Xadow GPS v2

Based on the GPS L70 module from Quectel®, the Xadow GPS v2 combines the advanced AGPS technology EASYTM (Embedded Assist System) and the AlwaysLocateTM technology to achieve high performance, ultra-low power consumption and fast positioning even at indoor signal levels. With an excellent high-sensibility receiver (-163dBm tracking) and a built-in chip antenna, the module can track up to 22 satellites on 66 channels, making it a perfect choice for navigation projects. The board also adopts the new 11 PIN Xadow connector to improve the flexibility of module connections.

Global Positioning System (GPS)
The Global Positioning System (GPS) is a space-based navigation system that provides real-time and all-weather geographic position, altitude, travelling speed and time information anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites. It was formerly used only by military projects, now it is freely accessible to anyone with a GPS receiver. The typical applications of GPS covers automobile navigation, time transfer, traffic signal timing, anti-theft and tracking devices etc.

Part List
- Xadow GPS v2 * 1
- FPC Cable 11 PIN * 2

Features
- EASY™, advanced AGPS technology without the need for external memory
- Ultra-low power consumption in tracking mode
- AlwaysLocate™, an intelligent controller of periodic mode
- LOCUS, innate logger solution with no need for host and external flash
- High sensitivity
- Support QZSS
- Support DGPS, SBAS(WAAS/EGNOS/MSAS/GAGAN)
- Anti-Jamming, Multi-tone Active Interference Canceller
- Built-in chip antenna with efficiency up to 83%
- Built-in 11 PIN Xadow Connectors for full flexible connection with other Xadow Modules
- Stackable, chainable and sewable with other Xadow Modules

Specification
- Microcontroller: Kinetis KL02
- Core: ARM® 32-bit Cortex® -M0+CPU
- Power Supply: 3.3 – 6 V (via breakout pins)
- Flash: 32 KB
- SRAM: 4 KB
- Clock Speed: 48 MHz
- Power Consumption: 18mA@Tracking, 21mA@Acquisition
- Power Saving: Typ. 3mA@AlwaysLocateTM, 7uA@Backup Mode, 180uA@Standby Mode
- Channel: 22(Tracking) / 66 (Acquisition)
- Update Rate: 1Hz(Default), up to 10Hz
- Horizontal Position Accuracy:<2.5m CEP
- Velocity Accuracy:<0.1m/s
- Maximum Velocity: Max.515m/s
- Cold/warm start with EASYTM: 15s/5s
- Acquisition Sensitivity: -145dBm
- Tracking Sensitivity: -163dBm
- Operating Temperature: -40 to 85
- Protocols: NMEA 0183/PMTK
- Antenna Type: Chip antenna
- Interface: Interface with Xadow GSM+BLE through I2C (7-bit address 0x05)
- Dimensions: 25.37mm X 20.30mm / 1'' X 0.8''

Technical Details

Dimensions	110mm x 80mm x 5mm
Weight	G.W 4g
Battery	Exclude

Part List

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ECCN/HTS

ECCN	5A991.b
HSCODE	8529905000