MITSUBISHI ELECTRIC
Changes for the Better

for a greener tomorrow

Mitsubishi Electric HMI migration guide

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End of Life Statement

Mitsubishi have been selling Beijer manufactured HMIs for many years now and since their release, the E1000 and iX HMI series have proved to be very popular. However, as some of these products are now over 10 years old the time is right for us to move on to the more modern Mitsubishi Electric GOT2000 series. Therefore as of 30th Nov E1000 and iX HMI products will be discontinued and be replaced by their GOT2000 equivalents, as these enable us to offer our customers greater performance, more features and better value for money.

Phase out schedule:

Last time buy (LTB) – 30/11/15

Last date when Mitsubishi Electric will accept customer orders.

End of Service (EOS) – 30/11/22

Service and support will be offered until this date, thereafter at the discretion of Mitsubishi Electric.

Why change to GOT?

- **Quality**
  - Mitsubishi Electric stands for superior quality products and can therefore offer a 3 year warranty period.
- **Integration**
  - The GOT HMI products integrate perfectly with the other automation products of Mitsubishi Electric such as PLCs. Servos, Inverters and Robots.
- **Security / Stability / Speed**
  - The VxWorks operating system of the GOTs ensures a secure, stable, high speed environment.
- **State-of-the-Art technical specifications**
  - GOT products offer state-of-the-art HMI technology such as TFT LCD colour displays, LED backlights and built-in interfaces (Ethernet, USB, RS232, RS-422/485 SD card)
- **Pre-designed screen templates**
  - The GOT programming environment offers a comprehensive library of pre-designed template screens for various kind of applications e.g. trends, alarms and Mitsubishi Electric automation product monitoring screens.
- **Key functions of GOTs**
  - Multi-Touch / Gesture Control
  - Multimedia Functions
  - Debugging Functions
  - Document Display
  - VNC Remote Access
  - Email
  - MES Interface
  - FTP Server / Client
  - Operation Log
  - Data Logging
  - Multi Channel
  - FA Transparent
  - Operator Authentication
  - Backup / Restore
- **Gloves? No problem....**
  - In dirty environments users can still operate GOT2000 HMIs reliably due their use of resistive touchscreen technology.

Why change to MAPS?

- **Openness**
  - Easy to use on any system irrespective of manufacturer
- **Data logging & Database connectivity**
  - Enables users to accurately measure and record plant performance
- **Reporting & Alarm Management**
  - Live data that's easy to understand
- **Proven & Reliable**
  - Peace of mind
- **Open scripting**
  - Allows users to customise applications
- **Vector graphics**
  - Clear, scalable attractive graphics
- **Real Time Software**
  - No compilation, online configuration
- **Object oriented programming using Wizards and Templates**
  - Minimised engineering time
- **Flexibility to grow from MAPS HMI to full blown SCADA system**
  - Wide choice of scalable products for any application size
- **Windows10 ready**
  - Future-proof

Why change to MAPS HMI?

- **Real Time Software**
  - MAPS HMI needs no compilation and no download, just online configuration.
  - Design changes are reflected instantly to the visualisation interface.
- **Openness**
  - More than 100 drivers to 3rd party automation products are integrated in MAPS HMI.
  - Due to latest .net integration all Microsoft visual studio scripting languages (C#, VB.net) can be used.
- **Database connectivity / Historian functionality**
  - MAPS HMI connects to all OLE DB compliant databases for data storage, reporting and recipe handling.
- **Reporting**
  - By using the data in a database, users benefit from the free Microsoft report builder and can create custom reports as well as pre-defined reports with the MAPS HMI report suite.
- **Alarm Management**
  - Multiple built-in alarm functionalities with groups, levels, hierarchies and priorities to display alarm messages in a user friendly and an easy to understand interface minimising downtime.
- **Latest software technology**
  - Future proof software due to full integration of the latest Microsoft Windows technologies. MAPS HMI already supports Windows 10.
- **Vector graphics**
  - Over 300 2D & 3D static and dynamic industrial and common use vector symbols integrated, for efficient engineering. XAML (Microsoft vector graphics standard) offers import of additional vector graphics.
- **Object oriented environment using Wizards and Templates**
  - Easy standardisation with an object oriented approach creating intelligent, reusable objects in their own libraries.
- **Flexibility to grow from MAPS HMI to full SCADA system**
  - Seamless upgrade path to expand MAPS HMI to a distributed SCADA system.

E1012 to GT21 & GS21

Unit	Type	Display	Resolution	SD Card
E1012	Key	Mono STN	160x32	No
GT2104-RTBD	Touch	4.3" TFT Colour	480x272	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1012	✓	✓	-	-	Ethernet
GT2104	✓	RS422	✓	✓	-

Additional Notes

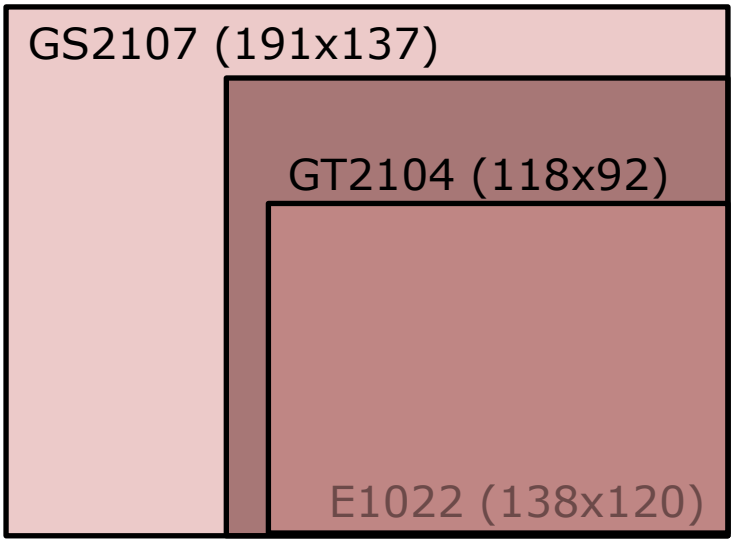
Panel Cut out (Approx. to scale)

E1022 to GT21 & GS21

Unit	Type	Display	Resolution	SD Card
E1022	Key	Mono STN	240x64	No
GT2104-RTBD	Touch	4.3" TFT Colour	480x272	✓
GT2107-WTBD	Touch	7” widescreen TFT	800 x 480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1022	✓	✓	-	-	Ethernet
GT2104/GS2107	✓	RS422	✓	✓	-

Additional Notes



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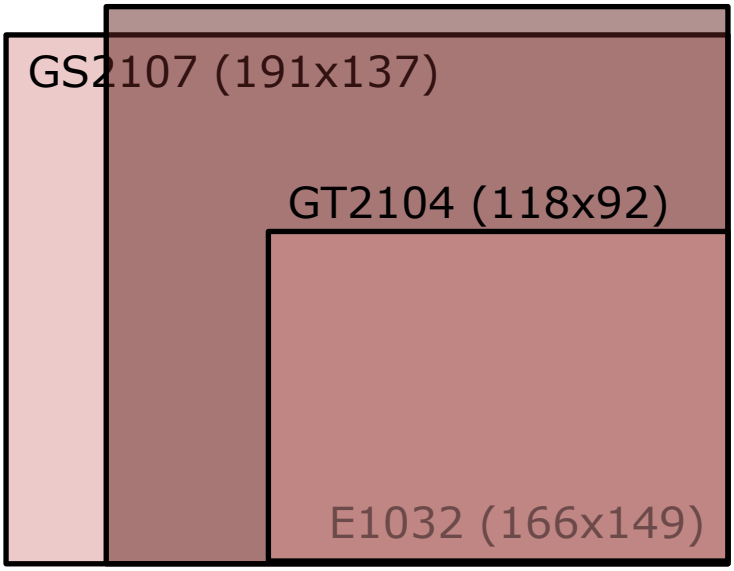
E1032 to GT21 & GS21

Unit	Type	Display	Resolution	SD Card
E1022	Key	Mono STN	240x64	No
GT2104-RTBD	Touch	4.3" TFT Colour	480x272	✓
GT2107-WTBD	Touch	7” widescreen TFT	800 x 480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1022	✓	✓	-	-	Ethernet
GT2104/GS2107	✓	RS422	✓	✓	-

Additional Notes



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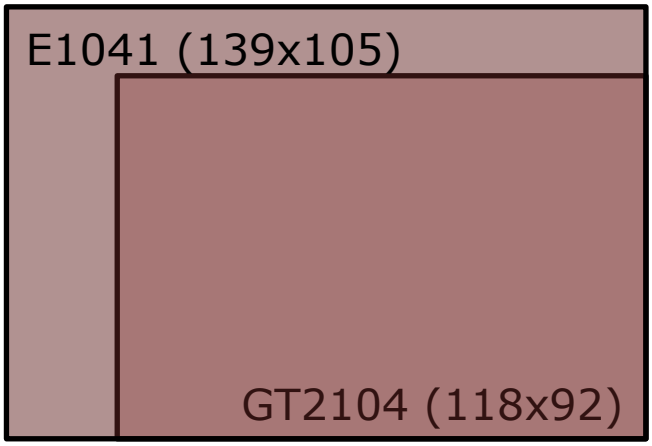
E1041 to GT2104

Unit	Type	Display	Resolution	SD Card
E1041	Touch	3.5” TFT Colour	320x240	No
GT2104-RTBD	Touch	4.3" TFT Colour	480x272	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1041	✓	✓	✓	✓	Profibus
GT2104-RTBD	✓	✓	✓	✓	-

Additional Notes



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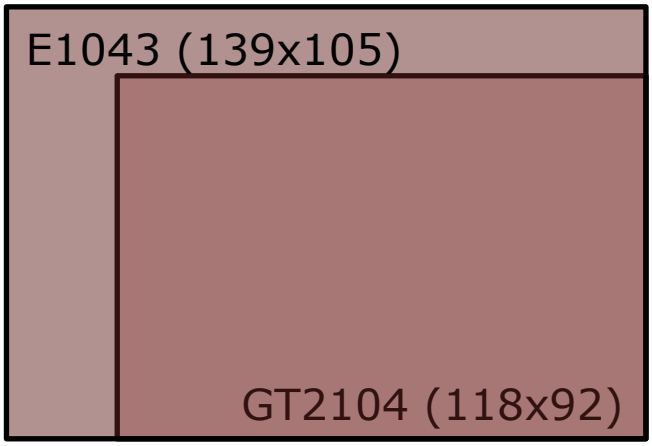
E1043 to GT2104

Unit	Type	Display	Resolution	SD Card
E1043	Touch	3.5” TFT Grayscale	320x240	No
GT2104-RTBD	Touch	4.3" TFT Colour	480x272	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1043	✓	✓	✓	✓	Profibus
GT2104-RTBD	✓	✓	✓	✓	-

Additional Notes



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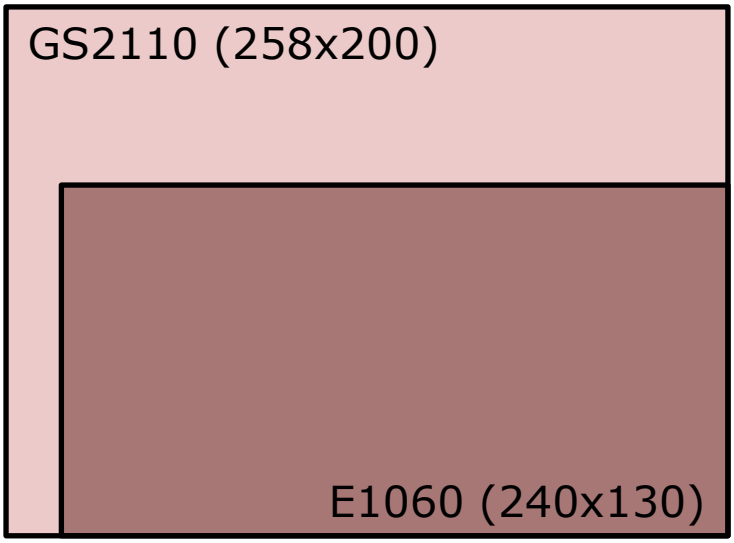
E1060 to GS2110

Unit	Type	Display	Resolution	SD Card
E1060	Key	5.7” TFT Colour	320x240	No
GS2110-WTBD	Touch	10" TFT Colour	800x480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1060	✓	✓	✓	✓	Profibus
GS2110-WTBD	✓	RS422	✓	✓	-

Additional Notes



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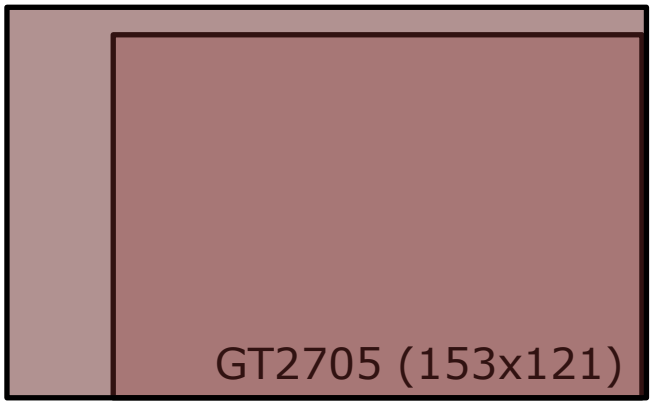
E1061 to GT2705

Unit	Type	Display	Resolution	SD Card
E1061	Touch	5.7” TFT Colour	320x240	No
GT2705-VTBD	Touch	5.7” TFT Colour	640x480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1061	✓	✓	✓	✓	Profibus
GT2705-VTBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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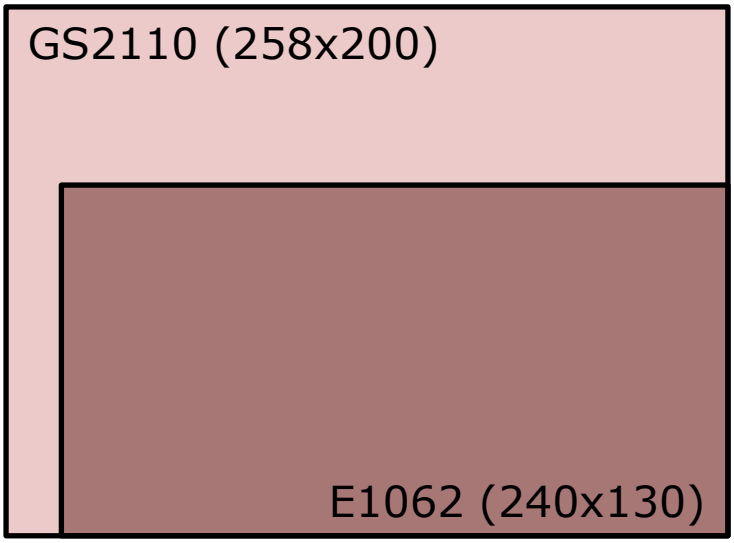
E1062 to GS2110

Unit	Type	Display	Resolution	SD Card
E1062	Key	5.7” TFT Grayscale	320x240	No
GS2110-WTBD	Touch	10" TFT Colour	800x480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1062	✓	✓	✓	✓	Profibus
GS2110-WTBD	✓	RS422	✓	✓	-

Additional Notes



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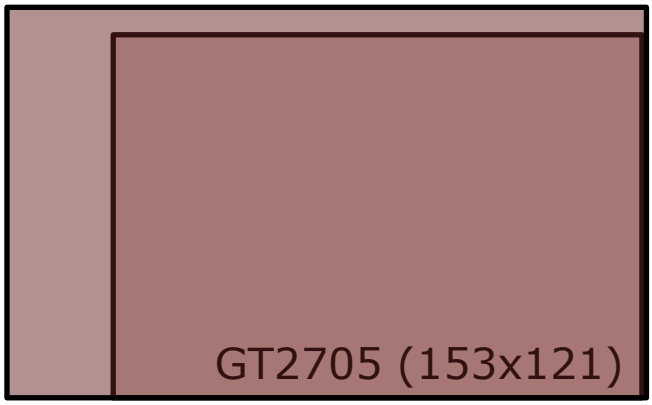
E1063 to GT2705

Unit	Type	Display	Resolution	SD Card
E1063	Touch	5.7” TFT Grayscale	320x240	No
GT2705-VTBD	Touch	5.7” TFT Colour	640x480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1063	✓	✓	✓	✓	Profibus
GT2705-VTBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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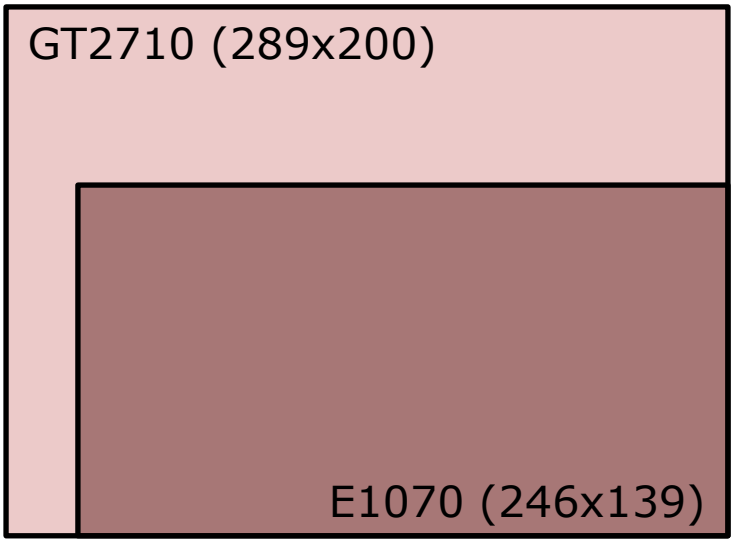
E1070 to GT2710

Unit	Type	Display	Resolution	SD Card
E1070	Key	6.5” TFT Colour	640x480	No
GT2710-STBD	Touch	10.4” TFT Colour	800x600	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1070	✓	✓	✓	✓	Profibus
GT2710-STBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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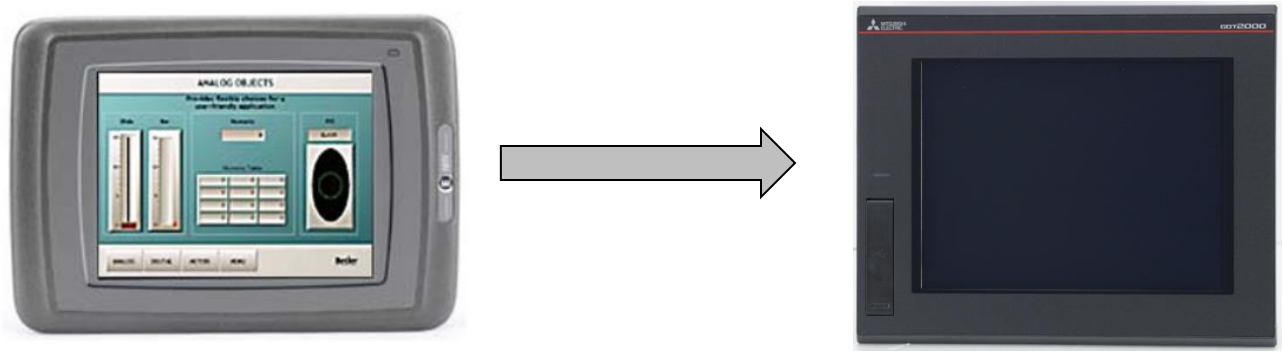
E1071 to GT2708

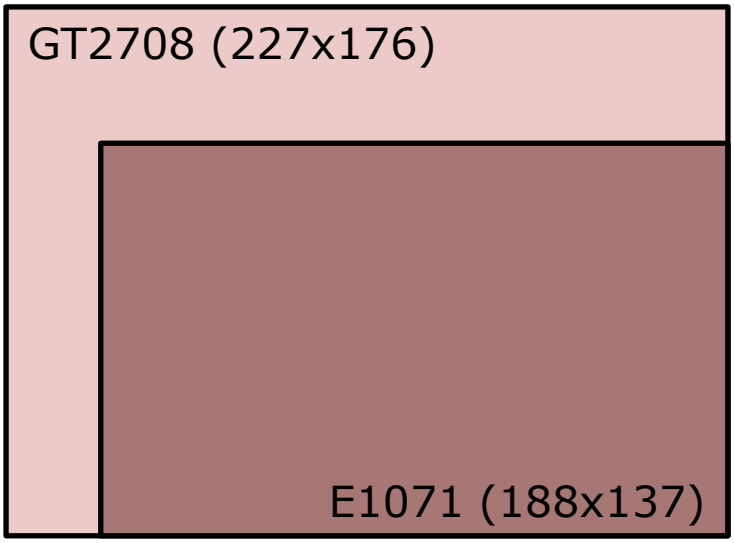


Unit	Type	Display	Resolution	SD Card
E1071	Touch	6.5” TFT Colour	640x480	No
GT2708-VTBD	Touch	8.4” TFT Colour	640x480	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1071	✓	✓	✓	✓	Profibus
GT2708-VTBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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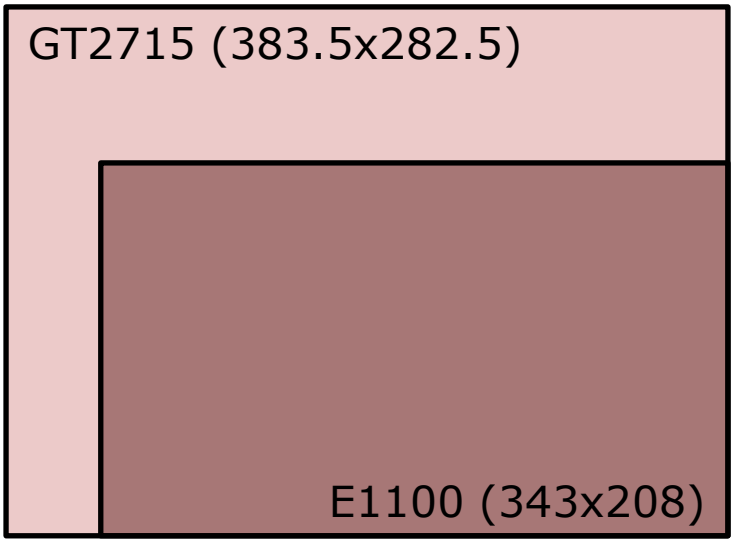
E1100 to GT2715

Unit	Type	Display	Resolution	SD Card
E1100	Key	10.4” TFT Colour	800x600	No
GT2715-XTBD	Touch	15” TFT Colour	1024x768	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1100	✓	✓	✓	✓	Profibus
GT2715-XTBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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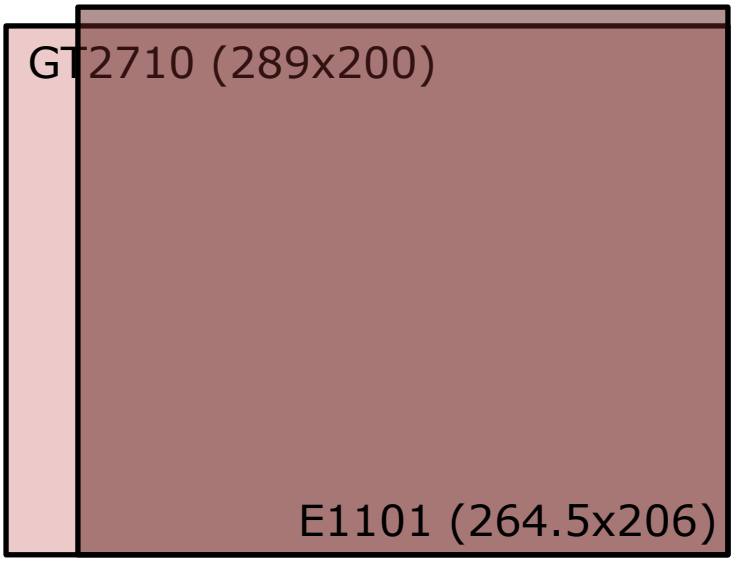
E1101 to GT2710

Unit	Type	Display	Resolution	SD Card
E1101	Touch	10.4” TFT Colour	800x600	No
GT2710-STBD	Touch	10.4” TFT Colour	800x600	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1101	✓	✓	✓	✓	Profibus
GT2710-STBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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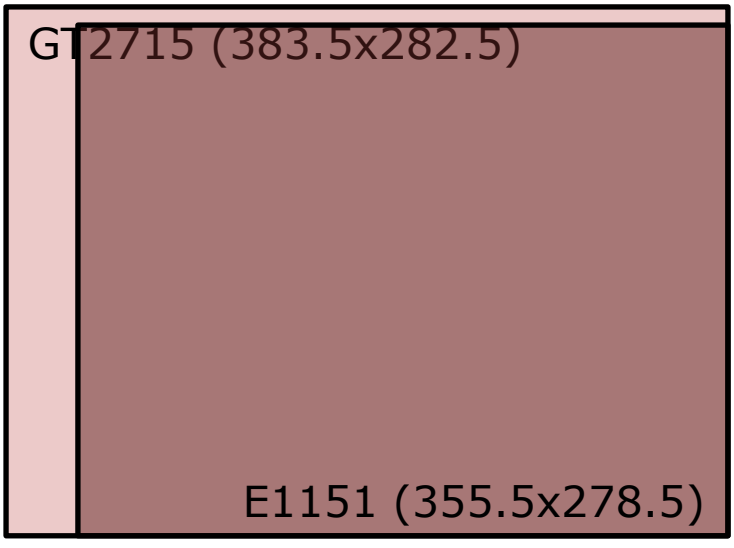
E1151 to GT2715

Unit	Type	Display	Resolution	SD Card
E1151	Touch	15” TFT Colour	1024x768	No
GT2715-XTBD	Touch	15” TFT Colour	1024x768	✓

Unit	RS232	RS422/485	USB	Ethernet	Network options
E1151	✓	✓	✓	✓	Profibus
GT2715-XTBD	✓	✓	✓	✓	*

* CC-Link. CC-Link IE. CC-Link IE Field. MELSECNET/H. Bus

Additional Notes



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GOT Cables

Product name		Model name	Cable length	Recommended product *1	Specifications	Applicable model			
						GT27	GT25	GT23	GT21
RS-422 conversion cable		FA-CNV2402CBL	0.2m	○	Between QCPU/L02SCPU(-P) and RS-422 cable (GT01-C□R4-25P, GT10-C□R4-25P, GT21-C□R4-25P5) Between L6ADP-R2 and RS-422 cable (GT01-C□R4-25P, GT10-C□R4-25P, GT21-C□R4-25P5) [MINI-DIN6 pin and D-sub 25-pin]	●	●	●	●
		FA-CNV2405CBL	0.5m						
RS-422 cable	QnA/A/FXCPU direct connection cable Computer link connection cable CC-Link(G4) connection cable	GT01-C30R4-25P	3m	–	Between QnA/ACPU/motion controller CPU (A series)/FXCPU and GOT Between RS-422 conversion cable (FA-CNV□CBL) and GOT Between serial communication module and GOT Between peripheral connection module (AJ65BT-G4-S3) and GOT [Between D-sub 25-pin and D-sub 9-pin]	●	●	●	● *3 *4
		GT01-C100R4-25P	10m						
		GT01-C200R4-25P	20m						
		GT01-C300R4-25P	30m						
		GT10-C30R4-25P	3m	–	Between QnA/ACPU/motion controller CPU (A series)/FXCPU and GOT Between RS-422 conversion cable (FA-CNV□CBL) and GOT Between serial communication module and GOT Between peripheral connection module (AJ65BT-G4-S3) and GOT [Between D-sub 25-pin and loose wire (connector terminal block 9-pin)]	–	–	–	● *3
		GT10-C100R4-25P	10m						
		GT10-C200R4-25P	20m						
		GT10-C300R4-25P	30m						
		GT21-C30R4-25P5	3m	–	Between QnACPU and GOT Between RS-422 conversion cable (FA-CNV□CBL) and GOT Between serial communication module and GOT Between peripheral connection module (AJ65BT-G4-S3) and GOT [Between D-sub 25-pin and loose wire (connector terminal block 5-pin)] * GT2103-PMBD does not support direct connection to Q00JCPU, Q00CPU, or Q01CPU.	–	–	–	● *2
		GT21-C100R4-25P5	10m						
		GT21-C200R4-25P5	20m						
		GT21-C300R4-25P5	30m						
	Computer link connection cable	GT09-C30R4-6C	3m	○	Between serial communication module and GOT Between computer link module and GOT [Between loose wire and D-sub 9-pin]	●	●	●	● *3 *4
		GT09-C100R4-6C	10m						
		GT09-C200R4-6C	20m						
		GT09-C300R4-6C	30m						
	FXCPU direct connection cable FXCPU communication expansion board connection cable	GT01-C10R4-8P	1m	–	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and D-sub 9-pin]	●	●	●	● *3 *4
		GT01-C30R4-8P	3m						
		GT01-C100R4-8P	10m						
		GT01-C200R4-8P	20m						
		GT01-C300R4-8P	30m						
		GT10-C10R4-8P	1m	–	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and loose wire (connector terminal block 9-pin)]	–	–	–	● *3
		GT10-C30R4-8P	3m						
		GT10-C100R4-8P	10m						
		GT10-C200R4-8P	20m						
		GT10-C300R4-8P	30m						
		GT21-C10R4-8P5	1m	–	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and loose wire (connector terminal block 5-pin)]	–	–	–	● *2
		GT21-C30R4-8P5	3m						
		GT21-C100R4-8P5	10m						
		GT21-C200R4-8P5	20m						
		GT21-C300R4-8P5	30m						
		GT10-C10R4-8PL	1m	–	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and loose wire (connector terminal block 9-pin)] * Cannot be used for FX1NC, FX2NC, FX3UC-D/DSS, or FX3G.	–	–	–	● *3
		GT10-C10R4-8PC	1m	–	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and loose wire (connector terminal block 9-pin)]	–	–	–	● *3
		GT10-C30R4-8PC	3m						
		GT10-C100R4-8PC	10m						
		GT10-C200R4-8PC	20m						
		GT10-C300R4-8PC	30m						
	RS-422 connector conversion cable	GT10-C02H-9SC	0.2m	–	Between PLC and GOT [Convert D-sub 9-pin to loose wire (connector terminal block 9-pin)]	–	–	–	● *3
RS-232 cable	Q/LCPU direct connection cable	GT01-C30R2-6P	3m	–	Between Q/LCPU and GOT Between L6ADP-R2 and GOT/personal computer (GT SoftGOT2000) [Between MINI-DIN 6-pin and D-sub 9-pin]	●	●	●	● *3 *5
	FXCPU communication expansion board connection cable FXCPU communication special adapter connection cable	GT01-C30R2-9S	3m	–	Between FXCPU communication expansion board and GOT/personal computer (GT SoftGOT2000) Between FXCPU communication special adapter and GOT/personal computer (GT SoftGOT2000) [Between D-sub 9-pin and D-sub 9-pin]	●	●	●	● *3 *5
	FXCPU communication special adapter connection cable	GT01-C30R2-25P	3m	–	Between FXCPU communication special adapter and GOT/personal computer (GT SoftGOT2000) [Between D-sub 25-pin connector and D-sub 9-pin]	●	●	●	● *3 *5
	Computer link connection cable CC-Link(G4) connection cable	GT09-C30R2-9P	3m	○	Between serial communication module and GOT Between computer link module and GOT Between peripheral connection module (AJ65BT-R2N) and GOT [Between D-sub 9-pin and D-sub 9-pin]	●	●	●	● *3 *5
	Computer link connection cable	GT09-C30R2-25P	3m	○	Between serial communication module and GOT Between computer link module and GOT [Between D-sub 25-pin and D-sub 9-pin]	●	●	●	● *3 *5
	RS-232 connector conversion cable	GT10-C02H-6PT9P	0.2m	–	Between PLC and GOT Between multiple connection GOT and GOT Between barcode reader, RFID, serial printer and GOT [Convert D-sub 9-pin to MINI-DIN 6-pin]	–	–	–	● *3
	Data transfer cable	GT01-C30R2-6P	3m	–	Between GOT and personal computer * Can be used for the FA transparent function only. Cannot be used for the screen/OS data transfer. [Between MINI-DIN 6-pin and D-sub 9-pin]	–	–	–	● *3

*1 FA-LTBGT2R4CBL□, FA-CNV240□CBL are developed by Mitsubishi Electric Engineering Company Limited and sold through your local sales office.
The other products listed are developed by Mitsubishi Electric Systems & Service Co., LTD. and sold through your local sales office.
*2 This cable can be used for GT2103-PMBD only.
*3 This cable can be used for GT2103-PMBDS only.
*4 This cable can be used if connected with the RS-422 connector conversion cable GT10-C02H-9SC.
*5 This cable can be used if connected with the RS-232 connector conversion cable GT10-C02H-6PT9P.
*6 This cable cannot be used for printer connection.

For details please check:

"GOT2000 Connection Manual (Mitsubishi Products)"

GOT Migration Campaign

- **Project conversion support**
  - Mitsubishi can provide help with converting a Beijer HMI project to GOT. Please contact your local sales partner.
- **Application consultants**
  - Our team of local application engineers can help you with your questions about.
- **Free GT Works 3 software and start-up guide**
  - When converting to GOTs you can receive a free-of-charge version of GT Works to program GOTs together with a start-up-guide.
- **Hotline support**
  - There is a team of knowledgeable engineers to assist you with conversion within Mitsubishi Electric and our sales partners.
- **Product training**
  - Comprehensive training courses for GOTs and GT Designer are available.
- **3-year warranty**
  - Mitsubishi Electric offers an exceptional 3 year warranty on all GT2000 products.

Differences Beijer - GOT

- **Webserver**
  - Beijer HMIs offer a webserver functionality, whereas GOTs will offer a more flexible alternative (GT mobile) by the end of 2015.
- **Profibus**
  - Beijer E1000 products offer optional Profibus connectivity whilst GOTs can connect by using an HMS fieldbus adapter (GT25-FNADP).
- **WLAN**
  - GOTs have an optional WLAN module for monitoring and project up/download which is not available on the Beijer HMIs.
- **Siemens MPI**
  - Beijer HMI can connect to a Siemens S7 via a CAB36 cable whereas GOTs require an external MPI adapter.
- **Multimedia/documents**
  - E1000s have no multimedia or document display functions whereas GOT2000s can display pdf, ppt, xls, doc and HTML documents (using the built-in conversion utility)
- **Materials**
  - Instead of the alloy housing of the Beijer HMIs. the GOTs are made of robust plastic.
- **Recipe handling systems**
  - The recipe handling of GOTs will be improved to match the expectations for former Beijer users by April 2016.