Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Sierra Wireless® HL Series Embedded Modules

Compact, Flexible, and Future Proof 2G, 3G, 4G, and LPWA Essential Modules

Sierra Wireless® AirPrime® HL embedded modules offer everything device manufacturers need to meet essential connectivity requirements. Key differentiators include a common form factor, small size, low-power consumption, enhanced RF performance, optional GNSS (GPS and GLONASS), and worldwide coverage.

COMPACT: THE SMALLEST LPWA, 4G, 3G, 2G FORM FACTOR ON THE MARKET

The HL Series is the smallest module on the market sharing a common form factor across 2G, 3G, 4G, and LPWA technologies. Now, with just one PCB design, device manufacturers can easily integrate voice and data connectivity and deploy in any region, on any wireless mobile network.

FLEXIBLE: SOLDER DOWN OR SNAP-IN SOCKET OPTIONS

The compact form factor offers the choice of soldering down the module for efficient high-volume production or, using a snap-in socket on the same solder pads for total flexibility in prototyping or smaller volume runs. The innovative snap-in socket allows device manufacturers to deploy or change modules at any point in the production and product life cycles.

FUTURE PROOF: INTELLIGENT PIN-TO-PIN COMPATIBILITY

The pin-out on the common form factor enables forward and backward compatibility between the different 2G, 3G, 4G, and LPWA module variants. This means that the mechanical pin location delivers the same function across the series. The pin-out of the HL series is compatible with the application processing WP Series.

UNLIMITED FOTA INCLUDED

Powered by AirVantage®, this cloud-based service makes it easy to keep the module firmware updated and your deployments healthy in the field.

22mm
23mm

4G LTE Cat-1	HL7618	HL7648	HL7650	HL7688	HL7690	HL7692
TARGET REGION	Americas	Americas	Australia	Americas	Europe	Europe
CF3™ FORM FACTOR						
LGA	✓	✓	✓	✓	✓	✓
Snap-in Socket Option	✓	✓	✓	✓	✓	✓
Shieldcan Technology	✓	✓	✓		✓	✓
Dimensions: 22 x 23 x 2.5 mm	✓	✓	✓	✓	✓	✓
4G LTE Cat-1 FREQUENCY BANDS	B4, B13	B2, B4, B12	B3, B5, B8, B28	B2, B4, B5, B8, B17	B3, B8, B20	B3, B8, B20
FALLBACKS			HSPA+: B1, B5, B8	HSPA+: B2, B5		EDGE/GSM/GPRS: 900, 1800
APPROVALS						
Regulatory	FCC, GCF	FCC, PTCRB	GCF, RCM, CE	FCC, PTCRB	CE, GCF	CE, GCF
Carrier	Verizon	AT&T, T-Mobile	Telstra, Vodafone	AT&T	KPN	Vodafone
CURRENT CONSUMPTION						
Power Supply for Extended Battery Life	2.8V	2.8V	2.8V	2.8V	2.8V	2.8V
Alarm (leakage only)	110uA	110uA	110uA	110uA	110uA	110uA
Standby and Idle (Typ Sleep)	1.4mA	1.4mA	1.4mA	1.4mA	1.4mA	1.4mA
HSxPA max				770mA		
LTE max	945mA	750mA	750mA	750mA	750mA	750mA
AUDIO						
Digital Audio	✓	✓		✓		✓
DTMF				✓		
INTERFACES						
UART	8	8	8	8	8	8
USB	1	1	1	1	1	1
ADC	2	2	2	2	2	2
GPIO	8	8	8	8	8	8
Flash LED Output	1	1	1	1	1	1
PWM (Buzzer)	1	1	1	1	1	1
Tx Power Indicator	1	1	1	1	1	1
SIM Interface 1.8V/3V (DSSS Support)	1	1	1	1	1	1
INTERNET SERVICES						
TCP+UDP+FTP+HTTP+HTTPS	✓	✓	✓	✓	✓	✓
SOFTWARE AND DRIVERS						
Secure Boot	✓	✓	✓	✓	✓	✓
Pre-Certified Firmware	✓	✓	✓	✓	✓	✓
Linux Driver: Standard ECM	✓	✓	✓	✓	✓	✓
Android RIL	✓	✓	✓	✓	✓	✓
CLOUD SERVICES						
Free Unlimited FOTA Upgrades	✓	✓	✓	✓	✓	✓
Connectivity Management Option	✓	✓	✓	✓	✓	✓
Device Management Option	✓	✓	✓	✓	✓	✓
Application Enablement Option	✓	✓	✓	✓	✓	✓
TEMPERATURE RANGE						
Industrial Grade -40°C to +85°C	✓	✓	✓	✓	✓	✓

* Commercially available soon

SIERRA WIRELESS®

4G LTE Cat-4	HL7518	HL7528	HL7538	HL7539	HL7548	HL7549	HL7588*
TARGET REGION	Americas	Korea	Japan	Japan	Americas	Australia	Americas
CF3™ FORM FACTOR							
LGA	✓	✓	✓	✓	✓	✓	✓
Snap-in Socket Option	✓	✓	✓	✓	✓	✓	✓
Molding Technology	✓	✓	✓	✓	✓	✓	✓
Dimensions: 22 x 23 x 2.5 mm	✓	✓	✓	✓	✓	✓	✓
4G LTE Cat-4 FREQUENCY BANDS	B4, B13	B1, B3, B5, B7	B1, B11, B18	B1, B19, B21	B2, B4, B5, B17	B3, B7, B28	B2, B4, B5, B13, B17
FALLBACKS							HSPA+: B2, B5
APPROVALS							
Regulatory	FCC, GCF	KC Mark	JRF, JPA	JRF, JPA	FCC, IC, PTCRB	CE, RCM	FCC, PTCRB, IC, GCF
Carrier	Verizon	LGU+, SKT, KT	KDDI	NTT	AT&T, Rogers	Telstra	AT&T, Verizon
CURRENT CONSUMPTION							
Power Supply for Extended Battery Life	3.2V	2.8V	2.8V	2.8V	2.8V	2.8V	2.8V
Alarm (leakage only)	110uA	110uA	110uA	110uA	110uA	110uA	110uA
LTE Standby and Idle (Typ Sleep)	1.5mA	1.4mA	1.4mA	1.4mA	1.4mA	1.4mA	1.4mA
HSxPA max							770mA
LTE max	945mA	750mA	750mA	750mA	750mA	750mA	750mA
AUDIO							
Digital Audio							✓
Codec: HR, FR, EFR, AMR							✓
Echo Cancellation & Noise Reduction							✓
DTMF							✓
INTERFACES							
UART	8	8	8	8	8	8	8
USB	1	1	1	1	1	1	1
ADC	2	2	2	2	2	2	2
GPIO	8	8	8	8	8	8	8
Flash LED Output	1	1	1	1	1	1	1
PWM (Buzzer)	1	1	1	1	1	1	1
Tx Power Indicator	1	1	1	1	1	1	1
SIM Interface 1.8V/3V (DSSS Support)	1	1	1	1	1	1	1
INTERNET SERVICES							
TCP+UDP+FTP	✓	✓	✓	✓	✓	✓	✓
SOFTWARE AND DRIVERS							
Secure Boot	✓	✓	✓	✓	✓	✓	✓
Pre-Certified Firmware	✓	✓	✓	✓	✓	✓	✓
Linux Driver: Standard ECM	✓	✓	✓	✓	✓	✓	✓
Android RIL	✓	✓	✓	✓	✓	✓	✓
CLOUD SERVICES							
Free Unlimited FOTA Upgrades	✓	✓	✓	✓	✓	✓	✓
Connectivity Management Option	✓		✓	✓	✓	✓	✓
Device Management Option	✓		✓	✓	✓	✓	✓
Application Enablement Option	✓		✓	✓	✓	✓	✓
TEMPERATURE RANGE							
Industrial Grade -40°C to +85°C	✓	✓	✓	✓	✓	✓	✓

* Commercially available soon

SIERRA WIRELESS®

Sierra Wireless
HL SERIES
EMBEDDED MODULES

3G, 2G	HL8518	HL8528	HL8529	HL8548	HL8549	HL6528
TARGET REGION	Europe	Americas	Americas	Global	Brazil	Global
CF3™ FORM FACTOR						
LGA	✓	✓	✓	✓	✓	✓
Snap-in Socket Option	✓	✓	✓	✓		✓
Shieldcan Technology	✓	✓	✓	✓	✓	✓
Dimensions: 22 x 23 x 2.5 mm	✓	✓	✓	✓	24 x 25 x 2.5 mm	✓
3G HSPA FREQUENCY BANDS	B1, B8	B2, B5	B2, B5	B1, B2, B5, B6, B8, B19	B1, B2, B5, B6, B8, B19	
2G EDGE/GSM/GPRS FREQUENCY BANDS	900, 1800	850, 1900		850, 900, 1800, 1900	850, 900, 1800, 1900	850, 900, 1800, 1900
APPROVALS						
Regulatory	CE, GCF	FCC, IC, PTCRB	FCC, IC, PTCRB	Anatel, CE, FCC, GCF, IC, PTCRB	Anatel, CE, FCC, GCF, IC, PTCRB	Anatel, CCC, CE, FCC, GCF, IC, PTCRB
Carrier	Vodafone	AT&T	AT&T	AT&T, NTT, Rogers, Telstra, Vodafone	Vivo	Vodafone
CURRENT CONSUMPTION						
Power Supply for Extended Battery Life	2.8V	2.8V	2.8V	2.8V	2.8V	2.8V
Alarm (leakage only)	50uA	50uA	50uA	40uA	40uA	35uA
LTE Standby and Idle (Typ Sleep)	1mA	1mA	1mA	1.2mA	1.2mA	1.3mA
HSxPA max	460mA	460mA		475mA	475mA	450mA
AUDIO						
Analog Audio						✓
Digital Audio	✓	✓	✓	✓	✓	✓
Codec: HR, FR, EFR, AMR	✓	✓	✓	✓	✓	✓
Echo Cancellation & Noise Reduction	✓	✓	✓	✓	✓	✓
DTMF	✓	✓	✓	✓	✓	✓
INTERFACES						
UART	8	8	8	8	8	8
USB	1	1	1	1	1	1
ADC	2	2	2	2	2	2
GPIO	8	8	8	8	8	8
Flash LED Output	1	1	1	1	1	1
PWM (Buzzer)	1	1	1	1	1	1
Tx Power Indicator	1	1	1	1	1	1
SIM Interface 1.8V/3V (DSSS Support)	1	1	1	1	1	1
LOCATION SERVICES						
GPS & Glonass Sirf V				✓	✓	✓
INTERNET SERVICES						
TCP+UDP+FTP+HTTP+HTTPS	✓	✓	✓	✓	✓	✓
SOFTWARE AND DRIVERS						
Secure Boot	✓	✓	✓	✓	✓	✓
Pre-Certified Firmware	✓	✓	✓	✓	✓	✓
Linux Driver: Standard ECM	✓	✓	✓	✓	✓	
Android RIL	✓	✓	✓	✓	✓	
CLOUD SERVICES						
Free Unlimited FOTA Upgrades	✓	✓	✓	✓	✓	✓
Connectivity Management Option	✓	✓	✓	✓	✓	✓
Device Management Option	✓	✓	✓	✓	✓	✓
Application Enablement Option	✓	✓	✓	✓	✓	✓
TEMPERATURE RANGE						
Industrial Grade -40°C to +85°C	✓	✓	✓	✓	✓	✓

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