance with compact size



FRONT-SIDE OTG USB

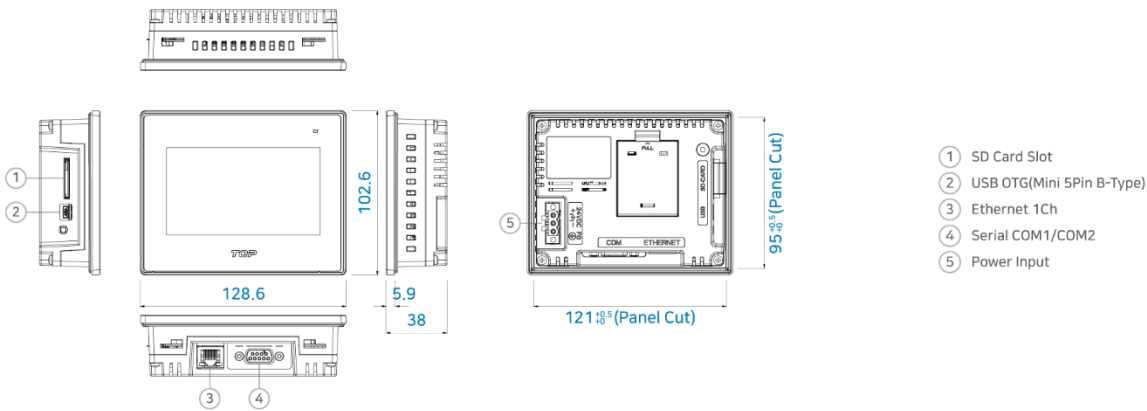
Supporting both HOST mode(USB devices i.e.Memory, barcode reader, etc) and program transmission mode

TOPRE SPECIFICATIONS

Functional		TOPRE0400WD
Display	Display Type	4.3" TFT Color
	Color	16M Colors
	Display Area(mm)	95.04x53.85
	Resolution(dot)	480x272
	Brightness Level	10 Levels(by software)
	Backlight Type	LED
Touch	Backlight Life	50,000 hours
	Touch Type	Analog resistance film
	Resolution(Cell)	480x272
	Touch Life	1 million times or more
Interface	Serial COM1 (RS-232C Only)	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM2 (RS-422/485 Only)	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 1 NE(No Ethernet) model: cannot support Ethernet interface
	Ethernet	
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B(Side) x 1
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
	Printer	Roll Printer(EPSON protocol)
	Screen Memory	64MB
	Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe
Memory & Others	Backup Period	Permanent
	Real Time Clock	Built in
	Status LED	3 LEDs(Power, Operation, Link) Built in
	Input Voltage	24Vdc(20~28Vdc)
Power	Power Consumption	12W
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
Environment	Operation Temperature(℃)	-10 ~ +50
	Storage Temperature(℃)	-20 ~ +60
	Operation Humidity(%RH)	0 ~ 90(No dew)
	Atmosphere	No corrosive gas
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X,Y,Z each direction(for 30 minutes)
	Noise Immunity	1000Vp-p(Pulse width 1μs)
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV
	Shock Endurance	10G X,Y,Z each direction(for 3 times)
	Ground Connection	Class 3(100Ω under)
	Protection Classification	IP65(Front)
	Certification	CE, KC, UL
Structure	Panel Cut(mm)	121 x 95
	External Dimension(mm)	128.6 x 102.6 x 38
	Weight(kg)	0.28
	Cooling System	Natural air circulation
	Case Material	PC(Resistance to flame)

DRAWING

TOPRE0400WD





Wireless Handy Type with Egronomic Designed Hand Grip

TOPRH Wireless Model

EMBEDDED HMI

SMART X HMI



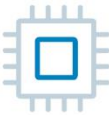
INTERFACE

WIFI | USB HOST 2 PORTS | USB OTG | SD CARD

CERTIFICATION



FEATURES



QUAD CORE CPU

Quad core processor supplying rapid processing speed



16M FULL COLOR

Bright and vivid full color, supports vector image library



HIGH PERFORMANCE WIRELESS CHIP

Wireless control features extended control distance



ERGONOMIC AND REFINED DESIGN

Stable and comfortable grip



KEY LOCK/3 POSITION SWITCH /FUNCTION KEYS/TOUCH PENCIL

6 Function keys including LED light, and touch pencil to easy operation



SHOCK PREVENTING BUMPER

Solid body and added silicon bumper for safer use



TOUCH DRAG FEATURE

Available touch drag to make a picture memo or scroll down to appear top-side menu



SUPPORT HIGH RESOLUTION

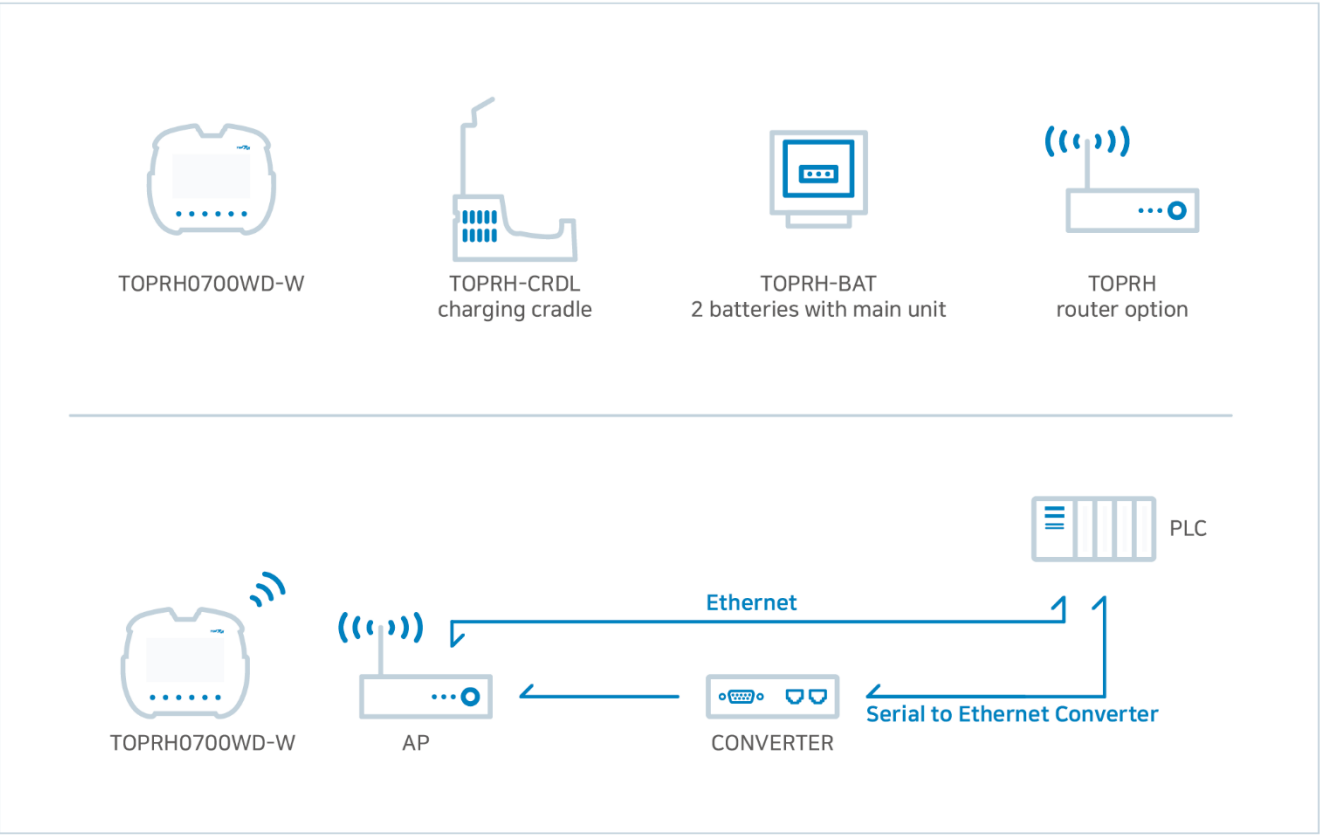
Support 1024x600 high resolution screen

TOPRH WIRELESS / CHARGING CRADLE SPECIFICATIONS

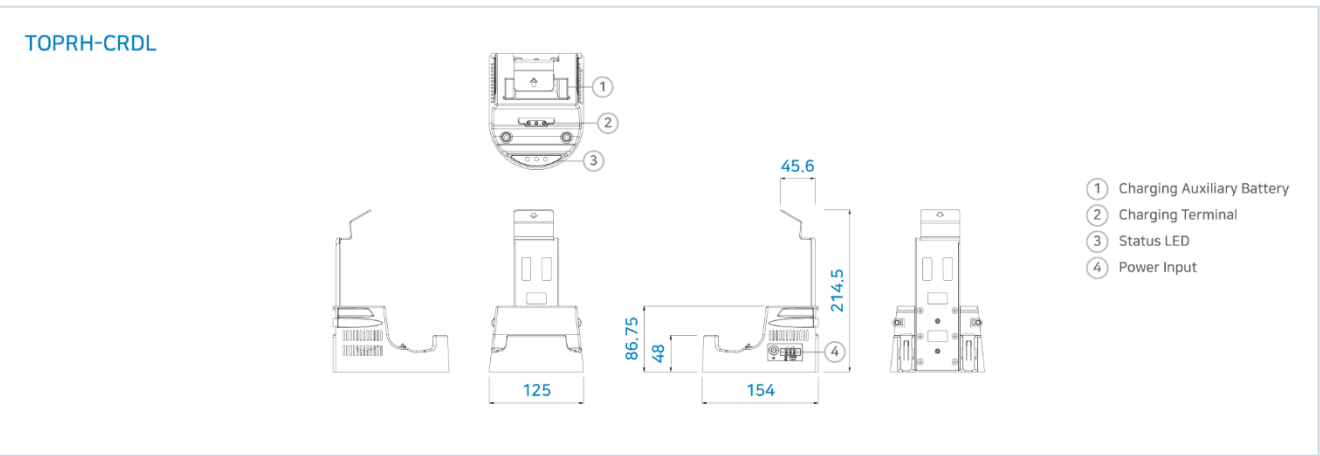
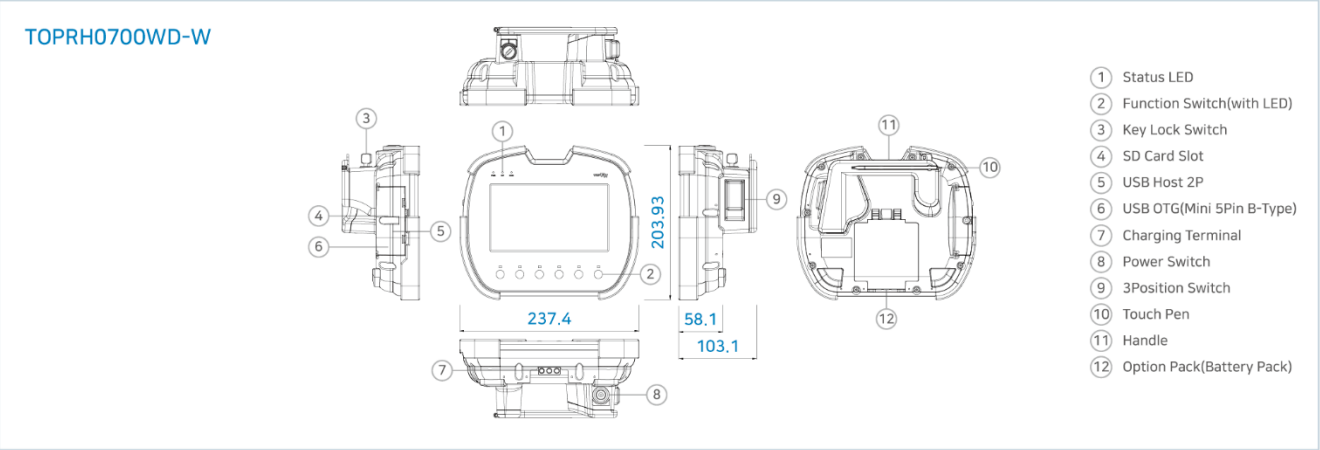
Functional		TOPRH0700WD-W
Display	Display Type	7" TFT Color
	Color	16M Colors
	Display Area(mm)	154.21x85.92
	Resolution(dot)	1024x600
	Brightness Level	10 Levels(by software)
	Backlight Type	LED
	Backlight Life	50,000 hours
Touch	Touch Type	Analog resistive film
	Resolution(Cell)	1024x600
	Touch Life	1 million times or more
		2.4G: 2.4000GHz ~ 2.4835GHz 5G: 5.150GHz ~ 5.725GHz WLAN Standard: IEEE802.11 a/b/g/n Operation Range Up to 150meters in open space Security: WEP, TKIP, AES, WPA, WPA2
Interface	Wireless LAN	
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B x 1
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
Memory & Others	Function Key	6Position with LED
	Machanical Switchs	Keylock Switch 1A, 3Position enable Switch OFF-ON-OFF(1CH)
	Power Switch	Push-Push power on-off switch built in
	Screen Memory	128MB
	Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe
	Backup Period	Permanent
	Real Time Clock	Built in
Battery	Status LED	3 LEDs(Power, Operation, Link) Built in
	Rechargable & Extractable Battery Pack	2S-2P Li-ion 4Cells 7.2Vdc 6800mAh Charging time 3 hours(Non-operating) Running time: 7 hours with wireless communication
Power	Consumption	20W(In Battery Pack)
	Operation Temperature(°C)	-10 ~ +45
Environment	Storage Temperature(°C)	-20 ~ +60
	Operation Humidity(%RH)	0 ~ 90(No dew)
	Atmosphere	No corrosive gas
	Vibration Endurance	Amplitude: 10≤F<25Hz(2G) X,Y,Z each direction(for 30 minutes)
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV
	Shock Endurance	10G X,Y,Z each direction(for 3 times)
	Protection Classification	IP65
Structure	Certification	CE, KC, UL
	External Dimension(mm)	237x205x103
	Weight(kg)	1.32(Including Battery Pack)
	Cooling System	Natural air circulation
	Case Material	PC(Resistance to flame)

Functional		TOPRH-CRDL
Power	Input Voltage	24Vdc(20~28Vdc)
	Output Voltage	8.4Vdc
	Power Consumption	60W(with Main Body + Extra Battery Pack)
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
Environment	Status LED	3 LEDs(Main Battery Pack, Power, Sub Battery Pack) Built in
	Operation Temperature(°C)	-10 ~ +50
	Storage Temperature(°C)	-20 ~ +60
	Operation Humidity(%RH)	0 ~ 90(No dew)
	Atmosphere	No corrosive gas
	Vibration Endurance	Amplitude: 10≤F< 25Hz(2G) X,Y,Z each direction(for 30 minutes)
	Noise Immunity	1000Vp-p(Pulse width 1μs)
Structure	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV
	Shock Endurance	10G X,Y,Z each direction(for 3 times)
	Ground Connection	Class 3(100Ω under)
	Certification	CE, KC
	External Dimension(mm)	214.5x125x154
	Weight(kg)	0.6
	Cooling System	Natural air circulation
	Case Material	PC(Resistance to flame)

PRODUCT COMPOSITION



DRAWING





Wired Handy Type with Egronomic Designed
Hand Grip

TOPRH Wired Series

EMBEDDED HMI

SMART X HMI



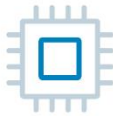
INTERFACE

SERIAL 2 PORTS | ETHERNET 1 CHANNEL | USB HOST 2 PORTS | USB OTG | SD CARD

CERTIFICATION



FEATURES



QUAD CORE CPU

Quad core processor supplying rapid processing speed



16M FULL COLOR

Bright and vivid full color, supports vector image library

ERGONOMIC AND REFINED DESIGN

Stable and comfortable grip



KEY LOCK/EMERGENCY /3 POSITION SWITCH

Safe use with KEY lock/Emergency /3 Position switch



FUNCTION KEY, TOUCH PENCIL

6 Function keys including LED light, and touch pencil to easy operation



SHOCK PREVENTING BUMPER

Solid body and added silicon bumper for safer use



TOUCH DRAG FEATURE

Available touch drag to make a picture memo or scroll down to appear top-side menu



SUPPORT HIGH RESOLUTION

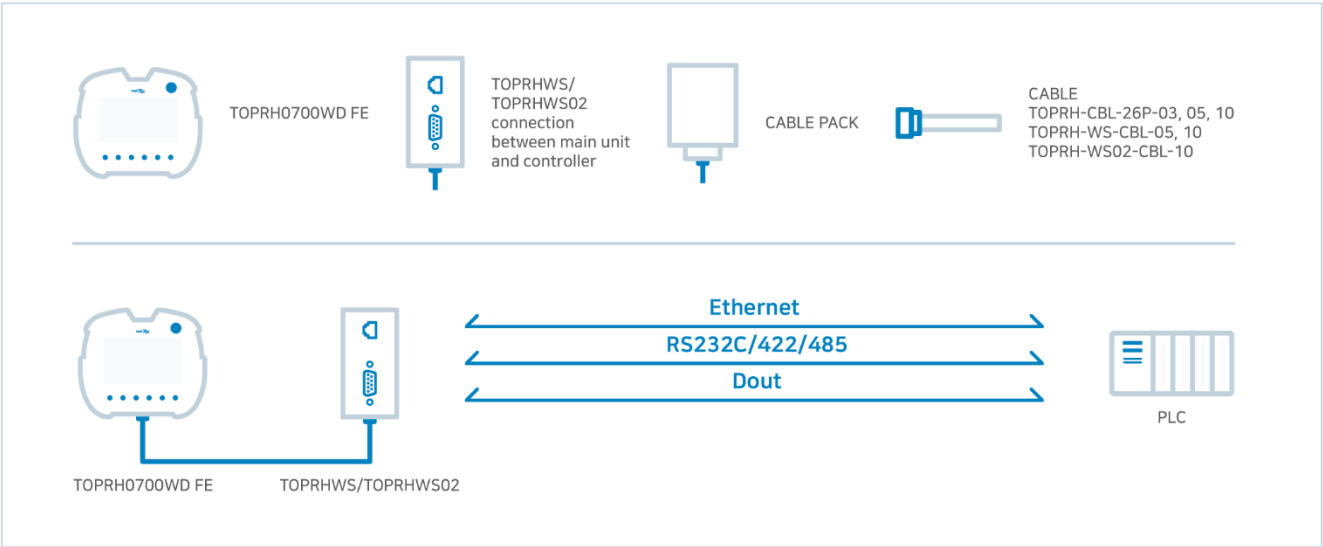
Support 1024x600 high resolution screen

TOPRH WIRED / TOPRHWS SPECIFICATIONS

Functional		TOPRH0700WD FE
Display	Display Type	7" TFT Color
	Color	16M Colors
	Display Area(mm)	154.21x85.92
	Resolution(dot)	1024x600
	Brightness Level	10 Levels(by software)
	Backlight Type	LED
Touch	Backlight Life	50,000 hours
	Touch Type	Analog resistive film
	Resolution(Cell)	1024x600
	Touch Life	1 million times or more
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even, Baud rate: 2400~115.2kbps
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even, Baud rate: 2400~115.2kbps
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B x 1
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
	Function Key	6Position with LED
	Printer	Roll Printer(EPSON protocol)
	Machanical Switchs	Emergency Switch 1A-2B, Keylock Switch 1A, 3Position enable Switch OFF-ON-OFF(2CH)
	Power Switch	Push-Lock power on-off switch built in
Memory & Others	Screen Memory	128MB
	Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe
	Backup Period	Permanent
	Real Time Clock	Built in
	Status LED	3 LEDs(Power, Operation, Link) Built in
Power	Consumption	20W
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
Environment	Operation Temperature(℃)	-10 ~ +45
	Storage Temperature(℃)	-20 ~ +60
	Operation Humidity(%RH)	0 ~ 90(No dew)
	Atmosphere	No corrosive gas
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X,Y,Z each direction(for 30 minutes)
	Noise Immunity	1000Vp-p(Pulse width 1μs)
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV
	Shock Endurance	10G X,Y,Z each direction(for 3 times)
	Ground Connection	Class 3(100Ω under)
	Protection Classification	IP4X
Structure	Certification	CE, KC, UL
	External Dimension(mm)	237x205x103
	Weight(kg)	1.1(Except Cable Pack)
	Cooling System	Natural air circulation
	Case Material	PC(Resistance to flame)

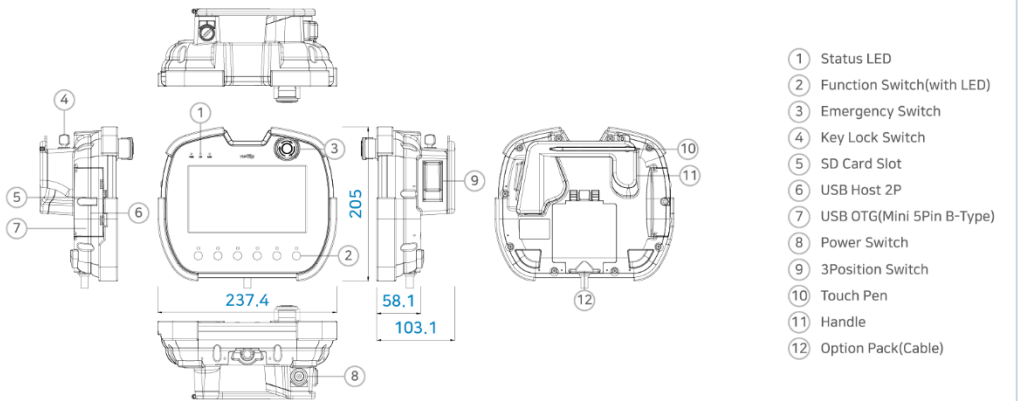
Functional		TOPRHWS	TOPRHWS02
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps, Connector: DSUB 9pin x 1	
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX, Connector: RJ-45 x 1	
	Power Switch	Push-Push power on-off switch built in	
	26P Connector	To TOPRH, SRC6A21-26P	To TOPRH, 1981919-1 or 1981921-1
	Function Connector	Emergency Switch 1A-2B, Keylock Switch 1A, 3Position enable Switch OFF-ON-OFF(2CH), DOUT(6CH)	
	Input Voltage	24Vdc(20~28Vdc)	
Power	Power Consumption	20W	
	Voltage Sag	24Vdc, Within 10ms	
	Insulation Resistance	500Vdc, 10MΩ	
	Operation Temperature(℃)	-10 ~ +50	
Environment	Storage Temperature(℃)	-20 ~ +60	
	Operation Humidity(%RH)	0 ~ 90(No dew)	
	Atmosphere	No corrosive gas	
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X,Y,Z each direction(for 30 minutes)	
	Noise Immunity	1000Vp-p(Pulse width 1μs)	
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X,Y,Z each direction(for 3 times)	
	Ground Connection	Class 3(100Ω under)	
	Certification	CE, KC, UL	
	External Dimension(mm)	145x119x54	148x119x54
Structure	Weight(kg)	0.3	
	Cooling System	Natural air circulation	
	Case Material	PC(Resistance to flame)	

PRODUCT COMPOSITION

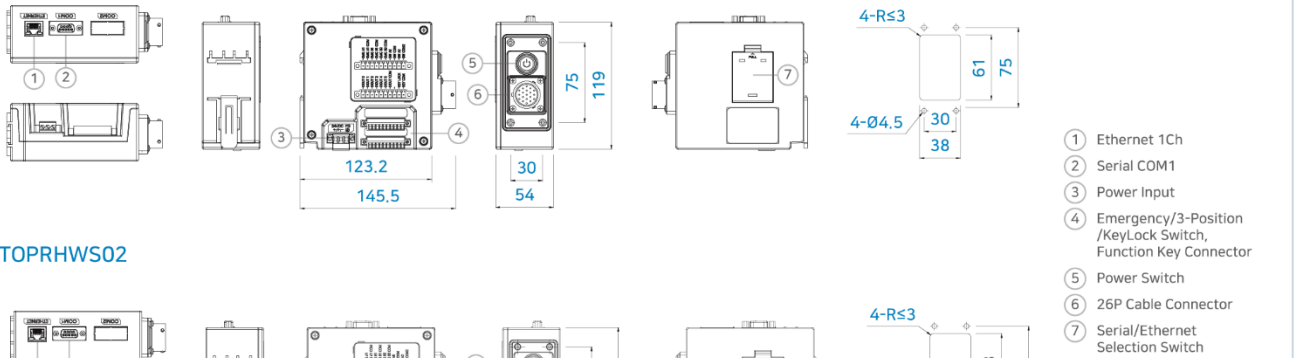


DRAWING

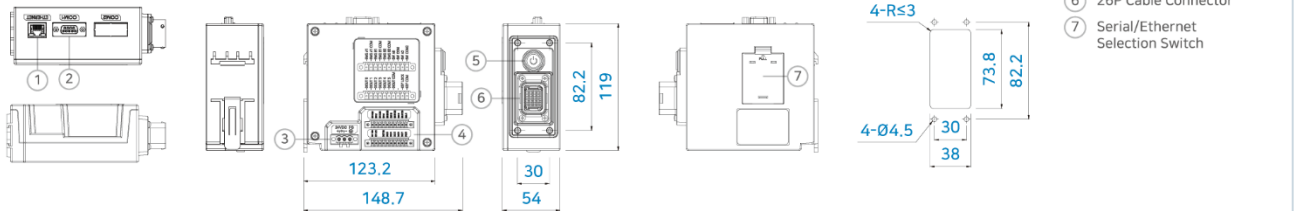
TOPRH0700WD FE



TOPRHWS



TOPRHWS02





Miniaturized New Form Factor,
Smaller and Simple

TOPRP Series

BOX HMI

SMART X HMI



Model: TOPRP1000D

INTERFACE

SERIAL 2 PORTS | ETHERNET 2 CHANNEL | USB HOST 2 PORTS | USB OTG | SD CARD | HDMI OUT

CERTIFICATION



FEATURES



MINIATURIZED BODY FRAME

Small size able to install in a minimum space



STANDARD DIN RAIL
/VESA HALL SUPPORTED

Easy installation by standard DIN rail
simple assemble with monitors by standard
VESA bracket(*Option)



HDMI OUTPUT

Connection with various monitors through
HDMI and DP
M2I's exclusive touch monitor(MDP)
compatible



COMPATIBILITY WITH TOP SERIES

Quad core cpu supplying rapid processing
speed
Same menu and instructions as TOP series



SUPPORTING ETHERNET 2 CHANNELS

2 Ethernet channels with different IP
VNC(Remote Monitor/Control)
Function Support



SUPPORTING SERIAL 2 PORTS

COM1/COM2 DSUB 9pin
RS-232C, RS-422/485 support



SUPPORTING USB HOST 2 PORTS

Connecting mouse, keyboard, USB memory,
barcode scanner etc.



OTG USB

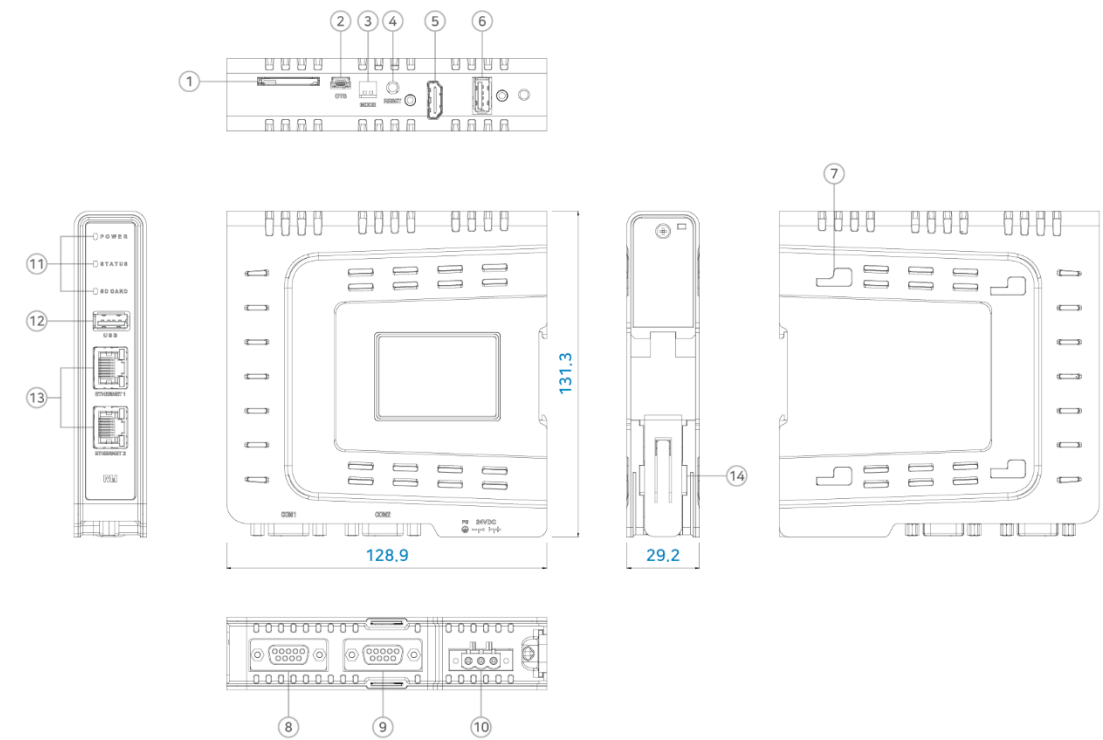
Mode switch between transmission mode
(Program transfer) and host mode
(Connecting USB devices as mouse,
keyboard, USB memory, barcode scanner
etc.)

TOPRP SPECIFICATIONS

Functional		TOPRP1000D	
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1	
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1	
	Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 2	
	USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2	
	USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B x 1	
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)	
	HDMI Output	HDMI v1.4, HDMI Output, Max. Resolution: 1280x720 at 60Hz Connector: HDMI x 1	
	Printer	Roll Printer(EPSON protocol)	
Memory & Others	Screen Memory	128MB	
	Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe	
	Backup Period	Permanent	
	Real Time Clock	Built in	
Power	Status LED	3 LEDs(Power, Operation, SD Card) Built in	
	Input Voltage	24Vdc(20~28Vdc)	
	Power Consumption	10W	
	Voltage Sag	24Vdc, Within 10ms	
Environment	Insulation Resistance	500Vdc, 10MΩ	
	Operation Temperature(℃)	-10 ~ +50	
	Storage Temperature(℃)	-20 ~ +60	
	Operation Humidity(%RH)	0 ~ 90(No dew)	
	Atmosphere	No corrosive gas	
	Vibration Endurance	Amplitude: 10sF<25Hz(2G) X,Y,Z each direction(for 30 minutes)	
	Noise Immunity	1000Vp-p(Pulse width 1μs)	
	Electrostatic Discharge	Connective discharge from EN61000-4~2: ±4kV	
	Shock Endurance	10G X,Y,Z each direction(for 3 times)	
	Ground Connection	Class 3(100Ω or less)	
Structure	Protection Classification	IP20	
	Certification	CE, KC	
	External Dimension(mm)	128.9x131.2x29.2	
	Weight(kg)	0.23	
	Installation Method	Standard DIN Rail(35mm), VESA	
	Cooling System	Natural air circulation	
	Case Material	Plastic	

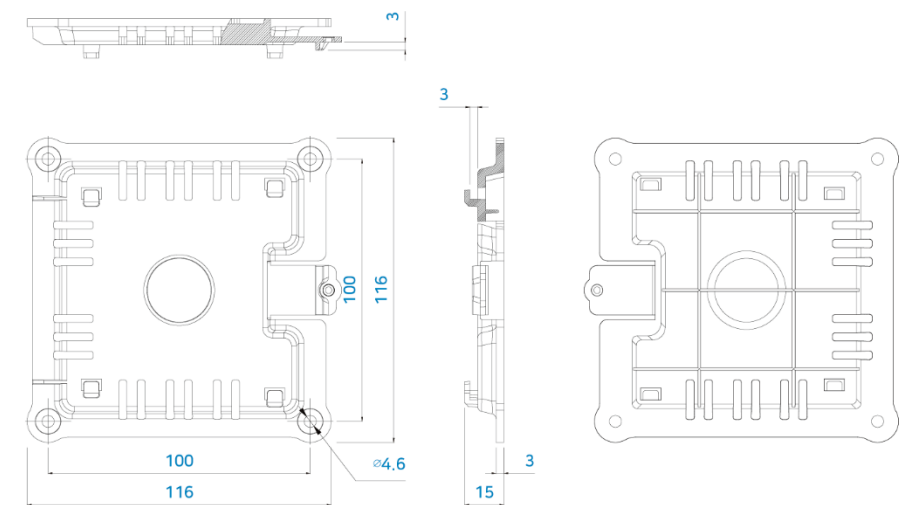
DRAWING

TOPRP1000D



- | | | | | |
|------------------|----------------|----------------|---------------|-----------------|
| ① SD Card Socket | ④ Reset Switch | ⑦ Vesa Bracket | ⑩ Power Input | ⑬ Ethernet Port |
| ② USB OTG | ⑤ HDMI | ⑧ COM1 | ⑪ Status LED | ⑭ DIN Rail |
| ③ Mode Switch | ⑥ USB Host #1 | ⑨ COM2 | ⑫ USB Host #2 | |

VESA Braket(*Option)





Capacitive Touch, FHD LCD Monitor

MDP Series

TOUCH MONITOR



INTERFACE

HDMI | USB | DP

* Port Interface is different from each model.

CERTIFICATION



(On Progress)

FEATURES



2 CHANNELS / 1 CHANNEL MODEL
SELECTIVE

Display Change by Switching Button



CAPACITIVE TOUCH

Clear display with capacitive touch
IK7 grade tempered glass



FRONT USB PORT

Connection ports to connect Mouse,
Keyboard, USB Memory, Barcode Reader



HDMI / DP / USB

2 Channels
(HDMI 2 ports, USB 5 ports)
1 Channel
(HDMI 1 port, DP 1 port, USB 2 ports)



EXPLOSION-PROOF STRUCTURE

The first monitor which has explosion-proof
structure



FHD LCD

16 : 9, 19 inch, FHD LCD(1920 x 1080)



ALUMINUM FRAME

Strong durability and refined design
of aluminum body



VESA HALL ON REAR SIDE

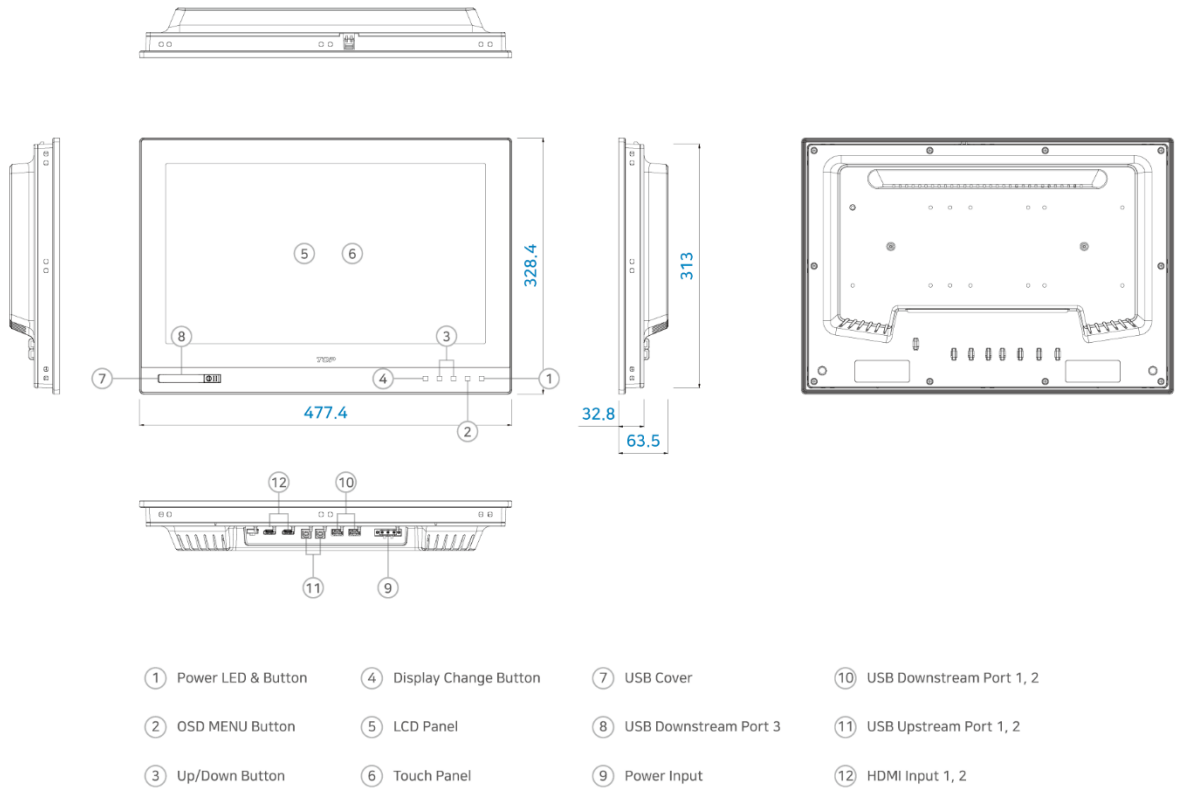
Convenient attachment with M2I's box HMI
and box PC

MDP SPECIFICATIONS

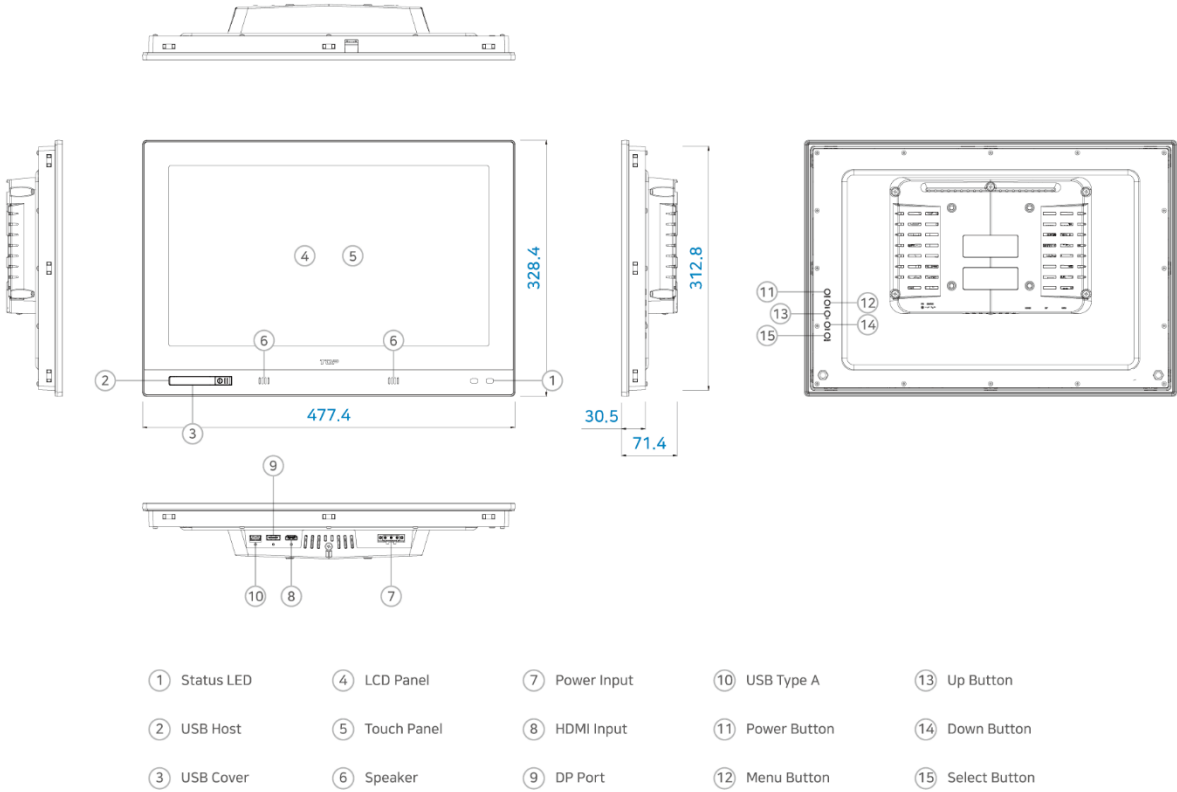
Functional		MDP-DC1900WD	MDP-SC1900WD
Display	Display Type	18.5" TFT Color	
	Color	16M Colors	
	Aspect Ratio	16:9	
	Display Area(mm)	409.8x230.4	408.96x230.04
	Recommend Resolution	1920 x 1080	
	Viewing Angle(H/V)	89/89/89/89	85/85/85/85
	Contrast Ratio	1000 : 1	1200 : 1
	Response Time	20ms	30ms
	Brightness	350Cd/m²	
	Backlight Type	LED	
Touch	Backlight Life	50,000 hours	
	Touch Type	Capacitive Touch	
Interface	HDMI Input	2 Ports	1 Port
	DP Input	-	1 Port
	USB Up Stream	2 Ports	1 Port
	USB Down Stream	2 Ports	-
OSD Controls	USB Host	1 Port	
	Capacitive Touch Button	KVM/Up/Down/Menu, Select/Power	
	Button(Tact Switch)	-	Up/Down/Menu, Select/Power
Power	Input Voltage	24Vdc(20~28Vdc)	
	Power Consumption	40W	
	Voltage Sag	24Vdc, Within 10ms	
	Insulation Resistance	500Vdc, 10MΩ	
Environment	Operation Temperature(°C)	-10 ~ +50	
	Storage Temperature(°C)	-20 ~ +60	
	Operation Humidity(%RH)	0 ~ 90(No dew)	
	Atmosphere	No corrosive gas	
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X,Y,Z each direction(for 30 minutes)	
	Noise Immunity	1000Vp-p(Pulse width 1μs)	
	Electrostatic Discharge	Connective discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X,Y,Z each direction(for 3 times)	
	Ground Connection	Class 3(100Ω under)	
	Protection Classification	IP65(Front)	
Structure	Certification	CE, KC, UL(On Progress)	
	External Dimension(mm)	477.4 x 328.4 x 63.5	477.4 x 328.4 x 71.4
	Panel Cut(mm)	463 x 314	
	Weight(kg)	5.0	4.7
	VESA Wall Mount Holes(mm)	100 x 100	
	Cooling System	Natural air circulation	
	Case Material	Aluminum + Plastic	

DRAWING

MDP-DC1900WD



MDP-SC1900WD



Agency Introduction

HMI Specialized Company

■ More than 20 oversea sales agencies ■

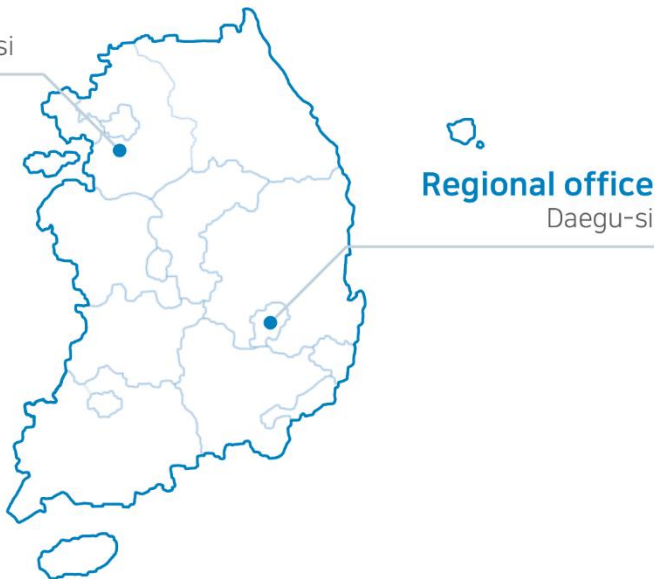


China, Japan, Singapore, India, Turkey, Vietnam, Israel, Malaysia, Thailand, Greece, France, Iran, Jordan, etc.

■ More than 36 domestic sales agencies ■

Headquarters

Gyeonggi-do Anyang-si



Seoul, Gyeonggi, Daejeon, Daegu, Gwangju, Ulsan, Changwon, Busan, etc.

Promise to Customer

HMI Specialized Company



For customer’s **satisfaction**, M2I will keep **communicate**, to improve **quality of product**, M2I will keep **research and develop** no fear to **change**.

We are M2I,
the **HMI Specialized Company**