

Sentinel HL

Driverless Configuration Keys



	Basic	Pro	Max	Time	Max	Max	Drive microSD**	Max	Max
FORM FACTOR	Mini	Mini	Mini	Midi	Board	ExpressCard	Midi	Micro	Chip
SECURITY AND CRYPTOGRAPHIC ALGORITHMS									
Unique 32-Bit ID		Y	Y	Y	Y	Y	Y	Y	Y
AES 128-Bit Encryption	Y	Y	Y	Y	Y	Y	Y	Y	Y
64,000 Encryption Keys	1	Y	Y	Y	Y	Y	Y	Y	Y
On Chip Execution (AppOnChip-32bit & 64bit Win)	Y*	Y*	Y	Y	Y	Y	Y	Y	Y
LICENSING MODELS SUPPORT									
Perpetual	Y	Y	Y	Y	Y	Y	Y	Y	Y
Feature-Based		Y	Y	Y	Y	Y	Y	Y	Y
Pay-Per-Use		Y	Y	Y	Y	Y	Y	Y	Y
Network Concurrency		Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
Time-Based		Y*	Y	Y	Y	Y	Y	Y	Y
Custom		Y	Y	Y	Y	Y	Y	Y	Y
CLOCK									
Real Time Clock				Y					
V-Clock		Y*	Y	Y	Y	Y	Y	Y	Y
Battery Life Warranty				4-Years					
Real Time Clock Accuracy (at 25± 5°C)				≤12.8 minutes/year					
MEMORY									
Protected Read / Write Memory		112 Bytes	4KB	4KB	4KB	4KB	4KB	4KB	4KB
Read Only Memory (ROM)		112 Bytes	2KB	2KB	2KB	2KB	2KB	2KB	2KB
Dynamic Memory			390KB	390KB	25KB	25KB	25KB	390KB	25KB
Data Retention		At Least 10 Years	At Least 10 Years	At Least 10 Years	At Least 10 Years	At Least 10 Years	At least 10 years	At Least 10 Years	At least 10 Years
Write Cycles (EEPROM / Flash)		At Least 1,000,000	At Least 1,000,000	At Least 1,000,000	At Least 1,000,000	At Least 1,000,000	At least 1,000,000	At least 1,000,000	At least 1,000,000
Max. licensable modules (Features, depending on license complexity)		11-39	3484-24386	3484-24386	240-2160	240-2160	240-2160	3484-24386	240-2160
Flash (Read / Write) per second							* depends on microSD card		
Flash Memory							Support microSD card up to 64GB		
PHYSICAL SPECIFICATIONS									
Default Color	Blue	Purple	Green	Black	Black	Silver Metal	Green	Green	Black
Plastic Case Material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate		Polycarbonate /Stainless Steel	Polycarbonate		
Operating Temperature***	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	-20°C to 60°C -4°F to 140°F	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	0°C to 60°C 32°F to 140°F	-40°C to 85°C -40°F to 185°F	-25°C to 85°C -13°F to 185°F
Humidity Rating	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0 - 95%	0 - 95%
Power Consumption - operating / standby	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	20mA / < 0.5 mA	25mA / < 0.5 mA	200mA max	50mA/<0.5mA	20mA/<0.5mA
Dimensions L x W x H (in mm)	40.5 x 16 x 8	40.5 x 16 x 8	40.5 x 16 x 8	52 x 16 x 8	15.2x8x12.4	75 x 34 x 5	52x16x8	18x12.2x4.5	8.2x5.3x2.1
Weight (in grams)	5.63	5.63	5.63	7.36	1.23	15	6.98	1.64	NA
CERTIFICATION									
Safety Certifications	IEC 62368-EN 62368-1, UL 62368-1, CAN/CSA-C22.2 NO.62368-1 A, AS/NZS 60950.1	IEC 62368-1, EN-60950-1, UL 62368-1, CAN/CSA-C22.2 NO.62368-1 A, AS/NZS 60950.1	IEC 62368-1, EN 60950-1, UL 62368-1, CAN/CSA-C22.2 NO.62368-1 A, AS/NZS 60950.1	IEC 62368-1, EN60950-1, UL 62368-1, CAN/CSA-C22.2 NO.62368-1 A, AS/NZS 60950.1	IEC 62368-1, EN62368-1, UL 62368-1, CAN/CSA-C22.2 NO.62368-1 A, AS/NZS 60950.1	IEC 62368-1, EN-62368-1, UL 62368-1, AS/NZS 60950.1	IEC 62368-1, EN 62368-1, UL 62368-1, AS/NZS 60950.1	IEC 62368-1, EN 62368-1, UL 62368-1, CAN/CSA-C22.2 NO.62368-1 A, AS/NZS 60950.1	
Certification / Compliance	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, WEEE, REACH	RoHS, REACH
EMC Certifications	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI

* Requires a paid upgrade. ** Supported only with Sentinel LDK 7.4 and later.

*** The host USB port which powers the hardware key should be compliant with LPS (Limited Power Source) requirement in IEC 62368-1 clause 2.5. The operating temperature of the hardware keys is up to 85°C, and to avoid scalding, do not touch the keys with hands directly when the environment temperature is higher than 50°C.

Sentinel HL



HASP Configuration Keys	Basic	Pro	Max	Max	Net	Time	NetTime	Drive microSD**	Max	Max
FORM FACTOR	Mini	Mini	Mini	Micro	Mini	Midi	Midi	Midi	Chip	ExpressCard
SECURITY AND CRYPTOGRAPHIC ALGORITHMS										
Unique 32-Bit ID		✓	✓	✓	✓	✓	✓	✓	✓	✓
AES 128-Bit Encryption	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
64,000 Encryption Keys		✓	✓	✓	✓	✓	✓	✓	✓	✓
LICENSING MODELS SUPPORT										
Perpetual	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Feature-Based		✓	✓	✓	✓	✓	✓	✓	✓	✓
Pay-Per-Use		✓	✓	✓	✓	✓	✓	✓	✓	✓
Network Concurrence					✓		✓			
Time-Based						✓	✓			
Custom or Remote Desktop		✓	✓	✓	✓	✓	✓	✓	✓	✓
CLOCK										
Real Time Clock						✓	✓			
Battery Life Warranty						4 Years	4 Years			
Real Time Clock Accuracy (at 25°± 5°C)						≤12.8 minutes/year	≤12.8 minutes/year			
MEMORY										
Protected Read / Write Memory		112 Bytes	4KB	4KB	4KB	4KB	4KB	4KB	4KB	4KB
Read Only Memory (ROM)		112 Bytes	2KB	2KB	2KB	2KB	2KB	2KB	2KB	2KB
Backward Compatibility Memory		112 Bytes	4KB	4KB	4KB	4KB	4KB	4KB		4KB
Data Retention									At Least 10 Years	
Write Cycles (EEPROM / Flash)									At Least 1,000,000	
Max. licensable modules (Features, depending on license complexity)		39	231	231	231	231	231	231	231	231
Flash (Read / Write) per second									*depends on microSD card	
Flash Memory									Support MicroSD card up to 64GB	
PHYSICAL SPECIFICATIONS										
Default Color	Blue	Purple	Green	Green	Red	Black	Red	Green	Black	Silver Metal
Plastic Case Material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate		Polycarbonate /Stainless Steel
Operating Temperature	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F	-20°C to 60°C -4°F to 140°F	-20°C to 60°C -4°F to 140°F	0°C to 60°C -32°F to 140°F	-25°C to 85°C -13°F to 185°F	-25°C to 85°C -13°F to 185°F
Humidity Rating	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%
Power Consumption - operating /standby	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	50mA / < 0.5 mA	200mA max	20mA / < 0.5 mA	25mA / < 0.5 mA
Dimensions L x W x H (in mm)	40.5 x 16 x 8	40.5 x 16 x 8	40.5 x 16 x 8	18 x 12.2 x 4.5	40.5 x 16 x 8	52 x 16 x 8	52 x 16 x 8	52 x 15 x 8	8.2 x 5.3x2.1	75 x 34 x 5
Weight (in grams)	5.63	5.63	5.63	1.64	5.63	7.36	7.36	6.98	N/A	15
CERTIFICATION										
Safety Certifications	IEC 60950-1, EN 60950-1, UL 60950-1, CAN/CSA-C22.2 NO.60950-1A, AS/NZS 60950.1								EN60950	IEC 60950-1, EN 60950-1, UL 60950-1, AS/NZS 60950.1
Certification / Compliance	RoHS, WEEE, REACH								RoHS; REACH	RoHS, WEEE, REACH
EMC Certifications	CE, FCC, VCCI, KCC-REM-SFN-HLMax	CE, FCC, VCCI, KCC-REM-SFN-HLMax	CE, FCC, KCC, VCCI	CE, FCC, VCCI, KCC-REM-SFN-HLMaxMicro	CE, FCC, VCCI, KCC-REM-SFN-HLMax	CE, FCC, KCC, VCCI	CE, FCC, VCCI, KCC-REM-SFN-HLTime	CE, FCC, VCCI		CE, FCC, KCC, VCCI

**Supported only with Sentinel LDK 7.4 and later.