

# XD Console



## 7" Customizable In-Cab Display

Designed with the future in mind, the Topcon XD touchscreen console, including revamped proprietary (Horizon) software and Topcon Agriculture Platform (TAP) integration, allows full-feature customization. Customers can optimize investment by paying only for capabilities they need.

Off-the-shelf features include Guidelines, Tasks, ISO-UT, and TAP Market. All additional Horizon features are easily accessible and unlockable utilizing TAP via the console or personal device.

Coupled with Topcon receivers, steering control, and correction services; the new level of customization allows flexible guidance solutions, priced right. Plus, with the complete Horizon feature-set including compatibility to the full-range of Topcon sensors and application control technology, the XD is ready for even the most progressive operations.

### PHYSICAL

Housing	Front cover: PC/ABS, colored black with rubber frame Back cover: Aluminum die cast, colored black
Dimensions (l x w)	5.7 x 8.8 in. / 144.4 x 223.7 mm
Mounting	Landscape or portrait / Standalone

### DISPLAY

Type	TFT Color Graphic LCD with LED backlight
Size (w x h)	7 in. / 152 x 91 mm
Resolution	800 x 480 px (WVGA), 15:9
Colors	262k
Brightness	400 cd/m <sup>2</sup>
Contrast ratio	500:1

### INPUT DEVICES

Touch	PCT
Indicators and sensors	– Light sensor – 3 Status-LED's – 1 Multicolor-LED
IP rating	IP65

### ELECTRONICS

Processor platform	CPU: NXP I.MX6®, dual, 800MHz RTC: Buffered by gold cap	Mass storage: 4GB RAM: 1024MB
Speaker	80 dB @ 1kHz in 1 m distance	
Power supply	System supplied through terminal 30 (battery) and 31 (battery) Terminal 15 (ignition) to be used to switch on/off Operating voltage range: 9 – 36 V DC Short circuit operation Over-voltage protection up to 48 V for max. 5 minutes Inverse polarity protection up to -48 V DC for max. 5 minutes	
Current consumption (without external load), max.	Power mode	Current at 13,5 VDC
	On	≤ 1000 mA
	Low-power	Depending on config
	Sleep	≤ 100 mA
	Off	≤ 2 mA
		Current at 27 V
		≤ 600 mA

### INTERFACES

CAN Bus	2 x CAN-Interfaces ISO 11898, CAN-specification, 2.0 B active Up to 1MB (default 250KB, 500KB, 750KB and 1MB)	
RS-232	1 x RS232-Interface Type: EIA232 (only Rx/D, Tx/D, GND)	Speed: Max. 115 Kbps
USB	Main connector: 1 x High speed	Host 2.0
Inputs	4 configurable analog/digital inputs Over-voltage protection: Up to 36 VDC Short circuit protection: Up to 36 VDC Frequency: Max. signal frequency 50 Hz	Input impedance: > 3k Ohm Resolution: 10 bit (1024 digits) Voltage range: 0-12 V
Outputs	2 digital outputs Short circuit protection: Up to 36 V I <sub>max</sub> 300 mA open drain	RDS, on < 1 Ohm RDS, off > 100 kOhm
Video-Interface	1 analog video inputs 1 V <sub>ss</sub> Ampacity 500 mA @ 12V DC	Camera control output (open drain) for special functionality (mirror, shutter, heating, etc.), 300mA @ 12V DC
Ethernet-Interface	1 x 10/100MB Base	
Audio	1 Audio output (left, right, GND)	AC97 compatible
	Output power: approx. 50 mW	

# XD Console

CONNECTORS	
Main	Tyco-AMP 1437288-6 Mating crimp contact (customer) Tyco-AMP 3-1437290-7 Mating connector (customer) Tyco-AMP 3-1447221-4
Video	M12 round connector, female, 5-pole, B-coded, acc. to EN 61076-2-101
Ethernet	M12 round connector, female, 4-pole, D-coded acc. to EN 61076-2-101
SOFTWARE	
Operating System	Linux Kernel 3.0.0 or higher
Application Programming	– Wachendorff Projector Tool – Optional: ISO-UT
TESTING AND VERIFICATION	
CE-Compliance	EU Directive 2014/30/EU (EMC) according to <ul style="list-style-type: none"> <li>• EN 12895: Industrial Trucks – Electromagnetic compatibility</li> <li>• EN 13309: Construction machinery – Electromagnetic compatibility of machines with internal electrical power supply</li> <li>• EN ISO 14982: Agricultural and forestry machinery <ul style="list-style-type: none"> <li>– Electromagnetic compatibility</li> <li>– Test methods and acceptance criteria</li> </ul> </li> </ul>
E1 – Type approval	EU Directive ECE R 10.4 (Dec 2013)
Protection Level (IP Code)	IP65K and IP66K according to ISO 20653: Road Vehicles <ul style="list-style-type: none"> <li>– Degrees of protection (IP-Code)</li> <li>– Protection of electrical equipment against foreign objects, water and access</li> </ul>
Electrical	12 and 24 V – Systems according to: <ul style="list-style-type: none"> <li>• ISO 16750-2: Road Vehicles <ul style="list-style-type: none"> <li>– Environmental conditions and testing for electrical and electronic equipment</li> <li>– Electrical loads</li> </ul> </li> <li>• ISO 15003: Agricultural Engineering <ul style="list-style-type: none"> <li>– Testing resistance to environmental conditions</li> <li>– Electrical and electronic equipment</li> </ul> </li> </ul>
Mechanical	<ul style="list-style-type: none"> <li>• ISO 16750-3: Road Vehicles <ul style="list-style-type: none"> <li>– Environmental conditions and testing for electrical and electronic equipment</li> <li>– Mechanical loads, Code L</li> </ul> </li> <li>• ISO 15003: Agricultural Engineering <ul style="list-style-type: none"> <li>– Electrical and electronic equipment</li> <li>– Testing resistance to environmental conditions</li> </ul> </li> <li>• Mechanical Shock: Level 2</li> <li>• Random Vibration: Level 2</li> <li>• Sinusoidal Vibration: Level 2</li> </ul>
Climate	<ul style="list-style-type: none"> <li>• ISO 16750-4: Road Vehicles <ul style="list-style-type: none"> <li>– Environmental conditions and testing for electrical and electronic equipment</li> <li>– Climatic Loads</li> </ul> </li> <li>• Operating Temperature Range: -30°C to 65°C</li> <li>• Storage Temperature Range: -40°C to 85°C</li> <li>• ISO 15003: Agricultural Engineering <ul style="list-style-type: none"> <li>– Electrical and electronic equipment</li> <li>– Testing resistance to environmental conditions</li> </ul> </li> </ul>

## Complementary Products



### Rooftop Receivers

AGM-1 manual guidance  
AGI-4 receiver/steering controller



### Steering Control

Retrofit steering solutions (AES-35  
and Danfoss EHi Steering Valve)



### Correction Services

Full range through base stations  
(HiPer VR and MR-2) and reference  
station networks (TopNET)



### Cloud Connectivity Devices

CL-10 and CI-55 for automatic  
data upload to TAP



### Tilling, Seeding, Crop Care Control

Leading tilling, seeding, planting,  
spraying, and spreading control



### Crop Health Monitoring

Nutrient sensor for optimized  
and on-the-go application

# XD Console

Pay only for what's needed. Explore all XD feature unlocks below.

FEATURE	DESCRIPTION	XD (Customizable)
<b>Guidance</b>		
Guidelines	*Basic guidance, including on-screen waylines and lightbar.	Included
Autosteer	*Automatic steering Included with 30 cm SBAS correction services. Access to full range of correction networks, including satellite, cellular, Wi-Fi and base station, down to 2 cm RTK.	Unlock
Headland Turns	Automatically generate and execute turn at end of row for seamless transition into next pass.	Unlock
Tramlines	Visualize and optimize waylines with respect to application machinery width.	Unlock
Controlled Traffic	View multiple guidance paths (up to 20) at the same time with operating waylines easily differentiated from surrounding tasks.	Unlock
Machine to Machine***	*Collaborate multiple machines (up to 100) on a single task and share data in real time. Includes integrated automatic section control to prevent accidental application.	Unlock
XTEND	*Extend user interface of console to mobile iOS or Android device.	Unlock
Cameras	*Enable display for digital cameras (up to 4 AgCams).	Unlock
Third-party NMEA Receivers	Support for third-party NMEA and NMEA 2000 receivers to provide GNSS position information to the console.	Unlock
External Applications	Enable display for Topcon approved third-party software applications.	Unlock
<b>Digital Farm Management</b>		
Tasks	Task management including data logging and full stack of geospatial field profiling tools.	Included
TAP Fields**	Easily manage subscriptions, upload and manage all farm data. Includes Market, Dashboard, Storage and Fields apps.	Included
TAP Pro	*Constant connectivity, enabling Automatic Sync, Fleet Management and Remote Support.	Unlock
Weather Station	*Aktiviert Anzeige der AirMar 150WX Wetterstation.	Unlock
<b>Monitoring, Mapping and Logging</b>		
CropSpec Monitoring	*Enable display for CropSpec Crop Monitoring solution.	Unlock
Yield Monitoring	*Enables display for Topcon real-time yield monitoring, mapping and logging solution.	Unlock
<b>Implement and Application Control</b>		
Auto Section Control	*Automatic section control for compatible application controllers.	Unlock
Variable Rate Control	*Variable rate control for compatible application controllers.	Unlock
Additional Seeder Tanks	*Adds support for seeder implements with 3 or more tanks.	Unlock
Additional Spreader Bins	*Adds support for spreader implements with dual belts and up to 4 bins.	Unlock
Additional Sprayer Tanks	*Adds support for sprayer implements with up to 4 tanks.	Unlock
Boom Height Control	*Enable display for Norac boom height control solution.	Unlock
Hypro ProStop-E	*Support for Hypro Pentair CAN controlled nozzle system to provide individual nozzle control on the boom.	Unlock
Water Conservation	*Enable display for access to full suite of Topcon landforming technology, including survey, design and execution.	
<b>Implement and Application Control</b>		
ISO-UT	Display compatibility for ISOBUS protocol solutions.	Included
ISOBUS Implement Profiles	*Enables display for ISOBUS implement control and task logging, up to 2 products.	Unlock
Additional ISOBUS Products	*Adds support for up to 4 ISO products.	Unlock

\*Additional hardware required.

\*\*TAP Fields is only free for first year.

\*\*\*Future release.

Specifications subject to change without notice.  
 © 2020 Topcon Corporation. All rights reserved.  
 7010-2310 OEM B 9/20