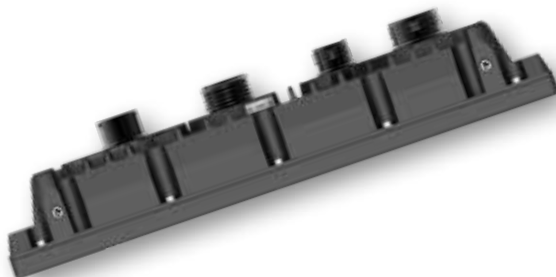


## TX-231

### 12.1" WXGA thin and lightweight extreme display



When conditions become extreme, only extreme technologies can offer operators the reliability and survivability they need. For the demanding environments of the utility vehicle, helicopter, or armored vehicle, ScioTeq has completely renewed the ThinX series of extremely rugged displays. TX Generation 2 displays offer an ideal solution for driver's vision enhancement, reconnaissance & local situational awareness or for BMS and mission applications inside today's vehicles and helicopters.

Being a 12 inch member of the family from 10 inch to 15 inch, the TX-231 display features the same or similar functionalities and options as its predecessor: designed and qualified for harsh environments, a variety of HMI options like bezel buttons, touch screen, a variety of video I/O and video processing capabilities.

The ThinX Gen2 displays accept multiple video inputs, offers multiple scaling modes and image representation options such as Picture-in-Picture, Picture-and-Picture, Quad-view, Image cropping.

The video rendering limitation is the number of sources limited to 4 sources displayed at the same time. Compared to the previous generation, the Generation 2 optionally introduces a display remote control by a CAN 2.0B protocol. The ThinX Gen2 continues to propose a remote controlled capability by one of the remote control links (Ethernet, Serial, USB, or CAN).

Next to the excellent performance in terms of sunlight readability, image crispness, contrast, viewing angle and dimming capabilities, the TX-231 display is addressing all SWaP-C aspects with an even more compact mechanical design, lower power consumption and lower cost.



## Product specifications

### TX-231

Panel size	12.1"; 16:10 aspect ratio
Panel resolution	1280 x 800 (WXGA)
Panel specifications	16.7 M colors, 256 gray scales
Brightness	Max > 686 cd/m <sup>2</sup> (200 fL) typical, LED backlight
Dimming ratio	200:1 in day mode and 10:1 in night mode
Contrast ratio	700:1 in dark room typical
Viewing angle	± 80° horizontal and vertical
Video inputs & outputs	1xDVI-D Single Link, 1x Analog RGB (3,4 or 5 wires) Max Resolution 1920 x 1200 (WUXGA) @ 60 Hz 3x Analog video (CVBS) inputs and 3x loop through outputs, MIL connector 1x CAN 2.0B (Accessible for project specific, please contact ScioTeq) General Purposes Input Output (3 IN, 3 OUT)
Command & control	USB, RS232/422 for Touch Screen, Function keys, and remote control 1x 10/100 Ethernet maintenance port for configuration management and remote control
Option 1: HD-SDI video inputs and outputs	2 x Digital video (HD-SDI) inputs and 2x loop through outputs, Max resolution 720p/1080i HD-SDI standard SMPTE 292M
Connectors	MIL-DTL-38999/3
Power supply	28VDC MIL-STD-1275E
Max. power consumption	35W typical (100W with heater)
Operating temperature range	From -46°C / -51°F to +63°C / +145°F – MIL-STD-810G
Storage temperature range	From -46°C / -51°F to +75°C / +167°F – MIL-STD-810G
Relative humidity	95% RH temperature cycle 30°C to 60°C / 86°F to 140°F – MIL-STD-810G
Vibration	Random vibration (wheeled vehicles) – MIL-STD-810G Random vibration (heavy tracked vehicles) – AECTP400
Shock	40g 15/23ms SRS – MIL-STD-810G
EMI / EMC	Ground Army – MIL-STD-461G
Enclosure	EN60529 IPx5
Altitude	Operating & Storage up to 40.000ft – MIL-STD-810G
Sand & dust, salt fog	Compliant at unit level – MIL-STD-810G
Bezel controls	Power/Stand by, Brightness Mode day/night, Brightness dimming
Option 2: touch screen	Base configuration: no touch screen Single touch, Rugged Analog Resistive touch screen, USB or RS controlled
Option 3 or 4: function keys	Base configuration: no function key Up to 20 user defined function keys left, right and top, dimmable backlight Standard button layout or GVA Def Stan 23-09 compliant layout
Finishing	Bezel color: Black RAL 9005 Surface treatment: ROHS compliant Chromated Cr3 (MIL-DTL-5541 type II Class 3)

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The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

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