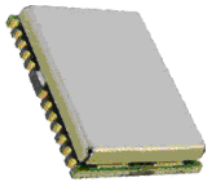


SIRIUS-1722R (ROM base)

Low-Power High-Performance and Low-Cost 65 Channel SMD GPS Module

Data Sheet

Version 1.4



Abstract

Technical data sheet describing the cost effective, high -performance **SIRIUS-1722R** based series of ultra high sensitive GPS modules.

The **SIRIUS-1722R** is a GPS module that is sensitive to *electrostatic dis- charge (ESD)*. Please handle with appropriate care.

The Acceptability of Electronic Assemblies of the **SIRIUS-1722R** has been under **IPC-A-610D** specification



GPS Modules

1 Functional Description

1.1 Introduction

The SIRIUS-1722R is a small form factor GPS module solution intended for a broad range of Original Equipment Manufacturer (OEM) products, where fast and easy system integration and minimal development risk is required.

The SIRIUS-1722R GPS receiver's -161dBm tracking sensitivity allows continuous position coverage in nearly all application environments. Its high performance search engine is capable of testing 8,000,000 time-frequency hypotheses per second, offering industry-leading signal acquisition and TTFF speed.

The receiver is optimized for applications requiring high performance, low power, and low cost; suitable for a wide range of OEM configurations including mobile phone, PND, asset tracking and vehicle navigation products.

The very small 17mm x 22.4mm form factor and the SMT pads allow standard surface mount device pick-and-place process in fully automated assembly process; enabling high-volume, very cost-efficient production.

1.2 Features

- 65 Channel GPS L1 C/A Code
- Perform 8 million time-frequency hypothesis testing per second
- Open sky hot start 1 sec
- Open sky cold start 29 sec
- Signal detection better than -161dBm
- Multipath detection and suppression
- Accuracy 2.5m CEP
- Maximum update rate 10Hz
- Tracking current ~23mA
- Supports active and passive antenna

1.3 Applications

- Automotive and Marine Navigation
- Automotive Navigator Tracking
- Emergency Locator
- Geographic Surveying
- Personal Positioning
- Sporting and Recreation