EPSON

S4E39860

GPS Receiver Module

Preliminary

- ●Ultra Low-Power consumption (100mW)
- ●Compact and Thin design
- ●Handles differential GPS

■OVERVIEW

GPS (Global Positioning System) having been used Car Navigation Systems, is now going to be used in mobile equipment as well. S4E39860 is the miniature GPS Receiver module developed for the purpose of built in the mobile equipment based on the battery-drive. Super-low consumption electric power, compact and thin size were realized by developing the special IC which built in Signal Processor, SRAM and RTC in the 32Bit RISC- CPU (SEIKO EPSON original).

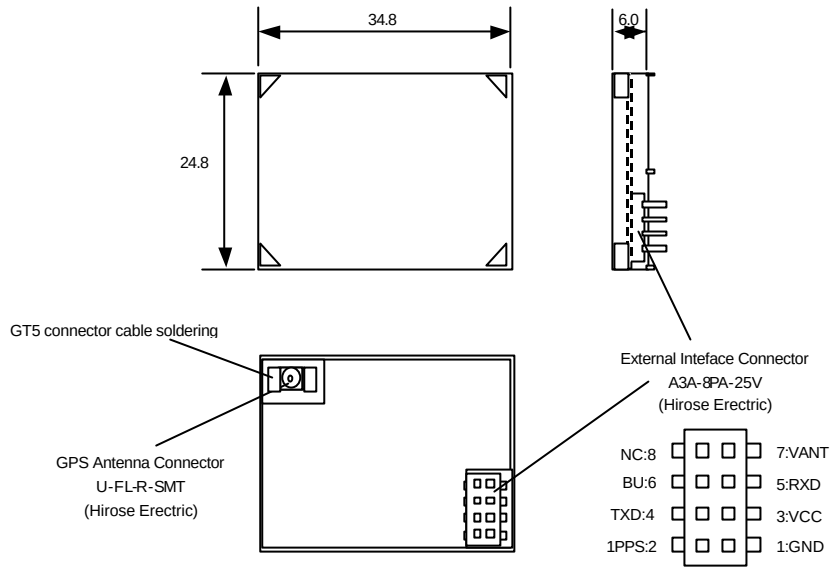
■FEATURES

●GPS Receive Part Specification		
・Receiving frequency	1575.42MHz (L1),C/A code	
・Receiving method	Multi-Cannels (8 channels)	
・Sensitivity	-130dBm	
・Update rate	1 second (shortest)	
・Accuracy	Position:25m CEP (SA OFF), Velocity:0.1m/s (SA OFF)	
・Measurement time (90% probability)	Cold start	:5 minutes or less
	Warm start	:50 seconds or less
	Hot start	:10 seconds or less
・Interruption recovery time	2 seconds or less (90%)	
・Dynamic capability	Velocity:350m/sec (max.), Acceleration:4G	
・Measurement method	Corresponding to 2D/3D and Auto Measurement method	
・Geodetic system	WGS84	
●Electric Specification		
・Power supply voltage	3.1V～3.6V (Typ 3.3V)	
・Backup voltage	2.3V～VCC	
・Power consumption	100mW (at 3.3V operation)	
・At power saving	10 μA (+25℃)	
●Temperature range		
・Operating temperature range	-30℃～+80℃	
・Storage temperature range	-40℃～+85℃	
●Interface Specification		
・Data output format	NMEA0183 (standard) or EPSON format	
・Transfer rate	Serial interface, 9600bps	
・I/O connector	DF14-6P-1.25H (HIROSE ELECTRIC)	
・RF connector	U.FL (HIROSE ELECTRIC)	
●Dimensions	34.8×24.8×6.0 (W×D×Hmm)	

*Notes: Since the specification above are based on the under-developing product, they may be changed before actual manufacturing.

■EXTRENAL DIMENTION DIAGRAM

Unit：mm



■ANTENNA SPECIFICATIONS

●LNA Power supply voltage	3.0V
●Gain of unit	25dBm (typ)
●NF	1.5db (min)
●RF connector	U.FL-LP

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