



**TERA10 HE**

*10.1" TFT*

**TERA12 HE**

*12.1" TFT*

*HIGH END DISPLAY*





SW di programmazione  
*SW programming tool*

VT3 è un potente software per il controllo delle unità e dei display programmabili COBO.

Usando VT3, l'utente programmatore può:

1. Sviluppare la logica di controllo del software applicativo secondo IEC61131:
  - a. programmare le unità organizzate in PROGRAM, FUNCTION, FUNCTION\_BLOCK
  - b. controllo di cicli e operazioni
  - c. variabili globali di tutti i tipi di dati specificati da IEC61131
2. Definire i messaggi CANBUS per la comunicazione con altri dispositivi
3. Definire la configurazione dei segnali di input e output
4. Usare 4 differenti linguaggi di programmazione:
  - a. FBD: Function Block Diagram
  - b. LD: Ladder Diagram
  - c. ST: Structured Text
  - d. "C": disponibile anche il linguaggio "C" a basso livello
5. Avere uno strumento per display grafici WYSIWYG:
  - a. importare formati d'immagine (bmp, png, gif,.....)
  - b. usare font windows
  - c. progettare oggetti grafici (gauge, testi, istogrammi, .....

*VT3 is a powerful tool for the control of COBO programmable units and displays.*

*With VT3, the developer can:*

1. *Program controllers using IEC1131 standards:*
  - a. *programming using PROGRAM, FUNCTIONS and FUNCTION\_BLOCKS modules*
  - b. *cycles and Timers*
  - c. *all variables and data specified by IEC1131*
2. *CANBUS data definition for network communication*
3. *I/O mapping definition*
4. *4 different programming languages:*
  - a. *FBD: Function Block Diagram*
  - b. *LD: Ladder Diagram*
  - c. *ST: Structured Text*
  - d. *"C"/"C++" language*
5. *WYSIWYG display graphic tool:*
  - a. *importing images formats (bmp, png, gif,.....)*
  - b. *windows fonts*
  - c. *graphic objects (gauges, text, histograms, .....*

# TERA10 HE TERA12 HE



TERA10 HE e TERA12 HE sono i display più avanzati nel mercato off-highway. Utilizzano il processore NXP i.MX6 (TM), che unisce le caratteristiche di multimedialità avanzata a gestione grafica.

Permettono fluidità della grafica, facile interazione utente, visibilità massima e connettività avanzata con un look stile tablet, sempre avendo come base di progetto gli standard industriali.

TERA10 HE e TERA12 HE possono essere installati sia ad incasso che a sbalzo tramite supporto specifico.

*TERA10 HE and TERA 12 HE are the high end display solution for off-highway market. They use a NXP i.MX6 (TM) processor, that join strong multimedia capabilities and graphics management.*

*They allow smooth graphics, easy user interaction, top readability and advanced connectivity, with a tablet style looking, always keeping the industrial standards as base of design.*

*TERA10 HE and TERA 12 HE can be installed both indash and outdash with their specific articulated supports.*

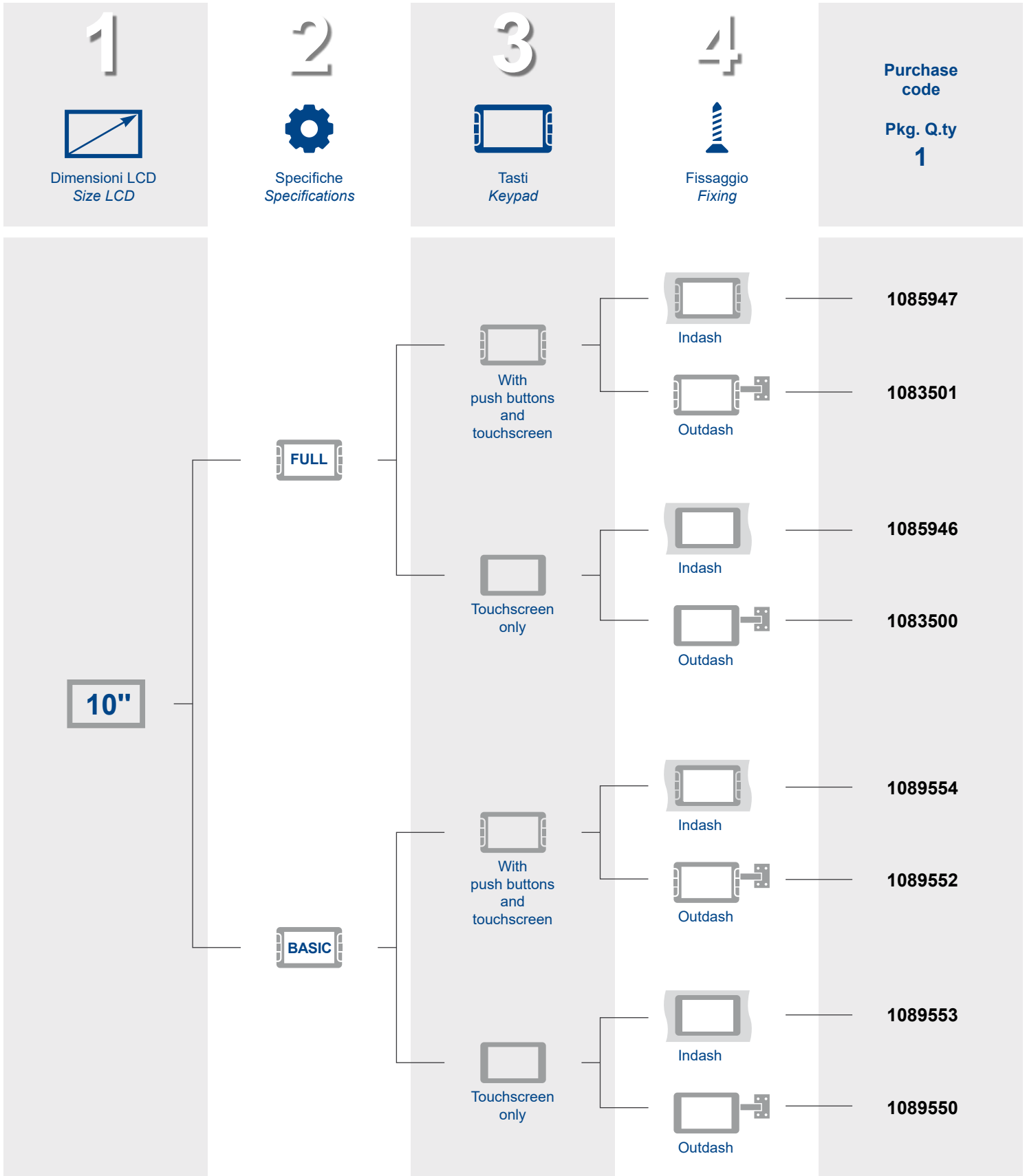


**CAN J1939  
ISOBUS - ISO11783**



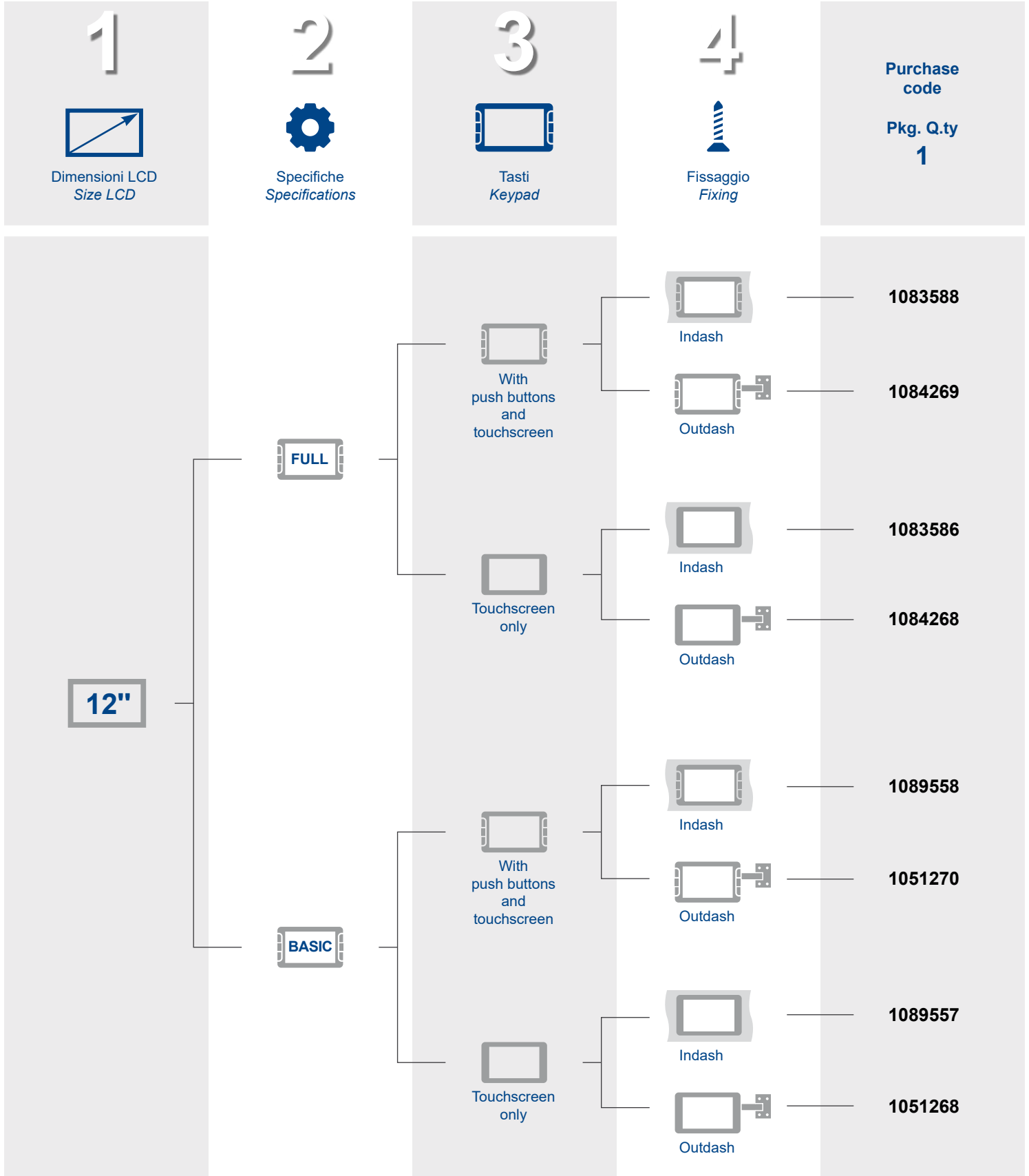
GUIDA ALLA COMPOSIZIONE DEL MODELLO / GUIDE FOR THE MODEL COMPOSITION

**TERA10 HE** 10.1" TFT DISPLAY



GUIDA ALLA COMPOSIZIONE DEL MODELLO / GUIDE FOR THE MODEL COMPOSITION

**TERA12 HE** 12.1" TFT DISPLAY





## SPECIFICHE TECNICHE

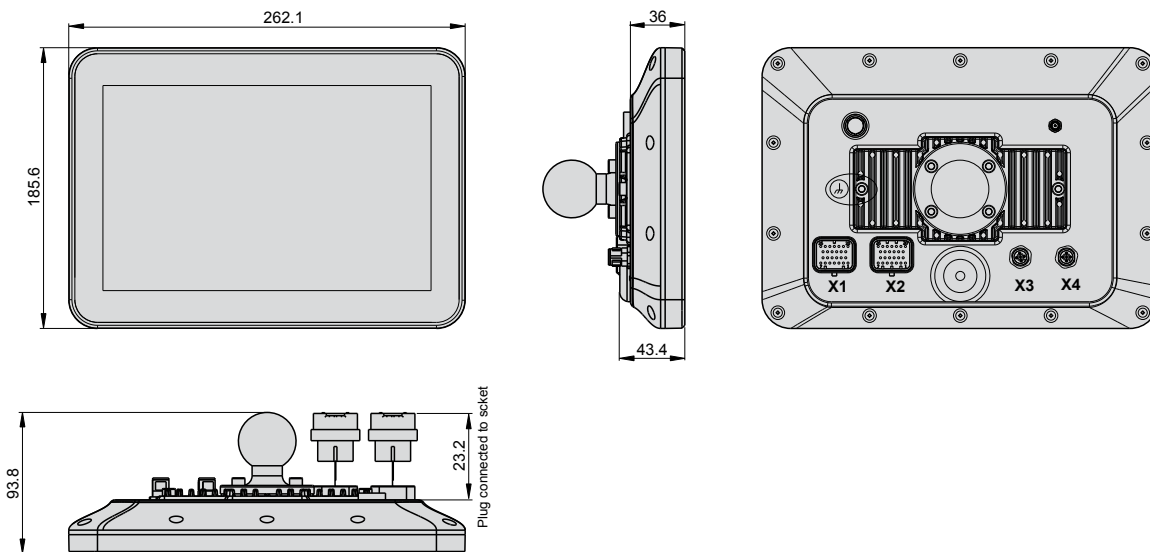
	FULL version	BASIC version
Alimentazione	8 - 32V	8 - 32V
Temperatura di funzionamento	- 30°C + +70°C	- 30°C + +70°C
Grado di protezione	IP65	IP65
Processore	NXP i.MX6 Dual Core ARM Cortex-A9, 32 bit	NXP i.Mx6 Dual Core ARM Cortex-A9, 32 bit
Frequenza	800Mhz	800Mhz
Memoria interna	8 GB Flash	8 GB Flash
RAM	1 GB	1 GB
Display	<b>TERA10 HE:</b> TFT 10.1", 1280 x 800 pixels, 850 cdm, 800:1 rapp. Contrasto <b>TERA12 HE:</b> TFT 12.1", 1280 x 800 pixels, 500 cdm, 750:1 Contrasto	<b>TERA10 HE:</b> TFT 10.1", 1280 x 800 pixels, 850 cdm, 800:1 rapp. Contrasto <b>TERA12 HE:</b> TFT 12.1", 1280 x 800 pixels, 500 cdm, 750:1 Contrasto
Display Mode	16:10, Portrait/Landscape	16:10, Portrait/Landscape
Visibilità al sole	✓	✓
Touchscreen	Multitouch capacitivo con tecnologia bonding (funzionamento con guanti)	Multitouch capacitivo con tecnologia bonding (funzionamento con guanti)
RTC	✓	✓
Wake up mode	Alimentazione, messaggio CAN, ingresso chiave	Alimentazione, messaggio CAN, ingresso chiave
Tempo di boot	5 sec da cold boot	5 sec da cold boot
Sensore temperatura interna	✓	✓
Accelerometro/Giroscopio	✓	✓
Tasti	4+4 tasti frontali 1 tasto programmabile come ON/OFF (VERSIONE CON TASTI)	4+4 tasti frontali 1 tasto programmabile come ON/OFF (VERSIONE CON TASTI)
Buzzer	93 dB, volume regolabile	93 dB, volume regolabile
Porte CAN BUS	4	2
RS232	1 port full modem 1 port Linux Terminal	1 port full modem 1 port Linux Terminal
Porte USB	1 HOST esterna (VERSIONE CON TASTI) 2 HOST su connettore 1 OTG Device su connettore	1 HOST esterna (VERSIONE CON TASTI) 2 HOST su connettore 1 OTG Device su connettore
Video Input	4 PAL/NTSC in contemporanea Video over IP	2 PAL/NTSC in contemporanea Video over IP
Ethernet	1 port 10/100	1 port 10/100
Audio	1 Audio input 1 Audio output (non amplificato)	✗
GPS	1 ricevitore con antenna esterna (3 mt precisione)	✗
Bluetooth	✓	✗
Wi-Fi	✓	✗
Lista I/O	4 ingressi analogici/digitali RPM 2 uscite Low/High Side 1A 1 uscita Low Side 0.5A	✗
Connettori	2 x AMP automotive 26 pin (segnali) 2 x M12 8 pin (video camera)	2 x AMP automotive 26 pin (segnali) 1 x M12 8 pin (video camera)
Sistema operativo	Linux embedded	Linux embedded
Standards	Industriale EN 61000; Automotive ECE R10; Agricolo ISO 14982; ISOBUS ISO 1173	Industriale EN 61000; Automotive ECE R10; Agricolo ISO 14982; ISOBUS ISO 1173
Linguaggi di programmazione	C, C++, QT/QML	C, C++, QT/QML
Programming IDE	VT3, QT CREATOR	VT3, QT CREATOR



## TECHNICAL SPECIFICATIONS

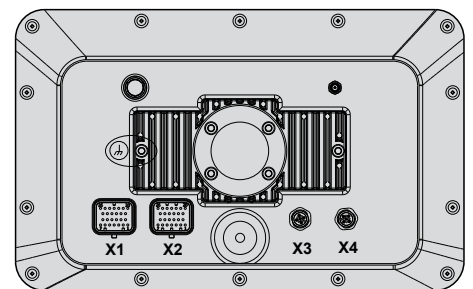
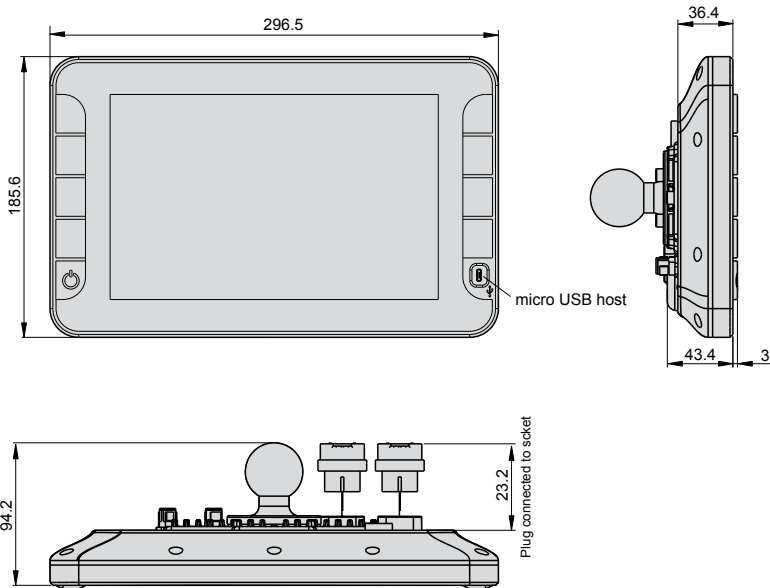
	FULL version	BASIC version
Power supply	8 - 32V	8 - 32V
Operative temperature	- 30°C + +70°C	- 30°C + +70°C
Sealing degree	IP65	IP65
Main CPU	NXP i.MX6 Dual Core ARM Cortex-A9, 32 bit	NXP i.MX6 Dual Core ARM Cortex-A9, 32 bit
Frequency	800Mhz	800Mhz
Internal memory	8 GB Flash	8 GB Flash
RAM	1 GB	1 GB
Display	<b>TERA10-HE:</b> TFT 10.1", 1280 x 800 pixels, 850 cdm, 800:1 contrast ratio <b>TERA12-HE</b> TFT 12.1", 1280 x 800 pixels, 500 cdm, 750:1 contrast ratio	<b>TERA10-HE:</b> TFT 10.1", 1280 x 800 pixels, 850 cdm, 800:1 contrast ratio <b>TERA12-HE</b> TFT 12.1", 1280 x 800 pixels, 500 cdm, 750:1 contrast ratio
Display Mode	16:10, Portrait/Landscape	16:10, Portrait/Landscape
Sun readability	✓	✓
Touchscreen	Capacitive multitouch with bonding technology (gloves compatible)	Capacitive multitouch with bonding technology (gloves compatible)
RTC	✓	✓
Wake up mode	Power supply, CAN message, ignition key	Power supply, CAN message, ignition key
Boot time	5 sec from cold boot	5 sec from cold boot
Internal temperature sensor	✓	✓
Internal accelerometer /gyroscope	✓	✓
Keys	4+4 push button on front panel 1 push button programmable also as ON/OFF (BUTTONS VERSION)	4+4 push button on front panel 1 push button programmable also as ON/OFF (BUTTONS VERSION)
Buzzer	93 dB, volume adjustable	93 dB, volume adjustable
CAN BUS ports	4	2
RS232	1 port full modem 1 port Linux Terminal	1 port full modem 1 port Linux Terminal
USB ports	1 HOST external (BUTTONS VERSION) 2 HOST on connector 1 OTG Device on connector	1 HOST external (BUTTONS VERSION) 2 HOST on connector 1 OTG Device on connector
Video Input	4 PAL/NTSC simultaneous Video over IP	4 PAL/NTSC simultaneous Video over IP
Ethernet	1 port 10/100	1 port 10/100
Audio	1 Audio input port 1 Audio output port (not amplified)	✗
GPS	1 receiver with external antenna (3 mt accuracy)	✗
Bluetooth	✓	✗
Wi-Fi	✓	✗
I/O List	4 analog/digital Inputs RPM 2 Outputs Low/High Side 1A 1 Output Low Side 0.5A	✗
Connector	2 x AMP automotive 26 pin (signal) 2 x M12 8 pin (video camera)	2 x AMP automotive 26 pin (signal) 1 x M12 8 pin (video camera)
Operating System	Linux embedded	Linux embedded
Standards	EN 61000 industrial; ECE R10 automotive ISO 14982 agriculture; ISO 1173 ISOBUS	EN 61000 industrial; ECE R10 automotive ISO 14982 agriculture; ISO 1173 ISOBUS
Programming languages	C, C++, QT/QML	C, C++, QT/QML
Programming IDE	VT3, QT CREATOR	VT3, QT CREATOR

# TERA10 HE TOUCHSCREEN ONLY

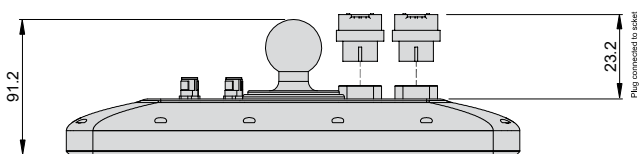
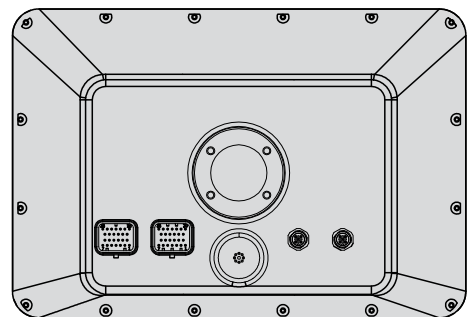
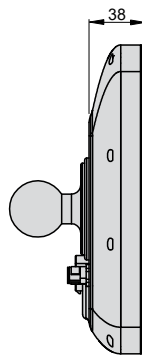
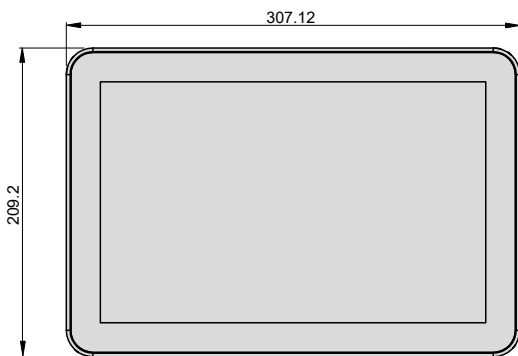




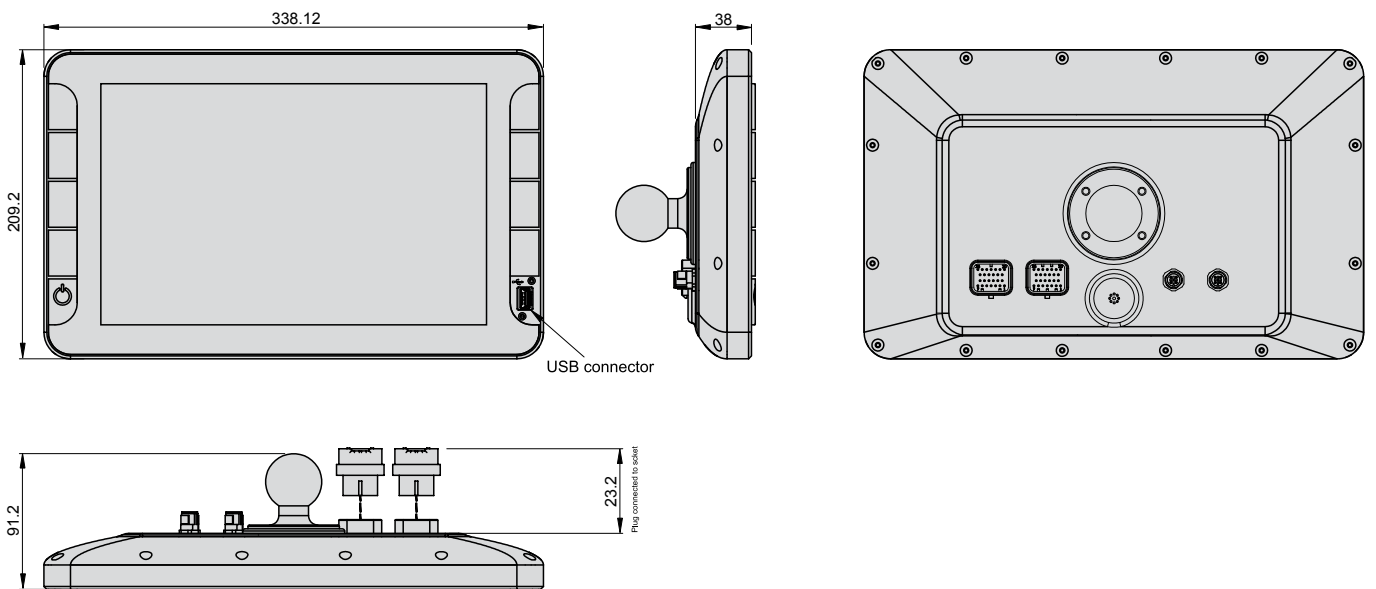
# TERA10 HE WITH PUSH BUTTONS AND TOUCHSCREEN



# TERA12 HE TOUCHSCREEN ONLY



# TERA12 HE WITH PUSH BUTTONS AND TOUCHSCREEN



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