XD+ Console

12.1” 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 unlocked features include Guidelines, Tasks, ISO-UT, and TAP Market. All additional Horizon OS 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 provides flexible guidance solutions, priced right. Plus, with the complete Horizon OS feature-set including compatibility with the full-range of Topcon sensors and application control technology, the XD+ is ready for even the most progressive operations.

PHYSICAL			
Housing	Aluminum back-housing, plastic front-housing, black with rubber frame		
Dimensions (l x w)	8.4 x 13 in. / 214 x 330 mm		
Mounting	Landscape or portrait / Standalone / In-dash		
DISPLAY			
Type	TFT Color Graphic LCD with LED backlight		
Size (w x h)	12.1 in. / 261 x 163 mm		
Resolution	1280 x 800 px (WVGA), 16:10		
Colors	16.7 Million		
Brightness	1000 cd/m^2		
Contrast ratio	750:1		
INPUT DEVICES			
Touch	PCT		
Indicators and sensors	– Light sensor	– 1 Multicolor-LED	– 3 Status-LED’s
ELECTRONICS			
Processor platform	CPU: NXP I.MX6®, quad core, 1GHz RTC: Buffered by gold cap		Mass storage: 8GB RAM: 1GB
Speaker	80 dB @ 1kHz in 1 m distance		
Power supply	Operating voltage range: 9 – 36 V DC Protection: Short circuit protection Overvoltage resistance: 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 On Low-power Sleep Off	Current at 13.5 VDC ≤ 1.8 A Depending on config ≤ 0.2 A ≤ 2 mA	Current at 27 V ≤ 0.7 A ≤ 0.1 A ≤ 4 mA
INTERFACES			
CAN Bus	2 x CAN-Interfaces ISO 11898, CAN-specification, 2.0 B active Up to 1MB (250KB, 500KB, 750KB and 1MB)		
RS-232	1 x RS232-Interface Type: EIA232 (only RxD, TxD, GND) Speed: Max. 115 Kbps		
USB	Main connector: 1 x High speed		
Inputs	4 configurable analog/digital inputs Input impedance: > 3k Ohm Resolution: 12 bit (1024 digits, 1 digit ~ 3 mV) Input range: 0-12 V or 4-20 mA, or 0-20 mA Max. protectable input voltage: 36 VDC Protection: Short circuit protection Frequency: Max. signal frequency 50 Hz		
Outputs	3 digital outputs Short circuit protection: Up to 36 V Imax 300 mA open drain at 12 V		RDS on < 1 Ohm RDS off > 100 kOhm
Video-Interface	Inputs: 3 x analog (2 live steams) Camera supply: 12 VDC Output: 1 x camera control output (open drain) for special functionality (mirror, shutter, heating etc.)		Vss : 1 V Max. current: 500 mA Ampacity 300 mA
Ethernet-Interface	1 x 10/100MB Base		
Audio	1 x Audio output (left, right, GND) Output power: approx. 65 mW @ 32 Ohm		

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CONNECTORS		
Main	Tyco-AMP 3-1437290-7	
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	
Application Programming	– OPUS Projector	– ISO-UT
TESTING AND VERIFICATION		
CE-Compliance	EU Directive 2014/30/EU (EMC) according to • EN ISO 13766-1: Earth-moving and building construction machinery – Electromagnetic compatibility (EMC) of machines with internal electrical power supply • EN ISO 14982: Agricultural and forestry machinery – Electromagnetic compatibility	– Test methods and acceptance criteria
E1 – Type approval	EU Directive ECE R 10	
Protection Level (IP Code)	IP65 and IP66 according to ISO 20653: Road Vehicles – Degrees of protection (IP-Code)	– Protection of electrical equipment against foreign objects, water and access
Electrical	12 and 24 V – Systems according to: • ISO 16750-2: Road Vehicles • ISO 15003: Agricultural Engineering	 – Environmental conditions and testing for electrical and electronic equipment – Electrical loads – Electrical and electronic equipment – Testing resistance to environmental conditions
Mechanical	• ISO 16750-3: Road Vehicles • ISO 15003: Agricultural Engineering • Mechanical Shock: Level 2 • Random Vibration: Level 2 • Sinusoidal Vibration: Level 2	– Environmental conditions and testing for electrical and electronic equipment – Mechanical loads, Code L – Electrical and electronic equipment – Testing resistance to environmental conditions
Climate	• ISO 16750-4: Road Vehicles • Operating Temperature Range: • Storage Temperature Range: • ISO 15003: Agricultural Engineering	– Environmental conditions and testing for electrical and electronic equipment – Climatic Loads -30ºC to 65ºC -40ºC to 85ºC – Electrical and electronic equipment – Testing resistance to environmental conditions

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

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

Feature	Description	XD+ (Customizable)
	Guidance	
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*
Thirdy-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*
	Digital Farm Management	
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	*Enable display for AirMar 150WX Weather Station.	*Unlock*
	Monitoring, Mapping and Logging	
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*
	Implement and Application Control	
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.	*Unlock*
	ISOBUS Control	
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.
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