



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.

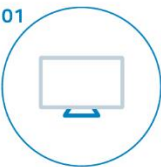
M2I Corporation

Applied Field

Optimized Product for Smart Factory, Represented as Industry 4.0

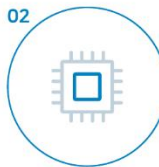
M2I's Smart HMI is surpassing traditional HMI products for Factory Automation, and having connectivity for various devices, flexible functionality, stability and security. With various versatile, it can be used in Smart Factory and other various fields, and it is adopted not only in high-technology industry 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

TOPR

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

TOPRX

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

TOPRW | TOPRW-IO

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

Product Line-Up Satisfying Customers' Various Needs

TOPRE

Compact Size, Light and Convenient

TOPRE Series

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



EMBEDDED HMI

TOPRH

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

TOPRP | MDP

Miniaturized New Form Factor, Smaller and Simple

TOPRP Series/2Ch KVM Touch Monitor

SERIAL 2 PORTS | ETHERNET 2 CHANNEL | USB HOST 2 PORTS | USB OTG

SD CARD | HDMI OUT



BOX HMI/2CH KVM TOUCH MONITOR

TOP Design Studio Software

Easier and More Diverse

The software which supports TOPR, TOPRX, TOPRW, TOPRE, TOPRH, TOPRP, TOP-PCVIEW(SCADA), 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.
- 03-1

DOCKING WINDOW

PROJECT PROPERTY WINDOW

Helping the project/screen/resource to be easier and systemized management.
- 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.
- 02

DYNAMIC RIBBON MENU

DYNAMIC RIBBON MENU

Menu-Toolbar united ribbon UI, easy to use by big icon.
- 03-2

DOCKING WINDOW

OBJECT LIST WINDOW

The object registered on screen is shown as table format.
- 03-4

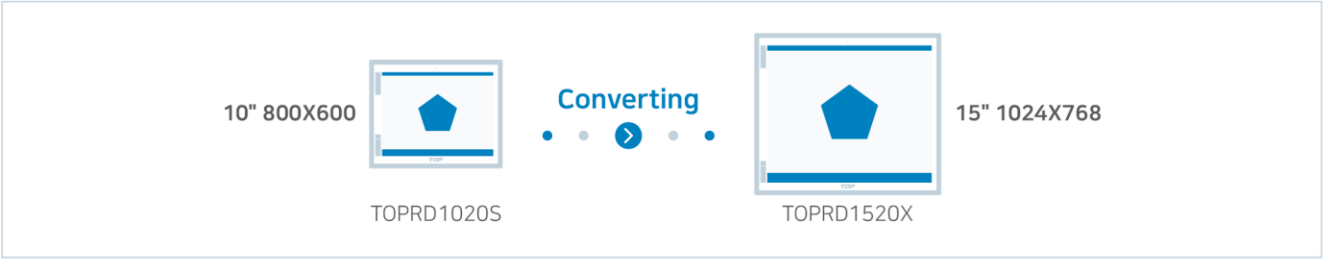
DOCKING WINDOW

USER LIBRARY WINDOW

Supporting the screen/parts designed by objects.

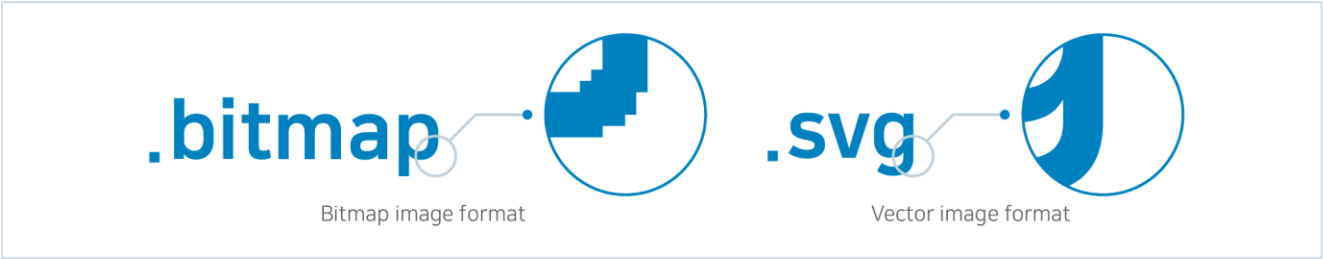
01. Automatic Resizing Function for Model Change

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



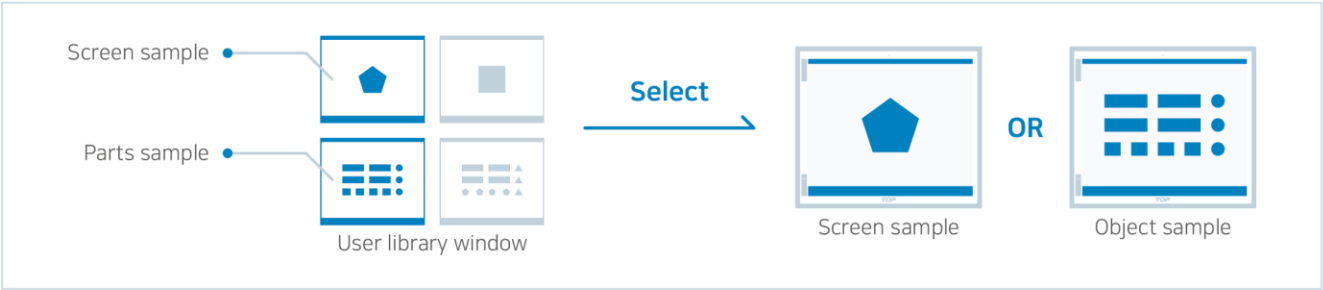
02. Vector Image Library

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.

Object overlap(Ordering)

Group object

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 addt1 = (@PLC1.R00000:16.DEC);
if( addt1 > 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
}
```

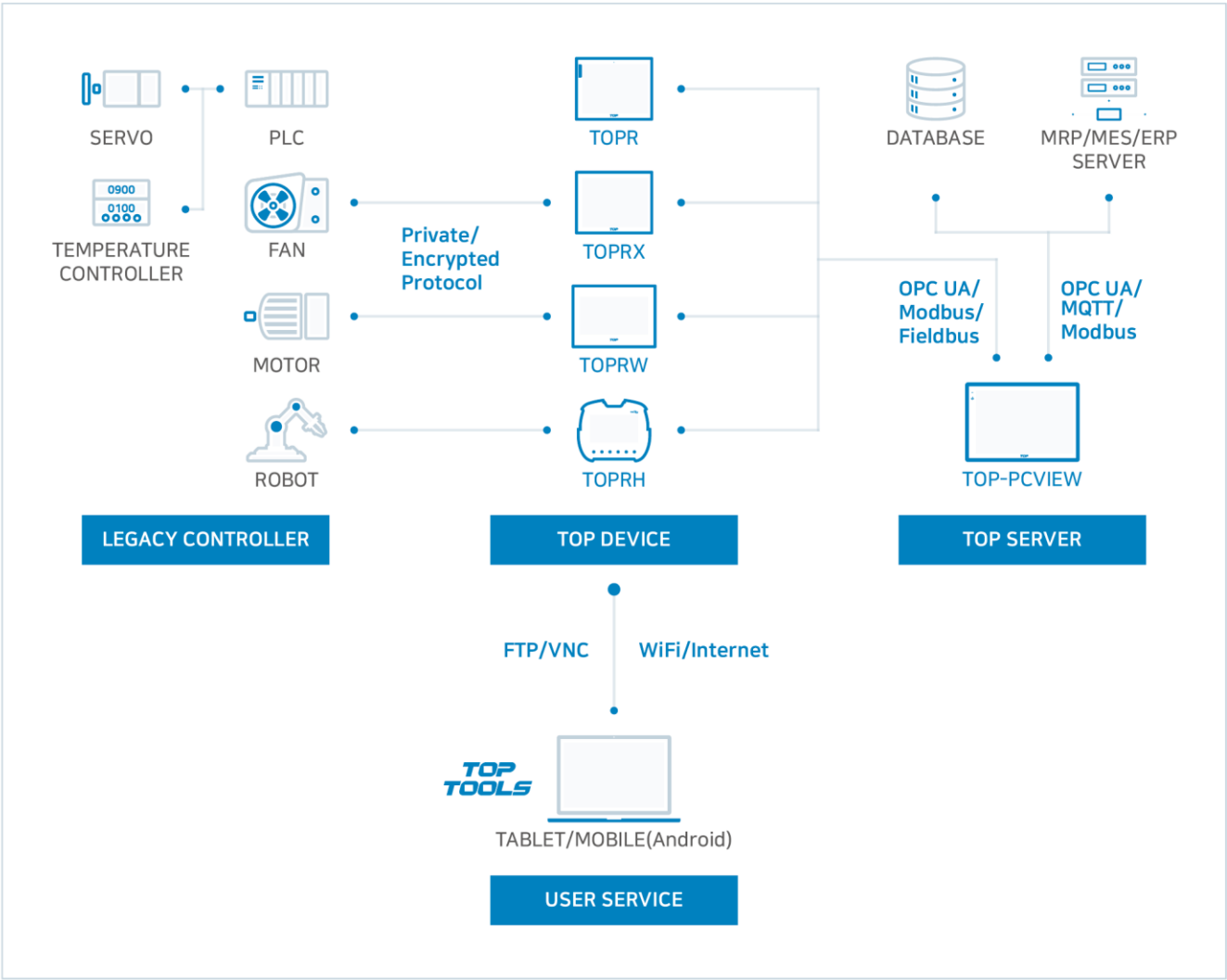
JAVA script

Coding

TOP

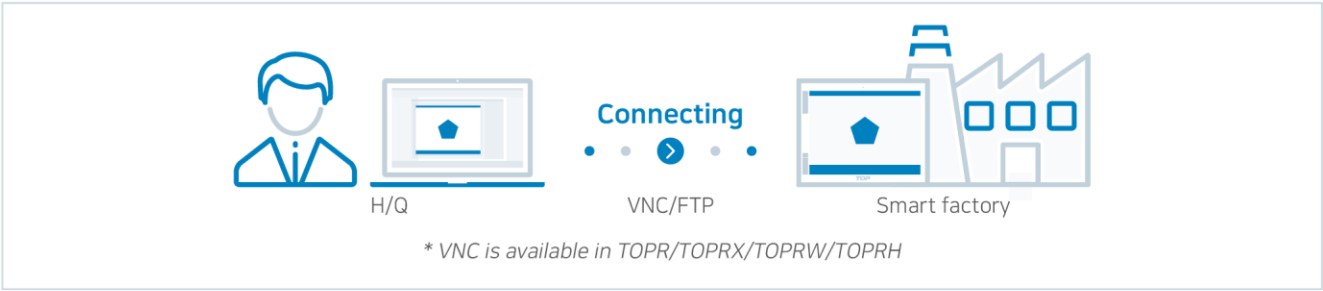
```
var addt1 = (@PLC1.R00000:16.DEC);
if( addt1 > 0 ){
  @PLC1.R00001:16.DEC = 0;
}
if( (@PLC1.R00000:16.DEC) == 0 ){
  @PLC1.R00001:16.DEC = 100;
}
else {
  @PLC1.R00000:16.DEC = (@PLC1.R00001:16.DEC);
}
for(i=1; i<=100; i=i+1) {
  if(i==10) continue;
  @PLC1.R00000:16.DEC = i+4
}
```


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.



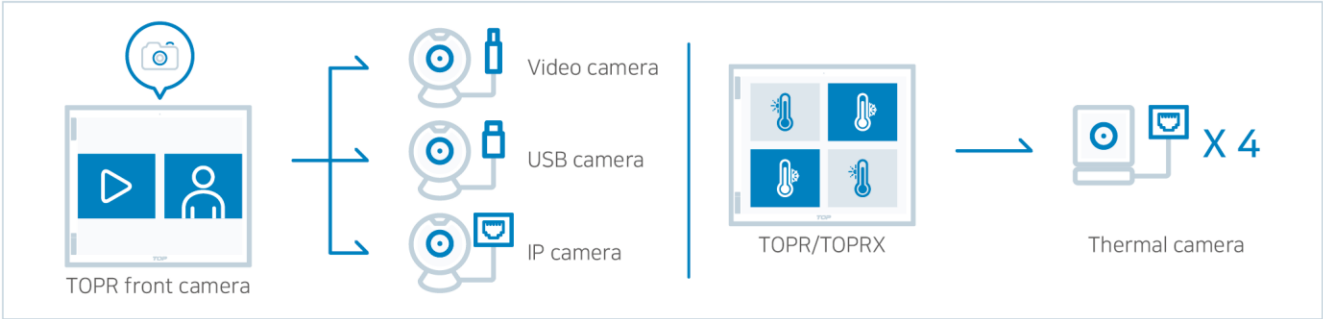
05. Using Big Screen with HDMI Out

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.



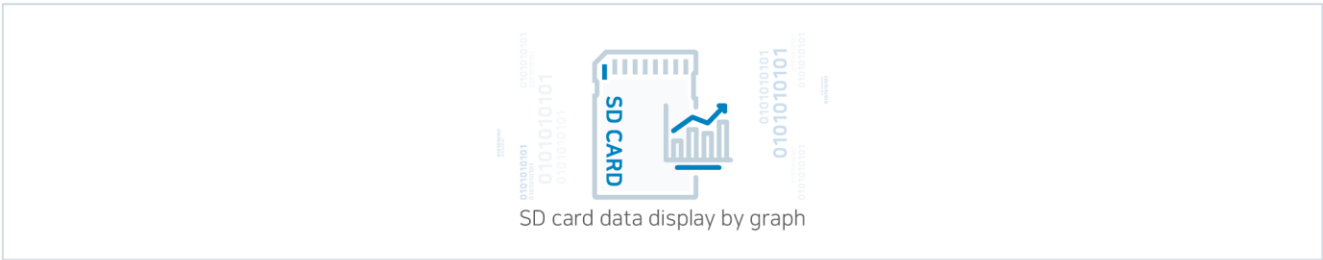
06. Thermal/IP/Video/Integrated Camera

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.

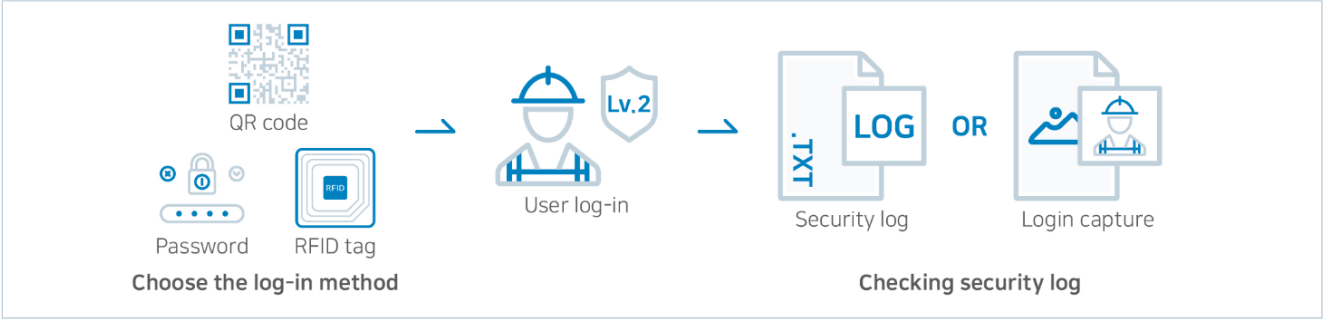


Use of Smart TOP in Industrial Field

More Convenient and Safer

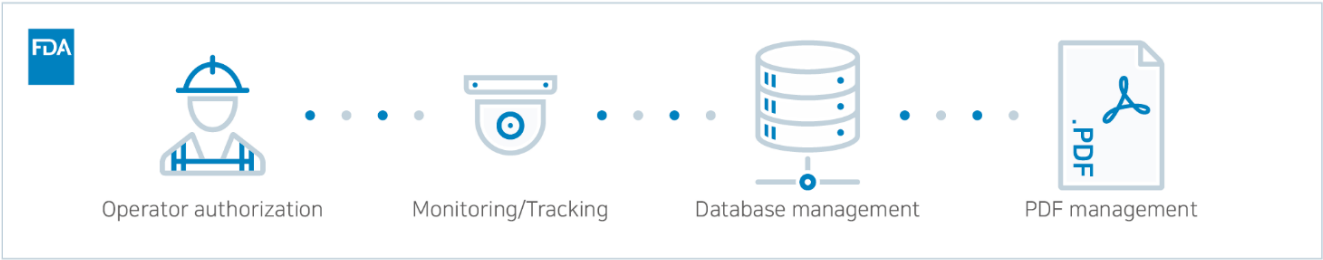
08. Close Security Management and Convenient Log-in

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.



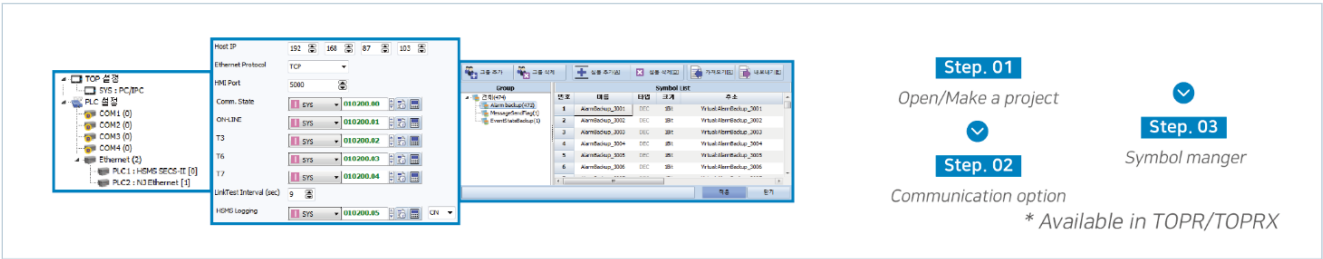
09. FDA 21CFR Part 11

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



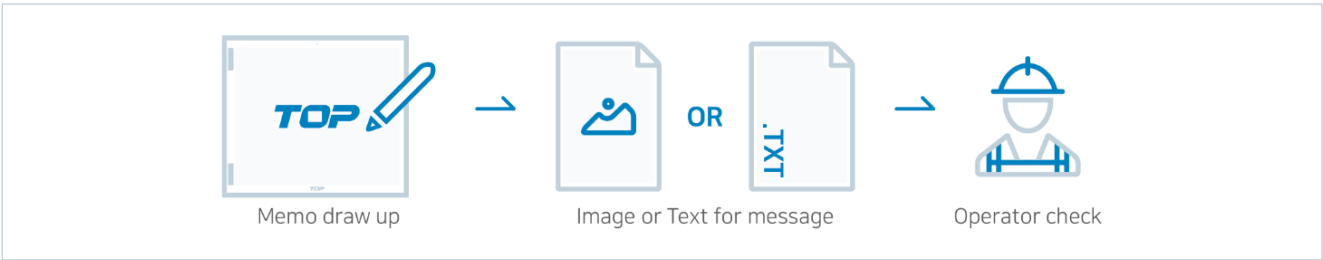
10. HSMS SECS GEM Protocol for Semiconductor Industry

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



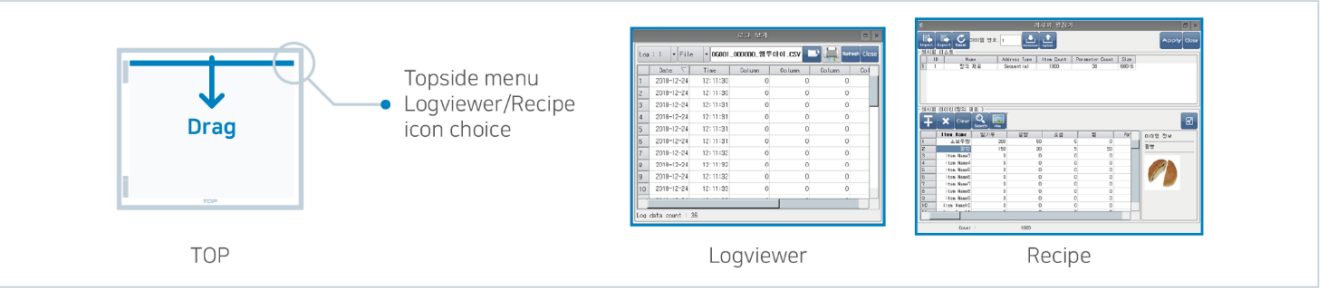
11. Memo Write/Read for Operator

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



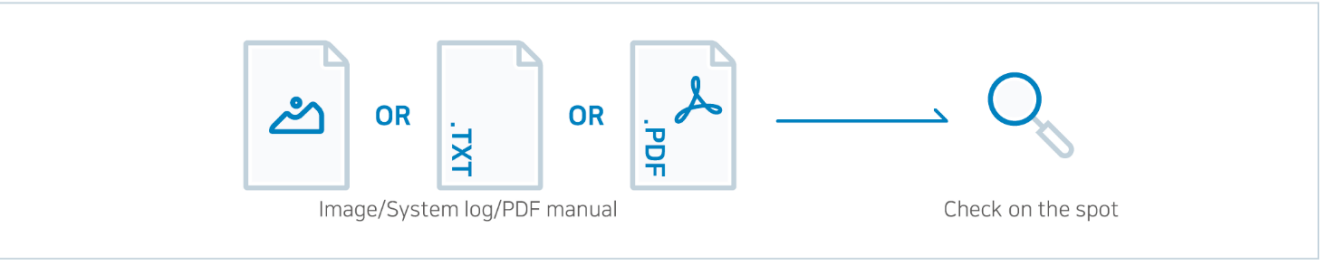
12. Log/Recipe Data Monitoring, Always On The Spot

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.



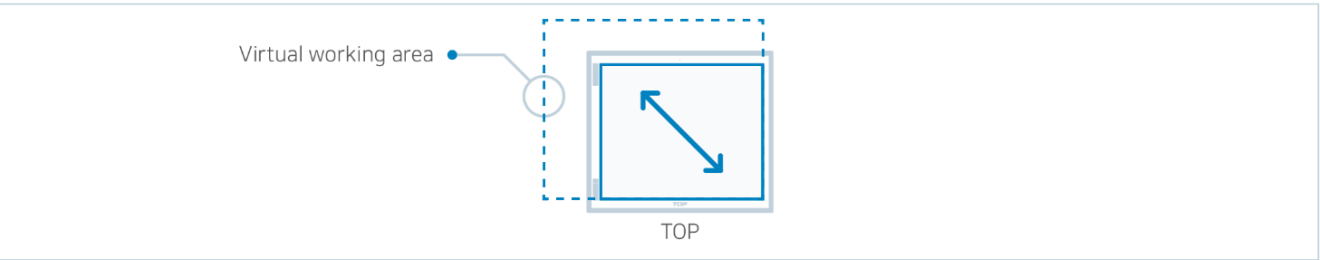
14. Project Change without PC, On The Spot

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 M2I 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				
MITSUBISHI Electronic Corporation	MELSEC-Q	Q□□/00J/□□H/□□UDH/□□UDEH	●	●
	MELSEC iQ-R	R□□	●	●
	MELSEC-FX	FX0/1/2/1S/1N/2N/2NC/3U/3UC/3G	●	
		10/20GM	●	
	MELSEC iQ-F	5U	●	●
		A1N/2N/3N	●	●
	MELSEC-A	A1S(H)/2S(H)/AOJ2(H)	●	●
		A2A/3A/2A-S1	●	●
		A2U/3U/4U/2USH	●	●
		CJ2H	●	●
OMRON Industrial Automation	SYSMAC CJ2	CJ1G/1M	●	●
	SYSMAC CJ1	CS1G/H	●	●
	SYSMAC CS1	NJ□□□	●	●
	NJ	NX□□□	●	●
	SYSMAC CP	CP1L/1H	●	●
		C50/120/200/500/1000	●	
	SYSMAC C	CQM1/1H	●	
		CPM1/2A/2C	●	
		LD60/LD90		●
	Mobile Robot LD	XGT	●	●
LS Industrial Systems	XGB	XGK/XBM/XBC	●	●
	GLOFA-GM	GM1/2/3/4/6/7	●	●
		80/120/200/300/1000S	●	
		10S1/10/30/60/100S	●	
	Master-K	60/200H	●	
		500(H)/1000	●	
		SIMATIC S7-1200		●
		SIMATIC S7-1500		●
	SIEMENS AG.	SIMATIC S7-400		●
		SIMATIC S7-300		●
Rockwell Automation(Allen Bradely)	SIMATIC S7-200	LOGO!		●
	LOGO!	0BA8		●
	SIMATIC S5	90/95/100/115/135/155U	●	
	ControlLogix	1756	●	●
	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/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	●	
	Quantum	140 CPU All models	●	●
	Momentum	171 CCS/CCC All models	●	●
	M340	M340		●
	PANASONIC Electric Works	FP	●	●
		PROGIC-8	●	
YASKAWA Electric Corporation	MP900/2000/3000	MP920/930/2200/2300	●	●
	Control Pack	CP-9200SH	●	
	SR100	SR100		●
	YOKOGAWA Electric Corporation	FA-M3	●	●
	FUJI Electric	Micrex-SX	●	
		Micrex-F	●	
		F, F□□(S/H), F1□□(S/H), F200	●	
		KV-700/1000/3000/5000/7000/8000	●	●
	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)	●	
	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	●	
	Tiny PLC	TCP-3X/9X	●	
	Qubloc	All models	●	
	Hitachi Industrial Equipment Systems	HIDIC-H	●	
		EH-150	●	

Manufacturer	Series	CPU Type	RS-232C/422/485	Ethernet
		Micro EH	●	
Delta	DVP	DVP series	●	
VIGOR Electric Corporation	M/VB/VH	M series / VB series / VH series	●	
HONEYWELL	HC900	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				
	CB	CB100/400/500/700/900	●	
	FB900/400	All models	●	
	HA900/400	All models	●	
	MA900/901	All models	●	
RKC Instrument	SRV	V-TIO-A/V-TIO-C	●	
	SRX	X-TIO-A	●	
	SA200/100	SA100	●	
	SR Mini HG	H-PCP-A/H-PCP-J	●	
	SRZ	Z-TIO/DIO/CT/COM	●	
	NP200/100	All models	●	
HanyoungNux	NX, PX	NX9/7/3/2, PX9/7	●	
	RT	RT9	●	
	UX100	UX100	●	
	NOVA500	SD5□□/SL5□□/SP5□□/ST5□□	●	
SamwonTech	NOVA300	SD3□□/SS3□□/ST3□□	●	
	SP790	SP7□□	●	
YOKOGAWA Electric Corporation	UT/UP/UM	UT(/UP/UM/UD)3/4/5/7/10□□	●	
	DB	DB1/DB2 All models	●	
	KP	KP1/2/3 All models	●	
	LT	LT23/3/4/830 All models	●	
CHINO Corporation	JU	JU All models	●	
	JW	JW All models	●	
	TSD	V5-SC1T	●	
Human Automation	HSD	NEOS-HSD	●	
On Off Sstern			●	
TOHO	TTM	TTM-00□	●	
	T50	T50	●	
TemcoLine	N50	N5□	●	
	M74	M74	●	
Invertor				
LS Industrial Systems	Starvert Inverter	SV-iS7/G5A/P5A/C5/V5/G5/S5/H/V/S3	●	
Huropec	HC	HC	●	
FUJI Electric Systems	Inverter	FRN□□□□11S-□	●	
Weight Indicator				
AND	AD	AD4326/4327/4328/4329	●	
	CI/NT	CI/NT	●	
CAS	XB	XB	●	
	CI-1580A	CI-1580A	●	
BONGSHIN	BS	BS	●	
SEWHA 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 Series	●	
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				
		V680	●	
OMRON Industrial Automation	RFID	V680S		●
LS Industrial Systems	RFID	XCODE-1306/1307	●	
IDRO	RFID	900F		●
		TRA5		●
CEYON Technology	RFID	CRE1356		●
SICK AG.	RFID	RFH6xx	●	
SYSTEMK	RFID	HFR-2AM/4AM		●

Manufacturer	Series	CPU Type	RS-232C/422/485	Ethernet
Motion Controller				
		iMS-J	●	
DST ROBOT(former DONGBU)	iM-Σ	iM-Σ2/3/4/5/6/7/8	●	
	iM-U	iM-U	●	●
	DTR	DTR2/3/4	●	
ROBOSTAR	Newro	RCS6000/RCM	●	
	MCU	MCU-MA/MP/XA/XP	●	
EMOTIONTEK	MCU2	MCU-MA2/MP2/XA2/XP2	●	
	MCS	MCS-80A4/P4/A8/P8	●	
	MCSH	MCSH-1/2/16/80	●	
	MCST	MCST-16		●
OMRON Industrial Automation	Campositioner	3F88L-160/162	●	
FASTECH	Ezi-Servo	Plus-R	●	
		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□□	●	
Parker Hannifin	Compax3	All models	●	
LinMot	LinRS	B1100/E1100/E1200/E1400	●	
Screw Driver				
KOLVER Srl	EDU	2AE/TOF/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	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		●
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

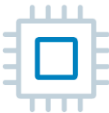
SERIAL 3 PORTS | ETHERNET 2 CHANNEL | USB HOST 2 PORTS | USB OTG | SD CARD
OPTION MODULE | CAMERA | HDMI OUT | AUDIO OUT | VIDEO IN

* 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 combination 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

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

PREMIUM MODEL

DISPLAY UNIT

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		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
	Audio Output	Stereo output Connector: 3.5mm Audio socket x 1
	Printer	Roll Printer(EPSON protocol): RS-232C
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
Structure	External Dimension(mm)	201.6x147.6x37.3
	Weight(kg)	0.82

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): RS-232C
	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 or less
	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

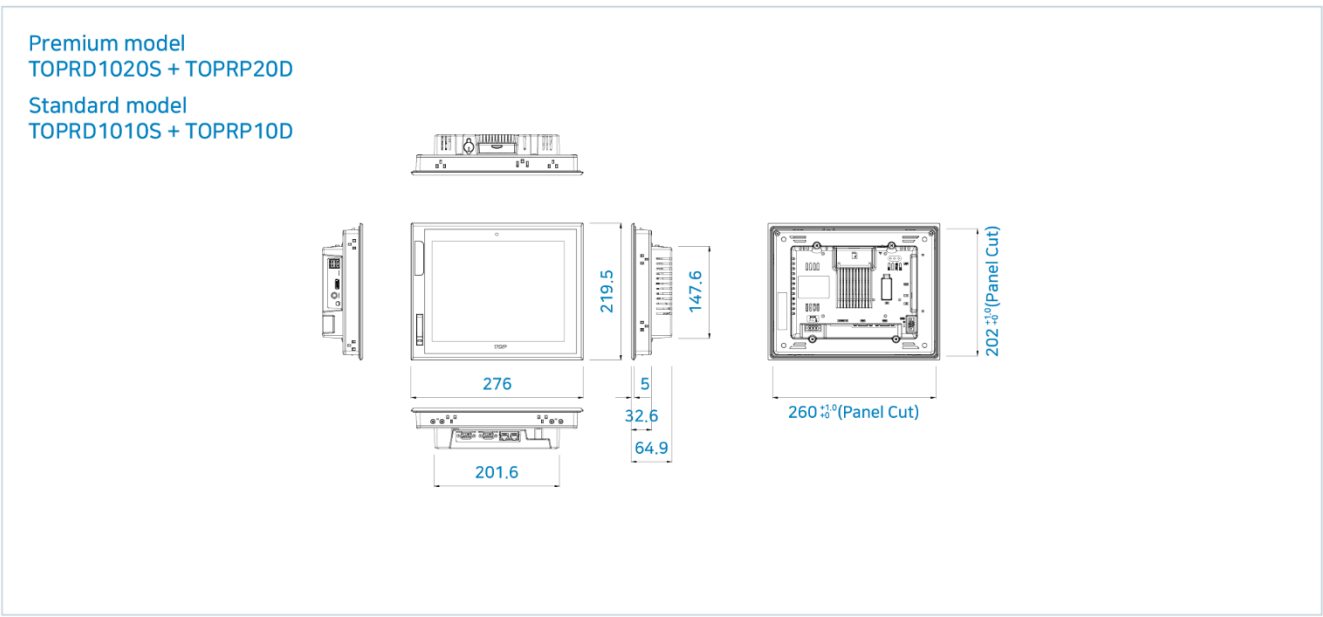
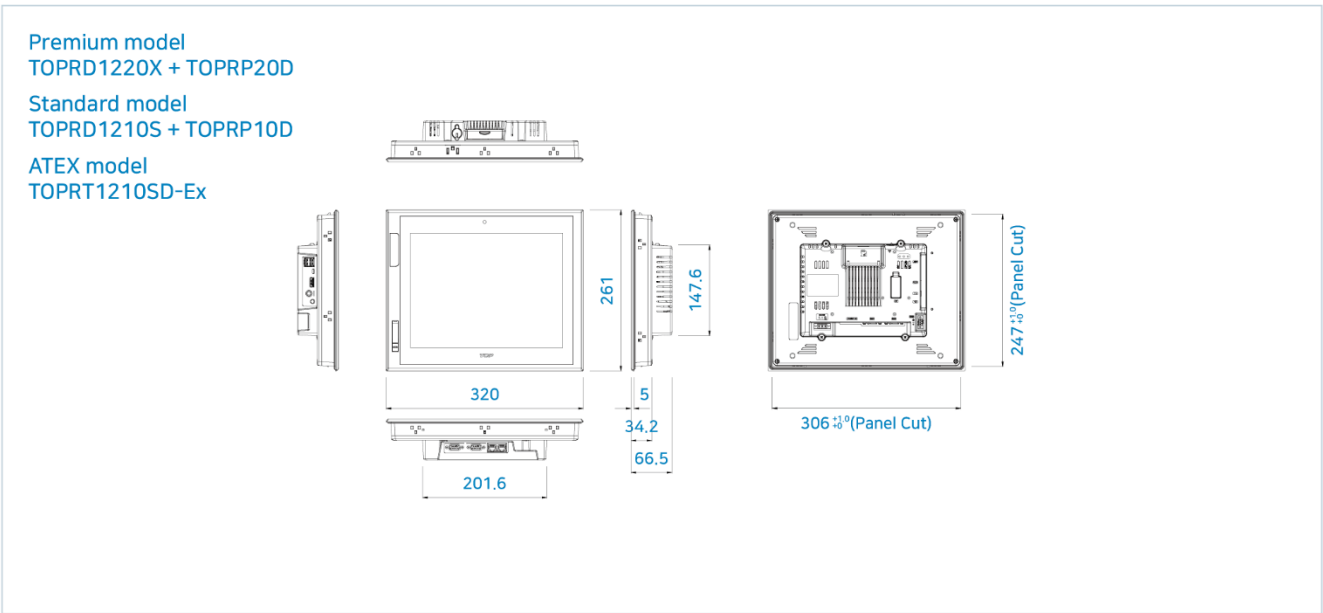
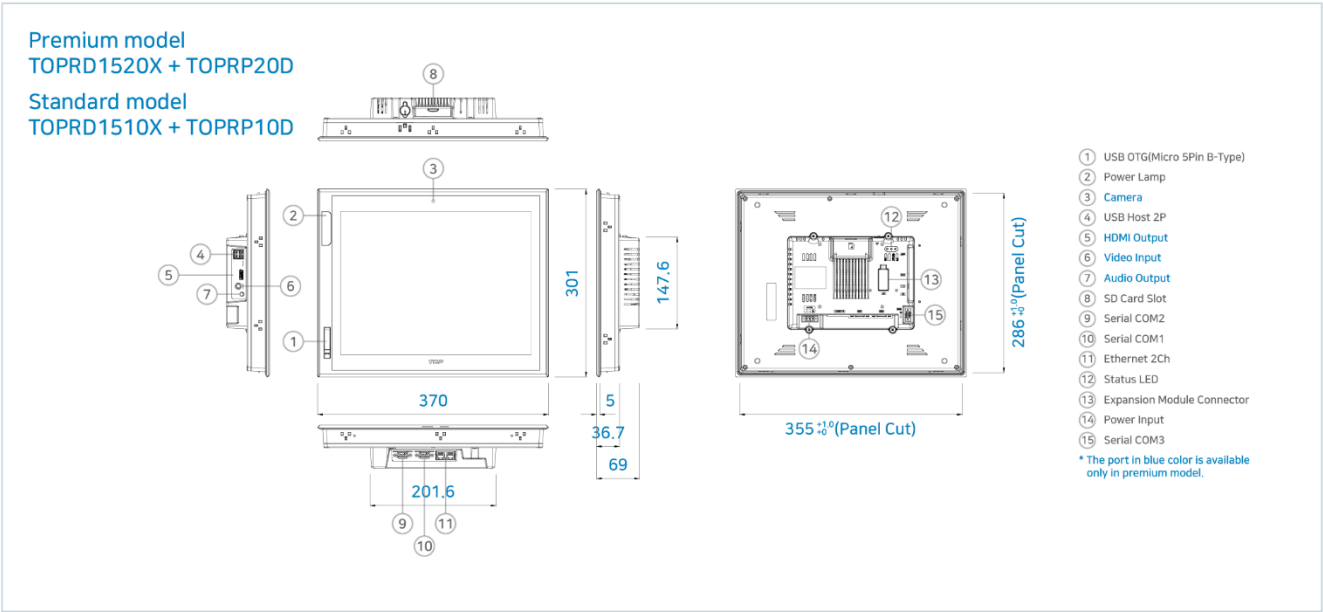
Functional		TOPRT1210SD-Ex
Interface	Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity bit: None/Odd/Even Baud rate: 2400~115.2kbps Connector: DSUB 9pin x 1
	Serial COM2	RS-232C, RS-422/485 Asynchronous Data bit: 7/8 bits, Stop bit: 1/2 bits, Parity 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): RS-232C
	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 or less
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
	Operation Temperature(°C)	-10 ~ +50
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)
	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
	Certification	CE, KC, UL, KCs, CCC, ATEX, IECEx, Hazloc
Structure	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

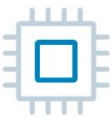
SERIAL 3(2) PORTS | ETHERNET 2(1) CHANNEL | USB HOST | USB OTG | SD CARD

* 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, camera, 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): RS-232C									
	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 or less	15W or less		12W or less						
	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	General model: IP65(Front), Explosion proof model: IP54(Front) for CCC, IP4X(Front) for KCs										
Structure	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

369
300
6
67.2
355 (Panel Cut)
286 (Panel Cut)

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

320
261
6
64.7
306 (Panel Cut)
247 (Panel Cut)

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

274
216
6
64.7
260 (Panel Cut)
202 (Panel Cut)

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

236
182
6
58.9
222 (Panel Cut)
168 (Panel Cut)

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

172
140
6
58
158 (Panel Cut)
126 (Panel Cut)

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

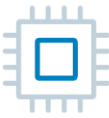
SERIAL 2 PORTS | ETHERNET 1 CHANNEL | [USB HOST](#) | USB OTG | SD CARD

* 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

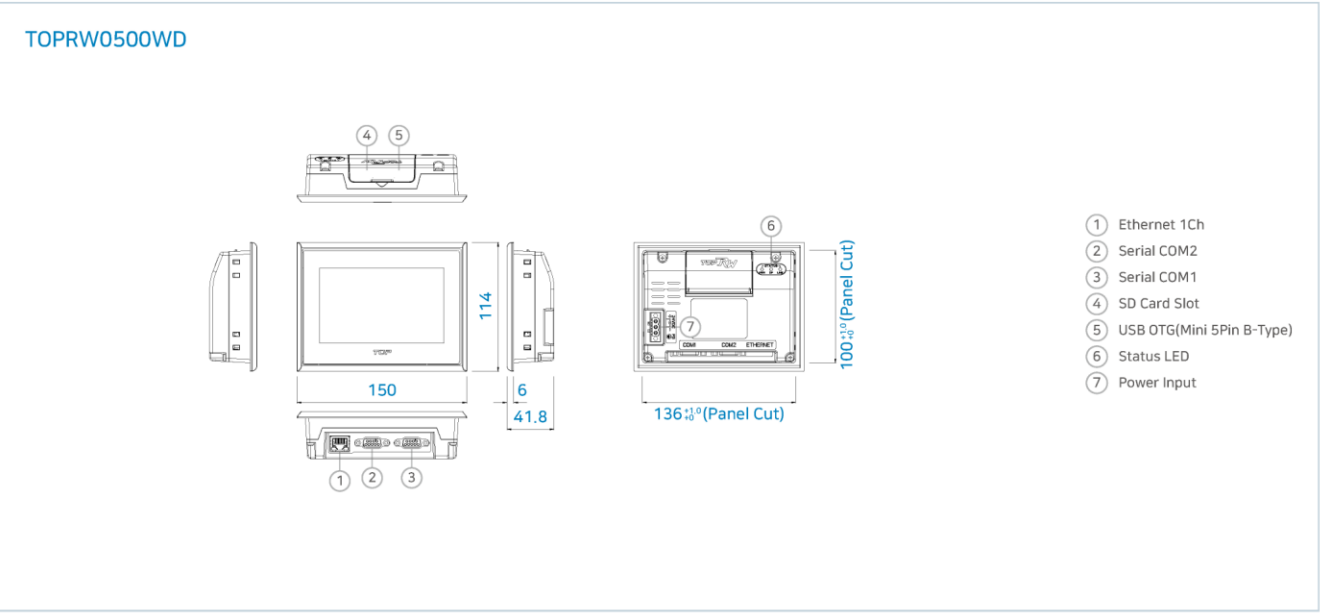
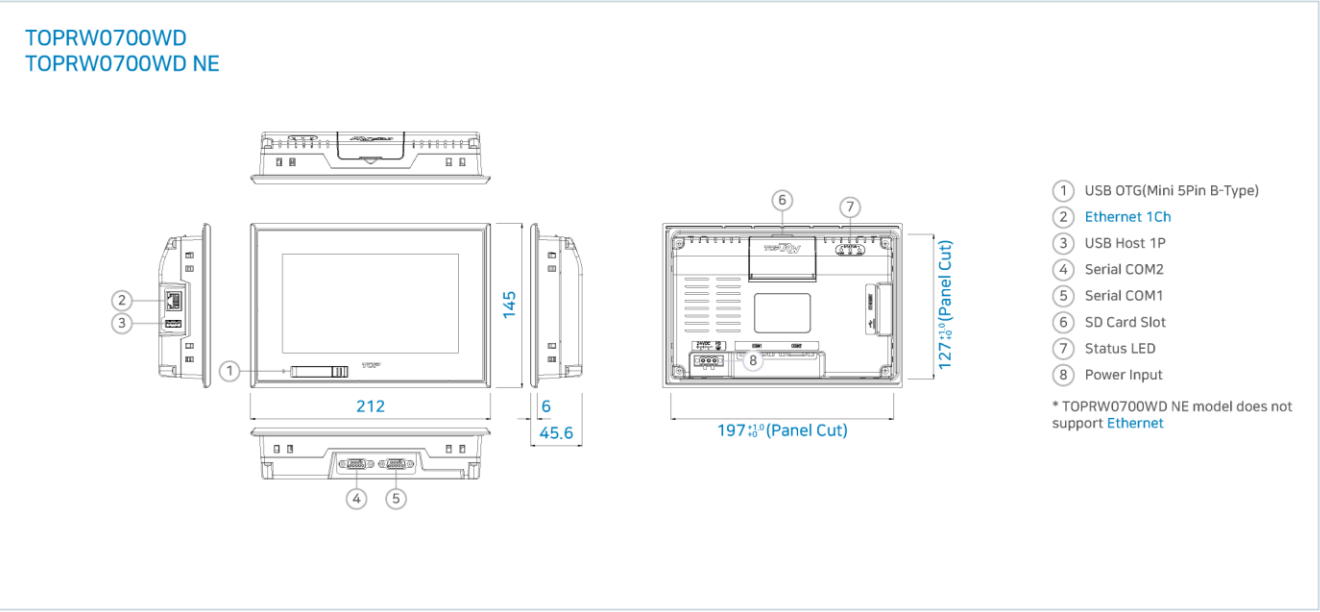
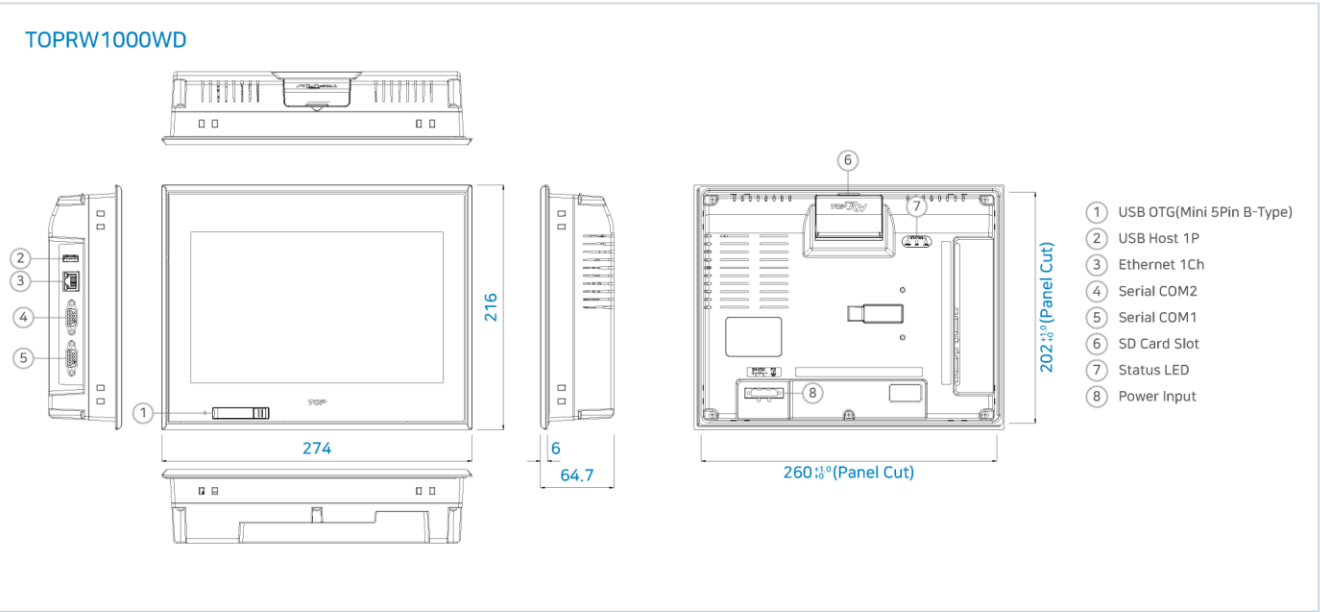
Supporting both HOST mode(USB devices i.e.Memory, barcode reader, camera, etc) and program transmission mode

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): RS-232C				
	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	Input Voltage	24Vdc(20~28Vdc)				
	Power Consumption	15W or less	12W or less			
	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)				
Structure	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





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



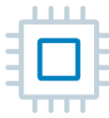
REFINED INTEGRATED BODY

Refined integrated body with advantage
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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, camera, 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	
		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 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	
	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): RS-232C	
	IO Function	Digital Input 16ch, Digital Output 16ch, Analog Input(Voltage 2ch, Current 2ch), Analog Output(Voltage 2ch, Current 2ch), RTD 2ch	
		Digital Input 16ch, Digital Output 16ch	
	Memory & Others	128MB	
		512KB: System buffer(10K Word), Including Alarm/Logging/Recipe	
		Permanent	
		Built in	
	Status LED	3 LEDs(Power, Operation, Link) Built in	
	Power	24Vdc(20~28Vdc)	
		15W or less	
		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 under)	
	Protection Classification	IP65(Front)	
	Certification	CE, KC	
	Panel Cut(mm)	197x127	
Structure	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



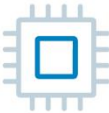
INTERFACE

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

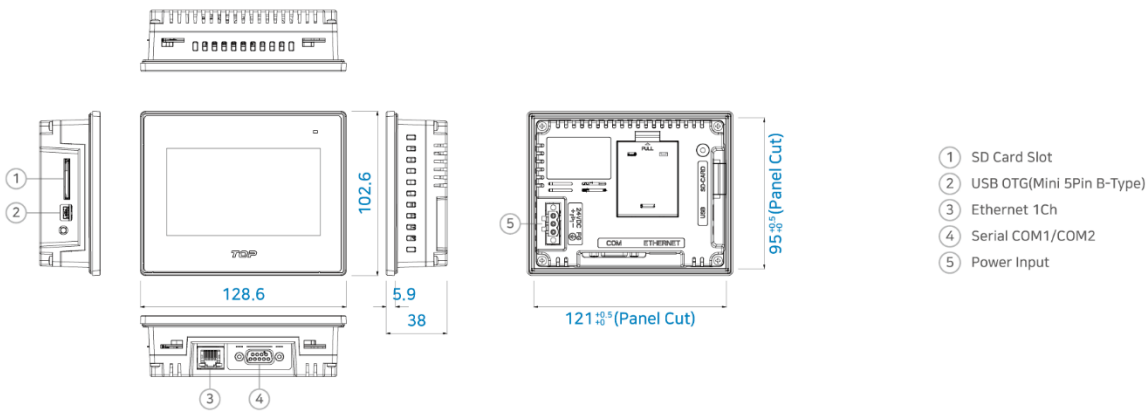
Supporting both HOST mode(USB devices i.e.Memory, barcode reader, camera, etc) and program transmission mode

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 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
	USB OTG	
	SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
	Printer	Roll Printer(EPSON protocol): RS-232C
Memory & Others	Screen Memory	64MB
	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	12W or less
	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)
	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



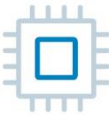
INTERFACE

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

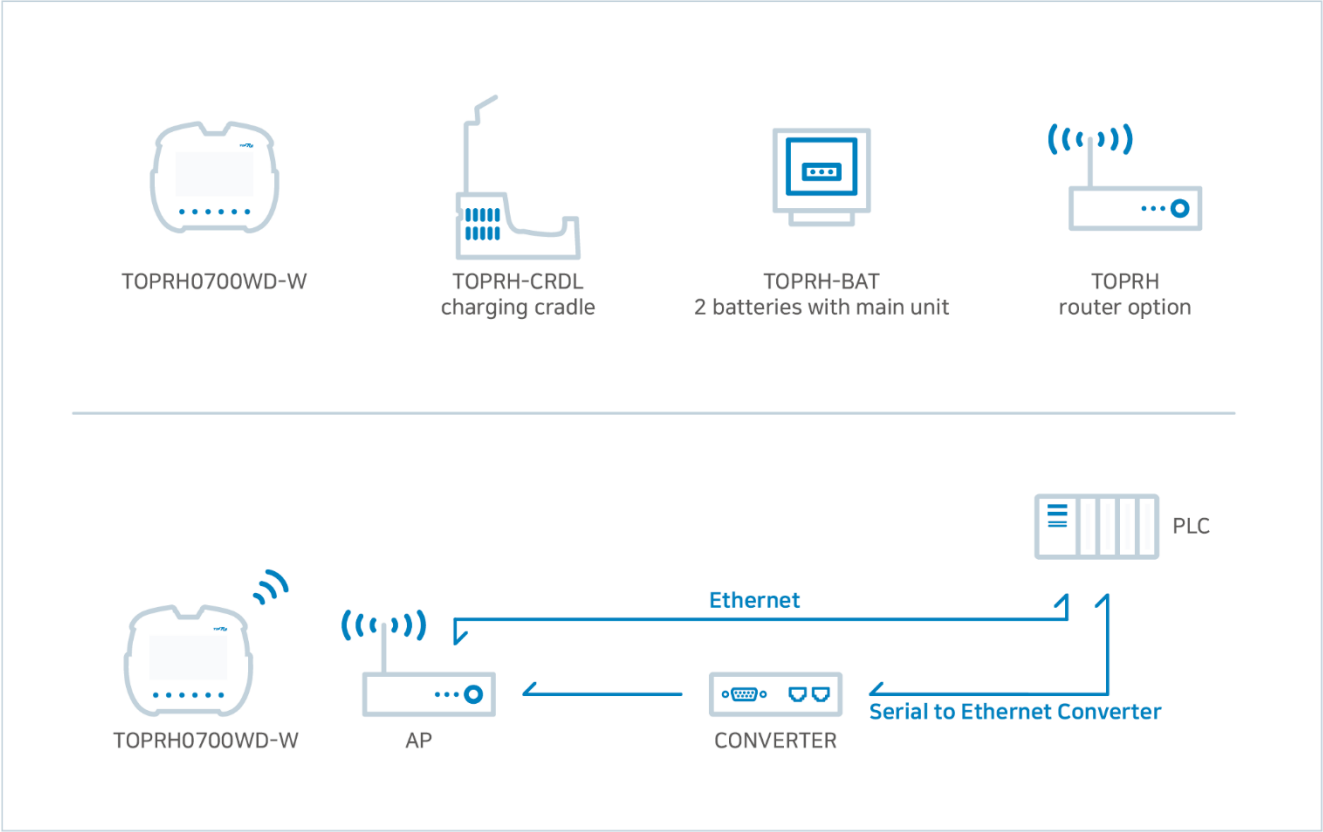
Support 1024x600 high resolution screen

TOPRH WIRELESS / CHARGING CRADLE SPECIFICATIONS

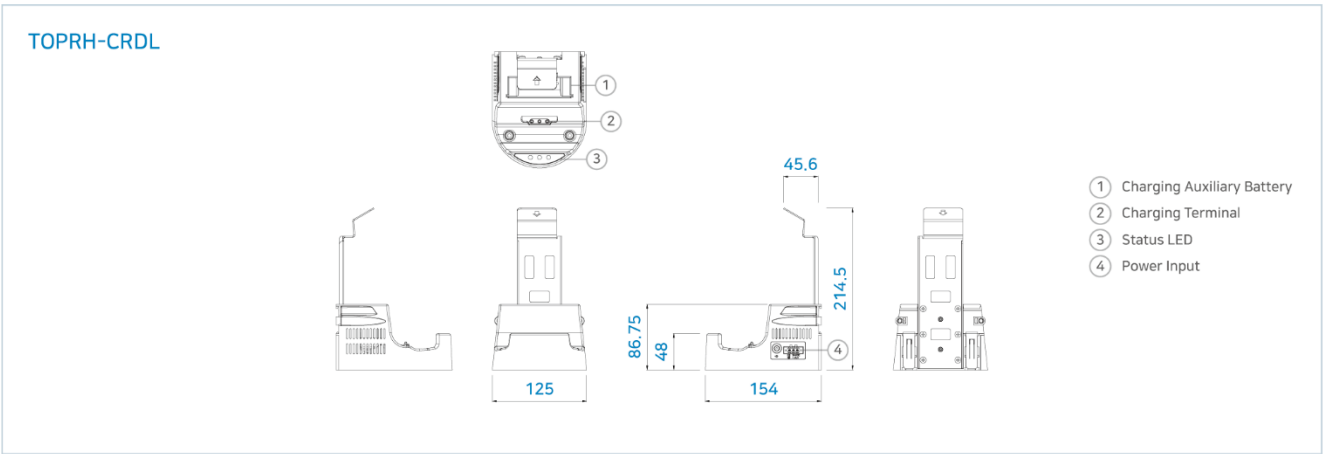
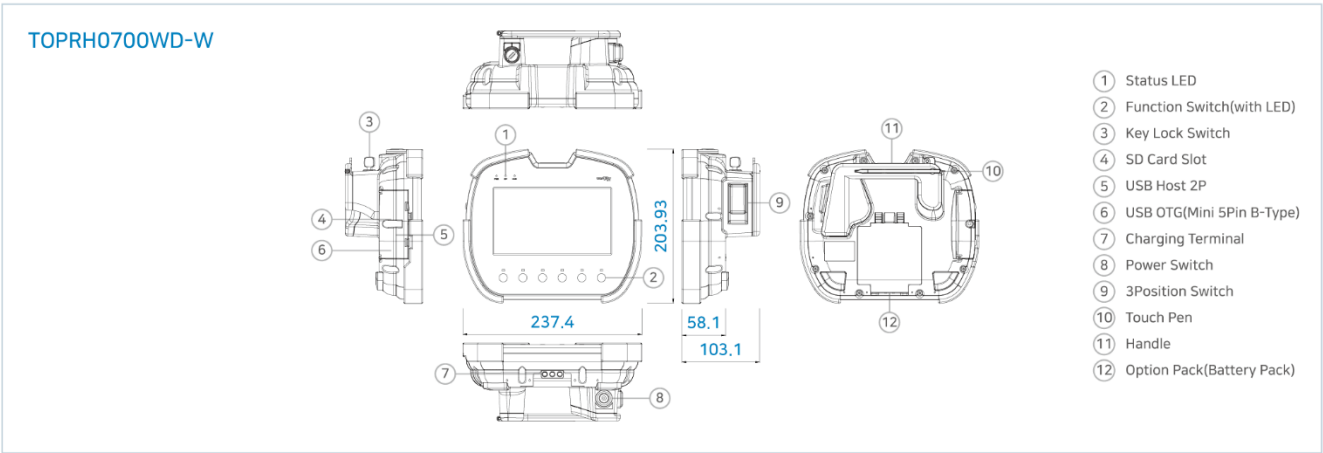
Functional		TOPRH0700WD-W
Display	Display Type	7" TFT Color
	Color	16M Colors
	Display Area(mm)	154.21x85.92
	Resolution(dot)	1024x600
	Brightness Level	10 Levels(by software)
	Backlight Type	LED
	Backlight Life	50,000 hours
Touch	Touch Type	Analog resistive film
	Resolution(Cell)	1024x600
	Touch Life	1 million times or more
Interface	Wireless LAN	2.4G: 2.400GHz~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
	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
	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
Memory & Others	Real Time Clock	Built in
	Status LED	3 LEDs(Power, Operation, Link) Built in
Battery	Rechargeable & 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 or less(In Battery Pack)
Environment	Operation Temperature(°C)	+10 ~ +45
	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)
Structure	Protection Classification	IP65
	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 or less(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)
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV
Structure	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



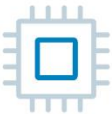
INTERFACE

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



ERGONOMIC AND REFINED DESIGN

Stable and comfortable grip



FUNCTION KEY, TOUCH PENCIL

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



TOUCH DRAG FEATURE

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



16M FULL COLOR

Bright and vivid full color, supports vector image library



KEY LOCK/EMERGENCY /3 POSITION SWITCH

Safe use with KEY lock/Emergency /3 Position switch



SHOCK PREVENTING BUMPER

Solid body and added silicon bumper for safer use



SUPPORT HIGH RESOLUTION

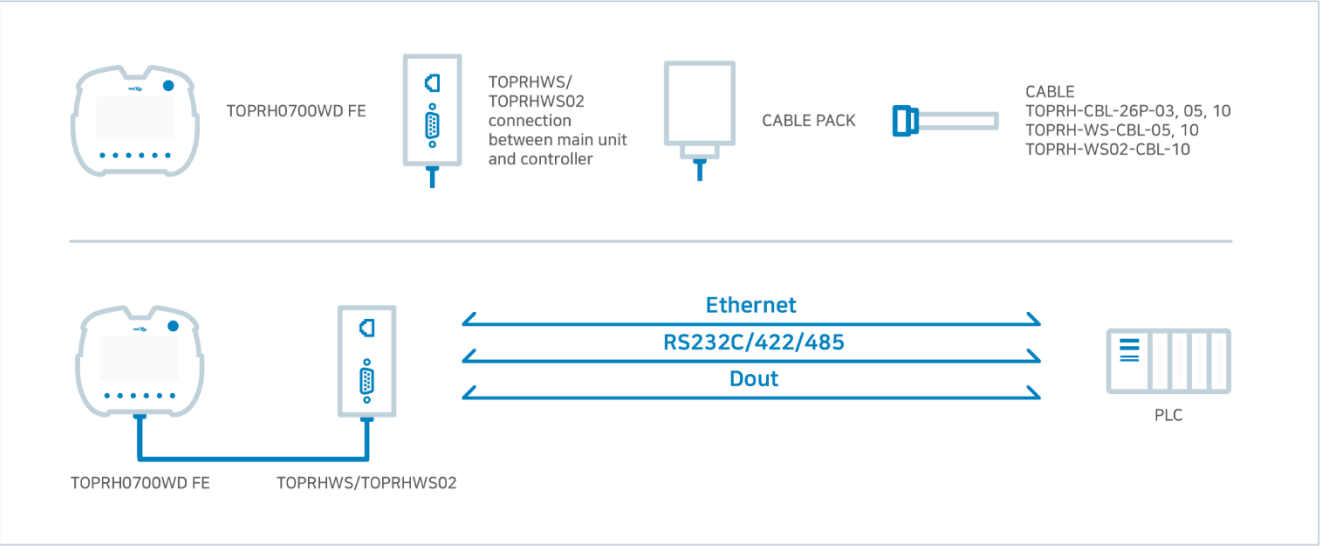
Support 1024x600 high resolution screen

TOPRH WIRED / TOPRHWS SPECIFICATIONS

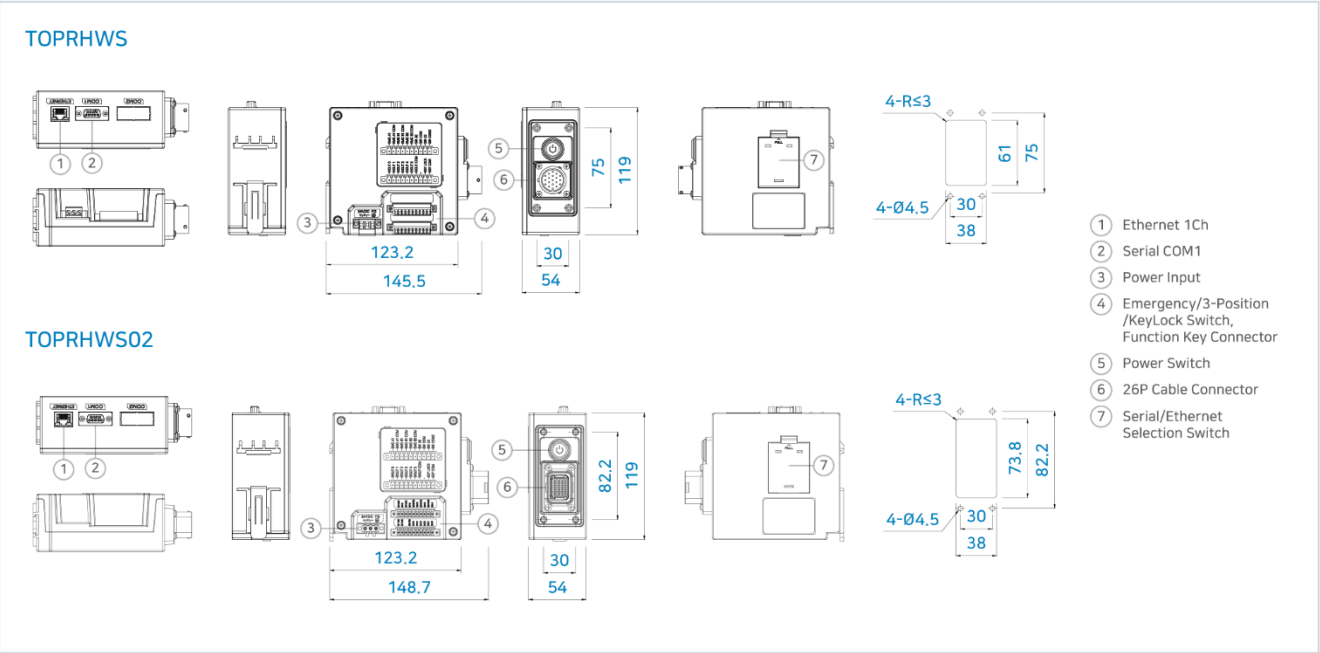
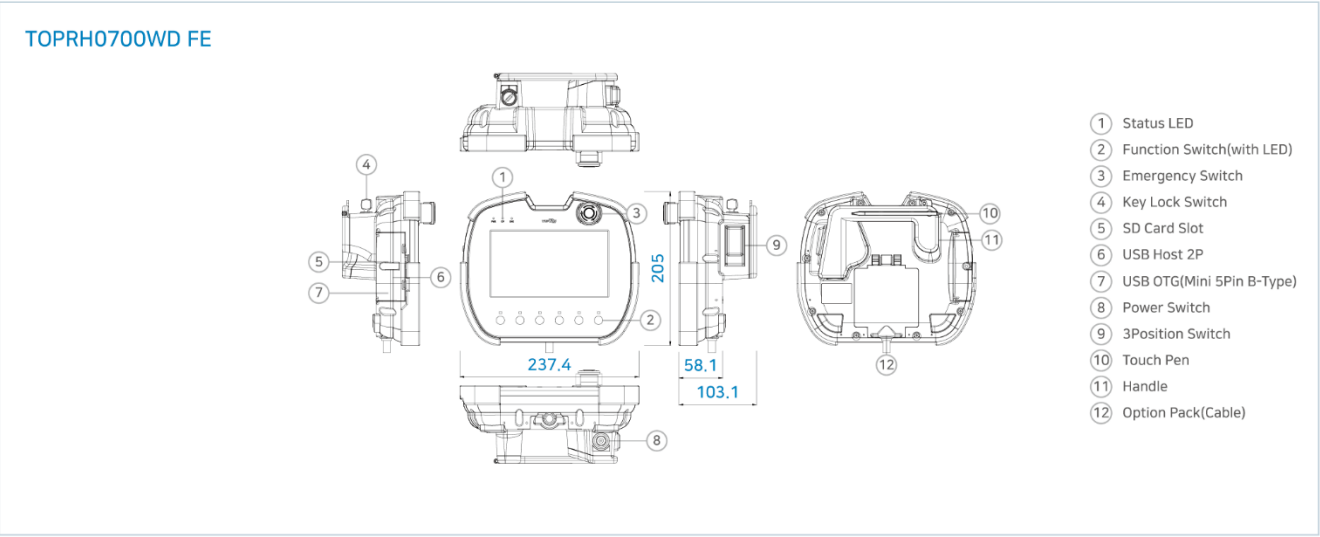
Functional		TOPRH0700WD FE
Display	Display Type	7" TFT Color
	Color	16M Colors
	Display Area(mm)	154.21x85.92
	Resolution(dot)	1024x600
	Brightness Level	10 Levels(by software)
	Backlight Type	LED
Touch	Backlight Life	50,000 hours
	Touch Type	Analog resistive film
	Resolution(Cell)	1024x600
	Touch Life	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): RS~232C
	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 or less
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
Environment	Operation Temperature(°C)	-10 ~ +45
	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)
	Protection Classification	IP4X
Structure	Certification	CE, KC
	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)	
Power	Input Voltage	24Vdc(20~28Vdc)	
	Power Consumption	20W or less	
	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)	
Structure	Ground Connection	Class 3(100Ω under)	
	Certification	CE, KC	
	External Dimension(mm)	145x119x54	148x119x54
	Weight(kg)	0.3	
	Cooling System	Natural air circulation	
	Case Material	PC(Resistance to flame)	

PRODUCT COMPOSITION



DRAWING





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): RS-232C
	Screen Memory	128MB
	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, SD Card) Built in
Power	Input Voltage	24Vdc(20~28Vdc)
	Power Consumption	10W or less
	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 or less)
	Protection Classification	IP20
Structure	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)



2 Channel KVM Touch Monitor
with Capacitive Touch and FHD LCD

MDP Series

2CH KVM TOUCH MONITOR

TOUCH MONITOR



INTERFACE

HDMI 2 PORTS | USB UP STREAM 2 PORTS | USB DOWN STREAM 2 PORTS

CERTIFICATION



FEATURES



2 CHANNEL TOUCH MONITOR

Industrial 2 channel touch monitor
Display channel switching by touch 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/USB INTERFACE

HDMI 2 Channels
USB 2 Channels(UP 2 ports, DOWN 3 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

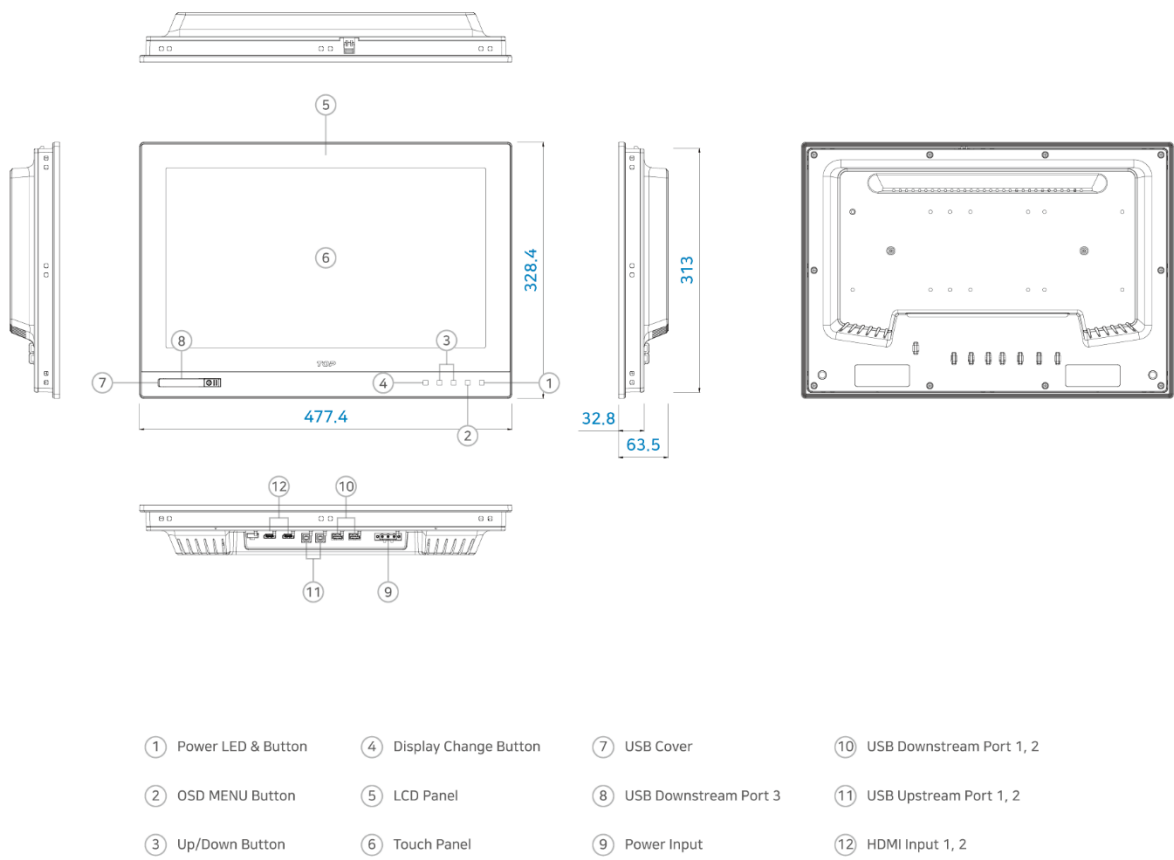
Convenient attachment with M2I's box HMI
and box PC

MDP SPECIFICATIONS

Functional		MDP-DC1900WD
Display	Display Type	18.5" TFT Color
	Backlight Life	50000 hour
	Aspect Ratio	16 : 9
	Color	16M
	Viewing Angle(H/V)	89/89/89/89
	Contrast Ratio	1000 : 1
	Response Time	20ms
	Brightness	350Cd/m2
Touch	Recommend Resolution	1920 x 1080
	Touch Type	Capacitive touch
Interface	HDMI Input	2 Ports
	USB Up Stream	USB Type B x 2(Rear x 2)
	USB Down Stream	USB Type A x 3(Front x 1, Rear x 2)
OSD Controls	Capacitive Touch Button	KVM/Up/Down/Menu, Select/Power
Power	Input Voltage	24Vdc(20~28Vcd)
	Power Consumption	40W or less
	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)
	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)
Structure	Certification	CE, KC
	Panel Cut(mm)	463 x 314
	External Dimension(mm)	477.4 x 328.4 x 63.5
	Weight(kg)	5.0
	Cooling System	Natural air circulation
	Case Material	Aluminum + Plastic
	VESA Wall Mount Holes(mm)	100 x 100

DRAWING

MDP-DC1900WD



Agency Introduction

HMI Specialized Company

■ More than 20 oversea sales agencies ■

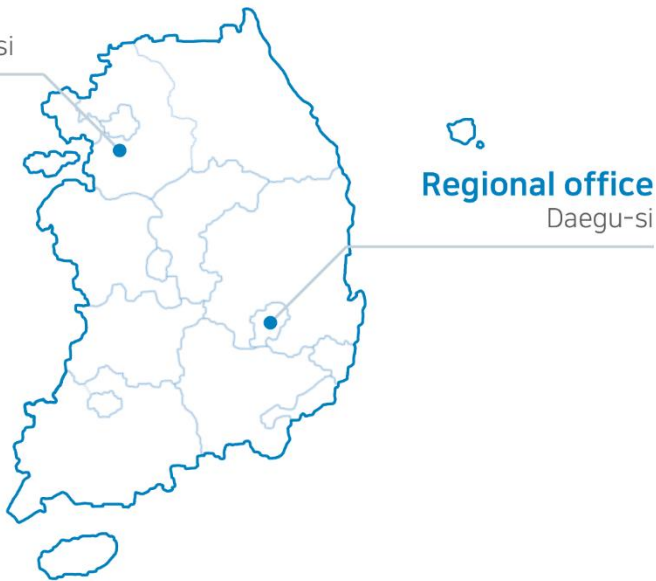


China, Japan, Singapore, India, Turkey, Vietnam, Israel, Malaysia, Thailand, Greece, France, Iran, Jordan, etc.

■ 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**