

ISE

FLEET
SERVICES

Micronet TREQ[®]-317

Datasheet

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powered by
android

Disclaimer: Micronet reserves the right to change product specifications without prior notice

Introduction

TREQ®-317 Platform Overview

The TREQ®-317 provides OEMs (Original Equipment Manufacturers) and Telematics ASPs (Application Service Providers) with a rugged, versatile vehicle-centric mobile-computing platform for a variety of MRM (Mobile Resource Management) applications.

The TREQ®-317 platform supports the Google Android™ 4 operating system.

The TREQ®-317 is an Open Platform, offering a comprehensive development environment for independent application programming and system integration.

The TREQ®-317 device architecture provides a solid and cost-effective design by simplifying maintenance tasks, significantly extending product life expectancy, and lowering the total cost of ownership (TCO).

The TREQ®-317 is [GSD® enabled device](#), allowing for advanced device monitoring, update, and control.

The TREQ®-317 Standard Model configuration contains the standard set of features and functions of the MDT (Mobile Data Terminal). There is a range of optional extensions, add-ons and accessories to enhance the TREQ®-317 capabilities, serving advanced fleet management solutions.

The TREQ®-317s ruggedness is able to withstand the rough commercial automotive environment, including operation in a wide temperature range, vibrations, and shock.

TREQ®-317 Device Models

Micronet implemented the TREQ®-317 platform in two product models as follows:

- **Base model** - provides the key feature set, as described in the configuration table below
- **All-In-One model** - provides Base model features plus Cellular, GPS, CANBus interfaces and optional video surveillance solutions, described in All-In-One configuration table below

In addition, optional features, accessories and OEM features are available as follows:

- **Platform accessories** - provides accessory features, described in Platform accessories table below
- **OEM optional features** - provides OEM optional features, described in the OEM optional features table below

GSD® Software Services

GSD® - Advanced software tools to manage and support mobile devices in the field.

Micronet's comprehensive software framework called GSD® - Guardian System Design - is a cloud-based Software-as-a-Service platform that provides advanced software tools to remotely manage and support applications and system firmware updates/upgrades on the Micronet TREQ®-317 when deployed in the field. The GSD® enables remote, over-the-air, Firmware and custom application updates allowing OEMs and TSP customers to keep devices relevant anywhere, anytime. The smallest delta between the source and target OS versions is generated with GSD's Smart Delta technology, guaranteeing the smallest and fastest possible device update. Administrators can proactively monitor and manage connected devices and enable device self-check for updates with a flexible web interface.

TREQ®-317 Development Tool Kit

Micronet's TREQ®-317 Development Package provides all the tools required for product evaluation, application development quick-start, and product testing. The Developers Package contains all essential hardware and software components as described in the following sections.

Hardware

- TREQ®-317 device
- Wall power supply
- Mechanical and interface connection accessories
- USB and serial communication cables
- Mounting accessories
- Optional - Additional devices, accessories or add-on modules can be ordered separately.

Software

- SDK (Software Development Kit) providing a set of software tools, API, and documentation for application software development
- Application samples, device programming and configuration software tools

Documentation

- Hardware guide
- Getting Started guide
- Certification approvals and declarations

Useful Links

- Micronet web site: <http://www.micronet-inc.com>
- Contact us: <http://www.micronet-inc.com/contact-us/index.aspx>

TREQ®-317 Configuration Platform

Base Model Key Features



Device Key Features	Details
Platform Core	
Operating System	Google Android™ 4
Application Development Environment	Google Android™ ADT
Processor	<ul style="list-style-type: none"> ARM Cortex™ - A8 Core TI Omap 3715 1GHz Graphics processing unit (GPU)
RAM	512MB
Flash	512MB
Memory Card Support	<ul style="list-style-type: none"> SD / MMC (SDHC support) card slot x133, up to 32GB SDIO interface
Audio CODEC	<ul style="list-style-type: none"> Multi-channel System audio support Optional Cellular Voice and Bluetooth audio support
Real Time Clock	<ul style="list-style-type: none"> HW based Device Wakeup alarm configuration capability
Watchdog	<ul style="list-style-type: none"> SW based for application recovery HW based for system recovery
User Interface	
Display	7" Color TFT LCD, WVGA (800 X 480)
Display Backlight	Multi-level backlight (white LED)
Touch Screen	CTP - Capacitive touch panel
Keypad	Rubber tactile, multi-level backlight
Light Sensor	Configurable for device backlight adjustment
Internal Microphone	<ul style="list-style-type: none"> High sensitivity Noise filtered
Internal Speaker	<ul style="list-style-type: none"> Mono, 1 x 3W 90 dB nominal @ 0.1m Multi-level volume control
Communication Interfaces	
RS232 Ports (on device connector)	<ul style="list-style-type: none"> 1 X 5 Wire (TX, RX, RTS, CTS, GND), 300 - 115200 bps 1 X 3 Wire (TX, RX, GND) 300 - 115200 bps
USB OTG Port (on device connector)	USB 2.0 – low, full and high speed
USB Host Port1 (on device connector)	USB 2.0 - low, full and high speed, 500mA maximum
USB Host Port2 (on Device Panel)	USB 2.0 - low, full and high speed, 500mA maximum

Device Key Features	Details
Wireless Interfaces	
Wireless LAN	<ul style="list-style-type: none"> • 802.11 b/g/n • Internal on-board antenna
Bluetooth (combined with Wireless LAN option above)	<ul style="list-style-type: none"> • Class 2 • Data transport support only • Internal on-board antenna
Peripherals Control	
Digital I/O	<ul style="list-style-type: none"> • 7 x Automotive inputs • 3 x Automotive inputs or • 3 x inputs for video option: REAR, LEFT and RIGHT camera triggers • 7 x Open collector outputs
Analog Inputs	<ul style="list-style-type: none"> • 4 Analog inputs • 0V – 30V
Power	
Input Power	<ul style="list-style-type: none"> • Direct vehicle battery connection (12V/24V) • ISO 7637 compliant • Super Capacitors for Data storage protection
Mechanical	
Vibration	According to J1455
Mechanical Shock	According to J1455
Device Mounting	RAM® Mount mounting arm compatible
Environmental	
Temperature Range	<ul style="list-style-type: none"> • Operating: -4 °F to +158 °F (-20 °C to +70 °C) • Storage: -22 °F to +176 °F (-30 °C to +80 °C)
Humidity	95% ±5%RH, +40°C, non-condensing
IP	IP65
RoHS	Compliant
Certifications	
Standards Compliance	FCC, CE, PTCRB and carrier specific

All-In-One Model Configuration

The AIO model configuration includes all the Standard model features plus the following features:

Features	Details
Cellular Communication and GPS	
Cellular (External antenna)	GSM 3.5G <ul style="list-style-type: none"> Data: HSPA, UMTS, EDGE and GPRS EUD-European and NAD-American bands
	EV-DO <ul style="list-style-type: none"> Data: CDMA 1xRTT, EV-DO American bands
GPS (External active antenna)	High sensitivity, 50 channels, -160 dBm, NMEA 0183 output format
Vehicle Diagnostic	
JBUS ports	<ul style="list-style-type: none"> 1 x SAE J1939 CANBus V2.0B 1 x SAE J1708
Sensors	
Accelerometer	3 Axis

Video Camera Support Option

Features	Details
Video	
Cameras	4 x video analog inputs for 360° degrees view

OEM Optional Features* (requires M-O-Q)

Features	Details
Interface Connections	
RS422/RS485 Port (Replacing RS232 Com Port 1)	EIA RS422 / EIA RS485
Touch Screen	Analog Resistive, 4 wire
External Audio	<ul style="list-style-type: none"> Class A/B or Class D external speaker amplifier (Mono) External microphone input (Mono)

* Please inquire about Minimum-Order-Quantity

Platform Accessories

Features	Details
Peripheral Cables	
Main interface cable	Supporting all the platform interfaces
Mechanical Accessories	
Mounting Arm	RAM® Mount, flexible, multi-directional mounting
SD Card Protective Cover	Optional Tamper proof SD card cover
SIM card protective cover	Optional Tamper proof SIM card cover
Front Panel Label	Optional Customizable “logo” printout

Physical Characteristics

Dimension	Measurement	
TREQ®-317 Dimensions & Weight		
Width	8.70 inch	221 mm
Height	5.23 inch	133 mm
Depth	1.18 inch	30 mm
Weight	17.50 oz.	498 Gram