MICRONET

Micronet SmartHub
Platform Datasheet

The Next Generation of Rugged On-Board Computing Platform

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ANDROID

Introduction

Micronet SmartHub Platform Overview

The Micronet SmartHub is a rugged next generation Android On-Board Telematics Computer. It provides a rugged, versatile vehicle-centric mobile-computing platform for a variety of in cab mobility applications and solutions.

With integrated GPS, cellular communication, WiFi, BT, various sensors, cameras, and with support for a suite of vehicle and peripheral interfaces, SmartHub enables a host of advanced mobility solutions such as: Fleet Management, ELD BYOD HOS, Driver Behavior, ADAS, Video Analytics, Driver Distraction alerts, Routing and Dispatch, Fuel Efficiency, Speed by Street, Navigation, Fleet Tracking, Driver Interaction and more.

Designed to operate in a rough commercial automotive environment, including a wide range of temperatures, vibrations and shocks, the Micronet SmartHub lowers the Total Cost of Ownership

Micronet SmartHub Platform Key Features

Device Key Feature	Details
Platform Core	
Operating System	Google Android™ 5.1.1
Application Development Environment	Google Android™ ADT
Processor	Snapdragon 410 – 1.2 GHz Quad Core (4x ARM® Cortex™ A53)
CO-Processor	Freescale K20_120
CO-Processor RTOS	MQX
RAM	1 GB LPDDR3 RAM
ROM	8 GB eMMc
Memory Card Support	Micro SD card slot - up to 32GB (internal)
Watchdog	- SW based for application recovery - HW based for system recovery
User Interface	
Keys	- 1 X Main Function Key - 1 X HW reset button
Internal Speaker	2 X 2W
LEDs	3 X Programmable 3-Color RGB LEDs
Communication Interfaces	
RS-232	- 1 X EIA-232 5 Wires (Tx, Rx. RTS, CTS, GND) - 3 x EIA-232 3 Wires (Rx, Tx, GND)
USB	1 X USB 2.0 Host Port (LS/FS/HS)
Wireless Communication (with Integrated, Onboard internal antennas)	
Cellular	- 3.5G - 4G LTE (North America) - USIM - 3FF (Micro)
GPS	High Sensitive, AGPS and GLONASS support
Wi-Fi	802.11 b/g/n, 2.4GHz
Bluetooth	V4.1/BLE
Near Field Communication	NFC -13.56MHz, IS15693 and IS18000-3
Peripherals Control	
Inputs	- 7 X inputs (0 – 32V) - Configurable Analog/Digital functionality
Outputs	4 x Open Collector Outputs

Device Key Feature	Details
Motion Control	
Motion Sensors	- Compass - Gyroscope - Wiggle sensor - Automatic unit power up - Accelerometer
Vehicle Diagnostic	
CAN BUS	2 X CAN channels
J1708	1 X SAE-J1708
Power	
Input Power	- Direct vehicle battery connection (12V/24V) - ISO 7637 Compliant
Power Backup	- Super Capacitors - 20 seconds of full device operation support
Mechanical	
Vibration	J1455 Compliant
Mechanical Shock	J1455 Compliant
Environmental	
Temperature Range	- 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	IP45
RoHS	RoHS II Compliant
Certifications	
Standard Compliance	FCC, PTCRB, CE, E-mark

Physical Characteristics

Dimension	Measurement	
TREQr-317 Dimensions & Weight		
Width	4.96 inch	126 mm
Height	4.37 inch	111 mm
Depth	1.38 inch	35 mm
Weight	9.6 oz	272 gram

Optional Feature

Features	Details
Communication Interfaces	
RS-485	1 x EIA-485 (Replacing RS232 Port 4)

Platform Accessories

Features	Details
Peripheral Cables	
Main interface cable	- Power, I/O and Communication interfaces - Cable customization option available
Mechanical Accessories	
Mounting Arm	- RAM® Standard mounting Arm - RAM® Suction mounting Arm

GSD™ Software Services

Micronet's GSD™ (Guardian System Design) is a cloud-based SaaS platform for managing mobile devices in the field.

GSD™ enables remote delta-based, over-the-air, firmware and application updates allowing customers to keep devices relevant anywhere, anytime. It features Mobile Device Management functionality, Remote-Control, and self-tests.
Administrators can proactively monitor and manage connected devices with a flexible web interface.