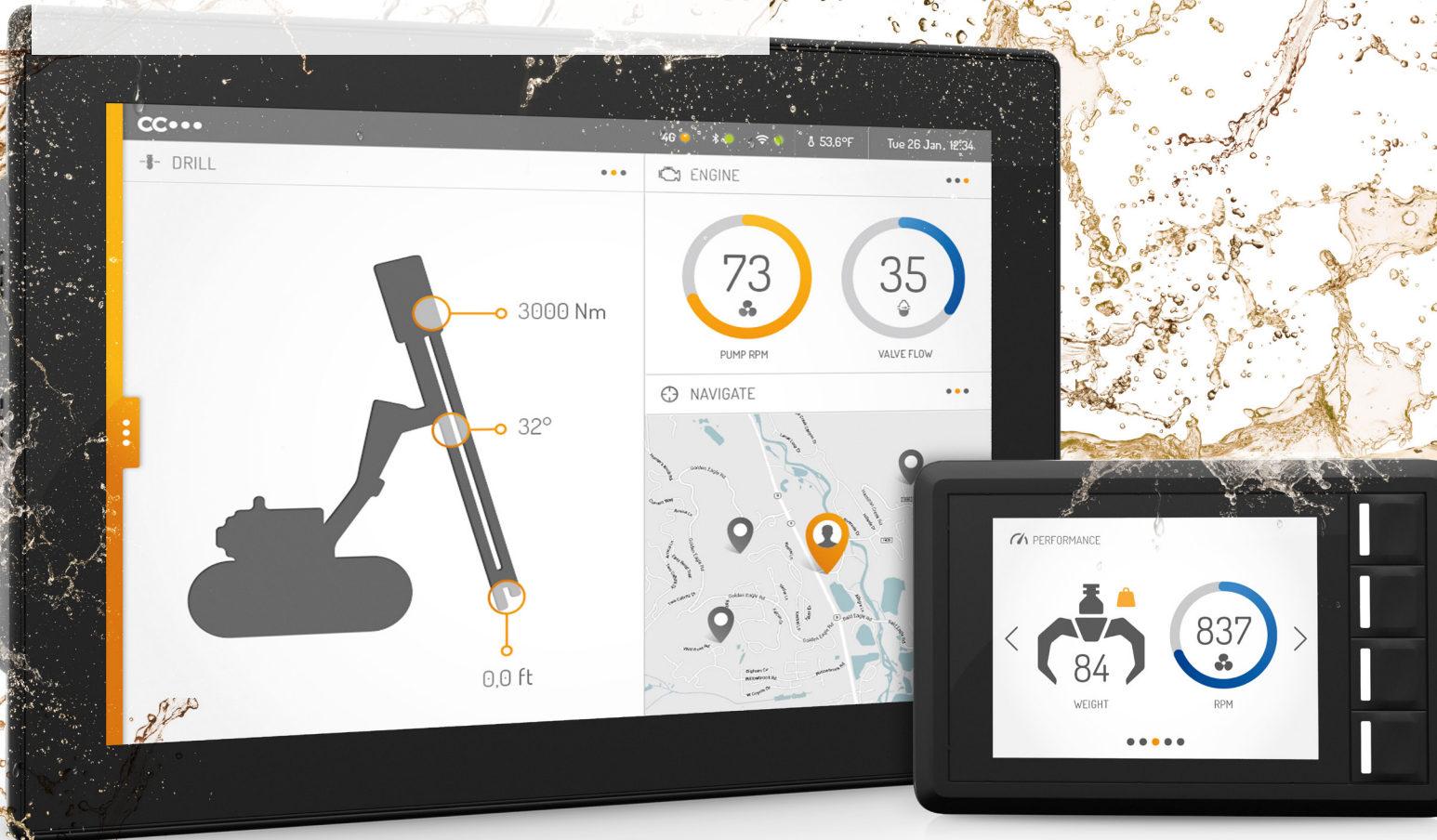


CCpilot

PRODUCT CATALOG 2019





CCPILOT PRODUCT PORTFOLIO

The CCpilot range of robust display computers are applied to create a premium user experience in cost sensitive, commodity type vehicles as well as in advanced, specialized equipment. Through multi-functional capabilities, CCpilot display computers make dedicated devices for e.g. instrumentation, controls, video monitoring and wireless communication redundant, thereby reducing system hardware cost.

Product portfolio overview

PRODUCT	SIZE	TOUCH SCREEN	CPU	SOFTWARE	CAN	ETHERNET	USB	VIDEO
CCpilot VI	3"5	-	Freescale i.MX6 SoloX	Linux. Qt, CODESYS, C/C++ etc.	1x	1x	1x	-
CCpilot VC	5"	Optional	Freescale i.MX 537 (ARM)	Linux. Qt, CODESYS, C/C++ etc.	2x	1x	2x	1x
CCpilot VA	7"	Optional	Freescale i.MX 537 (ARM)	Linux. Qt, CODESYS, C/C++ etc.	2x	1x	2x	2x
CCpilot VS	12"	Yes	Freescale i.MX6 Quad	Yocto project-based Linux. CODESYS	4x	1x	4x	1x
CCpilot XA	7"	Yes	Freescale i.MX 537 (ARM)	Linux. Qt, CODESYS, C/C++ etc.	2 or 4x	1x	1x	4x
CCpilot XS	10"/12"	Yes	Freescale i.MX 537 (ARM)	Linux. Qt, CODESYS, C/C++ etc.	2 or 4x	1x	1x	4x
CCpilot XM	10"/12"	Yes	Intel Atom E3826 (PC)	Linux or Win7. For Linux: Qt, CODESYS, C/C++ etc.	4x	2x	2x	4x
CCpilot XL	12"	Optional	Intel core i7 3517UE (PC)	Win7	2x	1x	6x	4x



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CCpilot VI FREELY PROGRAMMABLE 3.5" DISPLAY

CCpilot VI is a 3.5" full-color display with Linux operating system. The open LinX software platform offers a choice of powerful tools for application development. You can e.g. choose to develop the Graphical User Interface in Qt. This, together with a QVGA high brightness display and hardware accelerated 2D, 3D and vector graphics, enables fast design of premium user interfaces. With 4 freely configurable, backlit soft keys, operators can interact efficiently with the system.

CCpilot VI has multifunctional capability and can be used as instrumentation display, machine control HMI, Electronic manual and more. The advanced graphical features and multi-functional capabilities makes it possible to develop a more space efficient Graphical User Interface, saving real estate and cost in the operator environment and cab.

Turn for technical specifications »

Standard models

PART NUMBER	LINUX	LINX BASE	CODESYS RUNTIME	CODESYS VISU
C000 144-05	•			
S020 144-05	•	•		
S021 144-05	•	•	•	
S002 144-05	•			•

CCpilot VI PRODUCT SPECIFICATIONS

KERNEL	
MAIN PROCESSOR	Freescale i.MX6 SoloX
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	2GB eMMC flash for operating system and applications.
RAM	512 MB SDRAM
GPU	Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight.
COVER LENS	Glass with anti-glare treatment.
SIZE AND RESOLUTION	3.5" QVGA, 320*240 pixels
COLOR DEPTH	18 bit
CONTRAST RATIO	1000:1
BRIGHTNESS*	520 Cd/m ²
DIMMING	Dimming 0 -100%. Dimming can be controlled manually via soft keys or from the software application.

HMI	
SOFT KEYS	4 soft keys, configurable. Soft keys can be used as function keys for the GUI, to control Power On/Off, to control display brightness etc. Backlight indicators with individual ON/OFF.
BUZZER	Configurable buzzer for alarms and notifications.

INTERFACES	
CAN	1 x CAN, physical layer ISO11898 2.0B and J1939-11. Bitrate configurable 20 kbps - 1 Mbps.
ETHERNET	1 x Ethernet. 10/100 Base-T.
USB	1 x USB 2.0.
INPUTS	4 configurable inputs (voltage 0-5V, resistive, frequency, digital in with PU/PD). 3 analog inputs, voltage 0-5V.
OUTPUTS	2 configurable outputs, low-side type, 1A. May be used for continuous driver or PWM output.
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 6-32 VDC.
KEY SWITCH	1 x Key switch input, for start-up/shut down

SOFTWARE	
OPERATING SYSTEM	Linux
SOFTWARE APPLICATION PLATFORM	LinX Software Suite, basic package. Extension modules available, eg. CODESYS.
CCAUX API	Power management, diagnostics, startup and sleep behavior configuration, button configuration, LED control, buzzer, etc.

ENVIRONMENT	
IP CLASS	IP66 and 67
EMC CONFORMITY	2004/108/EC, ISO 14982:2009, ISO 13309:2010, ISO 13766-1:2018
VIBRATIONS	0.02g ² /Hz, 5-500Hz 3x3h
SHOCK	±50g /11ms ±3 x3, 18 total shocks
TEMPERATURE RANGE (°C)	-20C to +70°C (operating*) -30C to +80°C (storage)

ENCLOSURE	
HOUSING MATERIAL	Plastic PBT+PC
MECHANICAL INSTALLATION	Flush/panel mounting or mounting on stand/arm with diamond plate.
CONNECTORS	2 x Deutsch DTM06-12 connectors

SIZE AND WEIGHT	
W x H x D (mm)	119 x 79 x 48
WEIGHT (kg)	0.25

* Internal buzzer deactivated below -30°C.

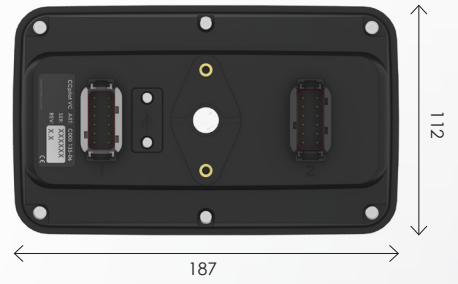
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CCpilot VC FREELY PROGRAMMABLE MULTIFUNCTIONAL 5" DISPLAY

CCpilot VC is a 5" full-colour display with a powerful ARM CPU. The open LinX™ software platform offers a choice of powerful tools for application development. This, together with a WVGA high brightness display and hardware accelerated 2D, 3D and vector graphics, enables fast design of premium user interfaces. With optional touch screen and configurable soft keys, operators are offered an intuitive interaction with the system.

CCpilot VC has multifunctional capability and can be used as instrumentation display, machine control HMI, video monitor, electronic manual and more. By adding the wireless extension module CrossLink AI, featuring WiFi, modem, GNSS and Bluetooth, CCpilot VC can be used for telematics, GIS and Fleet Management functionality.

Turn for technical specifications »

Standard models

PART NUMBER	SOFT KEYS	TOUCH SCREEN	OPTICAL BONDING
C000 135-02	•		
C000 135-04		•	
C000 135-06	•	•	
C000 135-07	•		•

CCpilot VC PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Freescale i.MX 537, 32 Bit ARM processor. Runs freely programmable Linux system and LinX™ Software Suite base package.
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	512 MB NAND flash for operating system and applications.
RAM	512 MB DDR3
GPU	Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight.
COVER LENS	Glass with anti-reflective treatment
SIZE AND RESOLUTION	5" WVGA, 800 x 480 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	600:1
BRIGHTNESS*	800Cd/m2 without touchscreen, 700 Cd/m2 with touch screen.
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via soft keys and/or touch screen.
OPTICAL BONDING	TFT and glass optically bonded. Optical bonding is optional.

HMI	
TOUCH SCREEN	Plastic cover lens with anti-reflective treatment.
SOFT KEYS	8 soft keys, configurable. Soft keys can be used as function keys for the GUI, to control Power On/Off, to control display brightness etc. Soft keys are optional.
BUZZER	Configurable buzzer for alarms and notifications.

INTERFACES	
CAN	2 x CAN, physical layer ISO11898 2.0B and J1939-11. Bitrate configurable 20 kbit/s - 1 Mbit/s.
ETHERNET	1 x Ethernet. 10/100 Base-T.
USB	2 x USB 2.0. 1 in multipin connector and 1 in mini-USB under cover on rear side.
INPUTS	2 configurable inputs for analog/digital sensors. May be used for measuring resistance, frequency, voltage, digital input or 4-20mA current loop (measuring voltage across an external 250 ohm resistor).
OUTPUT	2 configurable high side outputs for driving up to 1A. May be used for continuous driver or PWM output.
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 9-32 VDC. CPU and communication operational down to 6,0 VDC.
KEY SWITCH	1 x Key switch input, for start-up/shut down.
VIDEO	1 x Analog Video input. NTSC or PAL.

SOFTWARE	
OPERATING SYSTEM	Linux
SOFTWARE APPLICATION PLATFORM	LinX™ Software Suite, basic package. Extension modules available, eg. CODESYS.

ENVIRONMENT	
IP CLASS	IP66
EMC CONFORMITY	2004/108/EC, ISO 14982:2009
VIBRATIONS	0,02g2/Hz 5-500 Hz
SHOCK	30g/11ms 3x ±10 bumps
TEMPERATURE RANGE (°C)	Operating range: -25 to +70 Storage range: -40 to +85

ENCLOSURE	
HOUSING MATERIAL	Reinforced nylon
MECHANICAL INSTALLATION	Flush/panel mounting or mounting on stand/arm with diamond plate.
CONNECTORS	2 x Deutsch DTM06-12 connectors, 1 x Mini-USB.

SIZE AND WEIGHT	
W x H x D (mm)	187 x 112 x 48
WEIGHT (kg)	0.42

* Typical values

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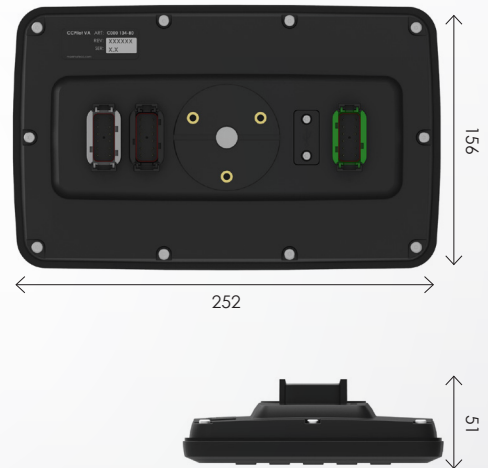
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CCpilot VA FREELY PROGRAMMABLE MULTIFUNCTIONAL 7" DISPLAY

CCpilot VA is a 7" full-colour display with a powerful ARM CPU. The open LinX software platform offers a choice of powerful tools for application development. This, together with a WVGA high brightness display and hardware accelerated 2D, 3D and vector graphics, enables fast design of premium user interfaces. With optional all-glass PCAP touch screen and configurable soft keys, operators are offered an intuitive interaction with the system.

CCpilot VA has multifunctional capability and can be used as instrumentation display, machine control HMI, video monitor, electronic manual and more.

By adding the wireless extension module CrossLink AI, featuring WiFi, modem, GNSS and Bluetooth, CCpilot VA can be used for telematics, GIS and Fleet Management functionality. **Turn for technical specifications »**

Standard models

PART NUMBER	SOFT KEYS	TOUCH SCREEN	OPTICAL BONDING
C000 134-80	•	•	
C000 134-81	•		
C000 134-82	•	•	•
C000 134-83	•		•

CCpilot VA PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Freescale i.MX 537, 32 Bit ARM processor. Runs freely programmable Linux system and LinX Software Suite base package.
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	512 MB NAND flash for operating system and applications.
RAM	512 MB DDR3
GPU	Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight
COVER LENS	Glass with anti-reflective treatment.
SIZE AND RESOLUTION	7" WVGA, 800 x 480 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	600:1
BRIGHTNESS*	500 cd/m ²
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via soft keys and/or touch screen.
OPTICAL BONDING	TFT and glass or touch screen optically bonded. Optical bonding is optional.

HMI	
TOUCH SCREEN	Glass cover lens with anti-reflective treatment.
SOFT KEYS	10 soft keys, configurable. Soft keys can be used as function keys for the GUI, to control Power On/Off, to control display brightness etc. Soft keys are optional.
BUZZER	Configurable buzzer for alarms and notifications.

INTERFACES	
CAN	2 x CAN, physical layer ISO11898 2.0B and J1939-11. Bitrate configurable 20 kbit/s - 1 Mbit/s.
ETHERNET	1 x Ethernet. 10/100 Base-T.
USB	2 x USB 2.0. 1 in multipin connector and 1 in mini-USB under cover on rear side.
INPUTS	8 configurable inputs for analog/digital sensors. May be used for measuring resistance/4-20mA/ frequency/digital/analog signals.
OUTPUTS	2 configurable high side outputs for driving up to 1A. May be used for continuous driver or PWM output.
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 9-32 VDC. CPU and communication operational down to 6,0 VDC.
KEY SWITCH	1 x Key switch input, for start-up/shut down.
VIDEO	2 x Analog Video input. NTSC or PAL.

SOFTWARE	
OPERATING SYSTEM	Linux
SOFTWARE APPLICATION PLATFORM	LinX Software Suite, basic package. Extension modules available, eg. CODESYS.
ENVIRONMENT	
IP CLASS	IP66 and IP67
EMC CONFORMITY	2004/108/EC, ISO 14982:2009, ISO 13309:2010
VIBRATIONS	IEC 60068-2-64 Random 0.02g ² /Hz 5-2000Hz 3x3h
SHOCK	IEC 60068-2-27 50 g/11ms ±3 x 3 shocks
TEMPERATURE RANGE (°C)	Operating: -30 to +70 Storage: -40 to +85

ENCLOSURE	
HOUSING MATERIAL	Reinforced nylon
MECHANICAL INSTALLATION	Panel mounting or mounting on stand/arm
CONNECTORS	3 x Deutsch DTM06-12 connectors, 1 x Mini USB

SIZE AND WEIGHT	
W x H x D (mm)	252 x 156 x 51
WEIGHT (kg)	0.65

* Typical values

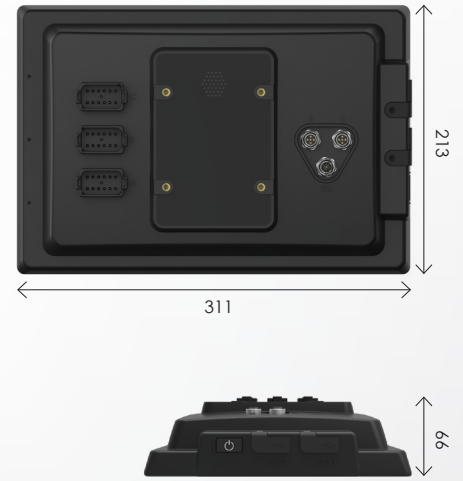
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CCpilot VS FREELY PROGRAMMABLE MULTIFUNCTIONAL 12" DISPLAY

CCpilot VS is a 12" full-colour display with a powerful quad-core ARM CPU. The open LinX™ software platform offers a choice of powerful tools for application development. This, together with a WXGA high brightness display with optical bonding and hardware

accelerated 2D, 3D and vector graphics, enables fast design of premium user interfaces. CCpilot VS has multifunctional capability and can be used as instrumentation display, machine control HMI, video monitor, electronic manual and more. **Turn for technical specifications »**

Standard models

PART NUMBER	OPERATING SYSTEM - LINUX	SOFTWARE PLATFORM - LINX™ BASE	CODESYS VISU	CODESYS WEBVISU	ISOBUS UNIVERSAL TERMINAL	ISOBUS TASK CONTROLLER
C000 139-212	•					
S020 139-212	•	•				
S022 139-212	•	•	•			
S024 139-212	•	•	•	•		
S1100 139-212	•	•			•	
S1000 139-212	•	•			•	•

CCpilot VS PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Freescale i.MX6 Quad - 1 GHz. Runs freely programmable Linux system and LinX™ Software Suite base package.
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	4GByte NAND flash in pseudo-SLC mode for operating system and applications.
RAM	2GByte DDR3
GPU	Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight
COVER LENS	Glass. No surface treatment to achieve best resistance to scratches.
SIZE AND RESOLUTION	12" WXGA, 1280x800 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	700:1
BRIGHTNESS*	1350 cd/m²
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via touch screen.
OPTICAL BONDING	TFT and Touch Screen optically bonded

HMI	
TOUCH SCREEN	Projective Capacitive (PCAP) with 2-point multi-touch.
SOFT KEYS	On/Off button on left side of unit, with backlit symbol.
BUZZER	Buzzer for audible alerts, sound pressure level at 1m in front of the display is 85dB (2500-3500Hz).

INTERFACES	
USB	4 x USB 2.0. 2 in DIN M12 connectors, 2 in standard USB connector on left side of unit
CAN	4 x CAN, physical layer ISO11898 2.0B and J1939-11. Bitrate configurable 20 kbps - 1 Mbps.
ETHERNET	1 x Ethernet. 10BASE-T/100BASE-TX/1000BASE-T and Auto-MDIX. In DIN M12 connector.
SERIAL	1 x RS232, 1 x RS485
INPUTS	1 configurable input (analog 0-32V/digital). 1 analog input 0-14V.
OUTPUTS	6 x Digital out (on/off). High side up to 400/800mA.
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 9-32 VDC. CPU and communication operational down to 7,5 VDC.
POWER BACKUP	Withstands 10ms power interrupt and features safe shutdown.
KEY SWITCH	1 Key switch input, for start-up/shutdown.
VIDEO	1 x Analog Video input. NTSC or PAL.

SOFTWARE	
OPERATING SYSTEM	CrossControl Linux (Yocto project-based Linux distribution with Wayland window manager).
BSP & SDK	Yocto project board support package and software development kits enabling development of customized Linux images, drivers and applications.
CCAUX API	Power management, diagnostics, startup and shutdown behavior configuration, button configuration, LED control, buzzer, etc.
SOFTWARE APPLICATION PLATFORM	LinX™ Software Suite, basic package. Extension modules available, eg. CODESYS.

ENVIRONMENT	
IP CLASS	IP65
EMC CONFORMITY	Emission: EN ISO 14982:2009. Immunity: EN ISO 14982:2009, ISO 11452-2:2004, ISO 11452-4:2011. Transient: EN ISO 14982:2009, ISO 7637-2:2011. ESD: EN ISO 14982:2009, ISO/TR 10605:2008
VIBRATIONS	IEC 60721-3-5 Class 5M3, IEC 60068-2-64 10-200Hz - 0,03g²/Hz 200-500Hz - 0,01g²/Hz 3x4h ~3grms
SHOCK	IEC 60721-3-5 Class 5M3, IEC 60068-2-27:2007 30g/11ms - 3 x ±1000 impulses
TEMPERATURE RANGE (°C)	Operating: -30 to +70 Storage: -30 to +80

ENCLOSURE	
HOUSING MATERIAL	Reinforced nylon
MECHANICAL INSTALLATION	Mounting on stand/arm with VESA75 bracket.
CONNECTORS	3 x DT multipin connectors, 12 pins each 3 x DIN M12 (2 x USB, 1 x Ethernet) 2 x USB standard connectors available on the units left side

SIZE AND WEIGHT	
W x H x D (mm)	311 x 213 x 66
WEIGHT (kg)	2.0

* Typical values

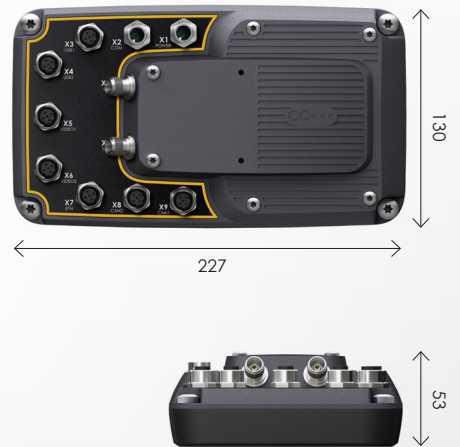
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(mm)



CCpilot XA FREELY PROGRAMMABLE MULTIFUNCTIONAL 7" DISPLAY

CCpilot XA is a 7" full-color touch screen display with a powerful ARM CPU and a robust aluminium enclosure to endure the most challenging operating environments. The open software platform has a choice of tools for design of premium graphical user interfaces. This, together with WVGA resolution and high brightness display, enables fast design of sharp user interfaces. With all-glass PCAP

touch screen operators are offered an intuitive interaction with the system.

CCpilot XA has multifunctional capability and can be used as instrumentation display, machine control HMI, video monitor, electronic manual and more.

Turn for technical specifications »

Standard models

PART NUMBER	WIRED INTERFACES VERSION		MOUNTING VERSION	
	Standard	Vesa	Panel	
C000 126-50	•	•		
C000 126-62	•		•	
C000 126-250	•		•	

CCpilot XA PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Freescale i.MX 537, 32 Bit ARM processor. Runs freely programmable Linux system and LinX Software Suite base package.
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	4 GB flash for for operating system and applications.
RAM	256 MB DDR3
GPU	Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight.
COVER LENS	PCAP touch screen
SIZE AND RESOLUTION	7" WVGA, 800 x 480 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	600:1
BRIGHTNESS*	500 cd/m ²
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via soft keys and/or touch screen.

HMI	
TOUCH SCREEN	PCAP
SOFT KEYS	3 soft keys, configurable. Default function is Power On/Off and control of display brightness.
STATUS LED	Configurable status LED in front panel. Default function is for boot-up status and faults.
BUZZER	Configurable buzzer for alarms and notifications.

INTERFACES - COMMON FOR ALL VERSIONS	
ETHERNET	1 x Ethernet. 10/100 Base-T.
SERIAL	1 x RS232. Galvanically isolated.
AUDIO	Stereo line out
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 10-34 VDC. CPU and communication operational down to 6,0 VDC.

INTERFACES - STANDARD VERSION	
USB	1 x USB 2.0.
CAN	2 x CAN, physical layer ISO 11898 2.0B. Bitrate configurable 20 kbps - 1 Mbps. Galvanically isolated.
VIDEO	4 x Analogue Video in, NTSC or PAL. 4 x video power supply, 12V, combined current limit at 0.5A, individual on/off control.
DIGITAL I/O	4 x Configurable as in or out. Galvanically isolated.

INTERFACES - NET+ VERSION	
CAN	4 x CAN, physical layer ISO 11898 2.0B. Bitrate configurable 20 kbps - 1 Mbps. CAN power output: 1A shared by all outputs. Not galvanically isolated.
USB	2 x USB 2.0.

SOFTWARE	
OPERATING SYSTEM	Linux
SOFTWARE APPLICATION PLATFORM	LinX Software Suite, basic package. Extension modules available, eg. CODESYS.

ENVIRONMENT	
IP CLASS	IP65
EMC CONFORMITY	2004/108/EC, EN61000-6-2:2005, EN61000-6-4:2007, ISO 14982:2009
VIBRATIONS	0,01g2/Hz 5-200 Hz
SHOCK	5 g/11ms 3x ±1000 bumps
TEMPERATURE RANGE (°C)	Operating: -25 to +70 Storage: -40 to +85

ENCLOSURE	
HOUSING MATERIAL	Aluminium
MECHANICAL INSTALLATION	One version for flush/panel mounting and one version for mounting on stand/arm with VESA 50 bracket.
CONNECTORS	DIN M12 for all wired interfaces. SMA for wireless interfaces/antennas.

SIZE AND WEIGHT	
W x H x D (mm)	227 x 130 x 53
WEIGHT (kg)	1.1

* Typical values

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CCpilot XS FREELY PROGRAMMABLE MULTIFUNCTIONAL 10" AND 12" DISPLAY

CCpilot XS is a 10" and 12" full-color touch screen display with a powerful ARM CPU and a robust aluminium enclosure to endure the most challenging operating environments. The open software platform has a choice of tools for design of premium graphical user interfaces. This, together with XGA resolution, enables fast design of sharp user interfaces.

CCpilot XS has multifunctional capability and can be used as instrumentation display, machine control HMI, video monitor, electronic manual and more. By adding the wireless extension module CrossLink AI, featuring WiFi, modem, GNSS and Bluetooth, CCpilot XS can be used for telematics, GIS and Fleet Management functionality.

Turn for technical specifications »

Standard models

PART NUMBER	DISPLAY SIZE		WIRED INTERFACES VERSION		MOUNTING VERSION	
	10"4	12"1	Standard	Net+	Vesa	Panel
C000 126-52	•		•		•	
C000 126-252	•		•			•
C000 126-265	•			•	•	
C000 126-280		•	•		•	
C000 126-54		•	•			•
C000 126-316		•		•	•	

CCpilot XS PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Freescape i.MX 537, 32 Bit ARM processor. Runs freely programmable Linux system and LinX Software Suite base package.
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	4 GB flash for for operating system and applications.
RAM	256 MB DDR3
GPU	Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight.
COVER LENS	Plastic with anti-glare treatment.
SIZE AND RESOLUTION	10"4 or 12"1, XGA, 1024 x 768 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	10" - 700:1, 12" - 600:1
BRIGHTNESS*	10" - 600 cd/m ² 12" - 500cd/m ²
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via soft keys and/or touch screen.

HMI	
TOUCH SCREEN	Resistive
SOFT KEYS	3 soft keys, configurable. Default function is Power On/Off and control of display brightness.
STATUS LED	Configurable status LED in front panel. Default function is for boot-up status and faults.
BUZZER	Configurable buzzer for alarms and notifications.

INTERFACES - COMMON FOR ALL VERSIONS	
ETHERNET	1 x Ethernet. 10/100 Base-T.
SERIAL	1 x RS232. Galvanically isolated.
AUDIO	Stereo line out.
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 10-34 VDC. CPU and communication operational down to 6,0 VDC.

INTERFACES - STANDARD VERSION	
USB	1 x USB 2.0.
CAN	2 x CAN, physical layer ISO 11898 2.0B. Bitrate configurable 20 kbps - 1 Mbps. Galvanically isolated.
VIDEO	4 x Analogue Video in, NTSC or PAL. 4 x video power supply, 12V, combined current limit at 0.5A, individual on/off control.
DIGITAL I/O	4 x Configurable as in or out. Galvanically isolated.

INTERFACES - NET+ VERSION	
CAN	4 x CAN, physical layer ISO 11898 2.0B. Bitrate configurable 20 kbps - 1 Mbps. CAN power output: 1A shared by all outputs. Not galvanically isolated.
USB	2 x USB 2.0.

SOFTWARE	
OPERATING SYSTEM	Linux
SOFTWARE APPLICATION PLATFORM	LinX Software Suite, basic package. Extension modules available, eg. CODESYS.

ENVIRONMENT	
IP CLASS	IP65
EMC CONFORMITY	2004/108/EC, EN61000-6-2:2005, EN61000-6-4:2007, ISO 14982:2009
VIBRATIONS	0,01g2/Hz 5-200 Hz
SHOCK	5 g/11ms 3x ±1000 bumps
TEMPERATURE RANGE (°C)	Operating: -25 to +70 Storage: -40 to +85

ENCLOSURE	
HOUSING MATERIAL	Aluminium
MECHANICAL INSTALLATION	One version for flush/panel mounting and one version for mounting on stand/arm with VESA 50 bracket.
CONNECTORS	DIN M12 for all wired interfaces. SMA for wireless interfaces/antennas.

SIZE AND WEIGHT	
W x H x D (mm)	10": 278 x 215 x 69 12": 316 x 251 x 72,2
WEIGHT (kg)	10": 2,2 12": 3,1

* Typical values

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(mm)



CCpilot XM PC-BASED TOUCH SCREEN DISPLAY

CCpilot XM is a 10" and 12" PC-based touch screen display computer for creating advanced HMI systems where process controls, video monitoring and other operator support functionalities are integrated.

The open software platform has a choice of tools for application engineering. This, together with XGA resolution and hardware accelerated 2D, 3D and vector graphics, enables fast design

of premium user interfaces. With its industrial grade Intel Atom E3826 dual core CPU and a robust aluminium enclosure, it delivers dependable and state-of-the-art performance in demanding applications. By adding the wireless extension module CrossLink AI, featuring WiFi, modem, GNSS and Bluetooth, CCpilot XM can be used for telematics, GIS and Fleet Management functionality.

Turn for technical specifications »

Standard models

PART NUMBER	DISPLAY SIZE		OPERATING SYSTEM		MOUNTING VERSION	
	10"4	12"1	Win	Linux	Vesa	Panel
C000 122-390	•		•		•	
C000 122-392	•			•	•	
C000 122-430	•		•			•
C000 122-431		•	•		•	
C000 122-432	•			•		•
C000 122-433		•	•		•	
C000 122-434		•	•			•
C000 122-436		•		•		•

CCpilot XM PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Intel Atom E3826 dual core
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	8 GB, CFast
RAM	2 GB, DDR3L
GPU	Intel® HD Graphics Gen 7. Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight.
COVER LENS	Plastic with anti-glare treatment
SIZE AND RESOLUTION	10"4 or 12"1, XGA, 1024 x 768 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	10" - 700:1, 12" - 600:1
BRIGHTNESS*	10" - 600 cd/m ² , 12" - 500 cd/m ²
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via soft keys and/or touch screen.

HMI	
TOUCH SCREEN	Resistive
SOFT KEYS	3 soft keys, configurable. Default function is Power On/Off and control of display brightness.
STATUS LED	Configurable status LED in front panel. Default function is for boot-up status and faults.
BUZZER	Configurable buzzer for alarms and notifications.

INTERFACES	
CAN	4 x CAN, physical layer ISO 11898 2.0B. Bit-rate configurable 20 kbps - 1 Mbps. 2 CAN ports galvanically isolated. 2 CAN ports with CAN power, current up to 2 A, single on/off control.
ETHERNET	2 x Ethernet. 10/100 Base-T.
USB	2 x USB 2.0
SERIAL	1 x RS232. Galvanically isolated.
DIGITAL IN	4 x Digital In, pull-up.
VIDEO	4 x Analogue Video in, NTSC or PAL. 4 x video power, 12V, combined current limit at 1A, individual on/off control.
AUDIO	Stereo line out, line in, mic in
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 10-34 VDC. CPU and communication operational down to 6,0 VDC.

SOFTWARE	
OPERATING SYSTEM	Win7 or Yocto-based Linux system with kernel 3.10+
SOFTWARE APPLICATION PLATFORM	LinX Software Suite, basic package. Extension modules available, eg. CoDeSys.

ENVIRONMENT	
IP CLASS	IP65
EMC CONFORMITY	2004/108/EC, EN61000-6-2:2005, EN61000-6-4:2007, ISO 14982:2009, ISO 13766:2006, ISO 7637-2:2011 - Test level III, ISO/TR 10605:2008
VIBRATIONS	0,01g2/Hz 5-200 Hz
SHOCK	5 g/11ms 3x ±1000 bumps
TEMPERATURE RANGE (°C)	Operating: -25 to +70 Storage: -40 to +85

ENCLOSURE	
HOUSING MATERIAL	Aluminium
MECHANICAL INSTALLATION	One version for flush/panel mounting and one version for mounting on stand/arm with VESA 75 bracket
CONNECTORS	DIN M12, SMA for antennas.

SIZE AND WEIGHT	
W x H x D (mm)	10": 278 x 215 x 72 12": 316 x 251 x 73
WEIGHT (kg)	10": 2.9 12": 3.5

* Typical values

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CCpilot XL HIGH-PERFORMANCE ON-BOARD PC

CCpilot XL is a 12" PC-based touch screen display computer with Intel i7 core and Win7 image for efficient deployment of advanced HMI systems and applications. The XL has been in the market for more than 10 years, gradually upgraded in performance and

features to provide a robust and dependable PC display platform for the industry's most sophisticated on-board control and automation systems.

Turn for technical specifications »

The content herein is preliminary and may be subject to change without further notice.

CCpilot XL PRODUCT SPECIFICATIONS

COMPUTING CORE	
MAIN PROCESSOR	Intel core i7 3517UE @ 2 x 1.7GHz
COPROCESSOR	Runs watchdog functions controlling integrity of product, for increased reliability and safety.
STORAGE	128 GB, MLC C-Fast. Extra C-fast slot available for optional secondary disk, enabling on-board data back-up.
RAM	4 GB
GPU	Intel HD graphics 4000. Integrated Graphics Processing Unit supporting hardware accelerated 2D, 3D and vector graphics.

DISPLAY	
TYPE	TFT with LED backlight
COVER LENS	Plastic with anti-glare treatment
SIZE AND RESOLUTION	12.1", XGA, 1024 x 768 pixels
COLOR DEPTH	24 bit
CONTRAST RATIO	600:1
BRIGHTNESS*	500 cd/m ² (Touch screen: 400 cd/m ²)
DIMMING	Automatic dimming through ambient light sensor. Dimming can be controlled manually via soft keys and/or touch screen.

HMI	
TOUCH SCREEN	Resistive. Option to replace touch screen with anti reflex treated glass cover lens.
SOFT KEYS	3 soft keys, configurable. Default function is Power On/Off and control of display brightness.
STATUS LED	Configurable status LED in front panel. Default function is for boot-up status and faults.
BUZZER	Configurable buzzer for alarms and notifications.
PC BEEPER	Beeper for standard Windows PC sound notifications.

INTERFACES	
CAN	2 x CAN, physical layer ISO 11898 2.0B. Bit-rate configurable 20 kbit/s - 250 kbit/s. CAN power, current up to 2 A, single on/off control. To avoid interference caused by EMC the max speed should be limited to 250 kbit/s. Using higher bit rates requires adapted filtering, available as an optional adaption, and shielded cables.
ETHERNET	1 x Ethernet. 10/100 Base-T.
USB	6 x USB 2.0 USB data signal integrity at hi-speed communication must be tested with the specific cabling and peripherals used in the actual application. Use appropriate high quality USB cables and connectors.

SERIAL	1 x RS232. Up to 115 200 baud Rx, Tx, RTS, CTS, GND
DIGITAL IN	4 x Digital In, with 5 kOhm internal pull-up to input voltage.
VIDEO	4 x Analogue Video in, NTSC or PAL. 4 x video power, 12V, combined current limit at 1A, individual on/off control.
POWER SUPPLY	12 or 24 VDC nominal voltage. Voltage range 10-32 VDC. CPU and communication operational down to 7,0 VDC.

SOFTWARE	
OPERATING SYSTEM	Win7

ENVIRONMENT	
IP CLASS	IP54
EMC CONFORMITY	2004/108/EC, ISO 14982:2009
VIBRATIONS	0,01 g2/Hz 5-200 Hz 3x1h
SHOCK	5 g/11ms 3x ±1000 bumps
TEMPERATURE RANGE (°C)	Operating: -25 to +55 Storage: -40 to +60

ENCLOSURE	
HOUSING MATERIAL	Aluminium
MECHANICAL INSTALLATION	For mounting on stand/arm with VESA 75 bracket.
CONNECTORS	DIN M12

SIZE AND WEIGHT	
W x H x D (mm)	316 x 251 x 85
WEIGHT (kg)	3.5

* Typical values

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CrossControl supports customers in making industrial vehicles and machines smart, safe and productive. Through operational excellence and engineering expertise, we are a trusted partner for OEMs and System Integrators across the world. We provide powerful platforms for machine intelligence, communication and human-machine interaction.

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