

TREK-120

LoRa Cold Chain Temperature/ Humidity Sensor



Features

- Supports temperature/humidity/free fall detection
- Wireless data transmissions via NFC and LoRa technology
- Sensor configurable to alarm for real-time management
- Easy, simple installation in diverse refrigerated vehicles
- IP65 rated for protection against water and dust ingress
- Low power consumption for at least 1 year battery life*
- Supports IoT cloud services for centralized and real-time exception management

Specifications

Temperature	Measurement Range	-30 ~ 70 °C (-22 ~ 158 °F)
	Accuracy Range	±0.5 °C from 0 ~ 20 °C (±32.9 °F from 32 ~ 68 °F) ±1 °C from -30 ~ 70 °C (±33.8 °F from -22 ~ 158 °F)
	Resolution	0.1 °C (32.18 °F)
Humidity	Measurement Range	0 ~ 100% RH
	Accuracy Range	±3% from 0~80% at 30°C *The variation in accuracy is 0.5 % /C
Frequency	NFC	13.56MHz
	LoRa	860-930MHz for Taiwan/USA/Japan/South Korea 868MHz for Europe 470.3-489.3MHz for China
3-Axis Accelerometer		ST IIS2DH with free fall detection
Data Storage Capacity		65Kbits for 2000 temperature and humidity values + 30 free fall values
LED Indicators		1 x Power status 1 x Alarm
Buttons		1 x Start button
Battery		3.6V/2000mAh wide-temperature (-30 ~ 70 °C) battery
Data Transmissions		NFC only and NFC + LoRa
Mechanical	Mount Options	2 x Screw holes for mounting Fix by Tape Fix by Magnet
	Dimensions (W x D x H)	123.97 x 65.21 x 23.14 mm (4.88 x 2.56 x 0.91 in)
	Weight	108 g (0.23 lb)
Environment	Operating Temperature	-30 ~ 70 °C (-22 ~ 158 °F)
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
	IP Rating	IP65
	Drop Tolerance	4 ft. drop onto concrete
	Certifications	CE/FCC/NCC

*Battery life time depends on operating environments

LoRa Gateway Dongle

Features

- Support frequency from 433MHz to 928MHz frequency Bands
- Host interface: USB
- Enhanced noise filtering for better RF performance
- SMA connector for external antenna
- Dimension: 82x62x20 mm, weight: 100g



Ordering Information

Part number	Description
TREK-120-ANF000A00	Temperature/humidity/G sensor by NFC
TREK-120-ANLNA0A00	Temperature/humidity/G sensor by NFC+LoRa NA902/TW920
TREK-120-ANLEU0A00	Temperature/humidity/G sensor by NFC+LoRa EU868
TREK-120-ANLCN0A00	Temperature/humidity/G sensor by NFC+LoRa CN470
TREK-120-ANR000A00	Cold Chain NFC reader
TREK-120-ALG000A00	LoRa gateway dongle 902MHz ~ 928MHz
TREK-120-ALG000B00	LoRa gateway dongle 863 ~ 870MHz
TREK-120-ALG000C00	LoRa gateway dongle 470.3 ~ 489.3MHz
TREK-120-BATT00A00	Wide temperature Li-Metal battery 2000mAh, 10pcs/pack

NFC Reader

Features

- NFC Frequency : 13.56MHz
- Host interface: Micro USB
- Enhanced noise filtering for better RF performance
- Dimension: 121.63 x 74.18 x 15.6 mm, weight: 52 g



Optional Items

Part number	Description
TREK-530-GRWBADA20	TREK-530 WiFi/BT, w/LoRa GW TW/US
TREK-530-LRWBADA21	TREK-530 EU LTE/GPS, w/LoRa GW, A6.0 TW
TREK-530-LRWBADB20	TREK-530 US LTE&GPS, w/LoRa GW, A6.0 US

TREK-130

Front Collision Avoidance ADAS Module



Features

- Image recognition algorithms for front-view monitoring
 - Lane departure warning system (LDWS)
 - Forward collision warning system (FCWS)
- Supports optional video recording board
- Easily display detection through video output
- High dynamic range imaging ensures clear image
- Vehicle-grade design
- Wide operating temperature range (-30 ~ 85 °C/-22 ~ 185 °F)
- MIL-STD-810G and EN60721 (5M3) certified for shock and vibration tolerance
- Easily paired with TREK x-86 in-vehicle computing terminals (TREK-6xx/5xx/7xx) via a single-cable connection
- Supports firmware updates

Introduction

The TREK-130 is an advanced, multifunction Advanced Driver Assistance System (ADAS) module that combines Front Collision Warning (FCW) and Lane Departure Warning (LDW) algorithms. It is a vision-based active safety solution for accident prevention and injury mitigation using video recognition technologies. This ADAS module can detect surrounding vehicles and pre-alert drivers with audible alerts if a high-risk situation is identified.

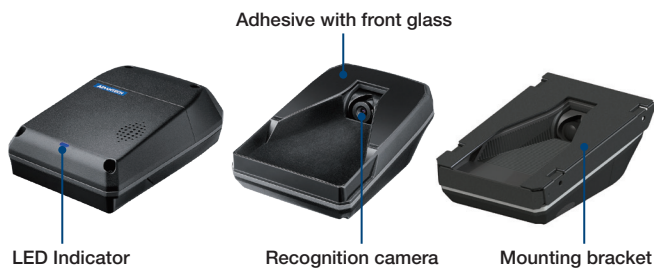
Specifications

Intelligent Video Analysis ^{1,2}	Lane Departure Warning System (LDWS)	For LDWS applications, the camera sensor monitors lane markings to detect if the vehicle drifts into another lane. If the system detects that the vehicle has drifted, visual and audio alerts are emitted to warn the driver.
	Forward Collision Warning System (FCWS)	For FCWS applications, the camera sensor processes the images captured by the front camera to detect vehicles ahead and potential collision risks. If a vehicle is detected within a dangerously close proximity, visual and audio alerts are emitted to warn the driver.
Electrical Interface	Camera Sensor	CMOS type, 720p@30fps resolution, 115dB dynamic range; field of view ³ (D x H x V): 45/35/26°
	I/O	1 x 4-pin automotive connector (white) for video output 1 x 6-pin automotive connector (grey) for TX/RX and ACC/GND
	Power Input	Supports 12/24 V vehicle power, 9 ~36 V _{DC} , with ISO-7637-II compliance
	Power Consumption	12W typical (input current <1A@ 12 V)
Environment	Operating Temperature	-30 ~ 85 °C (-22 ~ 185 °F)
	Storage Temperature	-40 ~ 105 °C (-40 ~ 221 °F)
	Operating Humidity	30 ~ 80% @ 40 °C/104 °F
	Vibration/Shock	MIL-STD-810G, EN60721 (5M3)
	Drop Testing	Twice dropped 1.0 m onto concrete
Certification	EMC	FCC/CE/CCC
	Safety	UL/cUL/CB/LVD
Mechanical	Dimensions (W x H x D)	131.3 x 45 x 88 mm (5.16 x 1.77 x 3.46 in)
	Weight	400 g (0.88 lb)

¹ To ensure optimum performance, the system's warning function is only activated when the vehicle speed reaches 60 kmh (37.2 mph).

² The module is optimized for vehicles under 1600 mm in height. If the target vehicle exceeds 2000 mm, the module may need to be recalibrated. This service is available upon request.

³ Because this system is an imaging-based driver assistance system, some conditions and situations may influence the detection accuracy. Please refer to the user manual for further details.



Disclaimer

- Environmental conditions, such as bright lighting or the camera being covered, may trigger false warnings.
- The presence of dirt or moisture on the camera may impact the recognition capabilities.
- The TREK-13x series only provides warnings when an object is within the detection area. Additionally, the module does not include an impact breaking function.
- The TREK-13x series is designed to alert drivers to certain potentially dangerous situations. However, the module cannot replace the functions that drivers would ordinarily perform when driving a vehicle, nor does it reduce the need to remain vigilant and alert at all times, to conform to safe driving standards and practices, and to obey all traffic laws, rules, and regulations.

Ordering Information

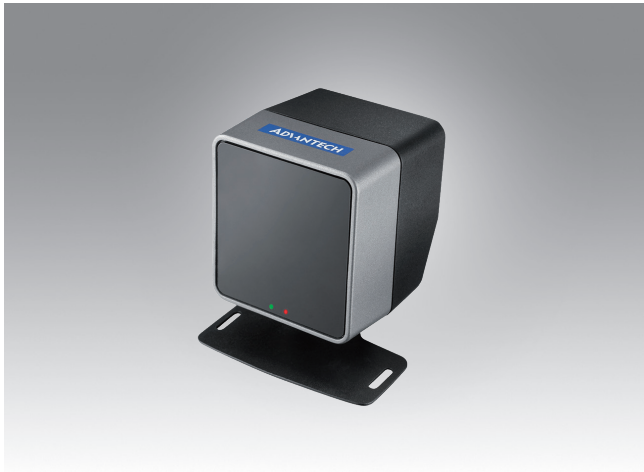
Part Number	Description
TREK-130-AL01A0E	TREK-130 (Front View Monitoring) with Std. Mount and 2-Meter cables for Low-Height vehicle

Optional Accessories

Part Number	Description
TREK130CALKIT0-ES	ES P/N for TREK-130 Installation and Calibration Kits

TREK-132

Multifunctional Driver Behavior Recognition Module



Features

- Multifunctional driver behavior recognition algorithms
 - Drowsiness detection
 - Distraction detection
 - Food consumption/smoke detection
 - Phone use detection
- Supports diverse driver characteristics and ethnicities to ensure widespread use
- Two IR LEDs 940nm support detection under poorly lit
- Easily display detection through video output
- Vehicle-grade design
- Wide operating temperature range (-30 ~ 85 °C/-22 ~ 185 °F)
- MIL-STD-810G and EN60721 (5M3) certified for shock and vibration tolerance
- Easily paired with TREK x-86 in-vehicle computing terminals (TREK-6xx/5xx/7xx) via a single-cable connection
- Supports firmware updates

Introduction

TREK-132 is a vision-based active safety solution for effective collision prevention using image recognition technologies for driver behavior detection. The multifunctional driver behavior recognition algorithm measures changes in drivers' eye and body movement patterns to detect drowsiness and/or distraction, and warn the driver with visual and audio alerts with vehicle computer. Through real-time driver behavior management, this intelligent safety solution can effectively prevent vehicle collisions.

Specifications

Intelligent Video Analysis ¹	Drowsiness Detection	Monitors drivers eye movements and blink frequency. Alerts are emitted if the threshold is exceeded.
	Distraction Detection	<ol style="list-style-type: none"> 1. Drowsy driving. 2. Not paying attention to the road. 3. Cell phone use(by hands). 4. Food consumption.
	Detection Conditions	The distance between driver's face and the camera sensor should be 40 ~ 60 cm. ² Supports diverse driver characteristics and ethnicities, as well as the wearing of glasses/sunglasses (excluding glasses with specular reflection lenses). Suitable for indoor environments (e.g., low illumination, light refraction).
Electrical Interface	Camera Sensor	CMOS type, 480p@30fps resolution, 74.8dB dynamic range; field of view ³ (D x H x V): 49.2°/39°/29°
	I/O	1 x 8-pin automotive connector (grey) for video-out, TX/RX, and ACC/GND
	Power Input	Supports 12/24 V vehicle power, 9 ~ 36 V _{DC} , with ISO-7637-II compliance
	Power Consumption	7.2W typical (input current <600 mA @ 12 V)
Environment	Operating Temperature	-30 ~ 85 °C (-22 ~ 185 °F)
	Storage Temperature	-40 ~ 105 °C (-40 ~ 221 °F)
	Operating Humidity	30 ~ 80% @ 40 °C/104 °F
	IP Rating	N/A
	Vibration/Shock	MIL-STD-810G, EN60721 (5M3)
	Drop Testing	Twice dropped 1.0 m onto concrete
Certification	EMC	FCC/CE/CCC
	Safety	UL/cUL/CB
Mechanical	Dimensions (W x H x D)	60 x 65 x 58.7 mm/2.36 x 2.55 x 2.31 in (with mount kit: 75 x 81 x 58.7 mm/2.95 x 3.18 x 2.31 in)
	Weight	155 g (0.34 lb)

¹ The system emits a warning when ACC is activated.

² Because this system is an imaging-based driver assistance system, some conditions and situations may influence the detection accuracy. Please refer to the user manual for further details.



Disclaimer

1. Environmental conditions, such as bright lighting or the camera being covered, may trigger false warnings.
2. The presence of dirt or moisture on the camera may impact the recognition capabilities.
3. The TREK-13x series only provides warnings when an object is within the detection area. Additionally, the module does not include an impact breaking function.
4. The TREK-13x series is designed to alert drivers to certain potentially dangerous situations. However, the module cannot replace the functions that drivers would ordinarily perform when driving a vehicle, nor does it reduce the need to remain vigilant and alert at all times, to conform to safe driving standards and practices, and to obey all traffic laws, rules, and regulations.

Ordering Information

Part Number	Description
TREK-132-AL01A0E	TREK-132 with Std. Mount and 2-Meter Cable for Low-Height vehicle (Short-focus Lens)

Optional Accessories

Part Number	Description
TREK-132-EH01A0E	TREK-132 Extended Mounting kit

TREK-303DH

7" In-Vehicle Smart Display



Features

- Vehicle-grade 7" (16:10) WVGA TFT LCD with rugged resistive type touchscreen
- Five user-programmable function keys
- Two 2-watt speakers
- Built-in light sensor for automatic dimming
- Easily installed and paired with TREK computing box via a single-cable connection
- Extended I/O ports (USB 2.0 Type A, power button and reset button) for easy TREK computing box maintenance
- Wide working temperature range (-30° C ~ 70° C)

Introduction

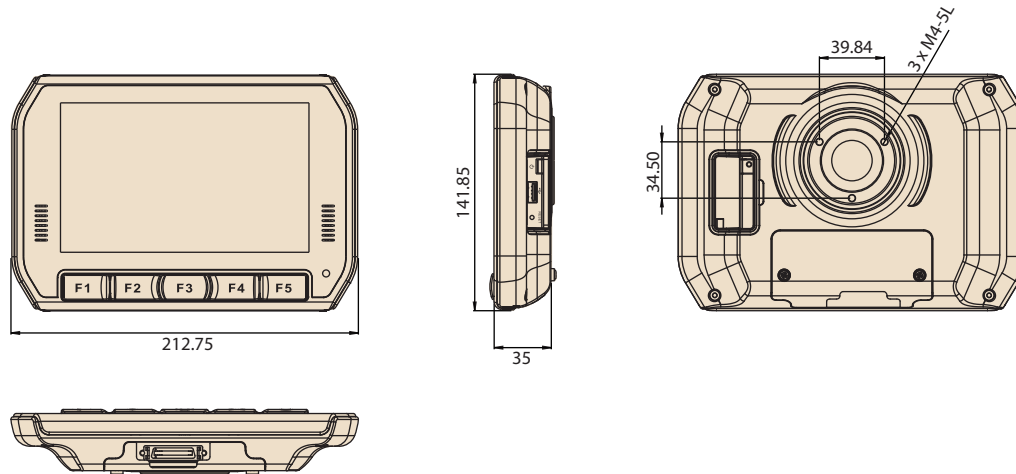
The TREK-303DH is a vehicle display system for Mobile Resource Management (MRM) applications in trucks and buses. The TREK-303DH touch panel is ideal for fleet management and dispatch applications. It also meets requirements for automotive grade working temperatures (-30° C ~ 70° C). TREK-303DH provides excellent display capabilities, featuring lightweight housing, it's compatible with RAM mounting solutions that customers can easily install. TREK-303DH supports resolutions of 800 x 480; it is compatible with TREK box solutions connecting via a single cable. TREK-303DH is designed with drivers in mind: when the system requires powering up or waking up, it can be easily controlled from the button located on the side; and for night driving, the panel has an auto detecting light sensor to automatically adjust brightness.

Specifications

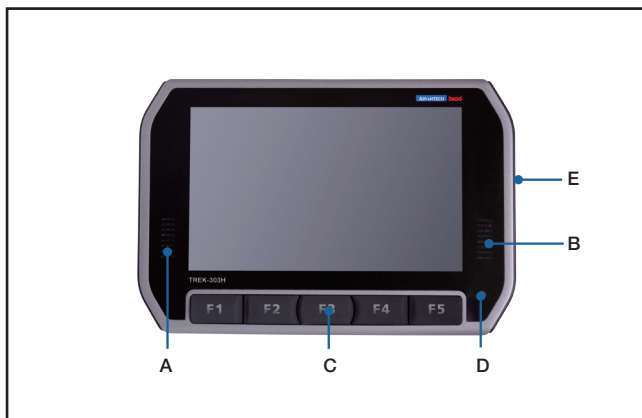
LCD	Design Compatible Models	Paired with TREK computing box (i.e. TREK-5xx/6xx)
	Resolution (pixel)	WVGA (800 x 480)
	Video Interface	Single channel, 18 bit LVDS
	Pixel Pitch	0.2168 (H) x 0.2168 (V)
	Brightness (cd/m ²)	500 (typical)
	View Angle ((H/V))	140° /120°
	Contrast Ratio	500
	Backlight Type	LED
	Backlight Life (Hrs)	50K
Touchscreen	Size	7.11" format
	Type	4-wire Resistive
	Transparency	81% ± 3%
	Hardness	3H
	Durability	Knock test > 200,000 times (Stylus= R0.8,<=250g)
	IK Shock-Protection Rate	IK-07 (by project-based)
Front Panel	Speaker	2 x 2-watt speaker
	Hotkeys	5 x User-programmable Function key with green LED
	Brightness Control	1 x Built-in light sensor for auto-dimming implementation
Rear I/O	Smart Display Port	1 x 36-pin locking type high density connector to be paired with TREK-5xx/6xx
Right Side I/O	USB Port	1 x USB 2.0 Host Type A (Data access from/to TREK computing box)
	Power button	1 x Power button (To power on/off TREK computing box)
	Reset button	1 x Reset button (To Reset TREK computing box)
Power	DC Input	12 V ± 5% (Powered by TREK computing box directly)
	Power Consumption	7W (Nominal), 12W (Max.)
Mechanical	Mounting	RAM mount
	Material	PC
	Weight	0.67 kg
	Dimensions (W x H x D)	212.75 x 141.85 x 35 mm
Environment	Operating Temperature	-30° C ~ 70° C
	Storage Temperature	-40° C ~ 80° C
	Vibration	MIL-STD-810G, SAE J1455 4.9.4.2
	Certifications	CE, FCC, CCC
	IP Rating	IP31 (entire system), IP 54 (with I/O Cover)

Dimensions

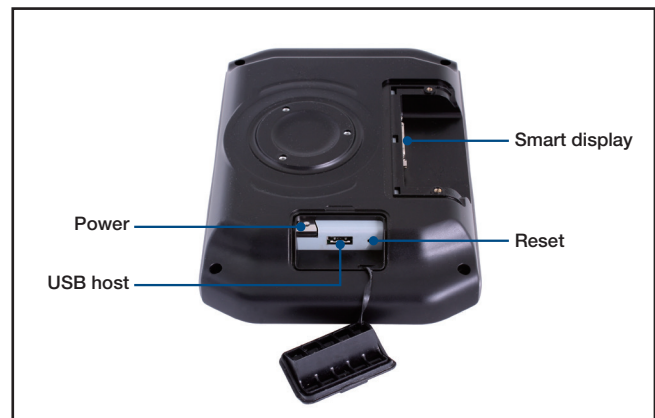
Unit: mm



I/O Connectors



- A. B. Speaker
- C. User-defined hotkeys
- D. Light sensor
- E. Reset, power, USB host (side)



Ordering Information

Part Number	Description
TREK-303D-HA0E	7" WVGA in-vehicle Smart Display, with 4-wire Resistive Touchscreen without Bezel

Optional Items

Part Number	Description
RAM-MOUNT-06E	VESA RAM mount w/VESA base(3.625") & 5.625" double socket arm for 1.5" ball base
RAM-MOUNT-07E	5.625" double socket arm for 1.5" ball base
1700020007	2-meter smart display cable (Paired with TREK-5xx/6xx)
1700020008	5-meter smart display cable (Paired with TREK-5xx/6xx)

TREK-303RH

7" In-Vehicle Smart Display



Features

- Vehicle grade 7" (16:10) WVGA resolution TFT LCD with 4-wire Resistive Touchscreen
- Five user-programmable function keys
- Single 2-watt speaker
- Built-in light sensor for automatic dimming
- Easily installed and paired with TREK computing box via a single-cable connection
- Extended I/O ports (USB 2.0 Type A, power button and reset button) for TREK computing box maintenance
- Wide working temperature range (-30° C ~ 70° C)

Introduction

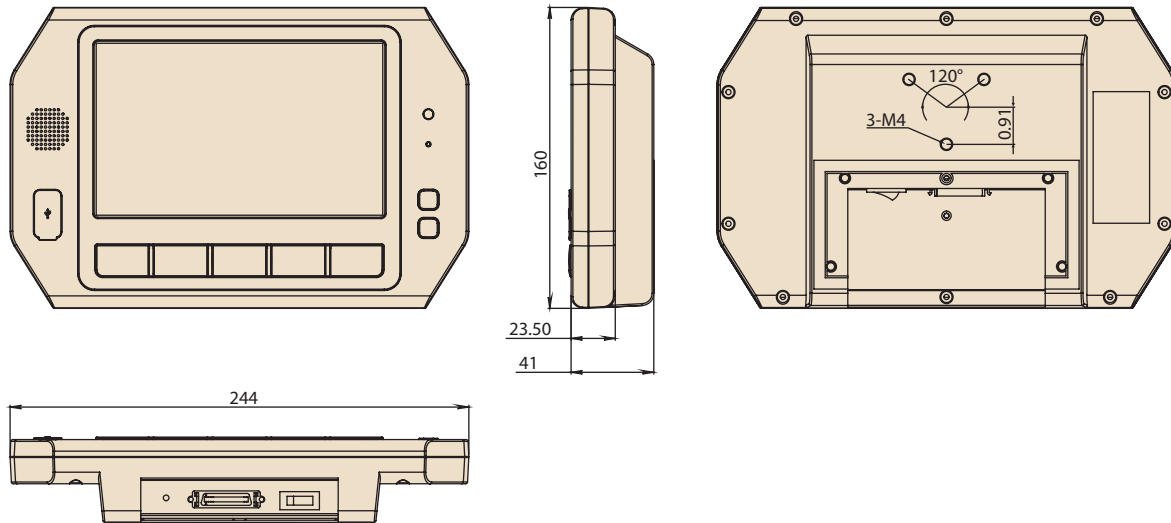
The TREK-303 is a vehicle display system for Mobile Resource Management (MRM) applications in trucks, buses and taxis. The TREK-303 touch panel is the perfect size for tight spaces; ideal for fleet management and dispatch applications. It also meets requirements for automotive grade working temperatures (-30 ~ 70° C). TREK-303 provides excellent display capabilities, featuring light-weight housing, compatible with RAM mounting solutions that customers can easily install. TREK-303 is designed with drivers in mind: when the system requires powering up or waking up, it can be easily controlled from the button located in back; and for night driving, the panel has an auto detecting light sensor to automatically adjust brightness. TREK-303 is a smart display designed especially for truck, bus, and taxi drivers.

Specifications

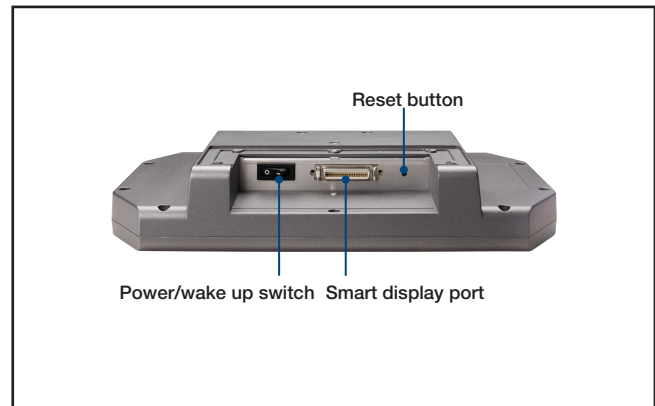
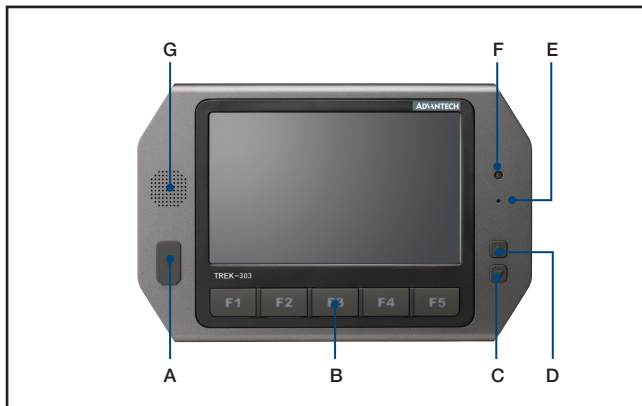
LCD	Design Compatible Models	Paired with TREK computing box (i.e. TREK-5xx/6xx)
	Resolution (pixel)	WVGA (800 x 480)
	Video Input	Single channel, 18 bit LVDS
	Pixel Pitch	0.2168 (H) x 0.2168 (V)
	Brightness (cd/m ²)	500 (typical)
	View Angle ((H/V))	140° /120°
	Contrast Ratio	500
	Backlight Life (Hrs)	50K
Backlight Type	LED	
Touchscreen	Size	7" format
	Type	4-wire Resistive
	Transparency	84% ± 3%
	Hardness	3H
	Durability	Knock test > 200,000 times (Stylus= R0.8, <=250g)
IK Shock-Protection Rate	N/A (IK-07, by project-based)	
Front Panel	Speaker	1 x 2-watt speaker
	Hotkey	5 x User-programmable Function keys with green LED
	Brightness Control	Manually controlled by button (default), Light sensing (optional)
	USB Port	1 x USB 2.0 Host Type A (Data access from/to TREK computing box)
Rear I/O	Smart Display Port	1 x 36-pin locking type high density connector to be paired with TREK-5xx/6xx
	Power button	1 x Power button (To power on/off TREK computing box)
	Reset button	1 x Reset button (To Reset TREK computing box)
Power	DC Input	12 V ± 5% (Powered by TREK computing box directly)
	Power Consumption	7W (Nominal), 12W (Max.)
Mechanical	Mounting	Design compatible with RAM mount
	Material	PC
	Weight	0.95 kg
	Dimensions (W x H x D)	244 mm x 160 mm x 41 mm
Environment	Operating Temperature	-30 to + 70° C
	Storage Temperature	-40 to + 80° C
	Vibration	MIL-STD-810G, SAE J1455 4.9.4.2
	Certifications	CE, FCC, CCC, E-MARK (E13)
	IP Rating	IP 31 (entire system), IP 54 (with I/O Cover, by project-based)

Dimensions

Unit: mm



I/O Connectors



- A. USB Host
- B. 5 programmable hotkeys
- C. D. Brightness control
- E. Power LED
- F. Light sensor
- G. Speaker

Note: Backlight off: Press C button to the lowest level

Ordering Information

Part Number	Description
TREK-303R-HA0E	7" WVGA in-vehicle Smart Display, with 4-wire Resistive Touchscreen

Optional Items

Part Number	Description
RAM-Mount-07E	75mm VESA base, RAM-202U, and socket ARM
RAM-Mount-09E	Clamp base, RAM-202U, and socket ARM
TREK-MNT-301E	AMPS mount, TRIAXIS arm, AMPS base (ONYX)
TREK-MNT-302E	AMPS mount, TRIAXIS arm, VASA base (ONYX)
1700020007	2-meter smart display cable (Paired with TREK-5xx/6xx)
1700020008	5-meter smart display cable (Paired with TREK-5xx/6xx)

TREK-306D2

10" In-Vehicle Smart Display



Features

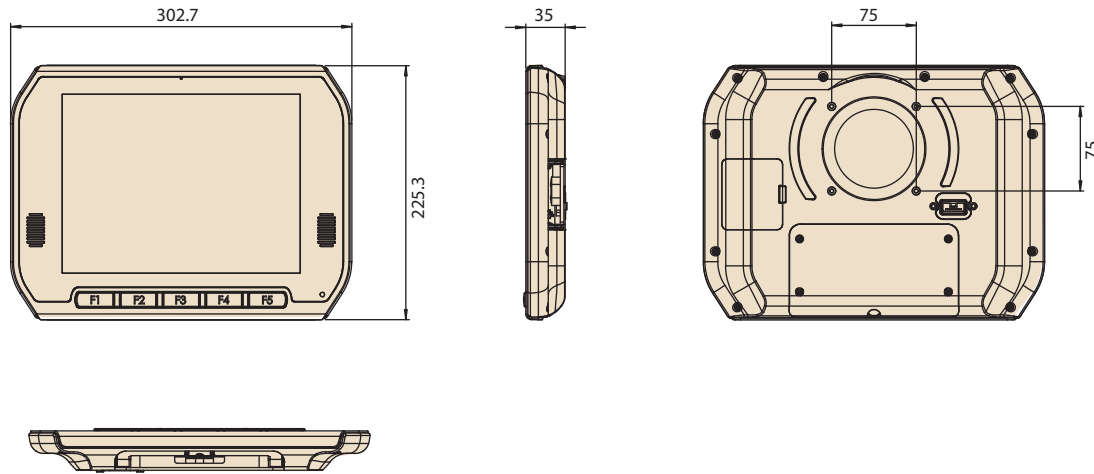
- Vehicle-grade 10" (4:3) XGA TFT LCD with rugged resistive type touchscreen
- 1000 nits High brightness/ 500 nits brightness
- Five user-programmable function keys
- one Mic-in
- Two 2-watt speakers
- Built-in light sensor for automatic dimming
- Easily installed and paired with TREK computing box via a single-cable connection
- Extended I/O ports (USB 2.0 Type A, power button and reset button) for easy TREK computing box maintenance
- Wide working temperature range (-30° C ~ 70° C)
- Smart Display port 2.0, smaller connector, thinner cable, longer length and easy connect/disconnect

Specifications

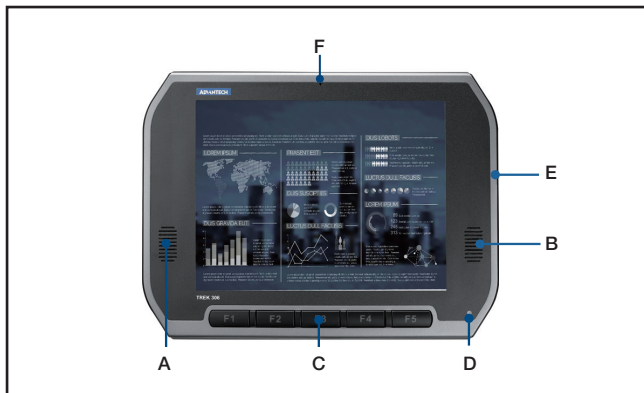
LCD	Display	10.4"
	Resolution	XGA (1024x768)
	Design Compatible Models	TREK676
	Video Interface	Single Channel, 24bit LVDS
	Pixel Pitch	500nits 0.0685 (H) x 0.2055 (V) / 1000 nits 0.0685 (H) x 0.2055 (V)
	View Angle (H/V)	500nits: 176(H)/ 176(V) (CR>10) Super MVA technology 1000 nits: -80-80°(H) -80-80° (V)
	Contrast Ratio	500nits : 1000, 1000 nits : 700
	Backlight Type	LED
	Brightness (cd/m ²)	500nits standard / 1000nits optional , 50K/100K Hrs backlight life
	Light Sensor	MRM SDK Support: LightSensor
	Thermal Sensor	MRM SDK Support: Thermal Sensor
Front Panel	Speaker	Built-in 2-Watt Speaker x2pcs
	Mic	Built-in one mic
	Hot Keys	5 x programmable function keys with green LED; MRM SDK Support: HotKey (LED duty, key status,function programming)
	Brightness Control	1 x built-in light sensor for auto-dimming implementation
Touchscreen	Size	10.4" (4:3) format
	Type	5-wire Resistive
	Transparency	80% ±3%
	Hardness	3H
	Durability	PACP NA, Resistance: Knock Test > 35,000,000 times (Stylus=R0.8, <=50g)
	IK Shock Protection Rate	IK06
I/O	Smart Display Port 2.0	By High Speed Data (HSD) (4+2) Connector Thinner cable for easy installation and maintenance Single cable connection and can support up to 10-meter cable length. Auto detection of display model for display hot plug and resolution setting. (Default: w/o 3xx --> with 3xx) Support stereo audio output interface. (via HDMI) USB 2.0 over SDP 2.0 for easy function/I/O expansion (e.g. NFC, web camera, microphone) on Next Gen. TREK-3xx Support 12V (2A) power output for Next Gen. TREK-3xx
	Integrated MIC	Support Voice call (Echo cancellation) Support Voice Recognition
	USB 2.0 Host	1 x USB 2.0 Host
	Power button	1 x Power button (To power on/off TREK computing box)
	Reset button	1 x Reset button (To Reset TREK- box PC) Can reset the TREK-676 during the power on mode Can reset the VPM by pressing reset button 3 times within 5 sec. Can turn on the TREK-676 during the power off mode
	Power	DC input 12V /1.5 A (via SDP 2.0 Port) Power consumption 11W (Nominal), 18W max
Mechanical	Dimension (H x W x D) mm	303 x 226 x 35 mm
	Material	PC
	Weight	1.7 Kg
Environment	Mounting	VESA (75x75mm), RAM Mount
	Operating temp.	-30 to 70 °C
	Storage Temp.	-40 to 80 °C
	Humidity	95 ± 5%
	Fanless	Fanless
	IP rating	IP55 with I/O Cover
Certification	Vibration/Shock	MIL-STD-810G, SAE J1455 4.9.4.2, EN60721-3-5(5M3)
	EMC	CE/FCC/IC/CCC
	Safety	UL/cUL/CB

Dimensions

Unit: mm

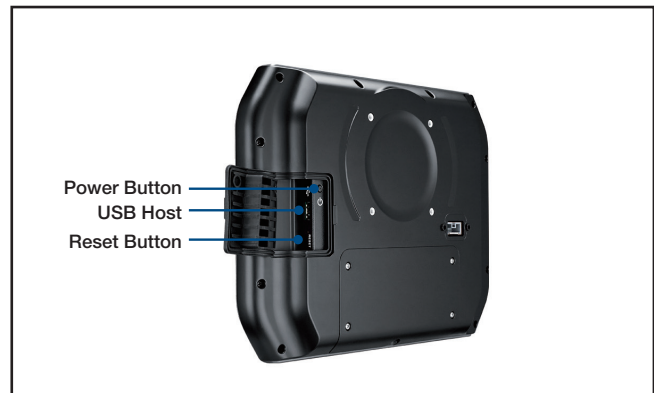


I/O Connectors

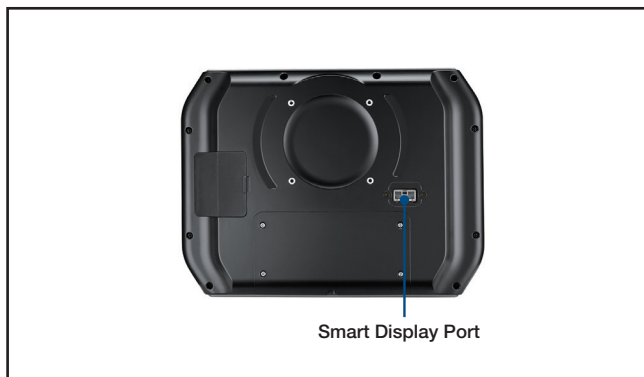


- A. B. Speaker
- C. User-defined hotkeys
- D. Light sensor

- E. Reset, power, USB host (side)
- F. MIC



- Power Button
- USB Host
- Reset Button



Smart Display Port

Ordering Information

Part Number	Description
TREK-306D-H2A0E	10.4" X VGA in-vehicle Smart Display2.0 , with 5-wire Resistive Touchscreen

Optional Items

Part Number	Description
RAM-MOUNT-06	VESA RAM mount w/VESA base (3.625") & 5.625" double socket arm for 1.5" ball base
RAM-MOUNT-07E	5.625" double socket arm for 1.5" ball base

TREK-306DH

10" In-Vehicle Smart Display



Features

- Vehicle-grade 10" (4:3) XGA TFT LCD with rugged resistive type touchscreen
- Five user-programmable function keys
- Two 2-watt speakers
- Built-in light sensor for automatic dimming
- Easily installed and paired with TREK computing box via a single-cable connection
- Extended I/O ports (USB 2.0 Type A, power button and reset button) for easy TREK computing box maintenance
- Wide working temperature range (-30° C ~ 70° C)
- Optional monitor hood supports operation in direct sunlight for demanding environments

Introduction

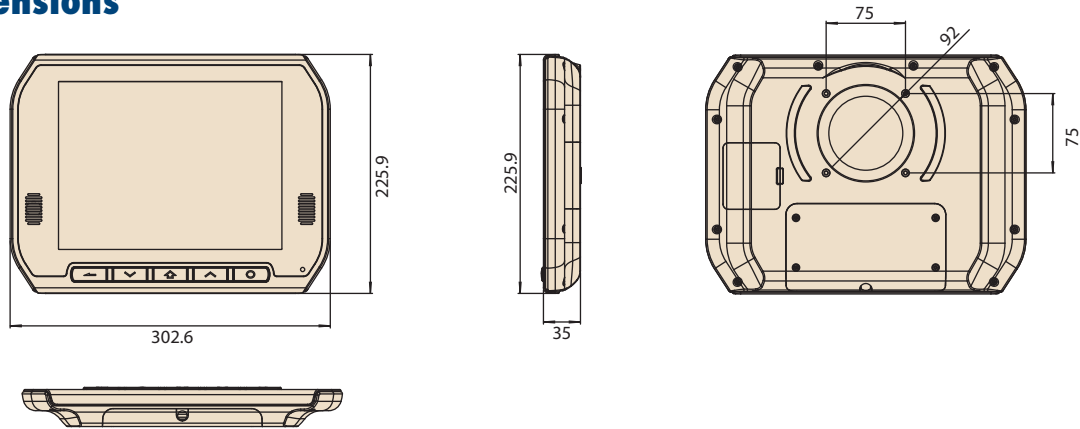
The TREK-306DH is a vehicle display system for Mobile Resource Management (MRM) applications in trucks and buses. The TREK-306DH touch panel is ideal for fleet management and dispatch applications. It also meets requirements for automotive grade working temperatures (-30° C ~ 70° C). TREK-306DH provides excellent display capabilities, featuring lightweight housing, it's compatible with RAM mounting solutions that customers can easily install. TREK-306DH supports resolutions of 1024 x 768; it is compatible with TREK box solutions connecting via a single cable. TREK-306DH is designed with drivers in mind: when the system requires powering up or waking up, it can be easily controlled from the button located on the side; and for night driving, the panel has an auto detecting light sensor to automatically adjust brightness.

Specifications

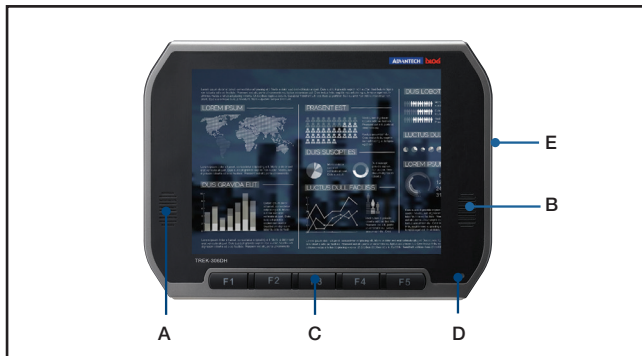
LCD	Design Compatible Models	Paired with TREK computing box (i.e. TREK-5xx/6xx, TREK-520 by project-based)
	Resolution (pixel)	XGA (1024 x 768)
	Video Interface	Single channel, 18 bit LVDS
	Pixel Pitch	0.2055 (H) x 0.2055 (V)
	Brightness (cd/m ²)	400 (typical)
	View Angle ((H/V))	178°/178°
	Contrast Ratio	1400
	Backlight Type	LED
	Backlight Life (Hrs)	50K
Touchscreen	Size	10.4" (4:3) format
	Type	5-wire Resistive
	Transparency	80% ± 3%
	Hardness	3H
	Durability	Knock test > 35,000,000 times (Stylus= R0.8, <=50g)
Front Panel	IK Shock-Protection Rate	IK-06 (Resistance against impacts with an energy up to 1,00 J)
	Speaker	2 x 2-watt speaker
	Hotkeys	5 x User-programmable Function key with green LED
Rear I/O	Brightness Control	1 x Built-in light sensor for auto-dimming implementation
	Smart Display Port	1 x 36-pin locking type high density connector to be paired with TREK-5xx/6xx
Right Side I/O	USB Port	1 x USB 2.0 Host Type A (Data access from/to TREK computing box)
	Power button	1 x Power button (To power on/off TREK computing box)
	Reset button	1 x Reset button (To Reset TREK computing box)
Power	DC Input	12 V ± 5% (Powered by TREK computing box directly)
	Power Consumption	8W (Nominal), 14W (Max.)
Mechanical	Mounting	VESA (75 x 75 mm), RAM Mount
	Material	PC
	Weight	1.7 kg
	Dimensions (W x H x D)	303 x 226 x 35 mm
Environment	Operating Temperature	-30° C ~ 70° C
	Storage Temperature	-40° C ~ 80° C
	Vibration	MIL-STD-810G, SAE J1455 4.9.4.2
	Certifications	CE, FCC
	IP Rating	IP55 (with I/O Cover)

Dimensions

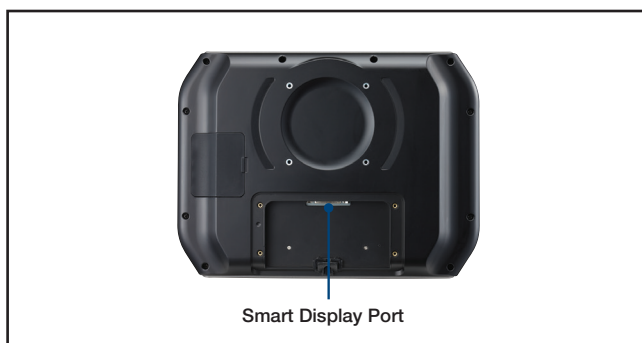
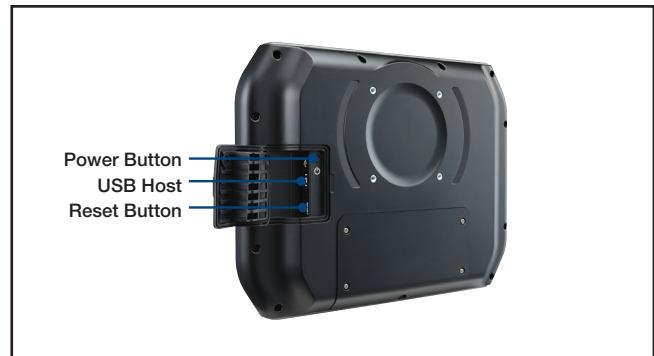
Unit: mm



I/O Connectors



- A. B. Speaker
- C. User-defined hotkeys
- D. Light sensor
- E. Reset, power, USB host (side)



Ordering Information

Part Number	Description
TREK-306D-HA0E	10.4" XVGA in-vehicle Smart Display, with 5-wire Resistive Touchscreen

Optional Items

Part Number	Description
RAM-MOUNT-06E	VESA RAM mount w/VESA base(3.625") & 5.625" double socket arm for 1.5" ball base
RAM-MOUNT-07E	5.625" double socket arm for 1.5" ball base
1700020007	2-meter smart display cable (Paired with TREK-5xx/6xx)
1700020008	5-meter smart display cable (Paired with TREK-5xx/6xx)
TREK-306-HOOD01E	Monitor hood for TREK-306DH
1700020007-11	2M Smart display cable with iron screw
1700020008-21	5M Smart display cable with iron screw

TREK-306P2

10" In-Vehicle Smart Display



Features

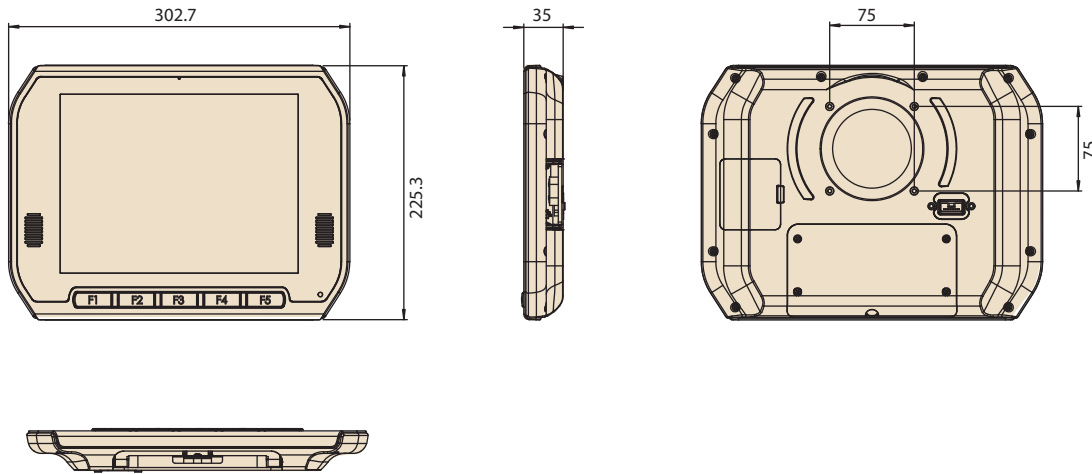
- Vehicle-grade 10" (4:3) XGA TFT LCD with projected capacitive touchscreen
- 1000 nits High brightness/ 500 nits brightness
- Five user-programmable function keys
- one Mic-in
- Two 2-watt speakers
- Built-in light sensor for automatic dimming
- Easily installed and paired with TREK computing box via a single-cable connection
- Extended I/O ports (USB 2.0 Type A, power button and reset button) for easy TREK computing box maintenance
- Wide working temperature range (-30 ~ 70 °C)
- Smart Display port 2.0, smaller connector, thinner cable, longer length and easy connect/disconnect

Specifications

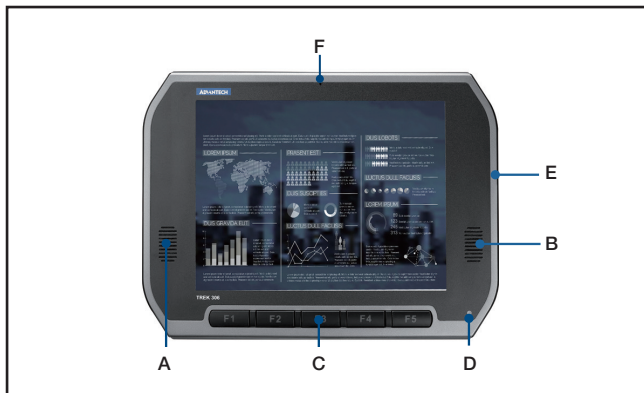
LCD	Display	10.4"
	Resolution	XGA (1024x768)
	Design Compatible Models	TREK676
	Video Interface	Single Channel, 24bit LVDS
	Pixel Pitch	500nits 0.0685 (H) x 0.2055 (V) / 1000 nits 0.0685 (H) x 0.2055 (V)
	View Angle (H/V)	500nits: 176(H)/ 176(V) (CR>10) Super MVA technology 1000 nits: -80-80°(H) -80-80° (V)
	Contrast Ratio	500nits : 1000, 1000 nits : 700
	Backlight Type	LED
	Brightness (cd/m ²)	500nits standard / 1000nits optional , 50K/100K Hrs backlight life
	Light Sensor	MRM SDK Support: LightSensor
Thermal Sensor	MRM SDK Support: Thermal Sensor	
Front Panel	Speaker	Built-in 2-Watt Speaker x2pcs
	Mic	Built-in one mic
	Hot Keys	5 x programmable function keys with green LED; MRM SDK Support: HotKey (LED duty, key status,function programming)
	Brightness Control	1 x built-in light sensor for auto-dimming implementation
Touchscreen	Size	10.4" (4:3) format
	Type	10 Fingers projected capacitive touchscreen
	Transparency	87% ±2%
	Hardness	≥ 7H (JIS K5400)
	Impact Resistance	Impact energy: 2.0 Joule IK Rating: meet IK 07
I/O	Smart Display Port 2.0	By High Speed Data (HSD) (4+2) Connector Thinner cable for easy installation and maintenance Single cable connection and can support up to 10-meter cable length. Auto detection of display model for display hot plug and resolution setting. (Default: w/o 3xx --> with 3xx) Support stereo audio output interface. (via HDMI) USB 2.0 over SDP 2.0 for easy function/I/O expansion (e.g. NFC, web camera, microphone) on Next Gen. TREK-3xx Support 12V (2A) power output for Next Gen. TREK-3xx
	Integrated MIC	Support Voice call (Echo cancellation) Support Voice Recognition
	USB 2.0 Host	1 x USB 2.0 Host
	Power button	1 x Power button (To power on/off TREK computing box)
	Reset button	1 x Reset button (To Reset TREK- box PC) Can reset the TREK-676/686 during the power on mode Can reset the VPM by pressing reset button 3 times within 5 sec. Can turn on the TREK-676/686 during the power off mode
	DC input	12V /1.5 A (via SDP 2.0 Port)
Power consumption	11W (Nominal), 18W max	
Mechanical	Dimension (H x W x D) mm	303 x 226 x 35 mm
	Material	PC
	Weight	1.7 Kg
Environment	Mounting	VESA (75x75mm), RAM Mount
	Operating temp.	-30 to 70 °C
	Storage Temp.	-40 to 80 °C
	Humidity	95 ± 5%
	Fanless	Fanless
Certification	IP rating	IP55 with I/O Cover
	Vibration/Shock	MIL-STD-810G, SAE J1455 4.9.4.2, EN60721-3-5(5M3)
	EMC	CE/FCC/IC/CCC
	Safety	UL/cUL/CB

Dimensions

Unit: mm

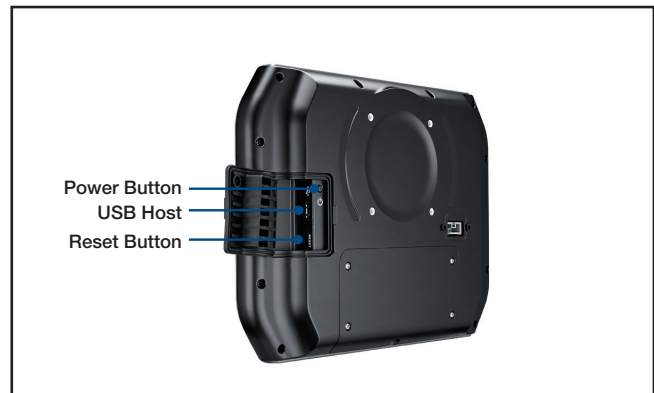


IO Connectors

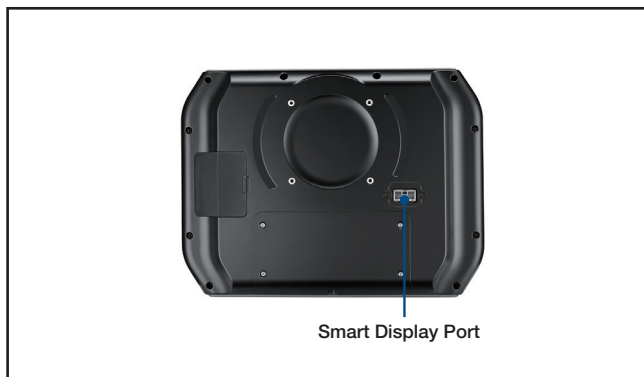


- A. B. Speaker
- C. User-defined hotkeys
- D. Light sensor

- E. Reset, power, USB host (side)
- F. MIC



- Power Button
- USB Host
- Reset Button



Smart Display Port

Ordering Information

Part Number	Description
TREK-306P-H2A0E	10.4" X VGA in-vehicle Smart Display2.0 , with 5-wire PCAP Touchscreen

Optional Items

Part Number	Description
RAM-MOUNT-06E	VESA RAM mount w/VESA base (3.625") & 5.625" double socket arm for 1.5" ball base
RAM-MOUNT-07E	5.625" double socket arm for 1.5" ball base

TREK-306PH

10" In-Vehicle Smart Display



Features

- Vehicle-grade 10" (4:3) XGA TFT LCD with projected capacitive touchscreen
- Five user-programmable function keys
- Two 2-watt speakers
- Built-in light sensor for automatic dimming
- Easily installed and paired with TREK computing box via a single-cable connection
- Extended I/O ports (USB 2.0 Type A, power button and reset button) for easy TREK computing box maintenance
- Wide working temperature range (-30° C ~ 70° C)

Introduction

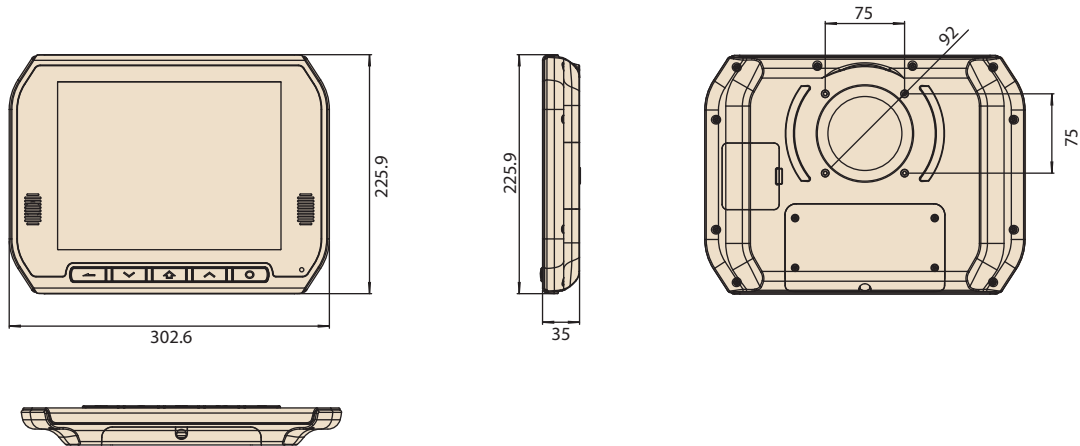
The TREK-306PH is a vehicle display system for Mobile Resource Management (MRM) applications in trucks and buses. The TREK-306PH touch panel is ideal for fleet management and dispatch applications. It also meets requirements for automotive grade working temperatures (-30° C ~ 70° C). TREK-306PH provides excellent display capabilities, featuring lightweight housing, it's compatible with RAM mounting solutions that customers can easily install. TREK-306PH supports resolutions of 1024 x 768; it is compatible with TREK box solutions connecting via a single cable. TREK-306PH is designed with drivers in mind: when the system requires powering up or waking up, it can be easily controlled from the button located on the side; and for night driving, the panel has an auto detecting light sensor to automatically adjust brightness.

Specifications

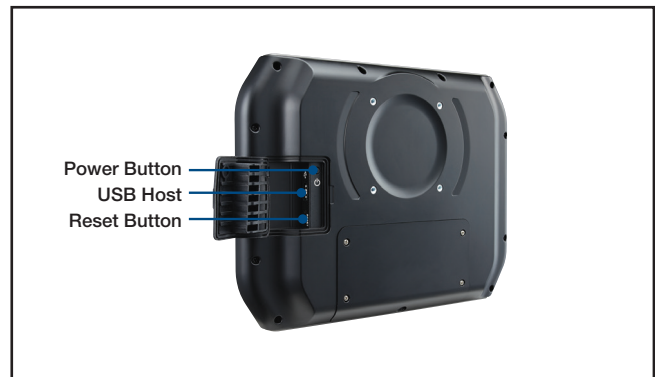
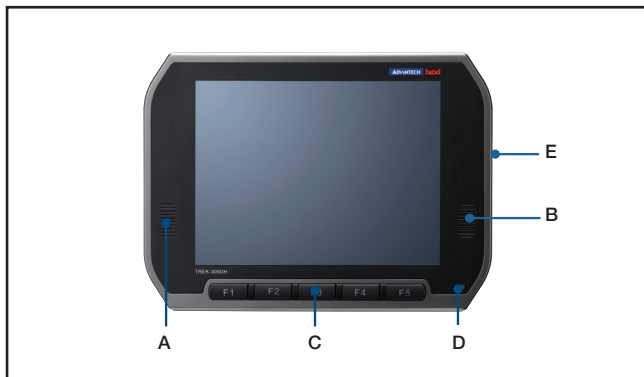
LCD	Design Compatible Models	Paired with TREK computing box (i.e. TREK-5xx/6xx, TREK-520 by project-based)
	Resolution (pixel)	XGA (1024 x 768)
	Video Interface	Single channel, 18 bit LVDS
	Pixel Pitch	0.0685 (H) x 0.2055 (V)
	Brightness (cd/m ²)	500 (typical)
	View Angle ((H/V))	176(H)/ 176(V) (CR>10) Super MVA technology
	Contrast Ratio	Ultra high contrast ratio (1000:1)
	Backlight Type	LED
Backlight Life (Hrs)	50K	
Touchscreen	Size	10.4" (4:3) format
	Type	10 Fingers projected capacitive touchscreen
	Transparency	87% ± 2 %
	Hardness	≥ 7H (JIS K5400)
Impact Resistance	Impact energy: 2.0 Joule, IK Rating: meet IK 07	
Front Panel	Speaker	2 x 2-watt speaker
	Hotkeys	5 x User-programmable Function key with green LED
	Brightness Control	1 x Built-in light sensor for auto-dimming implementation
Rear I/O	Smart Display Port	1 x 36-pin locking type high density connector to be paired with TREK-5xx/6xx
Right Side I/O	USB Port	1 x USB 2.0 Host Type A (Data access from/to TREK computing box)
	Power button	1 x Power button (To power on/off TREK computing box)
	Reset button	1 x Reset button (To Reset TREK computing box)
Power	DC Input	12 V ± 5% (Powered by TREK computing box directly)
	Power Consumption	8W (Nominal), 14W (Max.)
Mechanical	Mounting	VESA (75 x 75 mm), RAM Mount
	Material	PC
	Weight	1.7 kg
	Dimensions (W x H x D)	303 x 226 x 35 mm
Environment	Operating Temperature	-30° C ~ 70° C
	Storage Temperature	-40° C ~ 80° C
	Vibration	MIL-STD-810G, SAE J1455 4.9.4.2
	Certifications	CE, FCC
	IP Rating	IP55 (with I/O Cover)

Dimensions

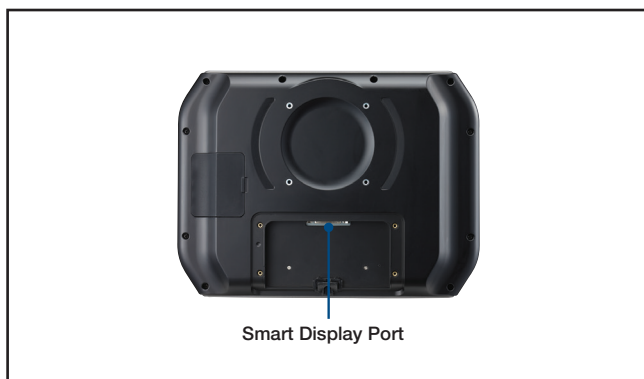
Unit: mm



I/O Connectors



- A. B. Speaker
- C. User-defined hotkeys
- D. Light sensor
- E. Reset, power, USB host (side)



Ordering Information

Part Number	Description
TREK-306P-HA0E	TREK-306P, 10.4" XVGA PCAP Smart Display

Optional Items

Part Number	Description
RAM-MOUNT-06E	VESA RAM mount w/VESA base(3.625") & 5.625" double socket arm for 1.5" ball base
RAM-MOUNT-07E	5.625" double socket arm for 1.5" ball base
1700020007	2-meter smart display cable (Paired with TREK-5xx/6xx)
1700020008	5-meter smart display cable (Paired with TREK-5xx/6xx)

TREK-530

Compact RISC-Based In-Vehicle Computing Box for Fleet Management



verizon ✓ CE FCC CCC

Features

- Qualcomm® Snapdragon™ 212 quad-core ARM® Cortex™-A7 SoC with Android 6.0 Marshmallow
- Built-in WLAN, Bluetooth, and GNSS (including BeiDou) modules with external antenna via FAKRA connector
- Modularized design with two extension slots for optional expansion (such as an LTE 4G module or battery) according to application requirements
- Compatible with 12/24V vehicle power
- Multiple isolated DI/O; DI supports dry/wet contact and vehicle speed sensor inputs for measuring distance
- Compliant with MIL-STD-810G and 5M3 standards for shock/vibration tolerance
- Equipped with Advantech's industrial-grade Android Remote General Utilities System (ARGUS) OS for remote management

Introduction

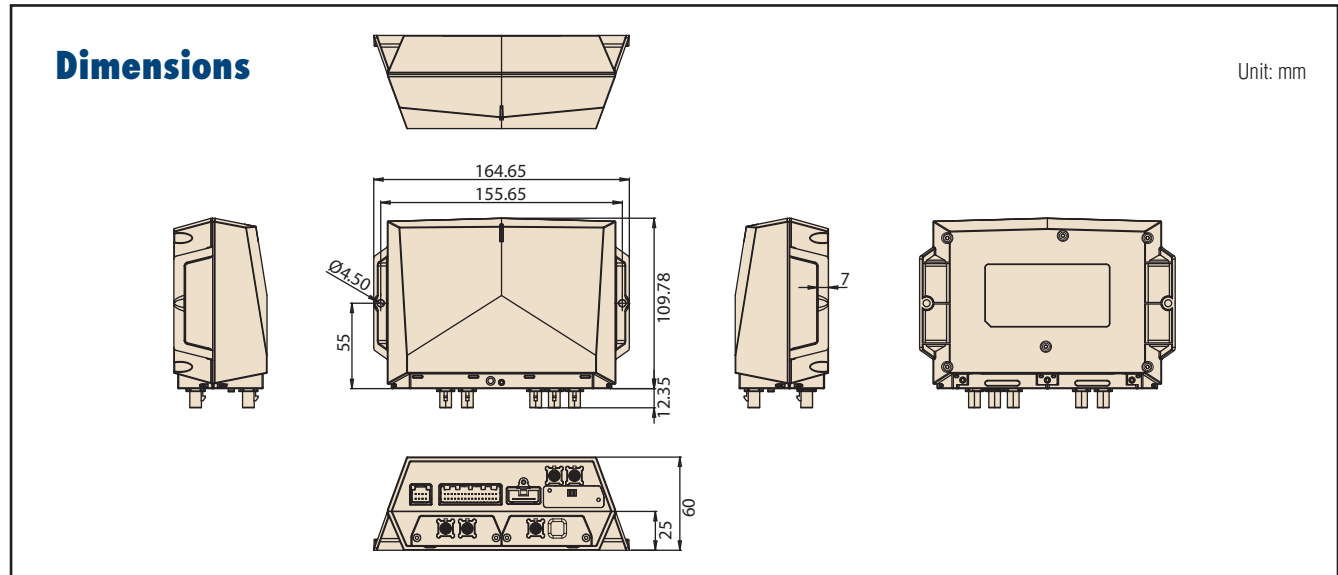
TREK-530 is a compact RISC-based in-vehicle computing box equipped with a Qualcomm® Snapdragon™ 212 quad-core ARM® Cortex™-A7 SoC, isolated DI/O, and two extension slots for optional expansion. Built-in WLAN, Bluetooth, and GNSS modules offer enhanced connectivity, while periodic, digital input, and WWAN suspend/resume functionality supports remote monitoring, making TREK-530 ideal for logistics and fleet management. Moreover, the system's wide operating temperature range (-20 ~ 65 °C), support for 12/24V vehicle power, and compliance with MIL-STD-810G and 5M3 shock/vibration standards ensures TREK-530 can withstand operation in harsh environments.

Specifications

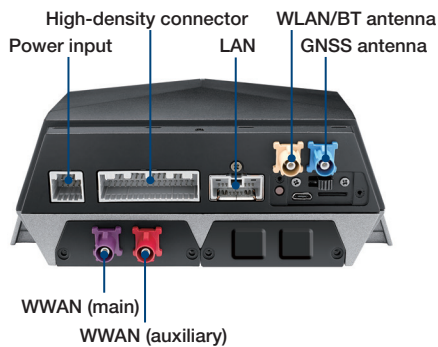
Core	Processor	Qualcomm® Snapdragon™ 212 APQ8009 quad-core ARM® Cortex™-A7 (1.3 GHz) SoC
	Memory	2 GB
	Operating System	Android 6.0 Marshmallow
Storage	eMCP	16 GB
	SD Card	1 x Externally accessible MicroSD (push-push type) with cover
Sensor	G-Sensor	Triple-axis accelerometer (±2g/4g/8g)
I/O	Standard I/O	1 x Micro USB OTG (Mini USB) with cover (for debugging) 1 x MicroSD slot with cover
	Generic I/O (High-Density Connector)	1 x Mic-In, 1 x Line-Out 4 x Isolated DI (dry/wet contact) 2 x Isolated DO (open-collector output with relay driver) 1 x CAN bus (supports raw CAN, J1939, OBD-II/ISO 15765; firmware configurable) 1 x J1708 (J1587) 1 x USB 2.0 Host 1 x 4-wire RS-232 1 x 4-wire RS-232/RS-485 (software configurable)
	LAN	1 x LAN 10/100
	LED Indicators	1 x Power
	Buttons	1 x Reset button with cover
	Wireless Communication	WLAN/Bluetooth
GNSS	Sensitivity	GPS, GLONASS, and AGPS (BeiDou upon request) support (with external antenna via FAKRA connector)
System Power	Input Voltage	Supports 12/24V vehicle power (9 ~ 32V DC input)
	Intelligent Vehicle Power Management	Power on/off management (e.g., programmable ignition on/off delay) RTC wake-up events Power system protection System monitoring and diagnostics (e.g., programmable vehicle battery protection with low voltage disconnect)
Extension Module	WWAN	Sierra Wireless MC7304 via extension module (EU) <ul style="list-style-type: none"> ▪ LTE: B1, B3, B7, B8, B20 Sierra Wireless MC7354 via extension module (US) <ul style="list-style-type: none"> ▪ LTE: B2, B4, B5, B13, B17, B25 (external antenna via FAKRA connector)
	Backup Battery Pack	3.6V, 2100mAh. Supports up to 30 minutes operation under full load/2 hrs operation with low power consumption. Charging time approximately 3 hrs.
Mechanical	Mount Options	2 x M4 screw holes
	Dimensions (W x D x H)	164.65 x 109.78 x 60 mm (6.48 x 4.32 x 2.36 in)
	Weight	410g (0.903 lb)

Specifications Cont.

Environment	Operating Temperature	-20 ~ 65 °C (-4 ~ 149 °F), without backup battery
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
	IP Rating	IP54 for I/O cover
	Vibration/Shock	MIL-STD-810G, EN60721-3 (5M3)
	Vehicle Regulations	E-mark (E13) (12/24 V system), ISO 7637-2, SAE J1455
	Safety	UL/cUL, CB
Certifications		CE, FCC, CCC, PTCRB, verizon



Modularized I/O



Ordering Information

Part Number	Configuration								
	CPU	Memory	Storage	Wi-Fi	BT	GNSS	4G	OS	
TREK-530-GWBADA20	Qualcomm APQ8009	2 GB	16 GB	Yes	Yes	Yes	-	Android 6.0	
TREK-530-LWBADA20	Qualcomm APQ8009	2 GB	16 GB	Yes	Yes	Yes	LTE-EU	Android 6.0	
TREK-530-LWBADB20	Qualcomm APQ8009	2 GB	16 GB	Yes	Yes	Yes	LTE-US	Android 6.0	

Packing List

- 1 x vehicle power cable
- 1 x LAN adaptor cable

Optional Accessories

Part Number	Description
1700027666-01	Power cable for testing
1700027992-01	High-density cable
1750008764-01	WWAN antenna
1750008765-01	WWAN+GPS antenna
1750008763-01	Wi-Fi+BT antenna
TREK-530-BAT000	Backup battery, 3.6V/2100mAh/1S1P
TREK-530-IPC000	IP54-rated I/O cover

TREK-570

Compact In-Vehicle Computing Box for Fleet Management



Features

- Intel® Atom™ E3826 system-on-chip (SOC) processor
- Can be paired with TREK-303/306 in-vehicle smart display via a single-cable connection
- Supports real-time rear view monitoring
- Dual independent displays/audio outputs for in-vehicle infotainment and digital signage applications
- Vehicle diagnostics interface with support for configurable CAN (J1939, OBD-II/ISO 15765) and J1708 (J1587) protocols
- Built-in GNSS, WLAN, Bluetooth, and WWAN (with a dual SIM card slot) modules
- Intelligent vehicle power management system for ignition on/off delay, wake-up event control, system health monitoring, and diagnostics functions
- Wide operating temperature range (-30 ~ 70 °C/-22 ~ 158 °F)
- Compliant with 12/24 V vehicle power (ISO 7637-2)
- MIL-STD-810G and 5M3 certified for shock and vibration tolerance

Introduction

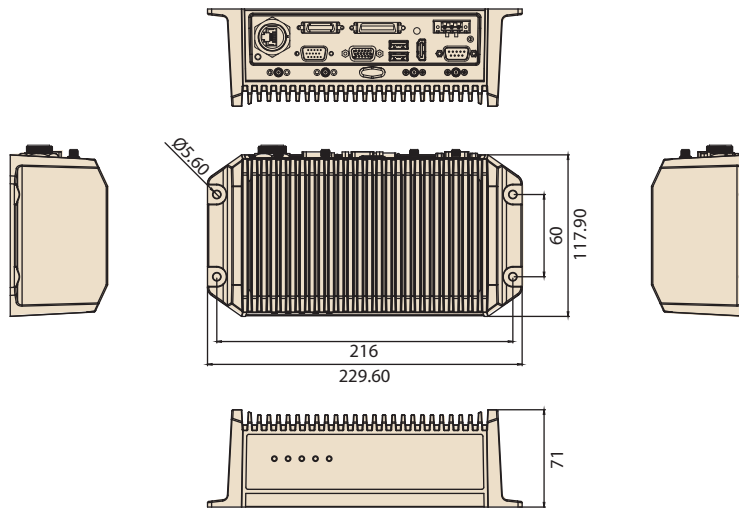
TREK-570 is a compact and economical in-vehicle computing box powered by an Intel® Atom™ E3826 SOC and can be paired with TREK-303/306 in-vehicle smart displays via a single-cable connection. Aimed at fleet management applications, TREK-570's wide operating temperature and MIL-STD-810G and 5M3 certification for shock vibration resistance enable it to withstand harsh environments. The inclusion of an intelligent vehicle power management (VPM 2.0) chip protects against transient voltage (ISO 7637-2/SAE J1455/SAE J1113) and enables programmable functions (ignition on/off, delay on/off, and low battery monitoring). TREK-570 also features various I/O for integrating CAN bus devices and peripherals, such as a tire pressure monitoring system. The dual CAN bus ports support diverse protocols (J1939, OBD-II/ISO 15765) to facilitate vehicle diagnostics and driver behavior management. Built-in wireless communication technologies (WLAN, WWAN, Bluetooth) enable vehicle tracking and real-time data transmissions to a centralized control center. Furthermore, TREK-570 also supports dual independent displays/audio outputs for in-vehicle infotainment and digital signage applications.

Specifications

Core	Processor	Intel® Atom™ E3826, dual-core, 1.46 GHz	
	Memory	1 x 2 GB DDR3L SODIMM 1066 MHz, non-ECC (up to 4 GB)	
	Graphics	Integrated 2D/3D graphics engine	
	Operating System	WES7, WES8, Win10 IoT LTSB (32 bit), Linux Ubuntu 14.04 Kernel 3.19.0 (32 bit)	
Storage	mSATA	1 x 16 GB UMLC, SQFlash mSATA, with support system bootup	
Display	Smart Display Ports ¹	1 x 12V/2A power output for TREK-30x	
		1 x 18-bit LVDS with 800 x 480/1024 x 768 resolution and automatic detection	
		1 x Line-Out2 (for TREK-30x speakers)	
		2 x UART (TX/RX, TX/RX/RTS) (for touchscreen, hot keys, and brightness/light sensor control)	
VGA	1 x DB15 (up to 2560 x 1600 resolution)	1 x USB 2.0 Type A	
		1 x Power button	
		1 x Reset button	
HDMI ²	1 x HDMI (up to 2560 x 1600 resolution)	2 x CAN bus with raw CAN, J1939, and OBD-II/ISO 15765 support (configurable via firmware)	
		1 x J1708 with J1587 support	
I/O	Vehicle I/O	1 x 4-wire RS-485 with auto flow control	
		2 x 4-wire RS-232	
	Generic I/O	4 x Isolated DI (dry contact)	
		4 x Isolated DO (open collector output, driven by relay)	
Standard I/O	1 x Line-Out ²	1 x CVBS-In (for real-time rear view monitoring)	
		1 x Mic-In	
		1 x USB 3.0 Type A (rear side, with cable clip)	
RF	WLAN + Bluetooth	1 x USB 2.0 Type A (rear side, with cable clip)	
		1 x High-speed full RS-232, DB-9 (Pin 9 = ring, 12/5 V @0.5 A in BOM; optional via jumper setting)	
	WWAN	1 x Giga LAN, with locking RJ45 connector	
		LED Indicators	5 x LEDs: 1 x Power (red), 1 x Storage (yellow), 1 x WLAN (green), 1 x WWAN (green), 1 x GPS (yellow)
	GNSS	Power Button	Via TREK-30x in-vehicle smart display; system is powered on by vehicle ignition as a default
		Reset Button	1 x Reset button (rear side)
	Antenna	WLAN + Bluetooth	IEEE 802.11a/b/g/n + Bluetooth V4.0 combo module via full mini PCIe slot (optional high-power WLAN/WLAN roaming available upon request)
WWAN		4G (LTE, HSPA+, GSM/GPRS/EDGE, EV-DO Rev. a1, 1xRTT) Sierra Wireless MC73xx via full mini PCIe slot (default: MC7354 for US/MC7304 for EU)	
Power	Intelligent Vehicle Power Management (VPM 2.0)	GNSS	MAC-M8Q/W GPS/GLONASS/BeiDou 3 in 1 module
		System power on/off/hibernate management (programmable ignition on/off delay)	
Mechanical	Dimensions (W x H x D)	Antenna	5 x SMA-type antenna holes for GPS, Wi-Fi+Bluetooth MIMO, WWAN/LTE MIMO ⁴
		Weight	Compatible with 12/24 V vehicle power (6 ~ 32 VDC input; ISO 7637-2 and SAE J1113 compliant)
		Input Voltage	System power on/off/hibernate management (programmable ignition on/off delay)
		Intelligent Vehicle Power Management (VPM 2.0)	Supports wake-up events: Wake on Alarm (RTC), Wake by Call/SMS, Wake by G-sensor, and Wake by DI (DI0 & DI1)
		System monitoring and diagnostics	System power protection (low voltage protection for vehicle battery)
		System monitoring and diagnostics	System monitoring and diagnostics
		Dimensions (W x H x D)	Standalone unit: 230 x 72 x 118 mm (9.05 x 2.83 x 4.64 in)
		Weight	With IP54-rated I/O cover: 230 x 72 x 198 mm (9.05 x 2.83 x 7.79 in)
		Weight	Standalone unit: 1.45 kg (3.19 lb)
		Weight	With IP54-rated I/O cover: 1.95 kg (4.29 lb)

Dimensions

Unit: mm



Specifications Cont.

Environment	IP Rating	IP30 (optional IP54-rated I/O cover available upon request)
	Vibration/Shock	MIL-STD-810G, EN60721-3(5M3)
	EMC	CE, FCC, CCC
	Safety	UL/cUL, CB
	Vehicle Regulations	E-Mark (E13), SAE J1455 class C, ISO 7637-2, SAE J1113
	RF Regulations	CE(R&TTE), FCC ID, PTCRB
	Operating Temperature	-30 ~ 70 °C (-22 ~ 158 °F)
	Storage Temperature	-40° C ~ 80° C (-40 ~ 176 °F)

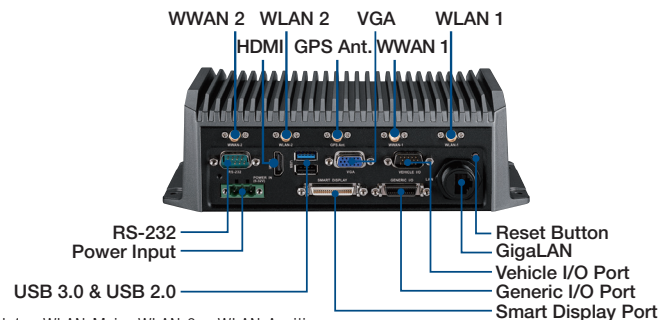
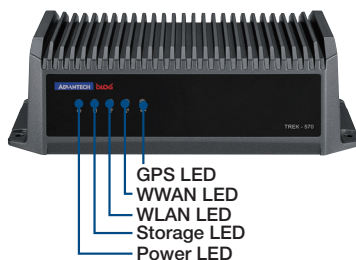
¹ When paired with TREK-303/306 via a single-cable connection

² Supports dual independent audio streams. The Line-Out interfaces of the smart display ports and generic I/O are driven by different audio codecs.

³ BYT-1 can support dual independent displays (smart display + VGA, smart display + HDMI, or VGA + HDMI).

⁴ The box-side connector is RP-SMA, female (external female thread with male internal pin)

System I/O



Note: WLAN 1 = WLAN Main, WLAN 2 = WLAN Auxiliary,
WWAN 1 = WWAN Main, WWAN 2 = WWAN Auxiliary

Ordering Information

Part Number	Description
TREK-570-00A0E	TREK-570 Intel BYT E3826, dual-core, 1.46 GHz, barebone unit
TREK-570-HWB7A0E	TREK-570 w/LTE (EU)/GPS/WLAN/BT/WES7
TREK-570-LWB7B0E	TREK-570 w/LTE (US)/GPS/WLAN/BT/WES7
TREK-570-LWBXA0E	TREK570 w/LTE(EU)/GPS/WLAN/BT/W10 IoT LTSB
TREK-570-LWBXB0E	TREK570 w/LTE(US)/GPS/WLAN/BT/W10 IoT LTSB

Note: WES8, and Linux OS images are available upon request.

Packing List

Part Number	Description
1700019031	Power cable, 2 m
1700023050-11	Generic I/O cable
1700023051-01	Vehicle I/O cable
1654011716-01	Waterproof RJ45 locking kit
1750007724-01	3-in-1 (LTE/GPS/Wi-Fi) antenna, 3 m
1750007723-01	Wi-Fi antenna, 3 m

Optional Accessories

Part Number	Description
TREK-303R-HA0E	TREK-303 7" WVGA in-vehicle smart display
TREK-306D-HA0E	TREK-306DH 10.4" XVGA in-vehicle smart display
1700020007	M cable SCSI-36P(M)/SCSI-36P(M), 2 m, for TREK-303
1700020008	M cable SCSI-36P(M)/SCSI-36P(M), 5 m, for TREK-303
1700019464	A cable 1*3P-5.08/DC jack+SW, 155 mm, for in-house testing
96PSA-A65W19V1-1	Adaptor 100-240 VAC, 60W, 12 V, 5A, w/o PFC FSP060-DBA, for in-house testing

TREK-572

Ultra Compact In-Vehicle Computing Box for Fleet Management



Features

- Intel® Atom™ E3815 system-on-chip (SOC) processor
- Can be paired with TREK-303/306 in-vehicle smart display via a single-cable connection
- Supports Intel® IDP 3.x Moon Island
- Vehicle diagnostics interface with support for configurable CAN (J1939, OBD-II/ISO 15765) and J1708 (J1587) protocols
- Built-in GNSS, WLAN, Bluetooth, and WWAN (with a SIM card slot) modules
- Intelligent vehicle power management system for ignition on/off delay, wake-up event control, system health monitoring, and diagnostics functions
- Wide operating temperature range (-30 ~ 70 °C/-22 ~ 158 °F)
- Compliant with 12/24 V vehicle power (ISO 7637-2)
- MIL-STD-810G and 5M3 certified for shock and vibration tolerance

Introduction

TREK-572 is a compact and economical in-vehicle computing box powered by an Intel® Atom™ E3815 SOC and can be paired with TREK-303/306 in-vehicle smart displays via a single-cable connection. Aimed at fleet management applications, TREK-572's wide operating temperature and MIL-STD-810G and 5M3 certification for shock vibration resistance enable it to withstand harsh environments. The inclusion of an intelligent vehicle power management (VPM 2.0) chip protects against transient voltage (ISO 7637-2/SAE J1455/SAE J1113) and enables programmable functions (ignition on/off, delay on/off, and low battery monitoring). TREK-572 also features various I/O for integrating CAN bus devices and peripherals, such as a tire pressure monitoring system. The dual CAN bus ports support diverse protocols (J1939, OBD-II/ISO 15765) to facilitate vehicle diagnostics and driver behavior management. Built-in wireless communication technologies (WLAN, WWAN, Bluetooth) enable vehicle tracking and real-time data transmissions to a centralized control center.

Specifications

Core	Processor	Intel® Atom™ E3815, single-core, 1.46 GHz
	Memory	1 x 2 GB DDR3L SODIMM 1066 MHz, non-ECC (up to 8 GB)
	Graphics	Integrated 2D/3D graphics engine
	Operating System	WES7, WES8, Win10 IoT LTSC, Linux Ubuntu 14.04 Lite (32 bit), Intel® IDP 3.x Moon Island (available upon request)
Storage	mSATA	1 x 16 GB UMLC, SQFlash mSATA, with support system bootup
Display	Smart Display Ports ¹	1 x 12V/2A power output for TREK-30x
		1 x 18-bit LVDS with 800 x 480/1024 x 768 resolution and automatic detection
		1 x Line-Out2 (for TREK-30x speakers)
		2 x UART (TX/RX, TX/RX/RTS) (for touchscreen, hot keys, and brightness/light sensor control)
		1 x USB 2.0 Type A
		1 x Power button 1 x Reset button
I/O	Vehicle I/O	2 x CAN bus with raw CAN, J1939, and OBD-II/ISO 15765 support (configurable via firmware)
		1 x J1708 with J1587 support 1 x 4-wire RS-232 (RX/TS/CTS/RTS)
	Standard I/O	1 x USB 2.0 Type A (rear side)
		1 x Giga LAN with standard RJ45 connector
		1 x Line-Out ² 1 x Mic-In
	LED Indicators	1 x Power LED (red)
	Power Button	Via TREK-30x in-vehicle smart display; system is powered on by vehicle ignition as a default
Reset Button	1 x Reset button (rear side)	
RF	WLAN + Bluetooth	IEEE 802.11a/b/g/n + Bluetooth V4.0 combo module via full mini PCIe slot (optional high-power WLAN/WLAN roaming available upon request)
	WWAN	4G (LTE, HSPA+, GSM/GPRS/EDGE, EV-DO Rev. a1, 1xRTT) Sierra Wireless MC73xx via full mini PCIe slot (default: MC7354 for US/MC7304 for EU) 1 x Internal mini SIM card slot
	GNSS	1 x u-blox MAX-7Q GPS/GLONASS module with AGPS support (optional 3-in-1 GPS/GLONASS/BeiDou module available upon request)
	Antenna	3 x SMA-type antenna holes for GPS, Wi-Fi+Bluetooth MIMO, WWAN/LTE MIMO ³
Power	Input Voltage	Compatible with 12/24 V vehicle power (9 ~ 32 VDC input; ISO 7637-2 and SAE J1113 compliant)
	Intelligent Vehicle Power Management (iVPM 2.0)	System power on/off/hibernate management (programmable ignition on/off delay) Supports wake-up events: Wake on Alarm (RTC) and Wake by G-sensor System power protection (low voltage protection for vehicle battery) System monitoring and diagnostics

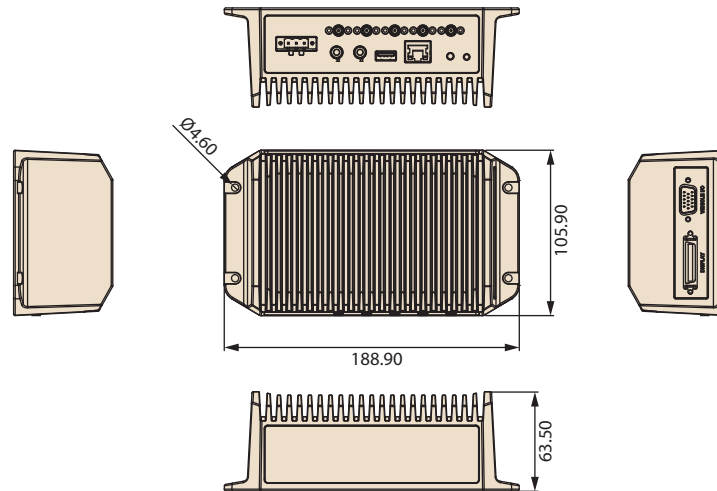
¹ When paired with TREK-303/306 via a single-cable connection

² Both Line-Out interfaces share a single audio codec and the same audio stream

³ The box-side connector is RP-SMA, female (external female thread with male internal pin)

Dimensions

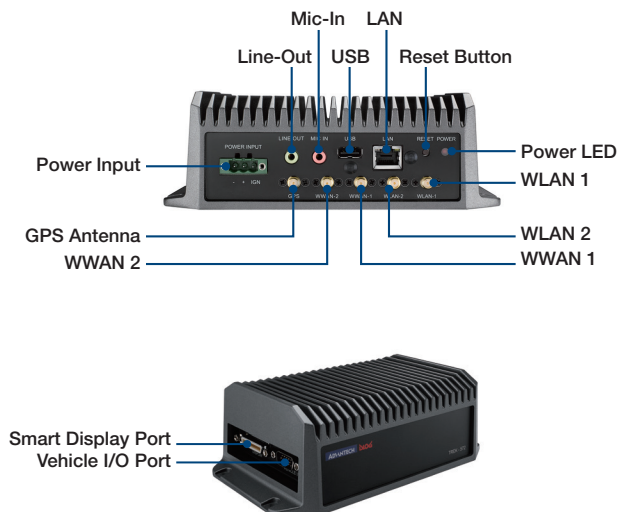
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Specifications Cont.

Mechanical	Dimensions (W x H x D)	188.9 x 63.5 x 105.9 mm (7.43 x 2.5 x 4.16 in)
	Weight	1.15 kg (2.53 lb)
Environment	IP Rating	IP30
	Vibration/Shock	MIL-STD-810G
	EMC	CE, FCC Class B
	Safety	UL/cUL, CB
	Vehicle Regulations	SAE J1455, ISO 7637-2, SAE J1113
	RF Regulations	CE (R&TTE), FCC ID, PTCRB
	Operating Temperature	-30 ~ 70 °C (-22 ~ 158 °F)
Storage Temperature	-40° C ~ 80° C (-40 ~ 176 °F)	

System I/O



Ordering Information

Part Number	Description
TREK-572-LWB7B0E	TREK-572 w/LTE(US)/GPS/WLAN/BT/WES7
TREK-572-LWB7A0E	TREK-572 w/LTE(EU)/GPS/WLAN/BT/WES7

Notes:

- a. Win10 IoT LTSB and Linux OS images are available upon request.
- b. SKU for Europe will be available soon.
- c. TREK-572 can only output to TREK in-vehicle smart displays. If you require a display unit to serve as a driver console, please order a TREK-30x unit and connecting cable.

Packing List

Part Number	Description
1700019031	Power cable, 2 m
1700023051-01	Vehicle I/O cable
1750007724-01	3-in-1 (LTE/GPS/Wi-Fi) antenna, 3 m
1750007723-01	Wi-Fi antenna, 3 m

Optional Accessories

Part Number	Description
TREK-303R-HA0E	TREK-303 7" WVGA in-vehicle smart display
TREK-306D-HA0E	TREK-306DH 10.4" XVGA in-vehicle smart display
1700020007	M cable SCSI-36P(M)/SCSI-36P(M), 2 m, for TREK-303
1700020008	M cable SCSI-36P(M)/SCSI-36P(M), 5 m, for TREK-303
1700019464	A cable 1*3P-5.08/DC jack, for in-house testing
96PSA-A65W19V1-1	Adaptor 100-240 VAC, 60W, 12 V, 5A, w/o PFC FSP060-DBA, for in-house testing

TREK-733L

RISC-Based All-in-One Light-Duty Mobile Data Terminal



Features

- NXP (Freescale) Cortex™-A9 i.MX6DL dual-core, 1.0 GHz, SOC, 1GB DRAM, 4GB eMMC with Android 4.4.2
- 7" WSVGA (1024 x 600) LCD with P-CAP touchscreen
- Built-in 4G LTE, WLAN/Bluetooth, and GNSS modules (with optional BeiDou); supports external antennas via SMA to increase sensitivity for 4G LTE and GNSS
- Built-in battery pack (3.6 V, 2400 mAh) offers UPS for emergency notifications and data backups
- Compatible with 12/24 V vehicle power
- MIL-STD-810G certified for shock and vibration tolerance
- 1 x Analog video input to dedicated video processor for real-time display applications
- Multiple isolated DI/O interfaces that support vehicle speed data for distance measurements
- Noise suppression technology for built-in voice recognition applications

Introduction

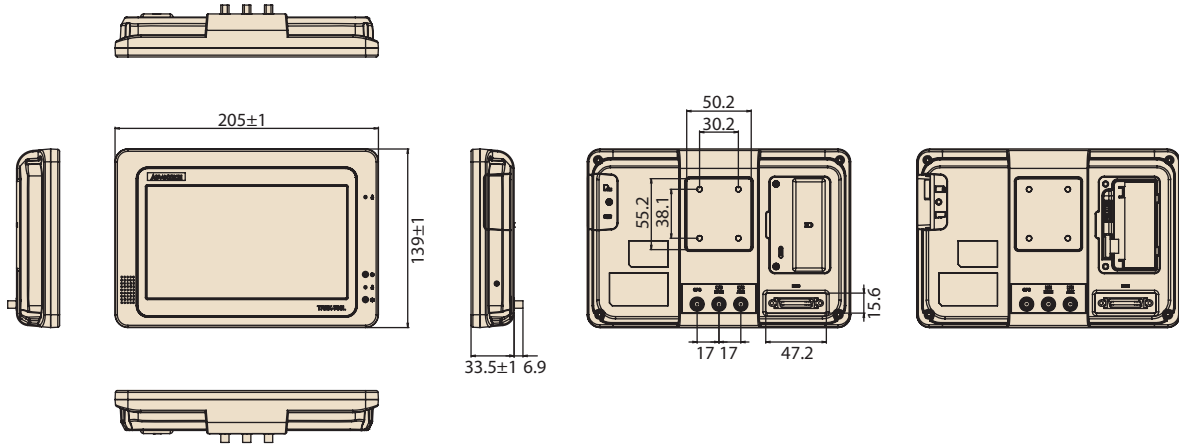
TREK-733L is an ARM-based, all-in-one, light-duty mobile data terminal that features a 7" display with P-CAP touchscreen, NXP Freescale Cortex™-A9 i.MX6DL dual-core (1.0 GHz) SOC, 1 GB DRAM, and Android 4.4.2 operating system. The integrated GNSS, 4G LTE, and WLAN/Bluetooth wireless communication interfaces (with optional BeiDou) enable location tracking, route optimization, and high-speed data exchanges for convenient and effective fleet management. TREK-733L is also equipped with a built-in battery that provides an uninterrupted power source for emergency situations and data backups. MIL-STD-810G certified for shock and vibration tolerance, TREK-733L is ideal for most light-duty vehicle applications. Finally, the inclusion of three external antenna SMA ports supports critical outdoor applications by increasing connection sensitivity and performance.

Specifications

Core	Processor	NXP (Freescale) Cortex™-A9 i.MX6DL dual-core, 1.0 GHz, SOC	
	Memory	1 GB DDR3 on board	
	Graphics	OpenGL® ES 2.0 3D graphics accelerator with a shader and 2D graphics accelerator	
	Operating System	Android KitKat 4.4.2	
Storage	eMMC	4 GB on board	
	SD Card	1 x externally accessible push-push-type micro SD slot with cover	
Display	Type	7" TFT LCD	
	Resolution	WSVGA (1024 x 600)	
	Brightness	500 cd/m ² (typical)	
	Viewing Angle (H/V)	150°/145°	
	Contrast Ratio	700:1	
	Backlight Lifetime	15000 hours	
Touchscreen	Type	P-CAP 2-point multi-touch (gesture)	
	Construction	Glass-film-film	
	Transparency	≥85%	
Multimedia	Speaker	1 x Internal 2W speaker	
	Microphone	2 x Internal microphones for noise suppression	
Sensors	Ambient Light Sensor	Sensitive to visible and infrared light	
	Motion Sensor	3-axis ±2/4/8 g accelerometer	
I/O	Standard I/O	1 x MicroSD 1 x SIM	
	Extended I/O		1 x System power input 2 x 2-wire RS-232 1 x USB 2.0 host 6 x ISO DI (DI1 ~ 5 dry contact; DI6 wet contact) 2 x ISO DO (open collector output, driven by relay) 1 x Analog video CVBS input
		LED Indicator	1 x Power LED
		Reset Button	1 x hardware reset switch (right side)
		Wireless Communication	IEEE 802.11 b/g/n and Bluetooth V4.0 Class 1.5 (internal antenna)
		WWAN	Sierra Wireless MC7304 via mini PCIe for EU - LTE: B1, B3, B7, B8, B20/HSPA+ UMTS: B1, B2, B5, B6, B8 Sierra Wireless MC7354 via mini PCIe for US - LTE: B2, B4, B5, B13, B17, B25 / HSPA+ UMTS: B1, B2, B4, B5, B8/CDMA EVDO: BC0, BC1, BC10 (external antenna via SMA)
GNSS	Sensitivity	GPS (-161 dBm), GLONASS (-158dBm) with 56 channels and A-GPS support (BeiDou available upon request) (External antenna via SMA)	
Power System	Input Voltage	Supports 12/24 V vehicle power, 9 ~ 32 V ^{DC} input	
	Intelligent Vehicle Power Management	System power on/off management, system monitoring and diagnostics, system power protection (vehicle battery low voltage protection), and wake-on-alarm (RTC), wake-on-call/SMS, and wake-on-G-sensor events	
	Backup Battery Pack (optional)	3.6V, 2400 mAh; supports 30 minutes operation under full load or 2 hours operation under low power consumption; 3 hours for full recharge	

Dimensions

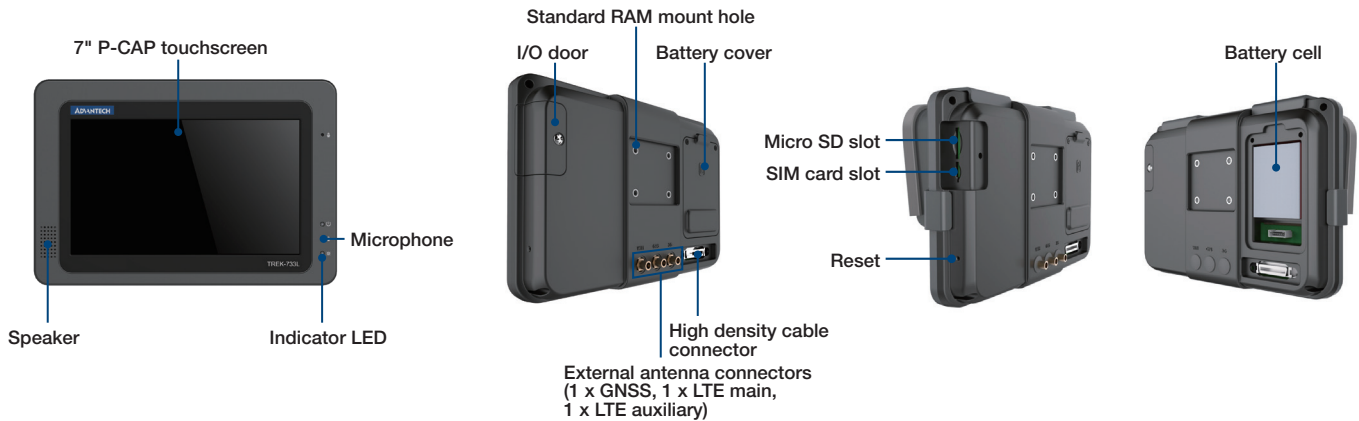
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Specifications Cont.

Mechanical	Mounting	AMPS Mounting ARM Compatible
	Dimensions (W x D x H)	205 x 139 x 33.5 mm (8.07 x 5.47 x 1.31 in)
	Weight	820 g (1.8 lb) with battery
Environment	Operating Temperature	-20 ~ 70 °C (-4 ~ 158 °F) without backup battery
	Storage Temperature	-20 ~ 70 °C (-4 ~ 158 °F)
	Vibration/Shock	MIL-STD-810G
	Vehicle Regulation	E-mark (E13) (12/24 V system), ISO 7637-2, SAE J1455
	Safety	UL/cUL, CB
	Certifications	CE, FCC, CCC

I/O Connectors



Ordering Information

Part Number	Description
TREK-733L-LWBADA0E	TREK-733L NXP (Freescale) Cortex-A9 i.MX6DL dual-core, 1.0 GHz, 1 GB DRAM, 4 GB eMMC, Android 4.4.2, LTE MC7304 (external antenna), GNSS (external antenna), WLAN/BT (internal antenna), power and I/O cable
TREK-733L-LWBADB0E	TREK-733L NXP (Freescale) Cortex-A9 i.MX6DL dual-core, 1.0 GHz, 1 GB DRAM, 4 GB eMMC, Android 4.4.2, LTE MC7354 (external antenna), GNSS (external antenna), WLAN/BT (internal antenna), power and I/O cable

Optional Items

Part Number	Description
BB-HDV100A3	RS-232 to J1708 and J1939 converter
BB-D99Y	Y cable of DB15 and Deutsch 9-pin for RS-232 to J1708 and J1939 converter
TREK-MNT-301E	Double square plate with AMPS hole pattern
TREK-MNT-302E	Square plate with AMPS hole pattern and X-type base
TREK-MNT-303E	Square plate with AMPS hole pattern and suction cup base

TREK-734

8" All-in-One Light-Duty Mobile Data Terminal with Freescale Processor



Features

- Freescale ARM® Cortex™-A9 i.MX 6DualLite processor with Android 5.1
- 8" high-brightness (750 nits) display with multi-touch control
- GNSS (GPS/GLONASS), Wi-Fi, BT, LTE/HSPA+
- 2 x front-facing speakers, 2 x microphones, and 5 x programmable function keys
- Optional accessories include high-density cable, mount kit, IP54-rated I/O cover, internal backup battery pack (7.2 V/2450mAh) and external antennas

Introduction

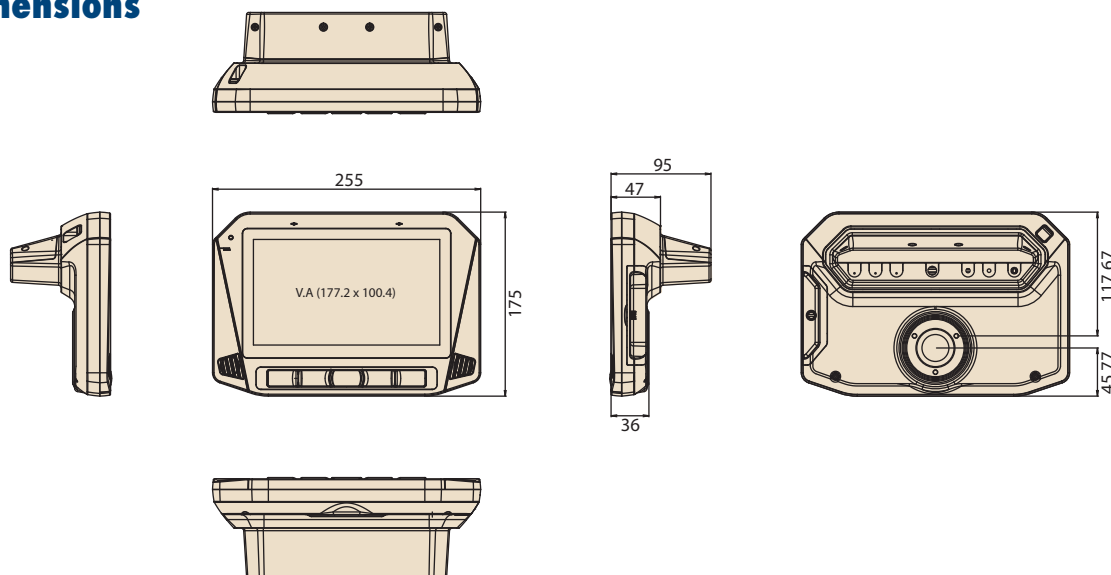
TREK-734 is a RISC-based open platform all-in-one light-duty mobile data terminal equipped with an 8" display, Freescale ARM® Cortex™-A9 i.MX 6DualLite processor, Android 5.1 OS, 1 GB memory, and LTE networking capabilities to enable high-performance computing for fleet management applications. LTE capabilities transform the terminal into a wireless network hub that supports Wi-Fi, BT, and GPS communication to facilitate location tracking and route optimization. Certified to MIL-STD 810G standards for vibration tolerance, TREK-734 can withstand operation in light-duty vehicles. Moreover, three external antenna ports are provided for enhanced network communication in order to effectively support critical outdoor applications.

Specifications

Product Name	TREK-734			
System	Processor	Freescale ARM® Cortex™-A9 i.MX 6DualLite (1 GHz)		
	Memory	1 GB DDR3 (supports up to 2 GB)		
	Storage	4 GB onboard eMMC (supports up to 8 GB) 1 x Micro SD slot (externally accessible)		
	Watchdog	Yes		
	RTC	Yes		
	OS	Android 5.1.1		
RF	GNSS	u-blox MAX-M8Q (GPS, BD, GLONASS, Galileo)		
	WLAN	IEEE 802.11 b/g/n		
	BT	Bluetooth V4.0		
	WWAN	LTE, HSPA+, GSM/GPRS/EDGE, WCDMA		
	Voice Call	N/A		
	Wake-on-WWAN	N/A		
	SIM	1 x SIM		
	External Antenna	1 x WLAN, 1 x WWAN, 1 x GPS (TNC type)		
Display	Size/Type	8" (16:10) TFT LCD		
	Max. Resolution	1024 x 600		
	Brightness (cd/m ²)	750 nits		
	Viewing Angle (R/L/B/T)	70/80/80/80		
	Backlight Life	20,000 hrs		
Touchscreen	Capacitive (multi-touch)			
Brightness Control	Light sensor for automatic dimming			
Function Key	5 x Programmable function keys with green LED backlight			
I/O	Vehicle I/O (via high-density connector)	1 x CAN bus (supports raw CAN, J1939, OBD-II/ISO 15765)		
	Generic I/O (via high-density connector)	4 x Isolated DI/2 x DO 1 x 4-wire RS-232, 1 x 2-wire RS-232, 1 x 2-wire RS-485 1 x CVBS-In 1 x Mic-In 1 x Line-In (R & L) 1 x Line-Out (R & L) 1 x USB 2.0 Type A host		
		Standard I/O	1 x mini USB debugging (5 pin) 1 x USB 2.0 Type A host	
		Indicators	1 x LED (Power)	
		Power Button	Yes	
Vehicle Power Design	Reset Button	Yes		
	Input Voltage	9 ~ 32 V _{DC}		

Dimensions

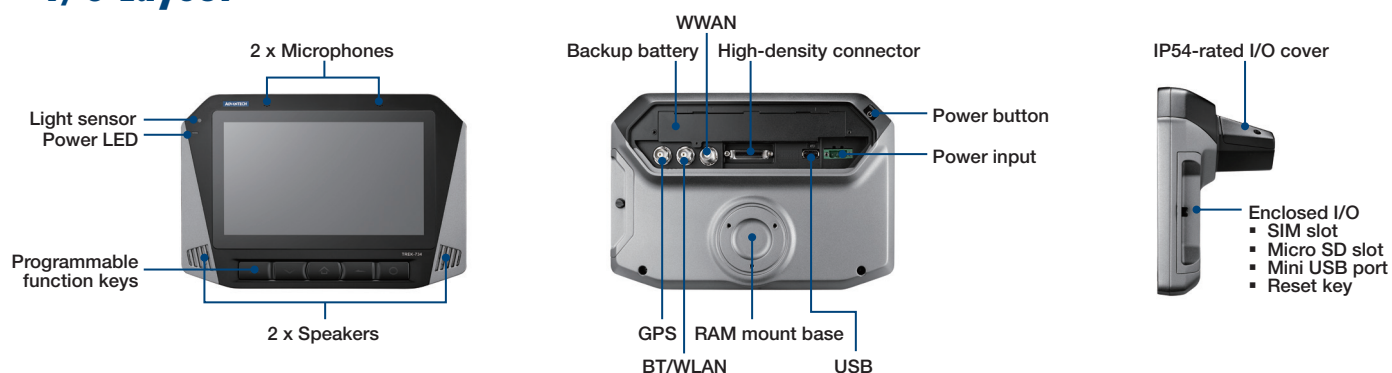
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Specifications Cont.

Environment	Power Regulation	E-Mark, ISO 7637-2, SAE J1455, SAE J1113
	IP Rating	IP54
	Operating Temperature	-20 ~ 70 °C (-4 ~ 158 °F) without backup battery
	Storage Temperature	-30 ~ 80 °C (-22 ~ 176 °F)
Certifications	EMC/Safety	CE, FCC, UL/cUL, CCC, CB
	Vehicle Power	e-Mark, ISO 7637-2, SAE J1455, SAE J1113
	Shock/Vibration	MIL-STD-810G, SAE J1455
Physical	Dimensions (W x H x D)	255 x 175 x 95 mm (10.04 x 6.88 x 3.74 in) with IP-rated I/O cover 255 x 175 x 47 mm (10.04 x 6.88 x 1.85 in)
	Weight	1.3 kg (2.86 lb)

I/O Layout



Ordering Information

Part Number	Description
TREK-734C-LWBADA1E	TREK-734 IMX6,2GB,8GB And.5.1 LTE EU EC-25E Int.
TREK-734C-LWBADB1E	TREK-734 IMX6,2GB,8GB And.5.1, LTE NA EC-25A Ext.
TREK-734C-LWBADC1E	TREK-734 IMX6,2GB,8GB And.5.1, Huawei 909 Ext.
TREK-734C-WBADA1E	TREK-734 IMX6,2GB,8GB And.5.1 WLAN/BT Int. Ant.

Optional Accessories

Part Number	Description
1760002560-01	Backup battery pack 7.2V 2450mAh 2S1P
TREK-734-IP000	IP54-rated I/O cover
1700026766-01	High-density connector cable
1750008571-01	WLAN/BT external antenna (TNC)
1750008570-01	WWAN/GPS external antenna (TNC)

TREK-773

7" All-in-One Ultra Rugged Mobile Data Terminal



Features

- Intel® Atom™ E3827 SOC with support for WES8, WES7, Win10, and Ubuntu operating systems
- 7" WVGA wide-angle LCD resistive touchscreen
- Vehicle diagnostics interface with CAN (J1939, OBD-II/ISO 15765) and J1708 (J1587) protocols
- Built-in GNSS, WLAN, Bluetooth, LTE WWAN modules and optional NFC
- Intelligent vehicle power management system supports ignition on/off/delay functions, wake-up event control, and system health monitoring and diagnostics
- Wide operating temperature range (-30 ~ 60 °C/-22 ~ 140 °F)
- Supports 12/24 V vehicle power (ISO 7637-2)
- MIL-STD-810G and 5M3 certified for shock and vibration tolerance
- Supports voice recognition and intelligent video analytics

Introduction

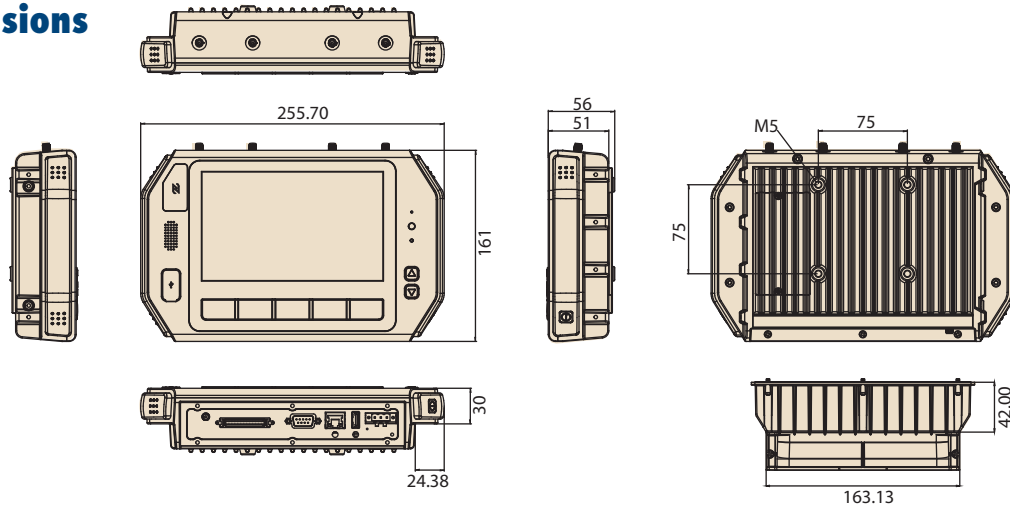
TREK-773 is a next-generation, all-in-one 7" mobile data terminal. Equipped with an Intel® Atom™ E3827 SOC, TREK-773 offers high-performance computing with wired connections such as Gigabit Ethernet, CAN2.0B (J1939, OBD-II/ISO 15765), and J1708 (J1587). The integrated LTE (backwards compatible with CDMA/HSDPA), GPS, WLAN, and Bluetooth communication interfaces ensure connectivity and real-time data transmissions. Aimed at the automotive market, TREK-773 is compatible with 12/24 V vehicle power and compliant with ISO7637-2 & SAE J1113, ensuring system operation during engine starts. Moreover, the system's ruggedized chassis, wide operating temperature range (-30 ~ 60 °C/-22 ~ 140 °F), and shock (100G, 6ms) and vibration tolerance support operation in harsh industrial environments.

Specifications

Core	Processor	Intel® Atom™ E3827 dual-core, 1.75 GHz
	Memory	Up to 4 GB DDR3L-1333 memory (2 GB default)
	Graphics	Integrated 2D/3D graphics engine
	Operating System	Windows Embedded 8 Standard (32-bit) and Win10 IoT LTSB (32-bit) default, with Windows Embedded 7 Standard and Linux available upon request
Storage	CFast	1 x externally accessible CFast slot with cover and supports system boot up (16GB default for WES8, 32GB default for Win10 IoT LTSB)
	SD Card	1 x externally accessible push-push-type SD slot with cover for convenient expansion
Display	Type	7" automotive-grade TFT LCD
	Resolution	WVGA (800 x 480)
	Brightness (cd/m ²)	1000nits (typical)
	Viewing Angle (H/V)	170°/170°
	Contrast Ratio	1000:1 (typical)
	Backlight Type	LED
Touchscreen	Type	4-wire analog resistive touchscreen with 3H surface hardness and IK06 (510 g steel ball drop @300 mm) support (Optional sunlight readable touchscreen available upon request)
	Transparency	84% ±3%
Sensor	Sensor	Light sensor, G-sensor
I/O	Function Keys	5 x programmable function keys with green LED indicators
	Standard I/O	1 x SIM card slot (left)
		1 x High-speed full RS-232 (rear) (RS232 RI pin can be configured to 12 V _{DC} output)
		1 x USB 3.0 host Type A (rear)
Extended I/O ²	1 x Giga LAN with RJ45 connector (rear)	
	1 x Mic-In/1 x Stereo Line-In/1 x Stereo Line-Out,	
	1 x CVBS input, 1 x USB 2.0 host	
	1 x High-speed full RS-232, 1 x RS-485 with auto flow control	
I/O	Power Button/LED Indicators	1 x Power button; 1 x Power LED indicator (yellow)
	RF	IEEE 802.11a/b/g/n + Bluetooth (V4.0 LE, V3.0+HS, V2.1+EDR) combo module via full-size mini PCIE slot (Optional high-power WLAN for roaming available upon request)
Power	WWAN	4G (LTE, HSPA+, GSM/GPRS/EDGE, EV-DO Rev a1, 1xRTT) Sierra Wireless MC73xx via full mini-PCIE (MC7354 for US/MC7304 for EU default)
	GNSS	Built-in u-blox MAX-M8Q GPS/GIONASS/BeiDou module and A-GPS support
	Antenna	1 x GPS, 2 x WWAN (LTE), 2 x WLAN/Bluetooth
	NFC (Optional)	ISO/IEC 14443A, 14443B, 15693; MIFARE 1K/4K, Ultralight; NFC-IP2 protocol
Mechanical	Input Voltage	Supports 12/24 V vehicle power, 9 ~ 32 V _{DC} input (ISO 7637-2 and SAE J1113 compliant) (Optional support for 18 ~ 58 V _{DC} input available upon request)
	Intelligent Vehicle Power Management (IVPM 2.0)	System power on/off management (e.g., programmable ignition On/Off/Delay), system monitoring and diagnostics, system power protection (vehicle battery low voltage protection), and wake-on-alarm (RTC), wake-on-call/SMS, and wake-on-G-sensor events
Mechanical	Dimensions (W x H x D)	255.7 x 161 x 56 mm (10.06 x 6.33 x 2.20 in)
	Weight	2.2 kg (4.8 lb)

Dimensions

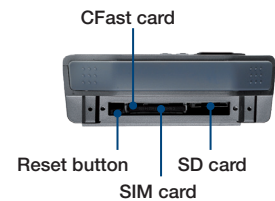
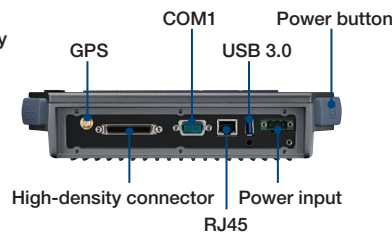
Unit: mm



Specifications Cont.

Environment	IP Rating	IP54 (excluding I/O); optional IP54 protection for entire system with additional I/O cover
	Vibration/Shock	MIL-STD-810G, EN60721-3(5M3)
	EMC/Safety	CE, FCC, CCC; UL/cUL, CB
	Vehicle Regulation	E-mark (E13) for 12/24 V system, SAE J1455 class C, ISO 7637-2, SAE J1113
	Railway	EN50155
	RF Regulation	CE (R&TTE), FCC ID
	Operating Temperature	-30 ~ 60 °C (-22 ~ 140 °F)
	Storage Temperature	-40 ~ 80 °C (-40 ~ 176 °F)

I/O Connectors



Ordering Information

Part Number	Description
TREK-773R-00A0E	TREK-773R Intel BYT E3827 (2C, 1.75GHz) barebone unit w/NFC
TREK-773R-01A0E	TREK-773R Intel BYT E3827 (2C, 1.75GHz) barebone unit
TREK-773R-LWB8A0E	TREK-773R w/LTE(EU)/GPS/WLAN/BT/NFC/CFast/WES8
TREK-773R-LWB8B0E	TREK-773R w/LTE(US)/GPS/WLAN/BT/NFC/CFast/WES8
TREK-773R-LWBXA0E	TREK-773R w/LTE(EU)/GPS/WLAN/BT/CFast/W10
TREK-773R-LWBXB0E	TREK-773R w/LTE(US)/GPS/WLAN/BT/CFast/W10

Note: WES7, and Linux operating system is available upon request.

Packing List

Part Number	Description
1700019031	1 x 12/24V 2M power cable
1750007909-01	2 x Outdoor dipole Wi-Fi antennas
1750007924-01	1 x Outdoor LTE/GPS combo antenna, 3M
1750007926-01	1 x Outdoor LTE antenna, 3M
1990018848T000	2 x USB/LAN cable clips

Note: The TREK-773 barebone unit (TREK-773R-00A0E/TREK-773R-01A0E) includes 1 x 2M power cable.

Option items

Part Number	Description
1700020128	12/24V 5M power cable
1700019307	High-density cable (MDR 50P/BNC+audio jack*3+USB-A+D-sub 9P)
RAM-MOUNT-01	VESA RAM mount w/clamp base, 1.5" ball
RAM-MOUNT-06E	VESA RAM mount w/VESA base, 1.5" ball
9668TREK35E	AC/DC power kit
9668TREK37E	IP54-rated I/O cover

TREK-773 CTOS KIT

Part Number	Description
9668T77300E	TREK-773 WLAN kit (802.11a/b/g/n BT combo)
9668T77301E	TREK-773 LTE module kit for US (MC7354)
9668T77302E	TREK-773 LTE module kit (MC7304)
9668T77303E	TREK-773 GPS kit

Embedded OS

Part Number	Description
2070013976	Image WES7P TREK-773 v1.00 X86 ENG 32bit
2070013975	Image WES8 TREK-773 v1.02 X86 ENG 32bit
20708WX6ES0016	Image WIN10 LTSB-6(Atom) TREK-773 V1.01 X86 7MUI 32bit
20708WX6ES0015	Image WIN10 LTSB-6(Atom) TREK-773 V1.01 X64 7MUI 64bit
2070014080	Image Linux Ubuntu 14.04 V1.0.4 ENG 32bit